



UNIVERSITY of HAWAI'I*at HILO
CENTER FOR MAUNAKEA
STEWARDSHIP

MEMORANDUM

January 8, 2026

TO: Kahu Kū Mauna Council

FROM: Gregory Chun
Executive Director, Center for Maunakea Stewardship

SUBJECT: Three-Year Outlook Consultation, 2026-2028

Background

The Maunakea Comprehensive Management Plan (2022) identifies Management Action “IM-1: Implement the Operations, Monitoring, and Maintenance Plan (OMMP)”. The OMMP¹ was approved by the Maunakea Management Board at their February 14, 2017 meeting. As part of the OMMP implementation process, observatories and CMS Shared Services, collectively referred hereinafter as observatories, annually provide a multi-year outlook describing in general all activities that alter or modify the exterior of a facility, interior projects with exterior impacts, the outdoor storage of materials for more than 30 days, or use of heavy equipment that may occur. The outlooks are used to identify and coordinate maintenance needs, strategies, protocols and procedures. The goal is to minimize impacts to resources and ensure that permittees comply with their Conservation District Use Permits (CDUP), subleases, and State of Hawai‘i regulations including Conservation District Rules. Also requested are copies of any management plans that may be required by the Department of Land and Natural Resources and “as-built” facility construction plans. For observatories that have ceased astronomy operations and stated their intent to decommission (e.g., UKIRT NOI 2025), their decommissioning documents replace their outlook submittals.

Consultation Requested

As in previous years, CMS recommends the Kahu Kū Mauna Council (KKM) employ the following review and consultation process. CMS staff provide a recommended designation for each proposed action, subject to review by KKM.

¹ OMMP available online at [Maunakea_OMMP_2017-02-14.pdf \(hawaii.edu\)](https://www.hawaii.edu/maunakea/OMMP_2017-02-14.pdf)

- 1) Minimal Impact or Routine activities: If a project proposal is consistent with KKM minimal impact or routine designation principals, the project may be passed to the Maunakea Management Board without further Council involvement. These are generally lease-compliance actions of Maunakea observatories, including augmenting remote environmental monitoring, like-to-like replacement, instrument maintenance and repair, activities required by the sublease, etc.
- 2) In-Depth Consultation activities: Have potential long-term implications for Maunakea. These typically involve ground disturbance, new infrastructure footprint, potential for public concern, etc., which warrant separate, in-depth Council consultation.
- 3) Incomplete: The Observatory submission is incomplete. In these instances, CMS staff would work with the respective Observatory to complete the Three-Year Outlook. The Outlook would not be returned for a second consultation unless requested, although individual projects will be brought before the Council if submitted for approval.

Nothing in these documents alters or amends Maunakea Management Board approval processes, Maunakea Comprehensive Management Plan (2022) requirements, or State permitting and approval processes. CMS will continue to report project status (both minimal impact and in-depth consultation projects) at Council meetings.

Listing of observatories' Three-Year Outlooks for the period 2026– 2028 (*No new projects for JCMT, UH-88, or UKIRT):

1. CFHT: Canada-France-Hawaii Telescope
2. CMS Shared Services
3. Gemini: Gemini North/NOIRLab
4. IRTF: NASA Infrared Telescope
5. SMA: Smithsonian Submillimeter Array
6. Subaru
7. Keck: W.M. Keck Observatory
8. VLBA

Est Start Date	OBS	Categories	Project Name	Description	Ground disturbance?	CMS Recommendation
TBD	CMS	Env Monitor	Giambelluca weather stations	Install weather stations at various elevations on the Maunakea lands and 16 sq ft precip collector in summit area	Yes	Permitting [Dept permit?]; (P-1) Data Collection; C-1 basic data collection... that involves a land use causing ground disturbance from installation of equipment (e.g., meteorological towers)...
6/1/2026; 2 months	CFHT	Facility Mtn	MK Atmospheric Tower Concrete Resurfacing	Resurface concrete pad as needed by adding layer of concrete to west corner (work also involves repainting - no permit needed).	No	Minimal; concurrence
2/2/2028; 2 months	CFHT	Env Monitor	MKAM instrument inside the dome will be replaced	Need to replace the outdoor crates housing electronics. These crates are mounted on the concrete pad.	No	Minimal; concurrence
Summer 2026; one week	Gemini	Facility Mtn	Roof repair	Roof between Gemini's support building and dome has been damaged by falling ice over the years and now has significant leaks. GNO to fix roof while maintaining visual appearance.	No	Minimal; concurrence
Pending soil analysis	IRTF	Facility Mtn	Erosion mitigation	Implement erosion-mitigation based on soil analysis	Yes	TBD
Summer 2026; 1 month	IRTF	Facility Mtn	Roof repair and painting; other exterior painting *May need scaffolding 30+ days	Roof repairs needed to stop water leaks/intrusion into the building. Also need to repaint the building as paint is peeling; Site Plan Approval may be needed if scaffolding in place for 30+ days	No	TBD
Summer 2025; 2 weeks	IRTF	Facility Mtn	Driveway repair	Driveway cracks present a trip hazard and need to be repaired; assessing possible work with CMS Utilities	TBD	TBD
2026; 30 months	Keck	Facility Mtn	Facility cleanup	Work is all indoors but may require 30+ day staging of 20' storage container outside	No	Site Plan Approval
2026; 6 months	Keck	Reno & Infrs	Keck II crane	Add a crane similar to the one on a vent platform near top of Keck I. Crane would support maintenance of Keck II dome/shutters. Visual profile similar to weather mast.	No	Minimal; concurrence
2027; year+	Keck	Upgrades	Diesel UST replacement	Replace existing UST with smaller, aboveground tank for diesel generator	Not to exceed already-disturbed substrate	In-depth; concurrence similar to CFHT UST
Spring 2026; 1 month	SMA	Env Monitor	Upgrade weather monitoring system	Replace/remove existing weather unit on the hangar roof with updated instruments. Four other units will be installed pending setup of the first one.	No	Minimal; concurrence
5/1/2026; 2 months	SMA	Reno & Infrs	Utility trench repair (Hone storm damage)	Trenching, backfill, grading	Yes	In-depth; permit SPA or higher
Spring 2026; 3 months	Subaru	Env Monitor	GPS antenna installation	Install small GPS antenna on dome enclosure for the High Dispersion Spectrograph, to assist with observing	No	Minimal; concurrence

Est Start Date	OBS	Categories	Project Name	Description	Ground disturbance?	CMS Recommendation
Pending funding; 2-4 weeks	VLBA	Reno & Infrs	Replace existing generator and tank on existing pads	Existing generator and tank to be replaced by somewhat larger units on the existing pad. New generator will sit on the new tank. Old generator and tank may be temporarily stored on site until all work is complete, then will be removed offsite.	No	Minimal; concurrence
Pending funding; 2-4 weeks	VLBA	Env Monitor	Upgrade security camera system	Replace existing camera with newer model. Request to add 2nd new camera to outer wall of building	No	Site Plan Approval