



MEMORANDUM

March 13, 2025

TO: Mauna Kea Stewardship and Oversight Authority

FROM: Greg Chun, Executive Director, CMS

SUBJECT: Informational: Request for OCCL Concurrence, Visitor Information Station Warehouse Power

- Proposal rec'd: 1/30/2025
- Type **A** / B / C
- CMS MIP #355
- ED review: 1/31/2025
- EC: 2/13/2025
- KKM: 2/13/2015
- MKMB: 3/4/2025

I. Project Description

CMS requests to restore electrical power to the Visitor Information Station (VIS) Warehouse via a conduit trench between existing electrical infrastructure and the Warehouse. The warehouse building was originally approved and powered under Conservation District Use Permit (CDUP) HA 1819, until the VIS Ingress Egress project (CDUP HA 3812) removed the electrical cables to make way for paving the new parking lot. CMS does not have a record why cables were not re-installed. Staff have since relied on a portable solar battery pack which only allows for some lighting and is inadequate for work needs. Restoring Warehouse power will enable staff to work efficiently and safely with improved interior lighting and indoor security cameras. As a result of this project, staff will also enjoy enhanced WiFi access with an antenna mounted to or under an existing eave.

The approximately 75' long conduit trench would occur on land previously disturbed in the creation of the VIS paved parking lot and also continuously used since the 1920s, with the first built improvements for hunting and recreational use by the Civilian Conservation Corp. Staff will rewire the Warehouse using an existing electrical panel, pullbox and breaker box.

The project presumes the following land use under HAR §13-5-22, P-8, Structures and Land Uses, Existing, (A-1) *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...* CMS finds the request to be part of normal operation of an existing, permitted structure and involves cosmetic work with negligible impact to any natural or cultural resources.



The project involves no heavy machinery and the following exemptions are also considered to apply:

- HAR §11-200.1-15 (c)(1) *Operations, repairs, or maintenance of existing structures, facilities, equipment, or topographical features, involving minor expansion or minor change of use beyond that previously existing; and*
- HAR §11-200-8(a), Exemption Class #1, *Operation, repair or maintenance of existing structures, facilities, equipment or topographical features, involving negligible or no expansion or change of use beyond that previously existing.* (1) Operation, repair or maintenance of: (b) Workshops and warehouses.

The proposal has been presented to the Maunakea committees including the Environment Committee, Kahu Kū Mauna Council (KKM) and Maunakea Management Board (MKMB), which have expressed no concerns. Following presentation to the Mauna Kea Stewardship and Oversight Authority (MKSOA), CMS will submit a concurrence request to the Office of Conservation and Coastal Lands (OCCL).

II. Historical and Cultural Resources Identified

The project site is within the Mauna a Wākea Traditional Cultural Property, designated in 2023. The nearest identified historic properties include:

- State Inventory of Historic Places Site #50-10-23-16244, the Pu'u Kalepeamoia Site¹, a multifunctional site complex that crosses the UH-managed lands and Mauna Kea Forest Reserve to the west. This site consists of two shrines, #50-10-23-10313 and #50-10-23-10315 which may have been used as part of a ritual for manufacturing octopus sinkers, and numerous lithic scatters². All sites are at least 200 feet from the proposed conduit trench.
- An ahu-lele within the DLNR-managed silversword enclosure, at a slight elevation from and over 400 feet northeast of the project site.

III. Impacts Identified

The project occurs within previously-disturbed land continuously used since at least the 1920s. CMS does not anticipate any impact on cultural resources including any

¹ McCoy, Patrick C. et al. 2009. A Cultural Resources Management Plan for the University of Hawaii Management Areas on Mauna Kea, Ka'ohē Ahupua'u, Hāmākua District, Hawai'i Island, State of Hawaii. TMK: (3)4-4-015:09, 12. A Sub-Plan for the Mauna Kea Comprehensive Management Plan, Appendix C, "List of Historic Properties Located in the Hale Pohaku Area."

² Sustainable Resources Group International, Inc. 2017. Final Environmental Assessment: Infrastructure Improvements at Maunakea Visitor Information Station, TMK: (3)4-4-015:12, District of Hāmākua, Island of Hawai'i, State of Hawaii. pg. 41



viewplanes, nor impacts to any historical, hydrological, geological, or recreational resources. The relocation and pruning of the three māmane saplings, performed in accordance with prior US Fish and Wildlife Service guidance, may have negligible impact that are minimized with successful relocation and careful pruning of the subject plants. The project will not extend or enlarge the Warehouse footprint and does not change the permitted use of the facility, but will help to maintain the function of the midlevel facilities by enabling greater worker efficiency.

IV. Recommended Mitigation

CMS recommends Best Management Practices and other project conditions be adhered to in carrying out this work. The project will not proceed unless and until the Office of Conservation and Coastal Lands (OCCL) issues a determination of concurrence. CMS will comply with any and all concurrence guidelines issued by OCCL.

V. Center for Maunakea Stewardship (CMS) Recommendation

CMS recommends the project proceed to seek OCCL concurrence with the following recommended conditions of approval:

- Best Management Practices will be employed.
- The work area will be clearly delineated to warn the public of any hazards during project activity.
- All project participants must attend a Maunakea Orientation prior to work.
- Allow Maunakea Rangers to visit and monitor activities.
- Ensure that loose tools or equipment are not left unattended and are properly stored at the end of each day.
- In preparation for high winds, protocols must include measures to ensure debris and equipment are not blown from the job site.
- All improvements shall be designed and installed to withstand severe weather conditions.
- Proper removal and disposal of all waste material. All perishable items including food, food wrappers and containers, etc. shall be removed from the site at the end of each day and properly disposed.
- Employ invasive species prevention best practices, including inspections of materials by a DLNR-approved biologist, as identified in the *Maunakea Invasive Species Management Plan* prior to entering UH managed lands. Inspections shall not occur on UH managed lands on Maunakea, at State or County parks, along public roadsides, or on Department of Hawaiian Home Lands.



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- Nēnē (*Branta sandvicensis*) may be present. If a nēnē appears within 100 feet (30.5 meters) of ongoing work, all activity shall be temporarily suspended until the animal leaves the area of its own accord. Feeding of nēnē is prohibited.
- The project approval/permit may not be transferred or assigned without prior approval.
- No use of mechanized equipment except as provided for in DLNR concurrence or approval.
- Identify and comply with other permit requirements, such as County of Hawaii building permits or Department of Land & Natural Resources (see both any applicable DLNR permit and HAR §13-5-42 Standard conditions).
- The project must be completed within the time frame specified in the proposal and (when applicable) as provided for in DLNR concurrence or approval.

Facility Project Proposal for the UH-Managed Lands

for projects anticipated to be classified as having “Minimal Impact”

Proposals due by the 15th monthly

Please mark all that apply to your project

- Project was reviewed in a 3-Year Plan (CMS Shared Services 2025-2027 3YP)
- Project is a CMP, lease, or sublease compliance measure (e.g., keeps the site in safe working order)
- Project involves heavy machinery
- Project requires ground disturbance such as digging or trenching
- Project will result in a change to the facility footprint

Facility Name

Center for Maunakea Stewardship (CMS) Shared Services

Brief Descriptive Title of Project

CMS Visitor Information Station (VIS) Warehouse power

Project Description

Project will restore electricity to the CMS Shared Services' VIS warehouse (“Warehouse”) to enable staff to work efficiently, safely, and improve inventory management

Proposed Commencement Date

April 2025, or as soon as approved

Proposed Completion Date

Within two weeks of commencement

Estimated Project Cost

\$5,000 total, including parts and labor

Total size / area of proposed use

Surface area = 75 ft (900”) L x 10” wide is 9,000 in² or 62.5 ft²

Project Purpose and Need

The VIS Warehouse longbuilding, aka “Warehouse,” serves as storage for all VIS inventory, miscellaneous support equipment, and satellite office space. The Warehouse is also the primary location for staff to process inventory. However, electricity to the building was cut off during the VIS Ingress Egress project which paved over the conduits then in use for the Warehouse. In the interim, staff have relied on a portable solar battery pack that they position outdoors as needed. This energy source has been found to be an inadequate and inconvenient source of power. This project will supplement or replace the solar power with permanent power that will run additional lighting, WiFi, computers, and a security system. This addresses requirements of the General Lease S-5529 for the midlevel facilities (to maintain the site in good working order). The project also addresses 2022 Comprehensive Management Plan Supplement Actions, including Infrastructure and Maintenance actions listed below:

- IM-4, Ensure that maintenance personnel, equipment, and vehicles comply with the Maunakea Invasive Species Management Plan;
- IM-9, Assess improvements to parking facilities consistent with the 2022 Master Plan – Installation of security cameras may assist to inform future parking improvements and public safety
- IM-11, Encourage existing facilities and new development to incorporate sustainable and energy-efficient technologies, whenever possible – Project will consider sustainable and energy-efficient technologies in obtaining new lighting and security cameras as part of the project.

Has professional peer-review occurred

N/A

Are there any related ongoing, pending, or planned projects associated with this submission?

No.

Description of the Project

Location

The project area is the VIS paved parking lot and Warehouse, located in the lower portion of the Halepohaku Mid-Level Facilities. Relevant Conservation District Use Permits include HA 1430, HA 1819 and HA 3812. See Figure A for a split-view of the project area: On left, a pre-CDUP 3812 image shows the previous power lines. On right, an image of the completed parking lot. Figure B provides a closer, focused view of the Warehouse project area.

Background

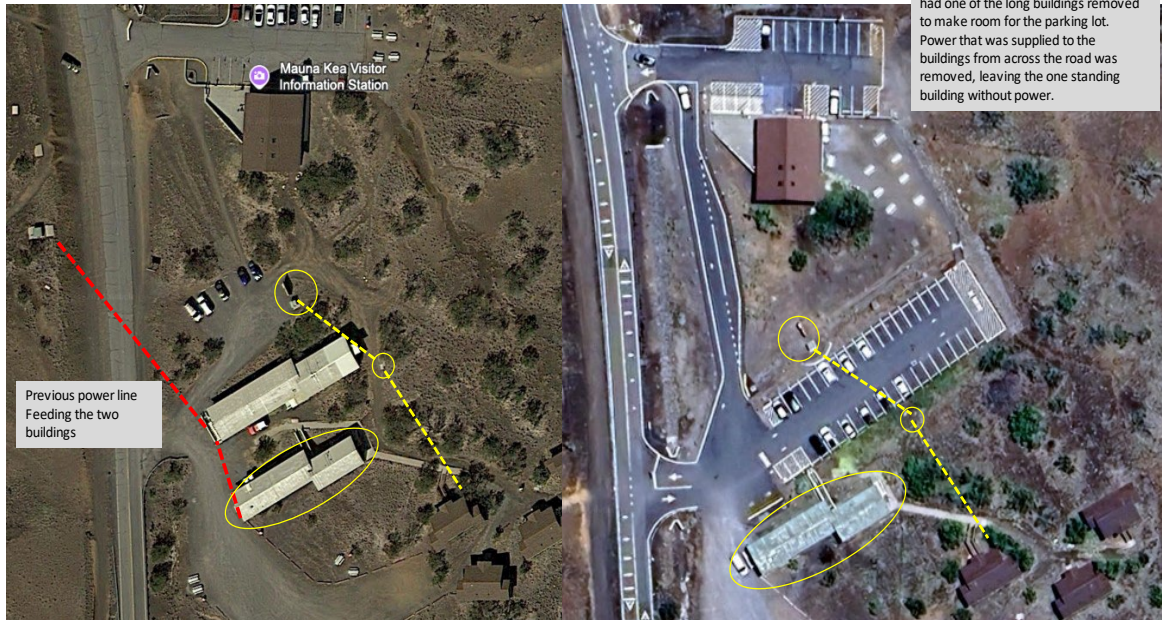


Figure A: General project area with a split-view of (left) pre- and (right) post-VIS parking lot construction



Figure B: Closer view of project area and identified locations.

Overview of Project Site

1. Visitor Information Station (VIS)
2. VIS Warehouse
3. Electrical Panel
4. Electrical pull box
5. Existing conduit (underground)
6. Proposed new conduit (trenching)

Two small mamane trees located next to the electrical panel (3) will have to be transplanted and a larger one will have to be pruned. See details below.



Work to restore electricity to the VIS warehouse will require:

1. Run wires from the existing electrical panel (A) through the existing underground conduits (C) to the electrical pull box (B).
2. Trench (D) approximately 75 ft of 10" wide x 6" -8" deep from pull box (B) to warehouse building.
3. Run wire under the building into existing breaker box inside building to restore power.

Note: This building used to have power but was removed when the VIS ingress/egress parking lot improvement was done. Building already has all electrical wiring, breakers and hardware that meet code from before.

Justification:

Building is used to store all of VIS inventory, without power we do not have security systems for the building. Lights are currently powered by a battery pack . Internet, wifi and computers are needed to better manage inventory.
 Estimated cost: \$2,500 labor, \$2,500 parts.

Figure C: Aerial view of VIS paved parking lot and Warehouse, with inset description of proposed work.

Description of the process of completing the project

The project will involve the following general steps:

- A. Laying wire between existing electrical panel and existing electrical pullbox via existing underground conduit.
- B. Workers will hand-dig from pullbox to the Warehouse to create a conduit trench approximately 75 feet long x 10" wide x 6-8" deep. Trenching to occur across previously disturbed soil/cinder between southern edge of the VIS paved parking lot and the Warehouse.
- C. Run wire under the Warehouse and into existing breaker box within the building.

The project will also affect three young māmane (*Sophora chrysophylla*) plants (see Figures D thru F, below) which are growing in close proximity to the electrical panel. If these continue grow, they will block access to the panel's breaker box and cabinet door. As part of this proposed project, staff will attempt to remove and relocate the two smaller māmane seedlings. Pruning is needed for the third māmane, the crown of which is approximately seven feet in height. Pruning will be performed in accordance with previous guidance from the US Fish and Wildlife Service (USFWS), which has advised against any cutting of trees taller than 15 feet during the birthing/pupping season of the Hawaiian Hoary Bat (*Lasiurus cinereus semotus*) or 'ōpe'ape'a between June and November ¹. USFWS has also advised, "...we recommend avoiding the removal or cutting of mature māmane trees whenever possible especially if there is only one

¹ Planning Solutions. December 2021. Final Environmental Assessment & Finding of No Significant Impact, Caltech Submillimeter Observatory Decommissioning. Chapter 7, "Consultation and Distribution": pg 7-15.

in the construction area and no disturbance to any māmane². CMS notes there are numerous māmane in the vicinity, resulting from both intentional outplanting and natural growth, and that these saplings took root naturally. The saplings are estimated to be at least three years old, with no record of seed produced. Removal of these three saplings also reduces the risk of accidental fire, should the electrical panel accidentally ignite. The pruning/removal of these māmane will be added to the records CMS maintains for this purpose.



Figures D and E, showing māmane near the rear breaker box of the electrical panel. CMS will attempt to relocate the smaller māmane directly in front of the breaker box and will prune the larger māmane.

²USFWS. (December 1, 2023). "Comments on the Draft Environmental Assessment for the University of Hawai'i at Hilo New Educational Telescope Facility, Mauna Kea, Hawai'i" [correspondence].



Figure F, A second, small māmane growing on the other side of the electrical panel in Figs. D-E, in front of the electrical cabinet door.

Standard Best Practices will be used during all portions of the work and follow electrical work guidelines. Staff will work carefully to avoid soil erosion and any damage to native plants in the project area. Staff will delineate the work area and orally inform passing visitors to avoid trenching. If the digging and setting of the new conduit cannot be completed in one day, safety barricades and signing will be setup to provide safety warnings to visitors.

Who will do the work?

Work will be completed by CMS staff and an electrical contractor.

Equipment & Transportation

No wide and/or oversized vehicles or heavy machinery involved, only the normal passenger vehicles and hand-tools. The project also does not involve any large equipment such as dumpsters or CONEX units.

Measures to protect the environment and/or mitigate impacts

Impacts

The route tentatively established may remove invasive plants including fireweed. The closest cultural resource may be the ahu lele in the silversword enclosure, over 400 feet northeast of the project site. This cultural resource will not be impacted in any way by project activity or the long-term requested use. The project anticipates no impacts to any historical, cultural, recreational, or scientific resources in the midlevel area, including no impacts to cultural viewplanes. The project will have a negligible impact on natural resources, namely, the three māmane previously described.

Compliance with Lease, Sublease, or Comprehensive Management Plan (CMP)

N/A

Identify other required or associated permits

CMS staff do not identify any other required permitting.

Community Benefits

Benefits to other Maunakea entities and/or global astronomy community

Minor benefit to Maunakea astronomy community in terms of future cost-savings due to improved inventory handling (improved worker safety, improved accuracy in inventory management, decreased labor to process inventory, potential to prevent future inventory losses, deterrent to future property damage).

Benefits to the Hawaii Island community

N/A

Will data, publications, or other products be free and available to the public?

N/A

For internal use only by CMS

Review checklist

Staff review and report

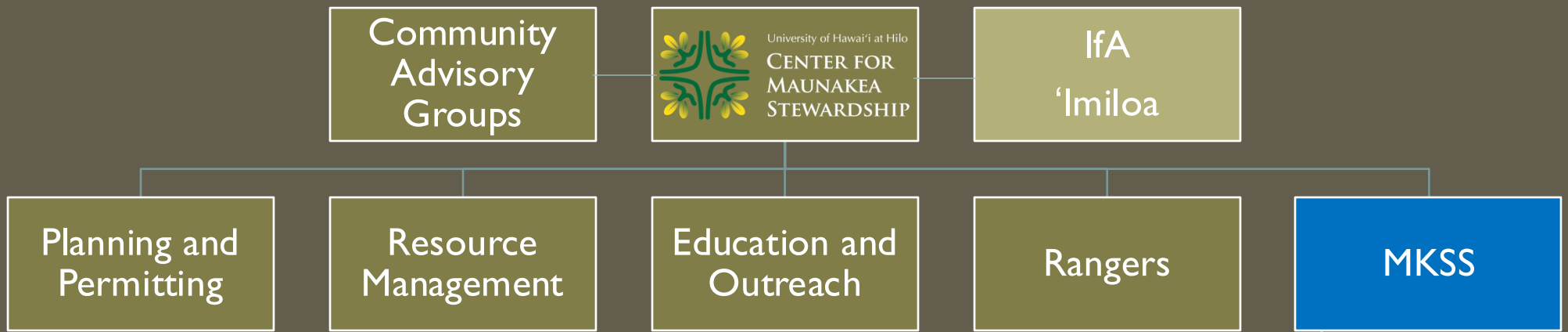
Outside agency review or approval required

Environment committee, if environmental impacts are anticipated

Kahu Ku Mauna, if cultural impacts are anticipated and KKM requested consultation, or the project was not included in a 5YP or 3YP

Maunakea Management Board

Mauna Kea Stewardship and Oversight Authority



CMS MISSION

“Sustainably steward Maunakea for the benefit of our communities, Hawai‘i, and the world, as a publicly-accessible learning landscape where all who visit learn, and those who seek something more discover through rich multi-cultural experiences and engaging multi-disciplinary discourse. Provide equal opportunities across the schools of the UH system and community partners to engage with the mauna in ways that perpetuate and advance knowledge, wisdom, and values while fostering mutual understanding and respect.”

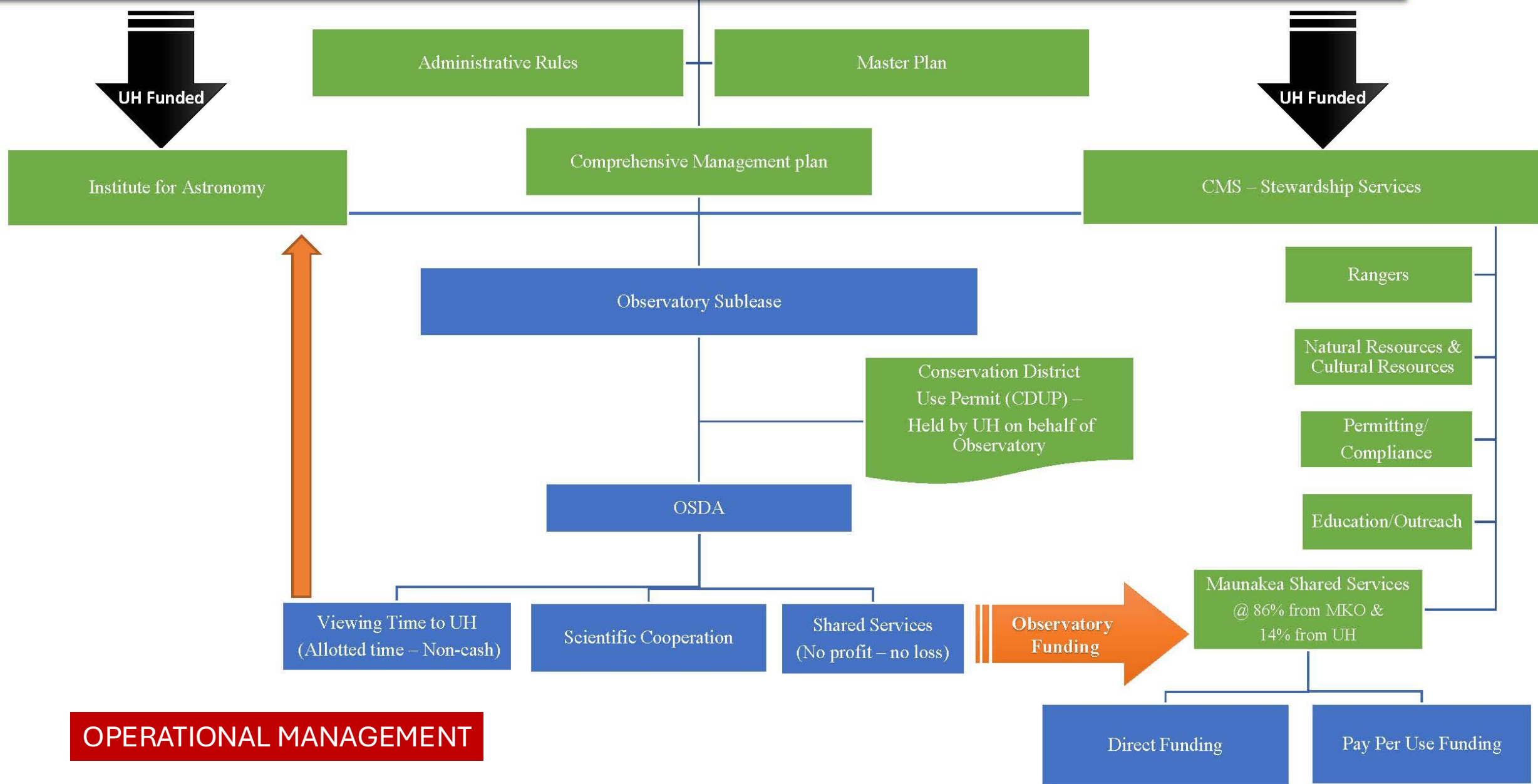
CMS is a research support organization with the unique responsibility of managing state lands for the public’s benefit that come with constitutional and regulatory protections.

Annual Budget:

- ✓ Stewardship ≈\$3M G-Funds/TFSF + RTRF + Special Funds (TIO Rent, CTO/Other fees)
- ✓ MKSS ≈\$5.5M User/Service fees (Cost + Admin) + VIS Sales



University of Hawaii - General Lease with DLNR



Center for Maunakea Stewardship - FY25 Forecast

	FY 25 Totals
Beginning Balance	1,668,854
Revenues	
RTRF	0
UHH Tuition Fes Special Funds	1,170,000
Tour Operator Revenues	238,558
TMT Rent	1,417,704
Permit Fees	0
Interest Income	30,000
Total	2,856,262
Internal Transfers	
From UH	-550,000
To RCUH	550,000
Total	0
Expenses	
RCUH Transfer	0
Ranger Program	1,715,315
Compensation and benefits	816,478
Other Payments to MKSS	280,903
Payments to OHA	322,582
PR Expenses	0
Research/Cultural/Planting Mgt	0
Equipment	60,000
Repairs and Maintenance	24,864
Supplies	24,433
Communication	29,509
Travel	3,176
Consultant	169,739
RCUH IDC	11,201
Other	82,539
Total	3,540,740
Revenues in excess (deficit) of exp.	-684,478
Ending Balance	984,376

This is UH Funding to be replaced by MKSOA funding sources

Maunakea Land Fund Stay with MKSOA

**MAUNAKEA SHARED SERVICES
APPROVED BUDGET
FISCAL YEAR 2024-2025**

Budgeted Revenues and Expenses for FY24/25

Revenues:	Food & Lodging	Visitor Station	Road/Snow	Facilities	Other Services	Weather	Administration	Total
Observatory Payments per Budget	\$ -	\$ 200,000	\$ 546,793	\$ 1,108,673	\$ 142,723	\$ 410,856		\$ 2,409,045
Observatory Payments per Use	843,690			96,515				940,205
Stewardship (CMS) Payments per Budget		-	61,920	1,590				63,510
Stewardship (CMS) Payments per Use	28,000			91,505			190,656	310,161
IfA Payments		43,750		43,750			-	87,500
FLBS Sales		1,910,000		-				1,910,000
Other	1,000		-	-	-	-	-	1,000
Total	872,690	2,153,750	608,713	1,342,033	142,723	410,856	190,656	5,721,421
Expenses:								
Compensation and benefits	688,500	925,000	6,600	639,750	-	345,000	684,000	3,288,850
Utilities	-	-	-	630,800	-	-	-	630,800
Repairs and maintenance	22,705	20,705	458,326	279,458	26,000	-	2,000	809,194
Overhead Charge	111,900	261,128	66,979	136,749	15,738	47,457	(475,224)	164,727
Cost of Goods Sold	445,200	783,100	-	-	-	-	-	1,228,300
Other	146,382	314,987	105,776	435,349	98,000	22,880	56,376	1,179,750
Internal Transfer	(411,066)			(872,555)				(1,283,621)
Total	1,003,621	2,304,920	637,681	1,249,551	139,738	415,337	267,152	6,018,000
Beginning Balance	305,246	288,521	29,761	255,219	1,150	4,481	127,509	1,011,887
Revenues	872,690	2,153,750	608,713	1,342,033	142,723	410,856	190,656	5,721,421
Expenses	1,003,621	2,304,920	637,681	1,249,551	139,738	415,337	267,152	6,018,000
Ending Balance	\$ 174,315	\$ 137,351	\$ 793	\$ 347,701	\$ 4,135	\$ -	\$ 51,013	\$ 715,308

* Facilities ending fund balance of \$347,701 includes \$309k for UST project fund balance, reserved specifically for the UST project.

**Maunakea Shared Services/Center for Maunakea Stewardship Financials
FY2025 Budget**

	<u>Separate Financial Statements</u>		<u>Adjustments*</u>	<u>Total Combined</u>
	<u>Stewardship</u>	<u>Shared Services</u>		
Revenues:				
UH Funding, Research Training and Revolving Funds (RTRF) and tuition special funds	\$ 1,170,000	-		\$ 1,170,000
Observatory payments (includes room & board)		3,349,250		3,349,250
Stewardship payments		373,671		373,671
IFA payments		87,500		87,500
FLBS (Gross)		1,910,000		1,910,000
Commercial Activity Fees	238,558	-		238,558
MKO Stewardship Fees (TMT Rent)	1,397,591	-		1,397,591
Other	30,000	1,000.00		31,000
Total	2,836,149	5,721,421	-	8,557,570
Expenses:				
Compensation and benefits	816,478	3,288,850		4,105,328
Ranger Program	1,715,315			1,715,315
Cultural / Natural Resource Mgmt	169,739			169,739
Utilities		630,800		630,800
Ceded Lands Payments (Pmts to OHA)	322,582			322,582
Repairs and maintenance	24,864	809,194		834,058
Overhead Charge	11,201	164,727		175,928
Research Management	-	-		-
Outreach	29,509	98,000		127,509
Shared Services Payments	280,903			280,903
COGS		1,228,300		
Other	170,148	(201,871)		(31,723)
Total	3,540,740	6,018,000	-	8,330,440
Revenues in excess (deficit) of exp.	\$ (704,590)	\$ (296,579)	\$ -	\$ 227,131
Beginning Balance	\$ 1,668,854	\$ 1,011,887		\$ 2,680,741
Less: Encumbered funds/reserve				-
Ending Balance	\$ 964,263	\$ 715,308		\$ 1,679,571

* Adjustments related to payments made to MKSS by CMS.