



UNIVERSITY of HAWAII®

Ke Kulanui o Hawai'i

David Lassner
President

December 24, 2024

The Honorable Ronald D. Kouchi,
President and Members of the Senate
Thirty-Third State Legislature
Honolulu, Hawai'i 96813

The Honorable Nadine K. Nakamura, Speaker
and Members of the House of Representatives
Thirty-Third State Legislature
Honolulu, Hawai'i 96813

Dear President Kouchi, Speaker Nakamura, and Members of the Legislature:

For your information and consideration, the University of Hawai'i is transmitting one copy of the Annual Report on the Mauna Kea Lands (Section 304A-1905, Hawai'i Revised Statutes) as requested by the Legislature.

In accordance with Section 93-16, Hawai'i Revised Statutes, this report may be viewed electronically at: https://www.hawaii.edu/govrel/docs/reports/2025/hrs304a-1905_2025_maunakea-lands_annual-report_508.pdf.

Should you have any questions about this report, please do not hesitate to contact Stephanie Kim at (808) 956-4250, or via e-mail at scskim@hawaii.edu.

Sincerely,

A handwritten signature in black ink that reads 'David Lassner'.

David Lassner
President

Enclosure

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UNIVERSITY OF HAWAI‘I SYSTEM ANNUAL REPORT



REPORT TO THE 2025 LEGISLATURE

Annual Report on the Mauna Kea Lands

HRS 304A-1905

December 2024

REPORT TO THE THIRTY-THIRD LEGISLATURE
STATE OF HAWAII
2025 REGULAR SESSION

ANNUAL REPORT ON THE MAUNA KEA LANDS

Pursuant to Hawai'i Revised Statutes (HRS) § 304A-1905, "Mauna Kea Lands; reporting requirements," the University of Hawai'i (UH) respectfully submits its report on (1) Maunakea lands activities; (2) current and pending lease agreements and fees; (3) the status of current and pending administrative rules; (4) income and expenditures of the Mauna Kea lands management special fund established in HRS § 304A-2170; and (5) other issues that may impact the activities on the Mauna Kea lands. Consistent with past practice, this report covers the fiscal year 2024 (FY24), which started on July 1, 2023, and ended on June 30, 2024, but may also include matters and data outside FY24 where relevant.

I. Current and Pending Lease Agreements and Fees

In 1964 the Hawai'i State Legislature passed Senate Concurrent Resolution 16 (SCR 16) stating that the "State of Hawaii and its citizenry are most desirous and willing to co-operate and aid in the promotion of our nation's space program and research to the benefit of the County of Hawaii, the state and the nation." It was resolved that the governor set aside and establish an appropriate area on the summit of Maunakea for the installation and operation of telescope observatory and astronomical activities. In fulfillment of SCR 16, the Mauna Kea Science Reserve (MKSR) was established in 1968, and the Board of Land and Natural Resources (BLNR) and UH entered into an agency-to-agency lease granting UH a lease of the Science Reserve for a term expiring on December 31, 2033 (MKSR General Lease). The lease is gratis, a common practice for leases between government agencies and one that supports the goal of benefiting the County of Hawai'i, the State, and the Nation.

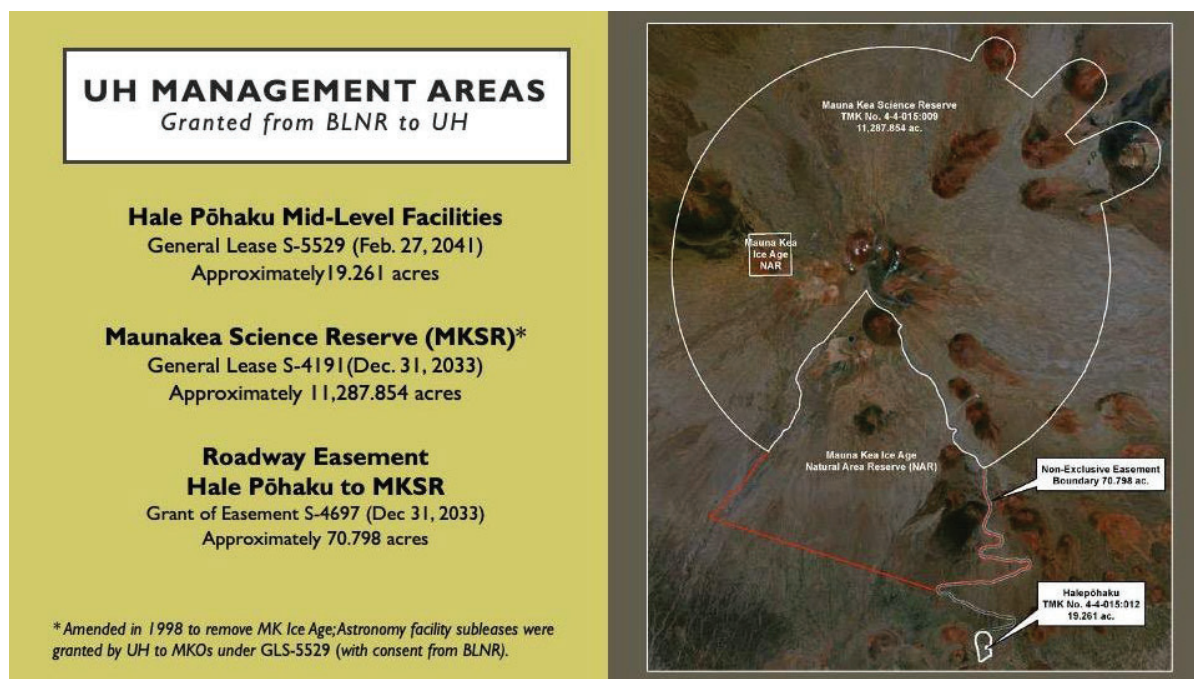


Figure 1. UH-Managed Lands

Also in 1964, Governor John A. Burns recognized that Hawai'i has “. . . some obvious natural advantages in this area of scientific research, [and that Hawai'i] must capitalize on these, utilizing all our available resources at the University, in the industrial community and at the levels of State and local government.” He also emphasized that Hawai'i is not “constrained by these physical advantages.” “We can acquire competence in any field of scientific inquiry,” and “[t]he limitations are only those we impose on ourselves.” (Honolulu Advertiser, August 7, 1964).

Governor Burns understood the demand for manual labor in agriculture would decrease over time, and that future jobs would require technicians and scientists. The development of a research enterprise would provide jobs of the future. The two areas Governor Burns felt the state should pursue were in the fields of oceanography and astronomy, areas in which the State of Hawai'i unquestionably excels.

In a State-supported effort to establish astronomy as a viable research endeavor and establish Hawai'i as a center for astronomical research, UH entered into subleases with 11 organizations to operate astronomical observatories. BLNR approved all subleases, which are co-terminus with the MKSR General Lease. Each sublessee is obligated to provide a guaranteed percentage of viewing time to UH. Viewing time provides invaluable advantages for advancing UH, Hawai'i's only State-funded institution of higher education, as a center for excellence in research, including astronomy. Sublessees also agreed to pay for the costs of research support operations provided by UH, contributed to an infrastructure fund, and, in some cases, paid for the construction of support facilities.

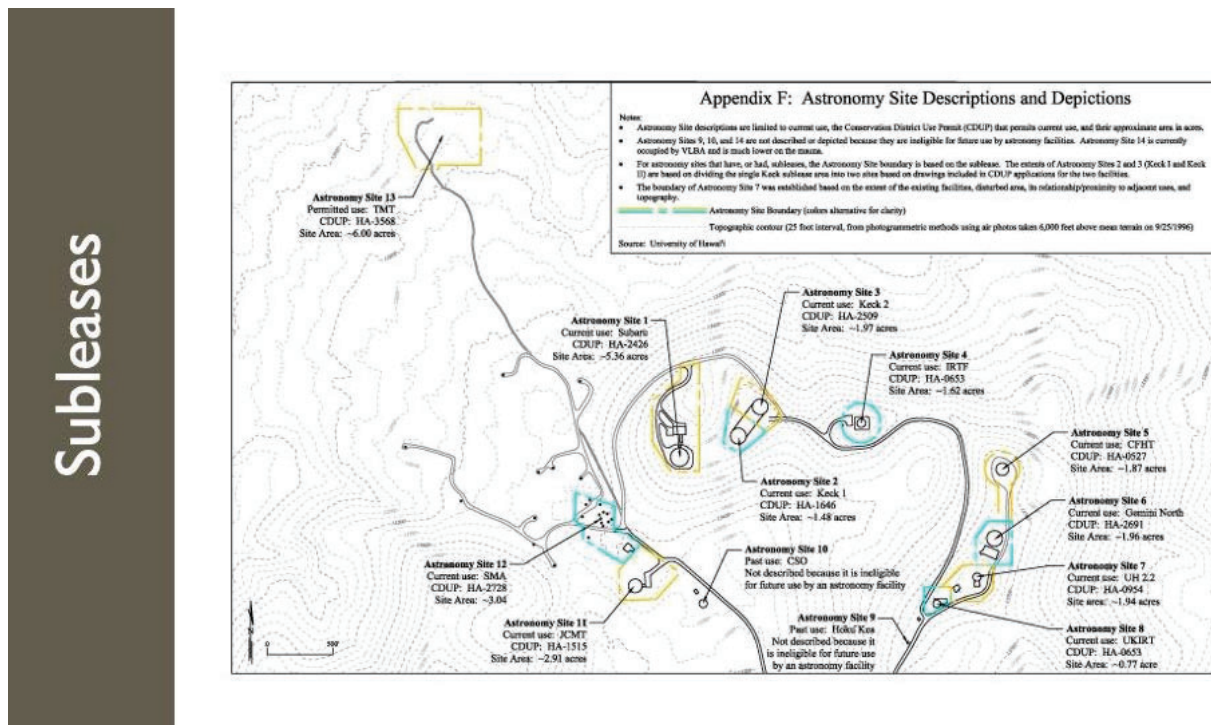


Figure 2. Observatory Subleases

At little monetary cost and development risk to the State, UH is recognized as one of the Nation's leading astronomical research institutions and globally as the center of excellence for astronomical research. This recognition contributes significantly to the State's efforts to expand its high-technology sector. The annual economic impact of astronomy in the State in 2019 was \$220.95 million (\$261.33

million in 2022 dollars (CPI-U)), with the largest impacts found on Hawai'i Island and Honolulu, \$101.68 million (\$120.26 million in 2022 dollars (CPI-U adjusted)) and \$86.96 million (\$102.85 million in 2022 dollars (CPI-U adjusted)), respectively. Additional benefits accrue to the State and local communities through opportunities in scientific, professional, technical, and administrative employment within the local community.

In preparation for seeking a new land authorization (e.g., a new general lease from the BLNR beyond 2033), UH updated the "Mauna Kea Science Reserve Master Plan," adopted by the UH Board of Regents (BOR) in 2000, and the "Mauna Kea Comprehensive Management Plan," adopted by the BLNR in 2009 (collectively, "Plans"). The effort to update the Plans involved significant community and stakeholder input. UH's new master plan, E O Nā Leo: Listen to the Voices, was adopted by the Board of Regents in January 2022, and the updated Mauna Kea Comprehensive Management Plan, Comprehensive Management Plan 2022 Supplement, was approved by the BLNR in July 2022. Among other things, the Plans integrate management actions that strive for a renewed balance across the cultural, natural, educational, and recreational values Maunakea provides the State. The Plans also address decommissioning commitments UH has made and the replacement of the University of Hawai'i Hilo's educational telescope from the summit to the mid-level facilities at Halepōhaku.

In 2018, UH began preparing an environmental impact statement (EIS) for UH's proposed new land authorization to continue astronomy on Maunakea. Prior to the 2022 Legislative Session, the House of Representatives established the Maunakea Working Group to recommend alternative governance structures for the future management of Maunakea. The purpose was to replace UH as the responsible entity for managing the Mauna Kea Science Reserve, Hale Pōhaku, and the roadway easement connecting Hale Pōhaku and the Mauna Kea Science Reserve. After considering the Working Group's recommendation, HB 2024 was introduced. HB 2024 was signed into law by Governor Ige in June 2022 as Act 255.

Act 255 establishes the Mauna Kea Stewardship and Oversight Authority (MKSOA), which will assume management responsibilities for the current UH-managed lands on Maunakea. MKSOA is comprised of eleven voting Board members and one non-voting ex-officio member (UH Hilo Chancellor). Act 255 sets a five-year transition period ending July 1, 2028. During the transition period, UH and MKSOA will "jointly manage" Maunakea while MKSOA is formally organized and prepares to assume all legal and operational responsibilities currently under UH management (e.g., UH's two general leases, grant of easement, and all conservation district Use Permits (CDUPs) held by UH for third party non-UH astronomy facilities and buildings, physical assets, vendor contracts, liabilities, etc.). Act 255 also grants MKSOA certain land disposition responsibilities currently under the jurisdiction of the BLNR and appropriated \$14M for MKSOA start-up for FY24.

Act 255 prohibits new leases on Maunakea until after the transition period ends and leases are taken over by MKSOA. Consequently, all UH work on the EIS, new land authorizations from BLNR, and new real property sub-agreements with Maunakea observatories have ceased. As referenced in Act 255, the decommissioning and removal of two astronomy facilities by UH was underway at the time the Legislature passed the Act: (1) Caltech Submillimeter Observatory (CSO), a private facility, and 2) UH Hilo's Hōkū Ke'a teaching telescope. Both projects were completed in FY24.

A. Thirty Meter Telescope (TMT) Sublease

On September 27, 2017, the BLNR issued its 271-page Findings of Fact, Conclusions of Law and Decision and Order containing 1,070 Findings of Fact and 512 Conclusions of Law, for the CDUP allowing the construction and operation of TMT. On October 30, 2018, the Hawai'i Supreme Court affirmed the CDUP after various parties appealed. The process for obtaining the CDUP approval took approximately seven years from the permit application's initial submission in 2010, including two contested cases, several judicial appeals, and two Hawai'i Supreme Court decisions. Parties continue to challenge the TMT project.

Unlike the other existing observatory subleases, which provide for nominal rent in exchange for viewing time and sublessee contributions to shared operations, maintenance, and stewardship of Maunakea, the TMT International Observatory (TIO) sublease provides for substantial lease rent payments in addition to these other terms. Pursuant to TIO's sublease, annual lease rent started at \$300,000. The lease rent schedule is phased, with increases based on construction activity adjusted for CPI. Full annual lease rent payments of \$1,080,000 a year will begin in FY 2025. In FY24 TMT paid \$1,141,862 in lease rent and, to date, \$5,013,858 has been paid. These payments are deposited into the Mauna Kea Lands Management Special Fund as the legislature directed in 2009 Hawai'i Session Laws Act 132 (codified at HRS § 304A-2170). In addition, TIO committed \$1 million per year in donations to community benefits, primarily by advancing STEM education on Hawai'i Island, and a similar amount to a workforce pipeline initiative as operations become imminent to maximize employment opportunities for residents. To date, TIO has contributed \$5.5 million dollars to the THINK fund and at least \$25,000 to programs that assist at-risk youth, specifically focusing on the children of incarcerated parents. TIO is currently waiting on National Science Foundation (NSF) funding to commence with construction. NSF initiated a Section 106 consultation process as part of its review of TIO's application for funding. This process, conducted by NSF, involved months of pre-consultation meetings with the community followed by three public meetings on Hawai'i Island in 2022. NSF is still in the process of reviewing comments submitted during the public comment period. NSF has not set a date for issuing its report nor for restarting the Section 106 process.

B. New Maunakea Observatory (MKO) Agreements

In FY21, UH initiated discussions with MKO Directors regarding new agreements post-2033, which is when their current subleases terminate. Those discussions continued into FY22 and covered various terms, including rent, stewardship fees, community benefits, shared use and maintenance costs, and property or use rights. The goal of these negotiations was to have an agreed-upon set of terms by the end of 2022. The process for developing these new agreements included discussions with the community.

Consistent with Act 255, in addition to stopping UH work on a new general lease from BLNR, UH has halted all work on new MKO subleases. Act 255 states that the MKSOA "shall develop a management plan," and that the management plan shall, among other things, "[p]repare for and establish the framework, criteria, and procedures for any leases and permits."

II. Administrative Rules

Hawai'i Administrative Rules Chapter 20-26, "Public and Commercial Activities on Mauna Kea Lands," was adopted by the BOR on November 6, 2019, and approved by Governor David Ige on January 13, 2020 (MK Rules). UH has no pending administrative rule amendments related to Maunakea at this

time. BOR's adoption of the administrative rules is being challenged by opponents in *Flores-Case 'Ohana v. University of Haw.*, No. SCRQ-22-0000118.

The focus in FY24 was on implementation of the Comprehensive Management Plan (CMP) and MK Rules. This work included staff training, developing and updating administrative systems, improving signage, revamping employee and visitor orientation, improving education at the Visitor Information Station (VIS), expanding community outreach and education, updating the Rangers' operating procedures, and developing a restoration and outplanting plan for Halepōhaku that addresses, in part, public access for hikers and visitors not going to the summit. This work also included key hires and recruitment to fill vacancies and positions established based on the reorganization of Maunakea management and the creation of the Center for Maunakea Stewardship (CMS) (formerly the Office of Maunakea Management (OMKM)) approved by the BOR on August 20, 2020.

Act 255 repeals all UH plans and the MK Rules after the transition period and grants the MKSOA authority to develop its own plans and administrative rules.

III. Income and Expenditures of the Mauna Kea Lands Management Special Fund (HRS § 304A-2170)

As previously noted, TMT paid lease rent in the amount of \$1,141,862 in FY24, which was deposited into the Mauna Kea Lands Management Special Fund. In addition, \$246,468 in fees were collected from commercial tour operators and deposited in the fund, and \$400 in fees were collected for film permits. Interest income for the fund totaled \$47,428. A total of \$825,414 was used from the fund to help defray the cost of operating the Maunakea Ranger program, VIS, and road, facility, and infrastructure maintenance expenses. Total payments in FY 2024 of \$274,911 were made from the fund to the State Budget & Finance Department towards the annual payment by the State of \$21.5 million to the Office of Hawaiian Affairs (OHA). The beginning and ending balance of the Mauna Kea Lands Management Special Fund for FY24 was \$1,216,238 and \$1,302,268, respectively.

HRS § 304A-1905 requires reporting in this annual report of "income and expenditures of the Mauna Kea Lands Management Special Fund established in HRS § 304A-2170". However, it is important to note that the Mauna Kea Lands Management Special Fund comprises a fraction of the revenue required to fund the overall direct costs to UH for the management and stewardship of Mauna Kea. In FY24, the Mauna Kea Lands Management Special Fund represented 46% of total revenues required to cover UH's costs to fulfill its stewardship responsibilities. The balance of revenues required derives from a combination of general funds, UH tuition and fees, and research funds. In addition to management expenses, and as part of its stewardship responsibilities, UH also funds planning, permitting, and legal expenses needed to ensure compliance with conservation district rules and lease requirements. Those costs have ranged between \$500,000-\$1.2 million annually. Act 255 repeals the Mauna Kea lands management special fund on July 1, 2028, with any remaining balance being transferred to the new Mauna Kea management special fund established thereunder. UH's direct costs for management, stewardship, planning, permitting, litigation, and compliance will need to be replaced by MKSOA through other funding sources.

IV. Maunakea Lands Activities and Other Activities

A. Commercial Tour Operations

Nine commercial tour operator permits were transferred from the State of Hawai'i Department of Land and Natural Resources (DLNR) to UH in 2005. Two operators have gone out of business, and seven operator permits remain active. During the pandemic, only six were operating; the seventh planned to restart in 2022 but has not done so yet. That permittee continues to pay their monthly minimum payment to keep their permit active. Each commercial tour operator is charged a \$6.00/tour passenger fee which is submitted to CMS every month. All fees are deposited into the Mauna Kea Lands Management Special Fund and are used to cover management and stewardship activities on Maunakea. Twenty percent of the fees collected are set aside for payment to OHA. In FY24, a total of \$246,468 was collected from commercial tour operators.

The COVID-19 pandemic significantly impacted commercial tour operators, demonstrating the risks of an overreliance on this revenue stream. UH has engaged in outreach to individual commercial tour operators to seek their input on fee increases and permitting requirements. While working to bring existing permits into compliance with the MK Rules, UH has also been considering additional options for managing visitor access, including concessions, a shuttle system, and new permit requirements. UH plans to work on updating commercial tour permits as required by the MK Rules but will need to do so in collaboration with MKSOA under our joint management relationship.

In 2020 UH contracted with the UH Mānoa School of Travel Industry Management (TIM) to conduct a visitor and operator survey to better understand the relationship between demand, fee acceptance, and capacity. Completion of this study was impacted by COVID-19, which resulted in significantly reduced commercial tour demand and overall visitor traffic to Maunakea. Partial conclusions were submitted on a new fee structure but, considering Act 255, the scope of the remainder of this work is being re-evaluated since commercial activities and access management will fall under the purview of MKSOA after the transition period.

B. Decommissioning

Pursuant to the CDUP for the TMT project, the BLNR imposed special conditions regarding the decommissioning of telescopes on Maunakea, including the following:

Special Condition 10. The University will decommission three telescopes permanently, as soon as reasonably possible, and no new observatories will be constructed on those sites. This commitment will be legally binding on the University and shall be included in any lease renewal or extension proposed by the University for Mauna Kea.

Special Condition 11. Notwithstanding any lease renewal or extension, consistent with the Decommissioning Plan, at least two additional facilities will be permanently decommissioned by December 31, 2033, including the Very Long Baseline Array antenna and at least one additional observatory.

Related to decommissioning, on November 6, 2019, the BOR adopted Resolution 19-03, "Resolution to Act on Items Relating to Maunakea Management" (later revised in part by BOR Reso. 21-02) (BOR Reso. 19-03). Accordingly, a schedule to decommission CSO and Hōkū Ke'a by December 31, 2021, was presented to the BOR. This presentation including the schedule is available at <http://go.hawaii.edu/Fp3>. This schedule was updated due to COVID-19 and permitting delays with the new projected timelines discussed below.

BOR Reso. 19-03 established a December 30, 2025 deadline to determine which three additional telescopes will be decommissioned in compliance with existing or future permits or governmental approvals. UH began discussions with sublessees to prepare a framework for decision-making for public comment and review as part of the Plans update process. However, these discussions between UH and sublessees stopped with the passage of Act 255, which will transfer the CDUP for TMT to MKSOA in 2028 after the transition period. UH Plans will also no longer be applicable after the transition period, wherein UH committed to nine (9) operating astronomy facilities on Maunakea after decommissioning conditions had been met. Important to note here is that subleases are co-terminus with the MKSR General Lease, which expires in 2033. The subleases and MKSR General Lease all provide provisions for the removal or transfer of ownership of astronomy facilities on Maunakea on or before 2033.

In June 2024 UH announced the completion of the Hōkū Ke‘a decommissioning <https://www.hawaii.edu/news/2024/06/02/maunakea-1st-telescope-decommissioning-complete/>.



Figure 3. Hōkū Ke‘a Decommissioning: Before and After

In July 2024, UH announced the completion of the CSO decommissioning <https://www.hawaii.edu/news/2024/07/02/second-observatory-removed-maunakea/>.

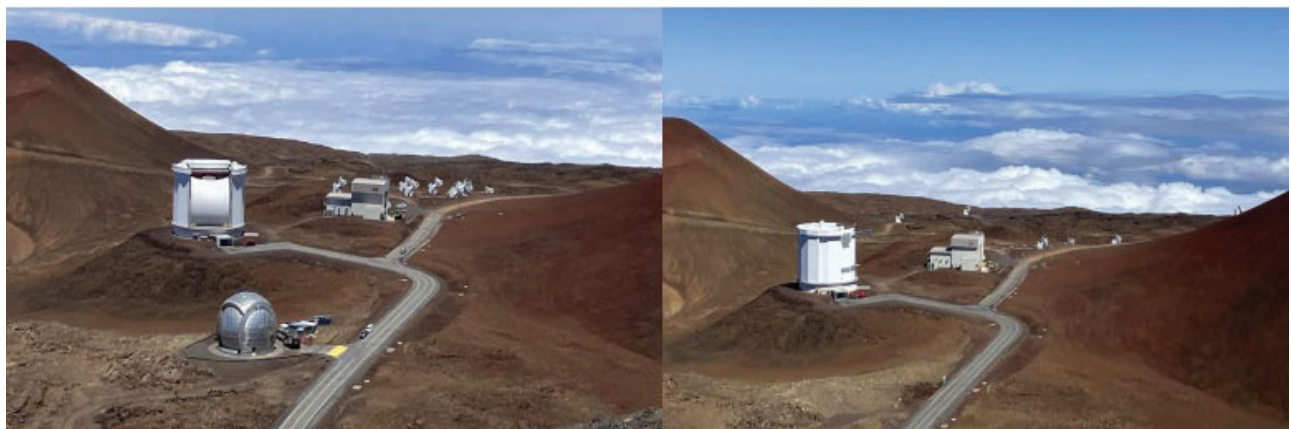


Figure 4. CSO Decommissioning: Before and After

In addition to CSO and Hōkū Ke‘a, finding of fact 171 of the TMT CDUP issued for TMT identified the United Kingdom Infrared Telescope (UKIRT) for decommissioning by the time the TMT project becomes operational, and the BLNR identified the Very Long Baseline Array (VLBA) for decommissioning in Special

Condition 11 of the same CDUP. Act 255 contemplates the transfer of all CDUPs issued to UH for astronomy facilities owned by third parties, like TMT, to MKSOA. Act 255 also directs MKSOA to develop a framework for future astronomy development on Maunakea, as codified under HRS § 195H-6:

(d) The authority shall be responsible for the establishment of a framework for astronomy-related development on Mauna Kea. The framework may include: (1) Limitations on the number of observatories and astronomy-related facilities, or an astronomy facility footprint limitation; (2) Prioritizing the reuse of footprints of observatories that are scheduled for decommissioning, or have been decommissioned, as sites for facilities or improvements over the use of undeveloped lands for such purposes; and (3) A set of principles for returning the lands used for astronomy research to their natural state whenever observatories are decommissioned or no longer have research or educational value.

Consequently, the MKSOA will need to determine the future status of these permit conditions.

C. Stewardship

The 2020 CMP Update provided a status update on all 103 management actions contained in the plan. In FY24, CMS updated the status of the 103 action items, of which 16 are now deemed completed, 13 are deemed completed/ongoing, and 74 are classified as ongoing¹.

At the time of this writing, several of the priority ongoing management actions were still in process as fieldwork was delayed by weather and/or final reports were still under review. This includes our annual historic site and arthropod surveys. Preliminary data are that 106 of the 263 historic sites and 111 arthropod sites on UH managed lands were monitored in FY24.

Finally, since the end of FY24 CMS has received acceptance notifications of our annual archaeological monitoring reports submitted to the State Historic Preservation Division (SHPD) for the years 2012-2022. We are awaiting review and acceptance of our 2023 report. SHPD has been backlogged on reviewing our reports but has been able to address this gap in the past year.

¹ Completed means the management action is done; completed/ongoing means the management action required a discreet task to be done which has been completed but requires an ongoing element which is never completed; and ongoing means this is a management action that never ceases.

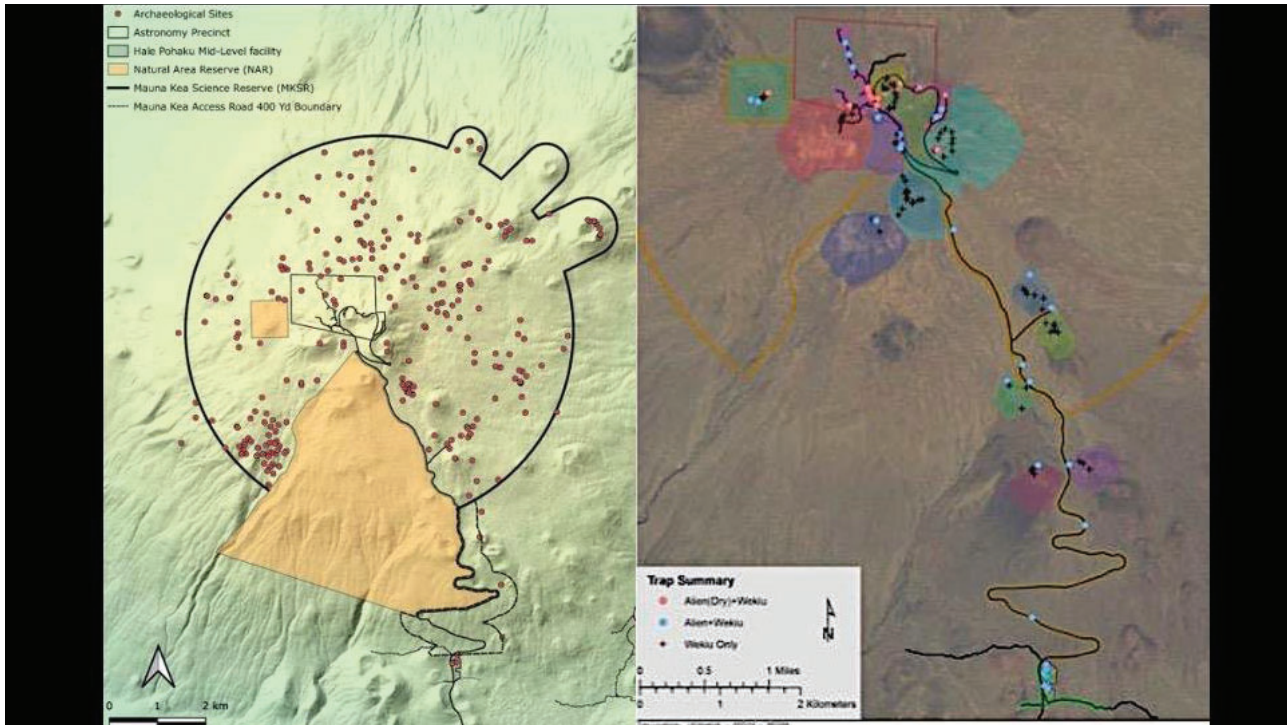


Figure 5. Historic (left) and Arthropod (right) Survey sites.



Figure 6. Resource Management Team Conducting Annual Arthropod Survey.

Reducing invasive threats to the landscape and habitat restoration are important elements of the CMP. In FY24, our resource management team removed 15,770 lbs. of invasive weeds totaling about 2 acres of area in our restoration area at Hale Pōhaku with the assistance of approximately 571 community volunteers. In addition, 369 invasive species inspections were conducted on large vehicles during the

year, primarily due to the decommissioning projects that were underway. Three (3) inspections were rejected, and seven (7) were approved with immediate treatment.

Restoration efforts were advanced with the continued success of our propagation and outplanting program conducted in partnership with DLNR. On average, since 2019, UH has planted 180 native plants annually in our restoration area. Through an agreement with DLNR initiated by UH in FY23, UH supports the maintenance and restoration of the department's 'ahinahina (SILVERSWORD) enclosure adjacent to our UH managed lands and has assisted in building fences around restoration areas on other DLNR lands adjacent to ours. In FY24, the resource management team completed a draft of a restoration plan for our lands at Hale Pōhaku that will guide our future efforts. The plan includes expanding our greenhouse facilities to support UH and DLNR propagation programs more broadly, an area for cultural and resource management practitioners to gather for educational programs, and a walking trail in and around Hale Pōhaku where hikers can learn about Maunakea's cultural and natural resources through interpretive experiences. This plan is not yet permitted or funded and is years from implementation; UH will work with MKSOA on implementation through our joint management relationship.

Protecting Maunakea's cultural resources is a high priority for UH. In addition to our annual monitoring program, in late FY24, UH initiated preliminary discussions with the Royal Order of Kamehameha (ROOK) concerning access management for, and maintenance of, the summit ahu that they have kuleana for. This has been a goal of UH for many years as that site has experienced steady and growing visitation by non-cultural practitioners. UH Rangers inspect the site weekly and maintain it as best they can, but the site requires more than what we are able to help the ROOK with. Discussions with ROOK were hindered in the past by the TMT protests but, with the passage of time, a renewed spirit of cooperation has sprouted. UH will continue to explore management options with ROOK and are hopeful a partnership can be established.

D. Public and Commercial Access

Our Rangers and VIS staff provide important education and information to residents and visitors on how to safely and respectfully experience Maunakea. In FY24, approximately 139,332 vehicles drove to the Visitor Information Station. Of those, approximately 28,648 visitor vehicles (i.e., non-employee, non-contractor, non-commercial) drove to the summit with an estimated 73,196 passengers. In addition, our Rangers monitored the access of approximately 6,016 hikers who cross UH managed lands to access DLNR lands before crossing again on to UH managed lands to reach the summit. All vehicles going to the summit and all hikers receive a safety briefing before ascending to educate them about altitude sickness, safe 4WD driving, emergency contacts, sensitive cultural sites, and visiting respectfully. Upon descent, all vehicles undergo a brake temperature check to ensure the vehicle is safe to operate. In FY24, there was a total of 3,112 commercial tour operator trips to the summit with 36,890 visitors. Commercial tour operators and our Rangers together provide these safety briefings.



Figure 7. Overheated Brakes

Our administrative rules allow UH to close the summit road due to natural disasters, inclement weather, and/or other emergency situations that make going to the summit unsafe. In FY24, the Rangers had to implement partial-day closures on 83 days and full-day closures on another 20 days.

E. Planning and Permitting

CMS is responsible for ensuring that all activities on the mauna comply with existing land use agreements, entitlement permits, applicable statutes, UH administrative rules, and the BLNR-approved CMP. A major focus for CMS in FY24 was managing, monitoring, and enforcing permit requirements covering the decommissioning of the CSO and Hōkū Ke‘a facilities. This was the first time a facility decommissioning on Maunakea has occurred since the initiation of astronomy on the summit in 1968, and it has been a while since there was any construction-like activity of this magnitude taking place. Managing two projects occurring at the same time added to the challenge. UH is very pleased and proud that both projects were completed without major incident and in compliance with their applicable permits.

UH processed another seven (7) projects in FY24 proposed by either an observatory or UH itself. All underwent review from our UH advisory groups, and by MKSOA for those projects that it had been agreed they would review and approve. All projects were approved by DLNR (OCCL) and are either completed, underway, or awaiting start.

In addition to the commercial tour permits, our administrative rules allow UH to issue film, research, and special use permits. There were twenty (20) film permit applications processed in FY24; five (5) were withdrawn and one (1) was denied. There were two (2) research permits reviewed and approved, and one (1) special use permit application submitted by the Air Force to conduct military communications testing that was denied.

F. Education and Outreach

Under the leadership of CMS’s new education coordinator hired in FY23, a new and updated education and outreach program has been developed. The program has three (3) areas of focus: exploration, conservation, and community, with a priority on developing collaborative partnerships with UH programs, the State of Hawai‘i Department of Education (DOE), charter schools, and native Hawaiian and other community organizations. A key initial step in preparing for plan implementation is staff development with a particular focus on natural and cultural resource education and training in cultural protocols.

A key emphasis of our education and outreach programs is to incorporate active engagement through hands-on participation in our stewardship programs. In FY24, 571 volunteers participated in our community workday programs, and we engaged approximately 3,000 youth and young adults through various community programs our staff participated in during the year. In FY24, CMS updated the educational exhibits at the VIS. New displays feature and provide background on Maunakea’s unique and special cultural heritage, natural environment, astronomy, and our stewardship programs. Improved signage has also been installed to educate visitors about visiting respectfully and safely while informing them of the administrative rules and permitted activities.



Figure 8. Updated VIS Signage Educational Displays.

All observatory and UH personnel and contractors are required to undergo biannual training on Maunakea’s unique historical, cultural, and natural resources. The orientation also covers safety and all applicable rules and statutes governing activities on the Mauna. The training orientation is offered on-line, and certificates of completion are issued upon passage of a test at the conclusion of the video. In FY24, 681 tests were taken, and 582 certificates were issued.

G. Emergency and Disaster Response

Hurricane Hone occurred on August 24-25, 2024, just after the conclusion of FY24, but is reported here because of its recency and the fact that the impacts of the event will require ongoing mitigation. The unique element of the hurricane was the intensity of its force at the summit, which occurred in a short period of time. Wind speed was in excess of 100 mph at the summit during the height of the storm, and there were 10 inches of rain that fell in a 24-hour period. Runoff damage to the summit access road, the utility corridor, and to certain observatory sites was significant. Our Utility crew responded on the morning of August 25 while the storm was still passing and was able to repair the road enough to open summit access within 36 hours. Fortunately, only a few observatories suffered building or equipment damage. We estimate 95% of the repair work has been completed but there remain areas of the utility corridor and culverts that are still being addressed.



Figure 9. Hurricane Hone Damage.

H. MKSOA Transition

In FY24, UH continued to provide temporary administrative support to MKSOA to facilitate their start-up as a new body corporate and a public instrumentality of the state, placed within DLNR for administrative purposes. These services included some board and logistical coordination but mostly focused on staff training. Currently, UH provides office space for MKSOA at the 'Imiloa Astronomy Center of Hawai'i ('Imiloa Center) on the UH Hilo campus. CMS facilitated MKSOA using office space at our shared-use facilities at Hale Pōhaku for nominal rent while they search for office space in Hilo, which is proving challenging. MKSOA has obtained a lease from BLNR for a permanent facility in Hilo and is actively seeking funding for planning and engineering consultant support as the building requires significant renovation. CMS also provides MKSOA use of our four-wheel drive fleet when they need to access to the Mauna.

In FY24, MKSOA completed recruitment and hiring of their core management team. UH, through the CMS, has provided their new team with comprehensive reviews covering all UH plans, policies, leases, finances, operations, and other matters for which MKSOA assumes responsibility in July 2028. The purpose of these reviews was to educate the MKSOA management team on the basic management functions they will assume responsibility for, so they have a basis for developing their management plans, policies, administrative rules, and programs. Before their hiring, CMS provided similar reviews for the MKSOA Board.

To facilitate and ensure open and ongoing communications with the MKSOA in support of our joint management relationship, CMS proposed and initiated the creation of a joint management committee (JMC) comprised of the senior MKSOA and CMS management teams. The JMC meets bi-weekly to

discuss and decide on a variety of strategic and operational matters. In addition, the CMS Executive Director meets weekly with the MKSOA Executive Director and provides regular operational updates to the MKSOA board at their monthly board meetings. This is intended to keep the MKSOA board and management apprised of current issues and general matters UH is addressing on a day-to-day basis which are likely to recur when MKSOA assumes management responsibility in July 2028.

In FY24, CMS compiled a comprehensive inventory of all assets and liabilities to be transferred from UH to the MKSOA under Section 9 of Act 255. A substantial portion of these items was identified and listed in a letter from CMS to the BLNR chair and MKSOA chair on August 1, 2023. This letter is posted by the DLNR Office of Conservation and Coastal Lands on its Maunakea Management website, at <https://dlnr.hawaii.gov/occl/maunakea-management/>.

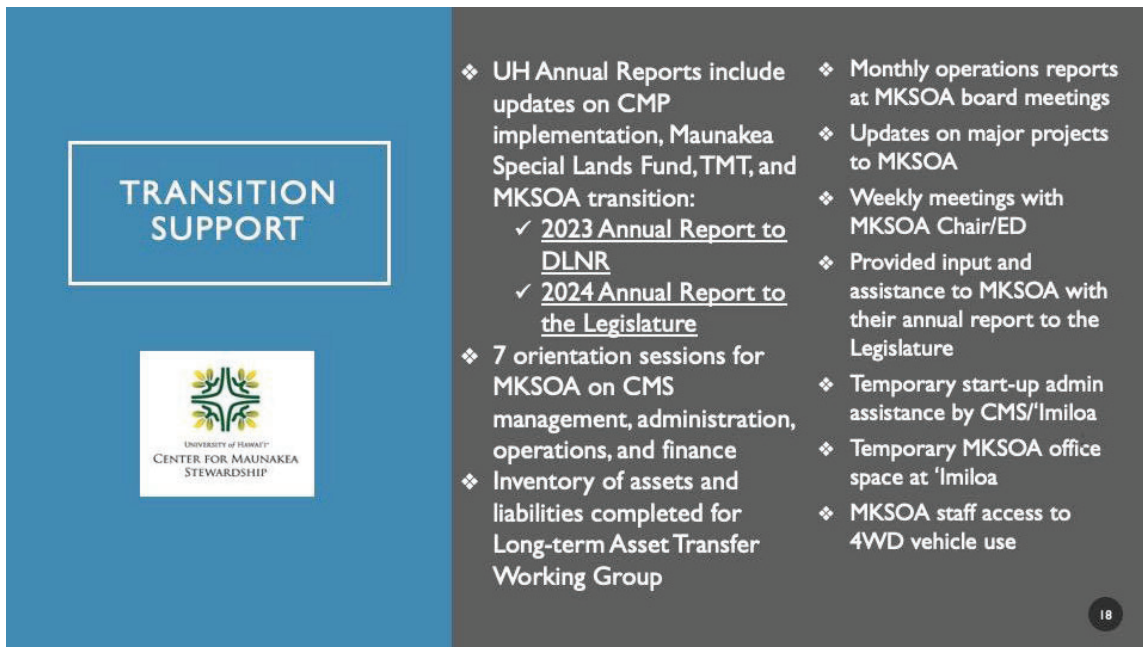


Figure 10. Brief Overview of CMS Transition Support

In FY24, MKSOA established the Long-term Asset Transfer Working Group (TWG), whose purpose is to develop a plan for the transfer of assets and liabilities. Members of the TWG include CMS, UH BOR, DLNR, MKSOA management, MKSOA consultants, and our respective legal counsel. MKSOA Board member (and BOR representative) Ben Kudo serves as the TWG Chair and is joined by fellow board member Paul Horner. The work of the TWG was delayed until MKSOA hired their attorney consultant, which they finalized in November 2024.

Finally, in support of MKSOA’s requirements to develop a management plan per Act 255, and to support the transition in general, CMS developed a draft transition plan that was provided to the MKSOA management team in June 2024. That plan identified the categories of work and major tasks required in developing their management plan, as well as the larger tasks required to effectuate the transition. The draft plan did not identify a timeline for the work, as MKSOA staff was still in the process of hiring their planning consultant who will be engaged to establish their own plan. It is unclear as to the extent to which CMS’s recommendations will be considered. In October 2024, MKSOA issued an RFP for a planning consultant and is still in the procurement process at the time of this writing.