



University of Hawai'i at Hilo

640 N. A'ohoku Place, Room 203, Hilo, Hawai'i 96720

Telephone: (808) 933-0734 Fax: (808) 933-3208

Mailing Address: 200 W. Kawili Street, Hilo, Hawai'i 96720

Minutes Regular Meeting

Mauna Kea Management Board
Wednesday, February 20, 2013

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

Attending

- MKMB:** Chair Gregory Mooers, 2nd Vice Chair/Secretary Lisa Hadway, Patricia Bergin, Gregory Chun, and Kihalani Springer
- Kahu Kū Mauna:** Chad Kalepa Baybayan
- OMKM:** Jessica Kirkpatrick, Fritz Klasner, Stephanie Nagata and Dawn Pamarang
- Others:** Jerry Chang, Robert Christensen, Dominique Easter-Green, Jesse Eiben, Cory Harden, Stewart Hunter, John McBride, Joe McDonough, and Dwight Vicente

I. CALL TO ORDER

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

II. APPROVAL OF MINUTES

Chair Mooers had one correction to the minutes. On page 5, under Announcements, the second paragraph should read "contested case" and not "contest case."

Upon motion by Lisa Hadway and seconded by Kihalani Springer the minutes of the December 5, 2012 meeting of the MKMB were unanimously approved.

III. DIRECTOR'S REPORT

A. Welcome to New Members

Dr. Gregory Chun and Hannah Kihalani Springer were introduced as the Board's newest members. Dr. Chun is Vice President of Kamehameha School in charge of the Keauhou-Kahalu'u Education Group in West Hawaii. Kihalani Springer is an active community advocate and founding member of Kahu Kū Mauna. They replace Barry Taniguchi and Ron Terry who rotated off the board in December 2012. Also joining the Board will be Dr. Taft Armandroff who replaces Christian Veillet. Dr. Armandroff was unable to attend today's meeting due to a prior commitment.

The Office hired Jessica Kirkpatrick as a resource management trainee working with Fritz Klasner.

B. Thirty-Meter Telescope Contested Case

Final oral arguments were heard by the Board of Land and Natural Resources (BLNR) on February 12, 2013, in Hilo. Only the parties involved in the contested case were allowed to give their final arguments before the Board. BLNR did not render a final decision at the meeting. It is not known when a final decision will be issued.

C. Volunteer Weed Pull Day

The first volunteer weed pull for 2013 was held on January 26. There were about 18 volunteers who collectively pulled about 50 bags of invasive plants, mainly fireweed and mullen. The guest speaker was Dr. Bob McLaren of

the Institute for Astronomy (IfA) who talked about the beginnings of astronomy on Mauna Kea.

The next volunteer weed pull date is March 2nd with the Hawaii Island Chamber of Commerce taking the lead. Guest speakers will be Mark Chun with IfA Hilo and Kihalani Springer.

D. Office of Hawaiian Affairs (OHA) Visit

On February 4th the Office hosted a visit to Mauna Kea for OHA Trustees Daniel Ahuna (Kauai), Carmen Hulu Lindsey (Maui), Bobby Lindsey (Hawaii Island) and several OHA staff members. Subaru hosted the group to a tour of their summit facility. Following their trip to the summit they toured 'Imiloa.

E. Visitor Information Station (VIS) Manager

David Byrne retired after serving over 12 years as the VIS manager. Dave was instrumental in helping the Office establish the ranger program in 2001 and managed it for nine years until Scotty Paiva, Chief Ranger, was hired. We owe Dave a huge debt of gratitude for his years of service.

Joe McDonough is the new VIS manager. He first started working at the VIS as volunteer in 2009 and later was hired as an Interpretive Guide.

F. Vehicle Accident on Mauna Kea

On Sunday, February 17, 2013, a vehicle rolled down the side of the summit ridge and overturned several times before landing right side up about two-thirds of the way down the slope. Fortunately, no one was inside the car when it happened. The rangers inspected the site and found that there were no fluid leaks. The Office is working with Alamo Car Rental to have the vehicle removed and towed.

IV. KAHU KŪ MAUNA COUNCIL (KKMC)

Chad Kalepa Baybayan reported the Council reviewed and approved Subaru's request to install a fish-eye camera. The Council also recommends the slate of four nominees to the KKMC.

V. Committee Reports

Environment Committee

Lisa Hadway is the new chair for the committee. Fritz Klasner reported the invasive species monitoring in January identified no new threats. Work continues with the Department of Agriculture regarding honey bees at Hale Pohaku. In December, no honey bee activity was observed. One invasive species of interest found at Lake Waiau is *Trechus obtusus*, an introduced carabid beetle. This beetle is also found at lower elevations including Hale Pohaku and along the Mana Road. We are attempting to map out its extent in the summit region to see how widely distributed it is. Springer Kaye was promoted to Big Island Program Manager for the Big Island Invasive Species Committee (BIISC). Ms. Kaye was the lead in developing OMKM's invasive species management plan. We will still be working with her at BIISC.

Dr. Jesse Eiben and Jessica Kirkpatrick found a few snails near Hale Pohaku in December. They collected several specimens and sent them to University of Hawaii at Manoa for identification. The identification process is still ongoing. It is uncertain if they are native or non-native, but best guess is that they are likely native.

The Hawaii District Science and Engineering Fair is being held at 'Imiloa this week from 9 a.m. to 5 p.m. One of the presenters is Anne Nakamoto, a 7th grade student at Waiakea Intermediate. She worked with Dr. Eiben on the visitation of European honey bees and native hylaeus bees to invasive and native plants. Anne will be going to Oahu for the State Science and Engineering Fair. Anne has received a number of awards.

The next Environment Committee meeting is scheduled for Thursday, February 28. The meeting will be a work session to develop content for the research catalog.

VI. NEW BUSINESS

A. Kahu Kū Mauna Council Nominees

The Kahu Kū Mauna Council requests the approval of the appointments of Thomas Chun, Dale Fergerstrom, Celeste Ha'o, and Wallace Ishibashi for membership on the Council. Pursuant to the 2000 Mauna Kea Science Reserve Master Plan, the Mauna Kea Management Board is charged with approving candidates for membership to Kahu Kū Mauna. The Council interviewed all four candidates on February 5th and approved their nominations.

Thomas Chun is a retired Kamehameha School physics and math teacher with 45 years of experience. He participates regularly in koa reforestation projects and loves to share the scientific and cultural stories of Mauna Kea.

Dale Fergerstrom is a retired police captain with 26 years of service to the department. He is currently employed with Kamehameha Schools as Senior Field Operations Manager in the Land Assets Division. He was raised in Honoka'a and his family has a long association with Mauna Kea.

Wallace (Wally) Ishibashi is a 21-year retired director with the ILWU Local 142. He resides in Hilo and his family has lineal ties with Mauna Kea.

Celeste Manuia Ha'o brings a lot of energy as a program assistant with the 'Imiloa Astronomy Center. She has a strong set of STEM related skills and is an excellent educator. She is an astronomy student and most recently was appointed Hawaii liaison to the Space Foundation.

As a former Council member who also interviewed these candidates, Kihalani Springer added the Council was pleased to fill the slate of candidates with either occupational and/or lineal ties to Mauna Kea, in several cases dating back to multiple generations. It is a strong slate of candidates and she highly endorses it.

Action

It was moved by Patricia Bergin and seconded by Kihalani Springer to approve the nominations of Thomas Chun, Dale Fergerstrom, Celeste Ha'o and Wallace Ishibashi to the Council. The motion was carried unanimously.

B. Subaru Telescope – Proposal to Install a Fish-Eye Camera on the Roof of its Control Building

The primary scope of this project is twofold: 1) Images of the clear sky from Mauna Kea will be utilized to educate the general public about astronomy and related science, as well as consideration on the environment, in particular light pollution, and 2) provide children in Adachi Ward, Japan, and other areas an opportunity to learn about the constellations, the Milky Way, and zodiacal light – none of which are visible from their neighborhood.

Subaru is considering two locations for installing the fish-eye camera: either to the east or the west side of the camera that is currently installed on the roof of the summit support building. Subaru has not yet determined which of the two locations it will select as the permanent location for the camera. It will make its determination following tests of the views from each of the candidate locations.

Subaru was given permission by OMKM to temporarily place the camera in the two locations for testing purposes provided the camera is not left on the roof for more than 30 days unless final approval by the MKMB is given.

Description and Installation of Project

The camera system consists of a housing that can withstand adverse weather conditions. It is an off-the-shelf digital camera with a fish-eye lens to cover 180 degrees of the sky. It has an automated (stand alone) control system and data server system. It will capture the sky image in pre-set intervals (default is 15 minutes.)

Benefits

Other Mauna Kea or global astronomy communities and the public including Hawaii Island community, will have access to the images. Adachi Ward's science museum will develop educational materials based on the images and visitors of the museum will be able to see them in the exhibit or in the planetarium program. Use of the images for research is not limited.

Mitigation Measures

The installation work is on the rooftop, therefore the safety of the installers are to be ensured by the use of a safety harness, lanyard on the anchors or safety lines, and non-slipping safety shoes. The installer will be wearing a backpack that will hold tools and parts. No ground work is required. Unused items and trash will be taken off the site after the camera installation.

Kahu Kū Mauna Council

Kahu Kū Mauna reviewed the proposal and voted in favor of the project.

DLNR Rules

Pursuant to administrative rules pertaining to the Conservation District (HAR 13-5-22, P-8, Structures and Land Uses, Existing), a permit is not required. The rules state: *Minor repair, maintenance, and operation to an existing structure, facility, use, land and equipment, whether it is nonconforming or permitted, that involves mostly cosmetic work or like-to-like replacement of component parts, and that results on negligible change to or impact to land, or a natural and cultural resource.*

CMP Compliance

Subaru reviewed the CMP for compliance. Where applicable, Subaru addressed the CMP condition for compliance.

OMKM 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 facility.
2. There are no archaeological sites in the immediate area.
3. No excavation is involved and the activity will take place on the roof of the Subaru support building.
4. The impact to the immediate surroundings and summit region are negligible.

If this project is classified Minimal Impact, OMKM recommends Subaru be allowed to proceed.

Conditions

OMKM recommends the following conditions:

1. Notify OMKM in writing the chosen permanent location of the fish-eye camera.
2. If the camera has not yet been temporarily installed for testing purposes, or if additional work is needed to secure the camera in place following MKMB approval, Subaru shall:
 - Ensure that loose tools or equipment are not left on the job site.
 - In the event of high wind conditions precautions will be taken to prevent debris from being blown from the job site.
 - The site is to be kept clean and free of debris.
 - All waste material generated will be removed and disposed of properly; all perishable items including food, food wrappers and containers, etc. shall be removed from the site at the end of each day.
3. Comply with all actions and measures described in the proposal, including benefits, and CMP compliance.
4. Allow OMKM rangers to visit and monitor activities.
5. Notify OMKM in writing when the project is completed.

Discussion

Dr. Gregory Chun inquired how 'Imiloa and our local schools would benefit from these images. Director Nagata replied in addition to the impact requirements and conditions put on this project, Subaru has been asked to make these images available to the public and 'Imiloa. Subaru will be working with us on trying to provide those images.

Action

It was moved by Patricia Bergin and seconded by Kihalani Springer to accept OMKM's recommendation to classify this project as Minimal Impact and allow the applicant to proceed with conditions as stated.

C. Mauna Kea Observatories Support Services – Proposal to Install Guardrails on the Summit Access Road

Mauna Kea Observatories Support Services (MKSS) submitted a proposal to install guardrails on the outer edges along seven sections of the unpaved portion of the Summit Access Road. The slope of portions of the road exceed 10 percent and when combined with steep drop offs on the side of the road and weather changes, there is a potential for vehicles to drive off the road and roll over down the slope. This is especially a concern where the edge of the road drops sharply away and where a car could roll hundreds of feet severely injuring or killing the driver and passengers, destroying the vehicle, and scaring the mountain.

As required by its non-exclusive easement for the use of the access road, UH is responsible for repairing and maintaining the roadway during the term of its lease.

Purpose

The purpose of the guardrails is to reduce the potential for vehicles from driving and/or rolling over down the sides of the road, especially where the edge drops sharply away.

Mitigation Measures

1. All equipment and material transported from below Hale Pohaku will be clean and inspected by a Hawaii State Department of Agriculture inspector.
2. The contractor will provide traffic control safety measures. Specifically, signs and safety cones warning motorists as well as personnel to control traffic flow will be required. Prior to beginning work, a traffic safety plan will be submitted and approved by OMKM Chief Ranger Scotty Paiva.
3. When not in use, all project equipment and material will be stored in areas designated by the MKSS general

- maintenance supervisor. Under no circumstances will equipment or material be left unattended on the road.
4. All project waste material will be stored in wind-proof trash containers, removed daily and disposed of properly.
 5. The contractor will be briefed on weather conditions and will not work during periods of low visibility.
 6. The contractor will submit a work schedule to the MKSS general maintenance supervisor.
 7. Work will start no earlier than 7:30 a.m. and end by 4:30 p.m. or when commercial tour vehicles begin their ascent for sunset tours (whichever time is earlier.)
 8. MKSS shall coordinate and communicate with the observatories about road conditions and activities during the duration of the project.
 9. The Mauna Kea Summit Road Conditions webpage, the recorded road conditions phone message, and the Visitor Information Station staff will advise visitors when work is in progress.
 10. If this project is approved, MKSS shall submit a request to DLNR for a permit. A copy of the approved permit will be submitted to OMKM.
 11. No work will be done until this project is approved by OMKM and DLNR.

Kahu Kū Mauna Council

Kahu Kū Mauna reviewed the proposal and recommended that OMKM keep a record or log of vehicle incidents and accidents and consider installing signs near the summit warning and/or cautioning drivers as they head down. The Council voted in favor of the project.

DLNR Rules

OMKM believes this is a repair and maintenance project under HAR 13-5-22, P-8, Structures and Land Uses, Existing: *Minor repair, maintenance, and operation to an existing structure, facility, use, land, and equipment, whether it is nonconforming or permitted, that involves mostly cosmetic work or like-to-like replacement of component parts, and that results in negligible change to or impact to land, or a natural and cultural resource...* Under this section of HAR 13-5-22, a permit is not required, however, DLNR shall be consulted to determine whether a permit is required or whether this activity is considered a repair and maintenance activity required in UH's grant of a non-exclusive easement for the use of the access road. If DLNR requires a permit, the MKSS shall apply for one.

CMP Compliance

MKSS reviewed the CMP for compliance. Where applicable, MKSS addressed the CMP condition for compliance.

OMKM 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.
2. There are no archaeological sites in the immediate area.
3. Only minor excavation, if required, is involved. The main activity will involve driving support posts into the ground. These posts will be used to attach the guardrails.
4. Only seven sections, not the entire roadway, will be lined with guardrails.
5. The impacts to the immediate surroundings are negligible.

If this project is classified Minimal Impact, OMKM recommends MKMB be allowed to proceed

Conditions

OMKM recommends the following conditions:

1. Notify OMKM in writing when MKSS intends to start work on the project.
2. MKSS shall:
 - Ensure that loose tools or equipment are not left on the job site.
 - In the event of high wind conditions precautions will be taken to prevent debris from being blown from the job site.
 - The site is to be kept clean and free of debris.
 - All waste material generated will be removed and disposed of properly; all perishable items including food, food wrappers and containers, etc. shall be removed from the site at the end of each day.
3. Carry out the actions and measures described in the proposal, and in the accompanying CMP compliance list.
4. Allow OMKM rangers to visit and monitor activities.
5. Notify OMKM in writing when the project is completed.

Discussions

Lisa Hadway stated Hawaii Electric Light Company in time may need access to some of the pull boxes and wondered if any of the proposed guardrail sites impacted the power line. Stewart Hunter did not think so but said he would verify and confirm that.

Dr. Chun asked if there was a budget attached to the project. Mr. Hunter stated the Institute for Astronomy has made available thru infrastructure funds the bid amount of the project which is \$94,000.

Action

It was moved by Lisa Hadway and seconded by Gregory Chun to accept OMKM's recommendation to classify this project as Minimal Impact and allow the applicant to proceed with conditions as stated.

Additional Condition

Director Nagata added the guardrails, equipment, and vehicles must be power washed to remove soil, plant, and animal material, in particular the wheels and wheel wells prior to driving onto UH's manages lands. MKSS will coordinate with OMKM's natural resource staff to inspect materials, equipment and vehicles after they have been cleaned but prior to starting the project.

Action

It was moved by Lisa Hadway to amend the motion and seconded by Gregory Chun to accept OMKM's recommendation to classify this project as Minimal Impact along with the additional condition stated above and allow the applicant to proceed with conditions as stated. The motion was carried unanimously.

VII. ANNOUCEMENTS

Mr. McBride, who used to work on Mauna Kea, stated that an issue to consider is the public going up to collect snow. He recommends that people drive slowly rather than put up guardrails. Stewart Hunter stated guardrails placed on the top of the summit have cables on the top of the guardrails. It was done that way for snow removal. There has not been much snow at the lower elevations nor problems with snow removal. Mr. McBride agreed it is usually not a problem, but when it does happen, for example in 1991, snow near the top was 15 feet high making it impassable for almost two weeks. At that time there were no guardrails. With the guardrails the snow turns into solid ice. He recommends talking with the road crew people. Mr. Hunter reported he discussed the situation with the road crew. Director Nagata added if there is snow and ice on the road no one is allowed to go up including observatory personnel. We have to weigh the closure of the road with the safety of the people driving up the road.

Cory Harden inquired if there were any new developments on the United Kingdom Infrared Telescope (UKIRT) and James Clerk Maxwell Telescope (JCMT) funding status. Director Nagata stated the Office has not heard from either telescope facility whether or not they will be closing down their operations. They are still looking for scientific partners to operate of these facilities. If they cannot find a partner to help them with the operations of their facilities, they will be decommissioned and they have the funds to decommission.

VIII. NEXT MEETING

The next meeting is tentatively scheduled for Wednesday, May 15, 2013. Future tentative dates for meetings are August 21 and either November 27 or December 4. Members were asked to give any comments to Dawn Pamarang regarding these dates.

IX. ADJOURNMENT

There being no further business Chair Mooers adjourned the meeting at 10:47 a.m.

Respectfully submitted:

Signed by Lisa Hadway
Lisa Hadway, Secretary, MKMB

May 15, 2013
Date