



MEMORANDUM

January 8, 2025

TO: Mauna Kea Stewardship and Oversight Authority

FROM: Greg Chun, Executive Director, CMS

SUBJECT: Request for Approval of "Notice of Intent" to Decommission the United Kingdom Infrared Telescope (UKIRT)

- Notice rec'd: 11/07/2025
- Type A / B / **C**
- EC review: 12/11/2025
- KKM review: 12/4/2025
- MKMB review: 1/6//2026
- MKSOA review: 1/8/2026

I. Project Description

The United Kingdom Infrared Telescope (UKIRT) requests approval of their Notice of Intent (NOI) to decommission their telescope. UKIRT submitted their NOI to decommission on November 7, 2025. UKIRT began operating in 1979 and will cease operations in approximately two years. Pursuant to the 2022 Comprehensive Management Plan¹ (CMP) and the 2010 Decommissioning Plan for the Mauna Kea Observatories² (DP), the purpose of the NOI is to notify UH of an observatory's intention to: 1) propose whether their site will be removed; 2) continue use of the observatory by a third party, or 3) retrofit the facility for a different use. The NOI should contain the following:

1. Intentions for site restoration
2. Site description summarizing of the overall condition and land use, including a description of all structures, equipment and other appurtenances
3. Site plan(s) drawn to scale showing all existing structures, above and below grade
4. Available historical information on the development, operation, and use of the site
5. A description of the pre-construction condition of the site based on available information.
6. Site restoration will be based on pre-construction, topographic condition prior to construction of the observatory

As identified in the DP, the decommissioning process involves the preparation of a Site Decommissioning Plan (SDP). The SDP is composed of four major steps: (1) a Notice of Intent, (2) an environmental due diligence review, (3) a Site Deconstruction and Removal Plan and, (4) a Site Restoration Plan. The Maunakea Management Board (MKMB) is required to review and approve each step, in co-management with the Mauna Kea Stewardship and Oversight Authority (MKSOA). Facility decommissioning is anticipated to require an Environmental Assessment and Conservation District Use Permit.

¹ https://hilo.hawaii.edu/maunakea/stewardship/documents/management/comprehensive-plan/2022-07-23FinalCMPsupplement_Vol1.pdf

² https://hilo.hawaii.edu/maunakea/stewardship/documents/management/comprehensive-plan/CMP_DecommissioningPlan_2010.pdf



II. Proposed Activities

UKIRT intends to completely remove the UKIRT facilities (as opposed to transferring the site to a third party or retrofit the facility for a different use), including all associated structures and above- and below-ground infrastructure. A Site Restoration Plan will then guide the remaining site restoration.

The UKIRT NOI contained a site description including a scaled site layout, grading plan and foundation drawing. UKIRT recognizes their proposed actions may undergo modification to address concerns raised during the decommissioning review process.

III. Compliance with the Maunakea Comprehensive Management Plan

The project is consistent with the Comprehensive Management Plan (CMP) 2022 Supplement Chapter 11, Ongoing Site Recycling, Decommissioning, Demolition, and Restoration Management Actions, and the University's lease for the Science Reserve. The proposed NOI is an appropriate management activity in fulfillment of permitting requirements; complies with the objectives of the Resource subzone; complies with HRS 205A "Coastal Zone Management"; will not cause substantial adverse impacts to existing resources; is appropriate to the parcel; may be considered to improve the physical aspects in the project area; and will not increase the intensity of land uses in the Conservation District nor be materially detrimental to public health, safety and welfare. Further, CMS' review of project requests like this complies with the following CMP Actions:

- SR-1: Require astronomy facilities to develop plans for reuse or removal in accordance with the *Decommissioning Plan for the Mauna Kea Observatories*
- SR-2: Require astronomy facilities to develop plans for site restoration in accordance with the *Decommissioning Plan for the Mauna Kea Observatories*

V. General Lease S-4191 Compliance

The proposed land use occurs within the Science Reserve parcel and is subject to the terms of the General Lease S-4191 between the Board of Land and Natural Resources and University of Hawaii. Lease Covenant #6, "Improvements," specifically addresses demolishing and/or leaving-in-place of structures:

"The Lessee shall have the right during the existence of this lease to construct and erect buildings, structures and other improvements upon the demised premises; provided, that plans for construction and plot plans of improvements shall be submitted to the Chairman of the Board of Land and Natural Resources for review and approval prior to the commencement of construction. The improvements shall be and remain the property of the Lessee, and shall be removed or disposed of by the Lessee at the expiration or sooner termination of this lease; provided, that with the approval of the Chairman such improvements may be abandoned in place..."



University of Hawai'i at Hilo
**CENTER FOR
MAUNAKEA
STEWARDSHIP**

200 W. Kawili Street
Hilo, HI 96720
cmshilo@hawaii.edu
(808) 933-0734



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In accordance with S-4191, UKIRT seeks facility removal prior to either the termination of the General Lease S-4191 and UKIRT's sublease.

V. Reviews

In compliance with the DP, NOI consultation took place with Kahu Kū Mauna Council on December 4, 2025 and the Maunakea Environment Committee on December 11, 2025. There were no objections from either committee and both agreed with CMS' recommendation to accept the NOI.

VI. Center for Maunakea Stewardship Recommendation

CMS recommends approval of UKIRT's NOI. UKIRT has fulfilled the content requirements of the NOI, including review of existing historical documents. Pending full approval of the NOI, CMS will work with UH to conduct the Environmental Due Diligence review, the next step in the Site Decommissioning Plan. The due diligence review will then be submitted to MKMB for approval and a Decommissioning Advisory Committee will be established to advise on preparing a Site Deconstruction and Removal Plan and Site Restoration Plan.



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November 7, 2025

Center for Maunakea Stewardship
Attn: Greg Chun, Executive Director
640 N. A'ohōkū Place, Room 203
Hilo, Hawai'i 96720

State of Hawaii
Department of Land and Natural Resources
Office of Conservation and Coastal Lands
Attn: Michael Cain, Administrator
Kalanimoku Building
1151 Punchbowl St., Room 131
Honolulu, HI 96813

Re: Notice of Intent to Decommission UKIRT Observatory

Dear Dr. Chun and Mr. Cain:

The University of Hawai'i ("UH"), on behalf of its Institute for Astronomy, University of Hawai'i at Mānoa ("IfA") hereby submits this Notice of Intent (NOI) to Decommission the UKIRT Observatory ("UKIRT", formerly known as the United Kingdom Infrared Telescope), including the telescope and observatory structure, located in the Resource Subzone of the Conservation District at Mauna Kea, Hāmākua, Hawaii (Tax Map Key 4-4-15:09). This NOI is submitted in accordance with the Decommissioning Plan for the Mauna Kea Observatories (2010) (Decommissioning Plan), a sub-plan of the Mauna Kea Comprehensive Management Plan (2009) (CMP).

Intent to Remove. UH intends to deconstruct and remove the UKIRT telescope and observatory structure and restore the site. The deconstruction, removal, and restoration activities will be conducted pursuant to a Site Deconstruction and Removal Plan and a Site Restoration Plan, both of which will be developed and implemented in accordance with the Decommissioning Plan. This decommissioning is intended to permanently reduce the number of observatory facilities operating on Maunakea, as described in UH's 2022 Master Plan for the University of Hawai'i Maunakea Lands: E Ō I Nā Leo (Listen to the Voices) ("2022 Master Plan").¹ UH anticipates, however, that the site for any future new astronomy facility that might replace the adjacent UH 2.2m (88") Telescope could include a portion of the current UKIRT site

¹ In accordance with Act 255, Session Laws of Hawai'i 2022, UH's land management and stewardship responsibilities for Maunakea are in the process of transferring to the Mauna Kea Stewardship and Oversight Authority ("MKSOA"), which will assume full responsibility for planning and other land management responsibilities upon completion of a transition period.

along with a portion of the current UH 2.2m site (i.e. be centered somewhat southwest of the center of the current UH 2.2m site).

Site Description. The site is located along the east side of the 528-acre Astronomy Precinct within the ~11,288-acre Mauna Kea Science Reserve (“MKSR”), located at the summit of Mauna Kea on ceded lands. MKSR lands are leased to the University of Hawaii (GL S-4191), and approximately 40.5 acres are currently used for the 11 current observatories and associated infrastructure. The observatories include eight optical/infrared telescopes, a single-dish millimeter/submillimeter-wavelength telescope, a submillimeter array, and a single dish radio telescope. All of the observatories are being actively used for astronomical research. Two other astronomy facilities, the Caltech Submillimeter Array and UH Hilo Hōkū Ke‘a telescope, have been decommissioned and removed, and their sites restored, over the past several years.

UKIRT is a 3.8m (150”) telescope optimized for conducting astronomical research at infrared wavelengths. It was originally developed and operated by the science agency of the United Kingdom. Construction began in 1975 and was completed in 1978, and full science operations began in 1979. For approximately the past two decades, the largest portion of UKIRT’s science effort has been directed toward a series of wide-field infrared sky surveys using the UKIRT Wide Field Camera (“WFCAM”). These surveys are of great value to the worldwide astronomical community and have been extensively cited.

UKIRT was constructed by the science funding agency of the United Kingdom² pursuant to Conservation District Use Permit (CDUP) HA-653A approved by the Board of Land and Natural Resources (BLNR) on August 7, 1975, and subsequently amended to allow for construction of the addition on October 8, 1982. An Environmental Impact Statement for construction of UKIRT was accepted by the Office of Environmental Quality Control on August 4, 1975, and an Environmental Assessment for the addition was accepted on September 8, 1982. The observatory structure was completed in 1977 and became operational in 1979. An approximately 1680 square foot addition to the structure was built c.1983 to provide additional work space, initially for computer and electronic equipment and laboratory space.

UKIRT is located near the south end of the summit ridge that accommodates (from north to south) the Canada-France-Hawaii telescope, Gemini North, the UH 2.24-m telescope, and UKIRT. Immediately southwest of UKIRT’s site is a fork in the summit loop portion of the Maunakea Access road, where a spur to the summit ridge facilities separates from a loop proceeding northeast toward the NASA Infrared Telescope, Keck Observatory, and Subaru Telescope. Utility lines (power, fiber optics data communication, telephone) run to the observatory building from the UH 2.2-m telescope building in buried conduit. Water for building use is provided by a storage tank, which is filled periodically from a tank truck. Wastewater disposal is via a septic tank and leachfield. Because the observatory structure was originally constructed almost 50 years ago as one of the first astronomy sites on Mauna Kea, limited information is available regarding pre-construction conditions. Excerpts from the drawings for the original observatory construction and subsequent addition are attached for reference.

² Known as the Science Research Council at the time of construction and as the Science and Technology Facilities Council at the time the UK ceased operations in Hawai‘i.

The UK wound up its sponsorship and operation of UKIRT in 2014. The Sublease Agreement (“Sublease”) and a separate Agreement Between: The Science Research Council and the University of Hawaii Concerning the Construction and Operation of a 3.8-Meter Telescope on Mauna Kea (“OSDA”) were terminated by mutual agreement effective October 31, 2014, and ownership of the observatory facilities reverted to UH. Responsibility for decommissioning accordingly now rests with UH.

Next Steps. In accordance with the Decommissioning Plan, UH intends to retain contractors to plan and coordinate the decommissioning process, in close collaboration with IfA and CMS. The process will begin with an environmental due diligence review, commencing with a Phase I environmental site assessment. The Phase I and any required Phase II or Remedial Action Plan will be submitted to CMS and OCCL for approval as required by the Decommissioning Plan.

Following completion of the environmental due diligence, UH will proceed with preparation of the Site Deconstruction and Removal Plan and Site Restoration Plan. UH anticipates that these plans will result in the total removal of the UKIRT facilities, including all associated structures and on-site infrastructure³ (above and below ground) to the extent achievable under normal engineering deconstruction protocols. The details of site restoration will be determined as part of the development of the Site Restoration Plan, and are anticipated to be similar to the site restoration conducted as part of the decommissioning of the nearby Hōkū Ke‘a Observatory.

Thank you in advance for your assistance and cooperation in this matter. We look forward to working with you.

Mahalo,



Douglas Simons
Director

³ Shared infrastructure supporting other Maunakea observatories is also present on the UKIRT site. Such shared infrastructure will remain in service.





