

UH open to alternative management models

In 2017 the UH Board of Regents formally adopted a resolution to affirm UH's commitment to the collaborative stewardship of Maunakea's cultural, natural, educational and scientific resources in a manner that integrates traditional indigenous knowledge and modern science. The resolution directs the university to work with the state, County of Hawai'i, Native Hawaiian organizations and the community to achieve this aim, and also directs the university to increase the engagement of Native Hawaiian students, Hawai'i Island residents and residents of the State of Hawai'i in the areas of astronomy, celestial navigation and exploration through an active educational and outreach program that highlights indigenous knowledge as well as enhanced student access to and utilization of Maunakea-based astronomical resources. UH stands open and ready to collaborate with all.

'Imiloa honors Maunakea

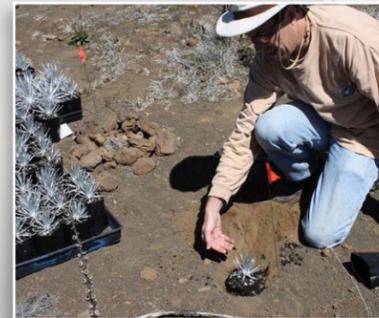
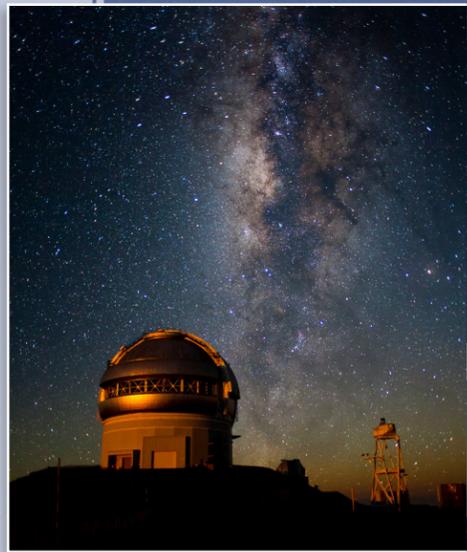
The 'Imiloa Astronomy Center at UH Hilo opened in 2006 with a mission to honor Maunakea in all its dimensions, exploring science and culture as different facets of the same reality. 'Imiloa is arguably the only science center in the world founded for the explicit purpose of public education on contemporary science within the context of an indigenous culture. Few places are better suited to explore this interplay than Hawai'i, where world-class science exists among a rich and remarkable indigenous culture.

'Imiloa has attracted more than one million visitors to the center—85 percent of whom are local, including 120,000 K–12 school-children through guided field trips and other educational programs. The center's outreach efforts have reached more than 20,000 people throughout the world through programs delivered directly in schools and communities.



Educational outreach and opportunity

Providing the community and students of all ages opportunities to experience the wonders of astronomy is a top priority. OMKM and the Maunakea observatories organize events that reach more than 13,000 students and community members annually. UH Hilo astronomy students now have access to the Maunakea telescopes, an amazing opportunity unavailable to undergraduates elsewhere. And the new Maunakea Scholars program—a collaboration between the Department of Education, UH and Maunakea Observatories that began in 2015—provides Hawai'i's high school students with the remarkable opportunity to engage in world-class science using the best resources in the world with the support of Hawai'i's premiere astronomers and UH graduate students. As of the 2017–2018 school year, the program is already reaching approximately 200 local students in 13 Hawai'i high schools.



MAUNAKEA 2018 AND BEYOND



UNIVERSITY
of HAWAII

Commitment to Maunakea and Hawai'i

It is a privilege for the University of Hawai'i to be the official steward of Maunakea. This began in the 1960s, at the request of Hawai'i Island residents and with the support of the state to advance scientific knowledge utilizing Hawai'i's natural resources and diversify the economies of the island and the state. The university now more fully understands and embraces its tremendous responsibility to care for what some feel to be Hawai'i's most sacred place.

UH stewardship of Maunakea

UH has made great strides in its management of Maunakea since a critical state audit in 1998. The comprehensive follow-up by the state auditor in 2014 observed:

"We found that UH has developed several management plans that provide a comprehensive framework for managing and protecting Mauna Kea while balancing the competing interests of culture, conservation, scientific research and recreation."

The dramatic turnaround occurred with UH's shift of stewardship responsibility to Hawai'i Island and the creation of the Office of Maunakea Management (OMKM) in 2000 in Hilo. Two community based boards were also established. The Mauna Kea Management Board and Kahu Kū Mauna Native Hawaiian advisory council provide guidance and counsel to UH on management matters and cultural stewardship.

Openly developed and adopted management plans

With this commitment to community and island-based management, OMKM led the development of the much-needed Maunakea Comprehensive Management Plan and its four subplans. These were created with significant community input and approved in 2009–2010 by the UH Board of Regents and State Board of Land and Natural Resources. The Comprehensive Management Plan provides overarching management guidelines for Maunakea including subplans for public access, cultural resources management, natural resources management and decommissioning of observatories as well as management of construction activities, education and outreach.



Exemplary stewardship recognized

In 2017, UH stewardship of Maunakea was lauded with the highest recognition of preservation, rehabilitation, restoration and interpretation of the state's architectural, archaeological and cultural heritage from the Hawai'i Historic Foundation.

Maunakea Rangers protect people and the mauna

Established in 2001, UH's Maunakea Rangers program has been key to the turnaround. The rangers are on duty every day, interacting with approximately 300,000 visitors each year including cultural practitioners, local residents, tourists and observatory personnel. Rangers provide first response emergency care and health and safety warnings. They also answer questions regarding the cultural, scientific and natural resources of Maunakea and provide protection against inappropriate behaviors.



Ensuring access

With substantial financial support from the observatories, UH also ensures safe access for cultural practitioners and the public by maintaining the road to the summit with twice weekly grading, snow plowing when necessary and issuance of weather alerts.

Monitoring cultural resources

UH conducts rigorous, annual monitoring of more than 250 cultural sites, including shrines, ahu and burials based on long term monitoring and burial plans approved by the State Historic Preservation Division. The sites were identified in an extensive archaeological inventory survey that the university completed for the 11,288-acre Maunakea Science Reserve and access road.



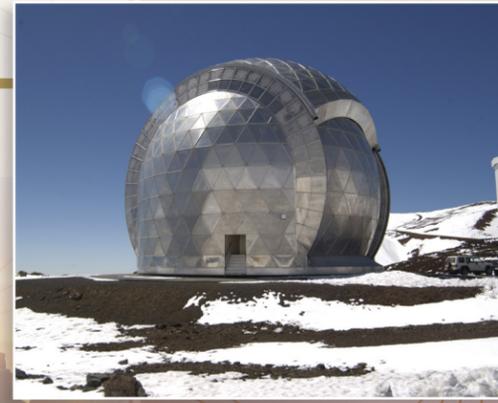
Protecting flora and fauna

UH has a robust natural resources program for the mountain and oversees regular monitoring of the mountain's plant life as identified in the botanical survey of the Maunakea Science Reserve conducted by the university. Regular surveys and control programs are also conducted for invasive species that threaten the environment. Numerous students and volunteers assist with the program with more than 1,800 garbage bags of weeds pulled since 2012.



Observatory decommissioning underway

Three observatories have been publicly identified for decommissioning before the deadlines set in the openly approved decommissioning subplan. Two of these decommissioning initiatives are already underway, and all will follow the stringent guidelines of the Comprehensive Management Plan that requires review of telescope deconstruction, removal, site restoration, environmental due diligence and cultural considerations.



Managing public access

UH is in final consultation on draft administrative rules to guide all activities on the mountain, specifically public and commercial activities. In June, 2018 the UH Board of Regents is expected to request the Governor to approve public hearings, in accord with statutory requirements for adopting such rules. The rules will be an essential element in managing and limiting traffic and congestion on the mountain, which has increased since the substantial and welcomed improvements to the Daniel. K. Inouye Highway portion of Saddle Road. The rules will also enable traffic reduction and a new approach to commercial tour activities including increased revenue-sharing to support stewardship. UH and the Department of Land and Natural Resources have already stepped up activities to fine illegal tour operators on Maunakea.

Substantial sublease rents planned

Current observatories entered into subleases in the last century that did not provide substantial rent payments, although these observatories make substantial payments for common services including road maintenance and the Visitor Information Station. UH initiated a new approach with TMT, which agreed to pay more than a million dollars per year in rent when fully operational to support stewardship of Maunakea as well as support its share of common services. TMT also provides a separate community benefits package of an additional million dollars per year focused on STEM education on Hawai'i Island and support for a workforce pipeline specifically to help Hawai'i Island residents prepare for jobs in astronomy. UH will implement this new methodology with other observatories to assess substantial sublease rents to support stewardship of Maunakea when new subleases can be negotiated under a new master lease that will ensure a future for astronomy past 2033. UH has started the required environmental review and public comment process with the publication of the Environmental Impact Statement Preparation Notice on February 23, 2018.

Strengthening cultural connections

UH is beginning work to envision and plan a stronger educational presence on Maunakea for visitors and the public, as well as those who work on the mauna, around culture as well as the environment, history, astronomy and science. A key element of this will be the creation of a more integrated center at the mid-level facility.



Wēkiu bug success story

The wēkiu bug was first listed as a candidate for federal protection in 1999, and UH began conducting intensive annual surveys in 2002. After years of research on the insect's biology, genetics and habitat, combined with UH's Comprehensive Management Plan assuring its protection, the wēkiu was removed as a candidate for federal protection in 2011.