

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
Honolulu, Hawaii

March 25, 2010

Board of Land and
Natural Resources

REGARDING: Request for Approval of Natural Resources Management Plan, Cultural Resource Management Plan, Public Access Plan, Decommissioning Plan, Project Development and Management Framework, and Approval of Delegation of Implementing Authority from the University of Hawaii Board of Regents to the Office of Mauna Kea Management, Pursuant to the Mauna Kea Comprehensive Management Plan

APPLICANT: University of Hawaii

LANDOWNER: State of Hawaii, Leased to the University of Hawaii

LOCATION: Mauna Kea Science Reserve, Including Hale Pohaku, and Summit Access Road, Island of Hawaii

TMKs: TMK: (3) 4-4-15:9 (Science Reserve)
TMK: (3) 4-4-15:12 (Hale Pohaku)

AREA OF PARCEL: +11,288 acres (Science Reserve)
+ 19 acres (Hale Pohaku)

SUBZONE: Resource

Document Access: The Natural Resources Management Plan, Cultural Resource Management Plan, Public Access Plan, and Decommissioning Plan are too large to attach to this report and can be viewed on line at the following web address: <http://hawaii.gov/dlnr/occl/mauna-kea-management-plan/mauna-kea-management-plan>. Hard copies may also be reviewed at the Department of Land and Natural Resources, Land Division Office, at 75 Aupuni Street, Room 204, Hilo,

ITEM K-1

EXHIBIT A-14

**Mauna Kea Comprehensive Management Plan
Sub Plans**

or at 1151 Punchbowl Street, Honolulu, Room 131.
Electronic (CD) copies of these plans may also be made
available by written request.

BACKGROUND:

On April 9, 2009 the Board of Land and Natural Resources (BLNR) approved the Mauna Kea Comprehensive Management Plan (CMP) subject to eight (8) conditions (Exhibit 1). The BLNR action required UH to submit four (4) sub plans within one year of April 9, 2009: Natural Resources Management Plan; Cultural Resource Management Plan; Public Access Plan; Decommissioning Plan, including a financial element; and Project Development and Management Framework. The BLNR action also required UH to submit an annual status report on the development of each sub plan and a status report on the development of each management action¹. Additionally, condition one (1) required the BLNR to approve any delegation of authority, for implementation of the CMP, from the University of Hawaii Board of Regents to the Office of Mauna Kea Management.

DESCRIPTION OF AREA AND CURRENT USE:

The Mauna Kea Science Reserve (MKSR) encompasses 11,288 acres of State land leased to the University of Hawaii (UH) under General Lease S-4191. According to the University of Hawaii, Institute for Astronomy (UHIFA), about 0.36 percent (40.5 acres) of the lease area is currently being used by observatories and related development. UH also controls + 19 acres of land at Hale Pohaku (mid-level facilities), which includes the support facilities for the observatories. The third area within the UH Management Area is the Summit Access Road that extends from Hale Pohaku to the boundary of the Mauna Kea Science Reserve, including a 400-yard wide corridor on either side of the road, excluding those areas within the adjacent Mauna Kea Ice Age Natural Area Reserve (Exhibit 2, UH Management Areas). Surrounding land uses include the Mauna Kea Ice Age Natural Area Reserve and the Mauna Kea Forest Reserve. The Science Reserve is located within the Resource subzone of the State Conservation District (Exhibit 3, Conservation District Subzones).

¹ The first annual status report will be presented the Board at the April 8, 2010 Land Board Meeting.

Mauna Kea Comprehensive Management Plan
Sub Plans

PROPOSED ACTION

UH is seeking the approval of the BLNR for the CMP sub plans under the BLNR's authority to consider such plans, pursuant to Chapter 183C, Hawaii Revised Statutes (HRS). The BLNR's authority to consider management plans falls under Section 183C-1, HRS, which states as follows:

The legislature finds that lands within the state land use conservation district contain important natural resources essential to the preservation of the State's fragile natural ecosystems and the sustainability of the State's water supply. It is therefore, the intent of the legislature to conserve, protect, and preserve the important natural resources of the State through **appropriate management** and use to promote their long-term sustainability and the public, health, safety and welfare.

The CMP was prepared in accordance with the Third Circuit Court's Decision and Order (Civ. No 04-1-397) in the Keck Outrigger Telescopes Appeal. The CMP is intended to be consistent with guidance found in the court's January 19, 2007 decision. In that matter, which resulted in the reversal of the Keck Outrigger Telescope Conservation District Use Permit (CDUP), the circuit court ruled that the Management Plan submitted and approved by the BLNR for the project was not comprehensive under Hawaii Administrative Rules (HAR) 13-5-24. The circuit court's conclusions of law suggested that any Management Plan for Mauna Kea would need to be "comprehensive" and should not be project-by-project based (which was the case in the Keck Outrigger Telescope), and that the Management Plan should cover multiple land uses within the larger overall areas that UH controls at the top on Mauna Kea in the Conservation District. The circuit court's decision also stipulated that a management plan would be a precondition to the granting of a CDUP for R3 (Astronomy Facilities).

The CMP builds on pre-existing management plans including the 1995 Management Plan for UH Management Areas (approved by the BLNR, and updated and incorporated into the CMP), and the 2000 Mauna Kea Master Plan (approved by the UH Board of Regents).

Mauna Kea Comprehensive Management Plan Sub Plans

A Draft Environmental Assessment (EA) for the CMP was published in the OEQC Bulletin for public review on February 2, 2009. UH approved the EA on April 1, 2009, through the issuance of a Finding of No Significant Impact FONSI to the Environment.

All sub-plans are part of the overall management strategy being implemented for the UH Management Areas on Mauna Kea. These plans help OMKM meet its mission and to allow for multiple uses of the mountain while protecting resources. They provide detailed discussions of particular elements and related management solutions: NRMP (ecological issues); CRMP (cultural and archaeological resources); PAP (public access plan); and DP (decommissioning plan). All sub-plans contain lists that cross-reference Mauna Kea CMP management actions to related sections in the sub-plans to aid in implementation. Management on Mauna Kea requires collaboration and cooperation among the various stakeholders because there are overlapping jurisdictions and because ecosystems do not recognize political or property boundaries.

CONTENTS OF CMP SUB PLANS

Natural Resources Management Plan

The Natural Resources Management Plan (NRMP) provides the implementing guidelines and framework for the protection of natural resources in the UH Management Areas. The NRMP provides a detailed assessment on the status and threats to natural resources and the development of a management program to conserve the resources. The NRMP was initiated as a project of the Mauna Kea Management Board (MKMB) Environment Committee, and is unique because it is the first plan to focus on the protection and preservation of natural resources in the UH Management Areas. The plan offers specific management actions to reduce the identified threats to natural resources and to guide adaptive responses to future threats.

The areas covered in the NRMP include some of Hawai'i's unique and rare alpine ecosystems. These fragile ecosystems are valuable resources to the citizens of Hawai'i and to the global community. The NRMP is based on a scientific framework that includes comprehensive review of existing scientific studies, biological inventories, historical documentation, and human uses of the area that identifies

**Mauna Kea Comprehensive Management Plan
Sub Plans**

the current state of knowledge of resources, information gaps, threats, management activities and the effectiveness of current management actions. Community consultation was also part of the process, with surveys, email and phone interviews, and meetings held in Hilo and Honolulu to gather input from scientific experts, natural resource managers, and concerned members of the public.

The NRMP includes five component plans, which describe the core elements of the proposed management program. Each component plan explains why it is needed; details its goals and objectives; provides a brief review of the current understanding of the natural resources and management needs; and provides recommended management actions. Managers will use the NRMP as guidance, in concert with other management directives, to prioritize and implement relevant parts. It is not the intent of this plan that all of the management actions be implemented, but rather the best ones may be chosen depending on management priorities, situation, availability of funding, and the results of baseline inventories and long-term monitoring. An adaptive management approach will ensure that the management strategies reflect input received from inventory, monitoring and research activities in order to preserve and protect the natural resources of Mauna Kea.

Natural Resource Inventory, Monitoring and Research Component Plan: describes the development of an Inventory, Monitoring and Research (IM&R) program and identifies data gaps and information needs for the natural resources found within UH Management Areas. Comprehensive and well-designed IM&R programs allow managers to determine the status of natural resources, track changes in resources over time, identify new threats, measure progress towards meeting management objectives, and plan future research and management. IM&R needs are prioritized according to current understanding of the resources and data gaps. The IM&R program is divided into: baseline inventories, long-term monitoring, and research. To date, only limited baseline data has been collected on natural resources in UH Management Areas. Decisions on what resources to monitor over the long term will be based on the results of the baseline inventory and the objectives of the management program, including adhering to any legal requirements.

Threat Prevention and Control Component Plan: reviews current and potential threats to natural resources, and

Mauna Kea Comprehensive Management Plan Sub Plans

presents a range of management actions to deal with identified threats. For many threats, the magnitude of the impact will depend on the types of activities that occur on the land and the level of use - e.g., human uses and activities. Management activities to control or prevent threats will by necessity be focused primarily in areas of high impact.

Natural Resources Preservation, Enhancement, and Restoration Component Plan: describes and prioritizes preservation, enhancement, or restoration management activities to protect native plant and animal communities and their habitats.

Education and Outreach Component Plan: describes the continued development of OMKM's educational and outreach efforts and provides recommended education and outreach activities to improve understanding of the unique natural resources found within UH Management Areas to provide visitors and users with the information they need to understand and protect the natural resources.

Information Management Component Plan: describes the activities needed to successfully manage information on natural resources to inform management decisions. Recommendations include establishment of a geographic information system (GIS) system at OMKM, maintaining data, and continued support and improvement of the OMKM library.

The Mauna Kea Management Board (MKMB) approved the NRDP on October 14, 2009 followed by approval by the BOR on November 19, 2009.

Cultural Resources Management Plan

The Cultural Resources Management Plan (CRMP) provides OMKM with the tools it needs to meet its cultural resource management responsibilities in several ways. It begins by identifying key management objectives and goals that can be used in making budget decisions, assessing staffing needs, and setting up contracts for specialized services. The major objectives include:

- promoting a greater understanding of the rich cultural heritage of Mauna Kea;
- preserving and managing cultural resources in a sustainable manner so that future generations

**Mauna Kea Comprehensive Management Plan
Sub Plans**

will be able share in and contribute to a better understanding of the historic properties that exist in the summit region, which is of major cultural significance to Hawaiians;

- maintaining opportunities for Native Hawaiians to engage in cultural and religious practices; and
- preserving the cultural landscape for the benefit of cultural practitioners, researchers, recreationalists, and other users.

The Management Plan is divided into three parts: (1) general management issues; (2) specific public and commercial uses, and (3) long-term management programs, plans, strategies and other needs.

The CRMP examines specific activities in terms of the potential threats or impacts that each may have on historic properties and presents appropriate mitigation measures to avoid or minimize impacts. In some cases there are existing policies and regulations that can be followed to protect cultural and archeological resources. In other cases, new policies, guidelines, or regulations are needed. For example, one of the issues addressed in the Management Plan is the perceived need for the Hawaiian community to consider the possible effects of on-going cultural and religious practices on historic properties. OMKM's cultural advisory group, the Kahu Kū Mauna Council, will take the lead in consulting with Hawaiian organizations and individuals with historical ties to Mauna Kea, cultural practitioners, and the Mauna Kea Management Board in developing procedures and protocols regarding cultural issues such as on-going cultural and religious practices including the construction of new shrines.

The Management Plan identifies several priority management actions: (1) preparation of a Burial Treatment Plan; and (2) preparation and implementation of a final Archaeological Monitoring Plan and development of a archeological monitoring program. OMKM can proceed with the preparation of these two mitigation plans once the archeological inventory survey report for the Mauna Kea Science Reserve has been approved (sometime in early April).

The Mauna Kea Management Board (MKMB) approved the CRMP on October 14, 2009 followed by approval by the BOR on November 19, 2009.

**Mauna Kea Comprehensive Management Plan
Sub Plans**

Public Access Plan

The Public Access Plan for the UH Management Areas on Mauna Kea (PAP) sets forth principles and policies to be used as guidelines for future administrative rules and management decisions/actions that will serve to protect the area's natural and cultural resources while enabling public and Native Hawaiian activities and uses. Throughout the PAP six key tenets are consistently stressed: (1) The UH Management Areas on Mauna Kea are public lands held in trust for Native Hawaiians and the general public by the State and UH; (2) Protection of public health and safety is of paramount importance when managing these public lands; (3) An informed public is best prepared to make good decisions and act responsibly while on Mauna Kea; (4) Native Hawaiian traditional and customary rights are legally and constitutionally protected and can be accommodated and reasonably regulated in the interest of public health and safety and protection of natural and cultural resources; (5) Management decisions and actions should be guided by reliable data; and (6) UH has the responsibility to establish rules to govern public activities. The rules are subject to review and approval by BLNR and should allow for a range of methods to control public activities, starting with the lowest levels of control.

Recognizing that diverse activities and purposes bring people into the Mauna Kea upper elevation lands, a key approach to developing the PAP was gathering information through in-depth interviews, small focus groups, and roundtable discussions. Emphasis was placed on interviewing people who had the most on-the-ground experience in Mauna Kea's challenging environment and extensive interaction with the variety of people who go there. This group included rangers (past and present), facility managers, DLNR resource managers, and enforcement authorities. Other stakeholders brought into the planning process included Native Hawaiian cultural practitioners and community leaders, hunters, astronomers, snow players, commercial tour operators and educators. In all, over 80 individuals were interviewed, participated in three small group meetings or two roundtable discussions.

Principles, policies, and recommendations are the product of integrating the information obtained from years of data collection, interviews, meetings and roundtable discussions

**Mauna Kea Comprehensive Management Plan
Sub Plans**

with existing written reports, plans and studies about Mauna Kea and other relevant references. Recommendations are focused on education, interpretation and signage, resource protection, and continuing to monitor human impacts. A range of recommendations for new or improved access guidelines for commercial and non-commercial visitors is provided - e.g., maintaining a presence of interpretive and enforcement personnel to educate visitors and to provide deterrents for inappropriate behavior, improving signage to encourage visitors to stop at the visitor station, and providing alternatives to visitors at the midlevel facilities to reduce visitors in the summit area, just to name a few.

The Mauna Kea Management Board (MKMB) approved the Public Access Plan on January 19, 2010 followed by approval by the BOR on January 28, 2010.

Decommissioning Plan

The Decommissioning Plan describes a process for decommissioning observatories on Mauna Kea, including financial planning, that is acceptable to UH and DLNR. It clearly outlines expectations for both existing and future observatories on Mauna Kea and describes the roles of DLNR (land owner and lessor), UH (lessee), and the observatories (sublesses). Observatories that follow the decommissioning process outlined in this plan will ensure that all elements of the process adhere to all applicable statutes and local ordinances and are coordinated with and approved by UH and DLNR.

Decommissioning is initiated when a sublessee decides to cease operation due to changing priorities, lack of funding, or obsolescence; when the sublease expires; or if UH revokes a sublease. The plan defines decommissioning as a process that results in the *partial or total* removal of all structures associated with an observatory facility and the restoration of the site, to the *greatest extent possible*, to its pre-construction condition. Provisions for financial planning for decommissioning are included to ensure that adequate funds are available to pay for the costs of deconstruction and site restoration at the end of the life of the observatory.

The Decommissioning Plan outlines the decommissioning terms currently contained in the master lease and subleases and

**Mauna Kea Comprehensive Management Plan
Sub Plans**

addresses potential terms for new and/or renegotiated subleases. The plan acknowledges the distinction between the requirements for existing and new and/or renegotiated subleases. In particular, it is recommended that existing sublesses utilize this process in the eventual removal of their observatories. The process and proposed requirements may also be included in any new or renegotiated leases or subleases in the Science Reserve.

Guidance for practical implementation of the decommissioning process including site restoration is presented, including specific details on the course of action to be implemented by sublesses to comply with terms of subleases related to decommissioning. The components of *Site Decommissioning Plan* for any decommissioning include: Notice of Intent, Environmental Due Diligence Review, Site Deconstruction and Removal Plan, Site Restoration Plan, and Decommissioning Funding Plan. CDUPs may be required as part of the decommissioning process when the observatory is demolished and provide the opportunity for BLNR to impose additional conditions.

UH addresses its goal of maintaining a world-class observatory complex and the role of telescope decommissioning in achieving limited growth to further protect natural and cultural resources at Mauna Kea. Current observatory plans (proposed construction, decommissioning) indicate, based on UH's current understanding, that there may be a total of ten observatories in the Astronomy Precinct by the end of the current master lease (2033). There are currently twelve telescopes in the Astronomy Precinct, and one outside the precinct (VLBA). The Decommissioning Plan does not address specific timelines or dates for decommissioning observatories, except that all decommissioning activities shall be completed by the end of the master lease, nor does it address the process of renegotiation of a new master lease or sublease agreements. It should be recognized that if no new lease is granted, the observatories will need to be removed and the site restored no later than the end of the master lease.

The Mauna Kea Management Board (MKMB) approved the Decommissioning Plan on January 19, 2010 followed by approval by the BOR on January 28, 2010.

Project Development Implementation Framework (Exhibit 4)

Mauna Kea Comprehensive Management Plan Sub Plans

The basis for successful management of UH's managed lands on Mauna Kea is the 2000 Mauna Kea Science Reserve Master Plan (Master Plan). The goal of the Master Plan was to set UH on the right path by discontinuing past practices and gaining trust and support from the Hawai'i Island community. The key to successful management was to allow the Hawai'i Island community to lead in the management of the mountain by creating a new management structure under the University of Hawai'i at Hilo (UHH) replacing the top-down approach based out of Manoa. The intent of the Master Plan was a bottom-up approach to management while still keeping final decision making at the president and Board of Regents levels.

New Management Structure

The new management structure consists of:

- Office of Mauna Kea Management (OMKM)
 - Reports directly to the UHH chancellor

- Mauna Kea Management Board (MKMB)
 - Composed of seven members of the Hawai'i Island Community
 - Advises the UHH chancellor

- Kahu Ku Mauna Council (KKMC)
 - Native Hawaiian council that advises the MKMB and UHH chancellor on cultural matters and issues

In addition to serving as advisory bodies, both the MKMB and KKMC provide input regarding the implementation of the Master Plan and CMP. They also provide input in the development of management policies. One of the key roles of the MKMB is their review, and with input from KKMC, recommend approval or denial of projects proposed for UH's managed lands on Mauna Kea.

The Mauna Kea Management Board (MKMB) developed a flowchart illustrating the Master Plan's project review and approval process including the identification of responsible parties and their respective roles. One of the categories of proposed projects are classified as major projects, in particular, observatory development. Processing major projects is a complicated process requiring extensive UH internal reviews and approvals, as well as coordination

**Mauna Kea Comprehensive Management Plan
Sub Plans**

with State and/or Federal Environmental Impact Statement (EIS) and DLNR permitting processes.

The first step for all proposed projects is the classification of the project, whether it is minimal impact, minor or major. For minimal impact projects the MKMB reviews, approves and instructs the proposer to proceed with their project, pending approval, if required, by DLNR. Minimal impact projects involve little or no impact to the surrounding environment, such as the attachment of a camera or weather instrument to an existing building.

Minor projects include those that may have some ground disturbance to already disturbed areas and have little impact to the environment, such as adding a conduit in a shallow trench, or adding an escape external safety stairway. Major projects are large structural ones, including the development of observatories. For both minor and major projects, the MKMB recommends classification with final approval by the President. In addition, the MKMB can recommend minor project classification and approval concurrently, with final approval by the president. Major projects, are subjected to a rigorous design review process while simultaneously undergoing the EIS process. Approval of major projects requires the MKMB to first approve the final EIS followed by recommending approval of the project. The next step is review and recommendation by the UH Hilo chancellor, followed by the President. The BOR has the final authority for approving major projects.

Following BOR approval for major projects, the applicant is instructed to prepare their construction documents and the University submits a CDUA to DLNR. It should be noted that all uses (major or minor) are also subject to Hawaii Administrative Rules (Title 13-5), which is administered by the Department of Land and Natural Resources.

The Board of Regents approved the Project Development Implementation Framework on February 18, 2010.

Delegation of Authority

When OCCL originally presented this matter to the BLNR on April 8-9, 2009, staff was concerned whether the University had the necessary commitments in place to implement the CMP. Although it was clear that OMKM would be responsible

**Mauna Kea Comprehensive Management Plan
Sub Plans**

for implementing the CMP and ensuring adherence to its provisions, OCCL was unsure in many cases who would develop each sub plan, and when this would be accomplished given the numerous sub plans identified in the CMP

On April 16, 2009, the University of Hawaii Board of Regents accepted the responsibility for implementing the CMP subject to oversight by the BLNR. At the same time, the BOR authorized and directed "through normal University governance channels the University of Hawai'i at Hilo, the Office of Mauna Kea Management, and the Mauna Kea Management Board to undertake implementation of the Comprehensive Management Plan including all conditions imposed by the Board of Land and Natural Resources and including any necessary ancillary activities and uses thereto" (BOR, Minutes, April 16, 2009).

Thus, among other things, OCCL will be seeking the BLNR's approval of the University of Hawaii's Board of Regents (BOR) delegation of implementing authority for the CMP to the University of Hawai'i at Hilo, Office of Mauna Kea Management and Mauna Kea Management Board, pursuant to condition one (1) of the BLNR's April 9, 2009 approval.

DISCUSSION:

Staff believes that the University has complied with the BLNR's requirements regarding the development of a Comprehensive Management Plan for Mauna Kea. Heretofore all land uses and activities that take place within UH managed areas will be evaluated according to these plans and processes, subject to future modifications based on an adaptive management framework.

A considerable amount of thought and effort has been devoted to the development of these plans and DLNR looks forward to achieving mutual objectives and goals through coordination with OMKM on the implementation of the plans. UH recognizes that BLNR retains final approval of uses/activities on the Mauna Kea but through these plans UH intends to carry out its stewardship responsibilities for managing Mauna Kea's unique and fragile cultural and natural resources. Staff believes that these plans along with better management capabilities within the UH system, will vastly improve our ability to protect and conserve Mauna Kea for the benefit of present and future generations.

**Mauna Kea Comprehensive Management Plan
Sub Plans**

It is staff's understanding that the university will provide the BLNR with a status update of the development of each management action in the Comprehensive Management Plan at the April 8, 2010 Land Board meeting.

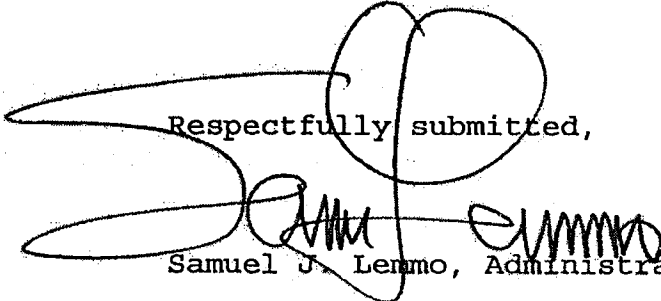
This approval of sub plans should not be considered as acceptance or approval of any pending or future project, plans or proposals contained therein. Such pending or future actions require a separate review and consideration by the Department or Board of Land and Natural Resources.

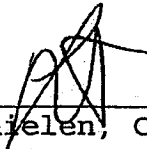
Thus, staff recommends as follows:

RECOMMENDATION

Based on the preceding analysis, staff recommends that the Board of Land and Natural Resources approve the University of Hawaii's Mauna Kea Comprehensive Management Plan, Sub Plans and Project Development and Management Framework, and approval of delegation of implementing authority from the University of Hawaii Board of Regents to the Office of Mauna Kea Management.

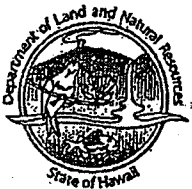
Respectfully submitted,


Samuel J. Lemmo, Administrator



Laura H. Thielen, Chairperson
Board of Land and Natural Resources

LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
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CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCES MANAGEMENT

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KEN C. KAWAHARA
DEPUTY DIRECTOR - WATER

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BOATING AND OCEAN RECREATION
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KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

APR 15 2009

Mr. David McClain, President
University of Hawaii
2444 Dole Street, Bachman Hall
Honolulu, Hawaii 96822

Dear President McClain:

Subject: Mauna Kea Comprehensive Management Plan

This is to inform you that on April 9, 2009, the Board of Land and Natural Resources (BLNR) approved the University of Hawaii's Mauna Kea Comprehensive Management Plan (CMP), subject to the following conditions:

- 1) That the University of Hawaii Board of Regents (BOR) is the entity responsible for the implementation of the CMP, subject to the oversight of the BLNR. The BOR may delegate its responsibility with the accompanying authorities to another entity within the University system, subject to the approval of the BLNR;
- 2) That within one year of the BLNR approval of the CMP, the BOR or its authorized designee shall provide the BLNR in writing and in person with the following information:
 - Status of the development of each sub plan;
 - Status of the development of each management action;
- 3) That the BOR or its authorized designee shall continue to submit annual reports to the BLNR (in writing and in person), which shall include the items listed in condition No. 2;
- 4) That within one year of the BLNR approval of the CMP, or the submission of a Conservation District Use Application, whichever occurs sooner, the University shall submit for review and approval the following sub plans:
 - A cultural resources management plan;
 - A natural resources management plan;
 - A decommissioning plan, including a financial plan; and
 - A public access plan;
- 5) That amendments to the CMP shall be reviewed and approved first by the BOR, and second by the BLNR;

EXHIBIT

1

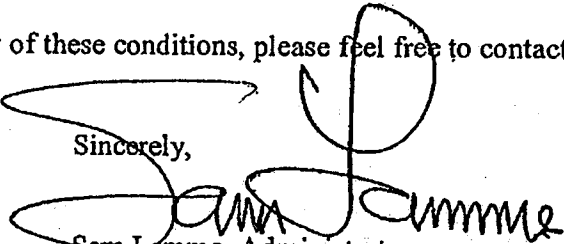
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- 6) That the BOR recognizes that by approving the CMP, the BLNR has not delegated any authority (not already in existence) to the University with respect to land use approvals, leasing, or public access at Mauna Kea;
- 7) That within one year of the BLNR approval the CMP, or the submission of a Conservation District Use Application, whichever occurs sooner, the BOR or its authorized designee shall provide the BLNR (for review and approval) with a management and implementation framework, that has been authorized by the BOR, for project developments within UH Management Areas that is consistent with the specific management actions, conditions and policies of the CMP;
- 8) That failure to comply with these conditions may subject the University to the imposition of additional conditions to ensure compliance with the CMP and any penalties allowed under the law.

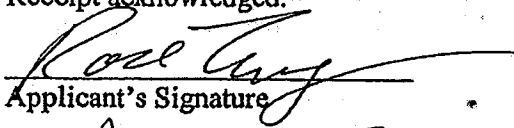
Please have the BOR's authorized designee acknowledge receipt of this approval with the above noted conditions, in the space provided below. Please sign two copies. Retain one and return the other within thirty (30) days.

Should you have any questions on any of these conditions, please feel free to contact me at 587-0377.

Sincerely,


Sam Lemmo, Administrator
Office of Conservation and Coastal Lands

Receipt acknowledged:


Applicant's Signature

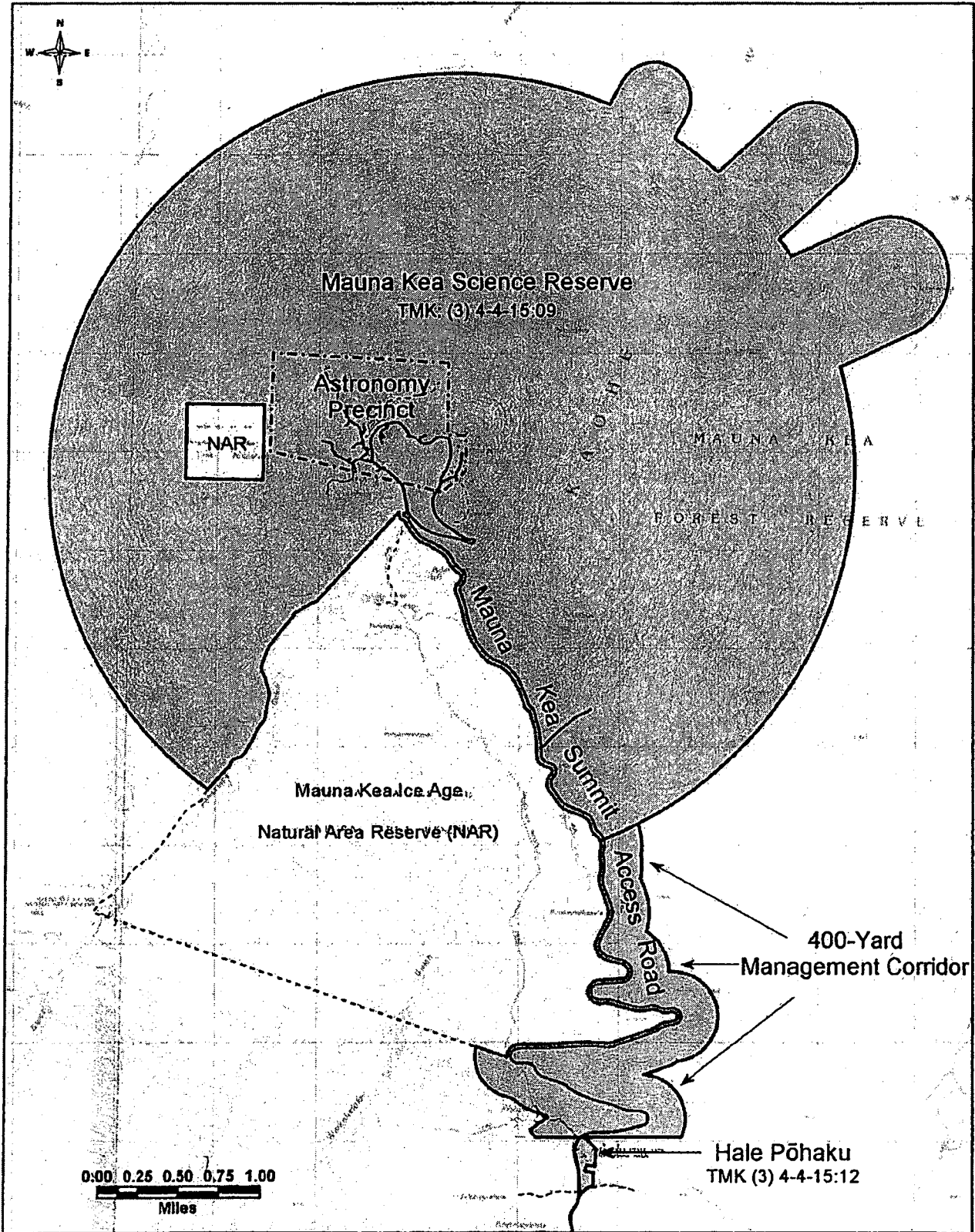
Date

June 2, 2009
c: Chairperson, Board Members
Hawaii District Land Agent
Historic Preservation Division
NARS
Kuiwalu
OMKM

EXHIBIT

1

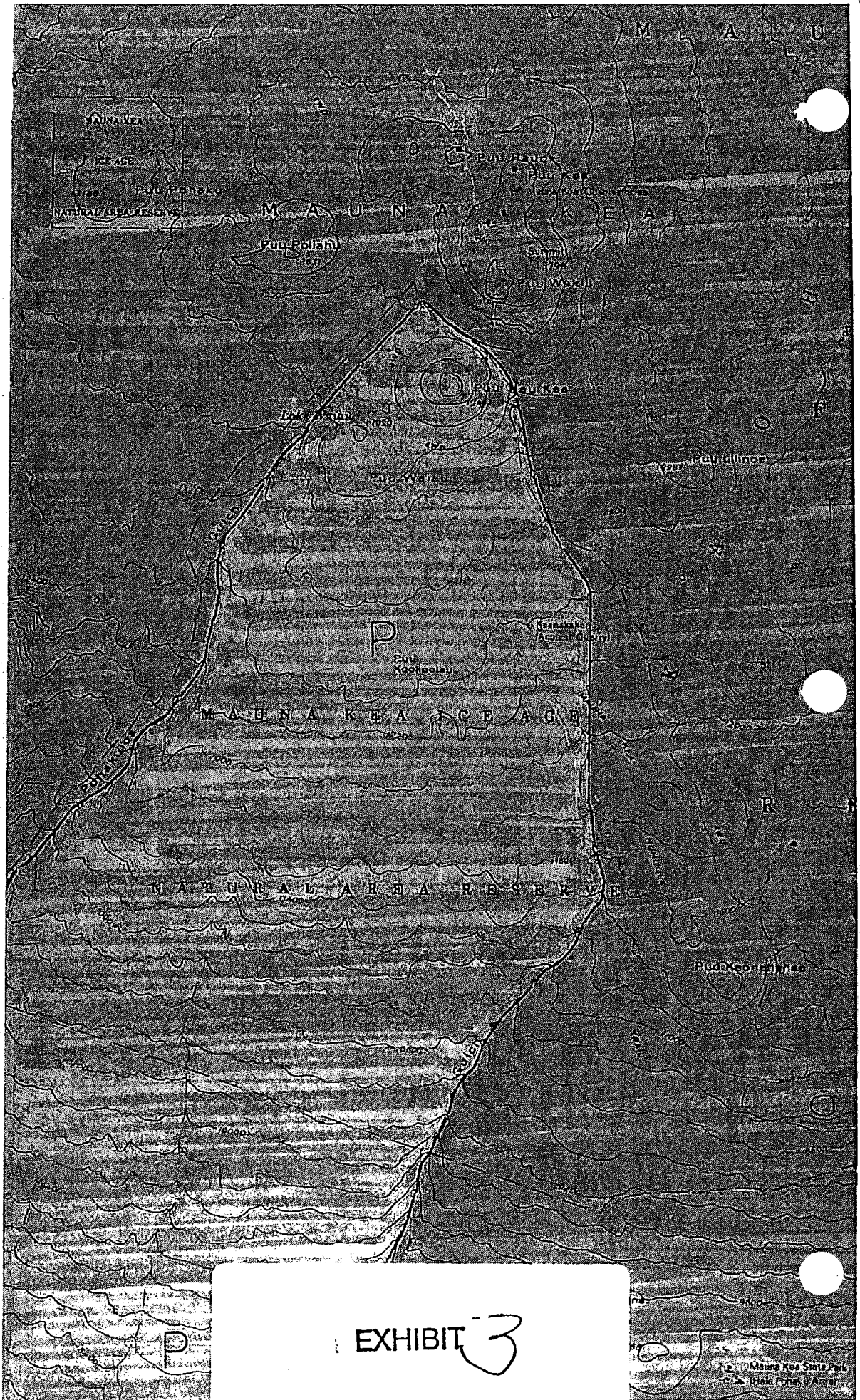
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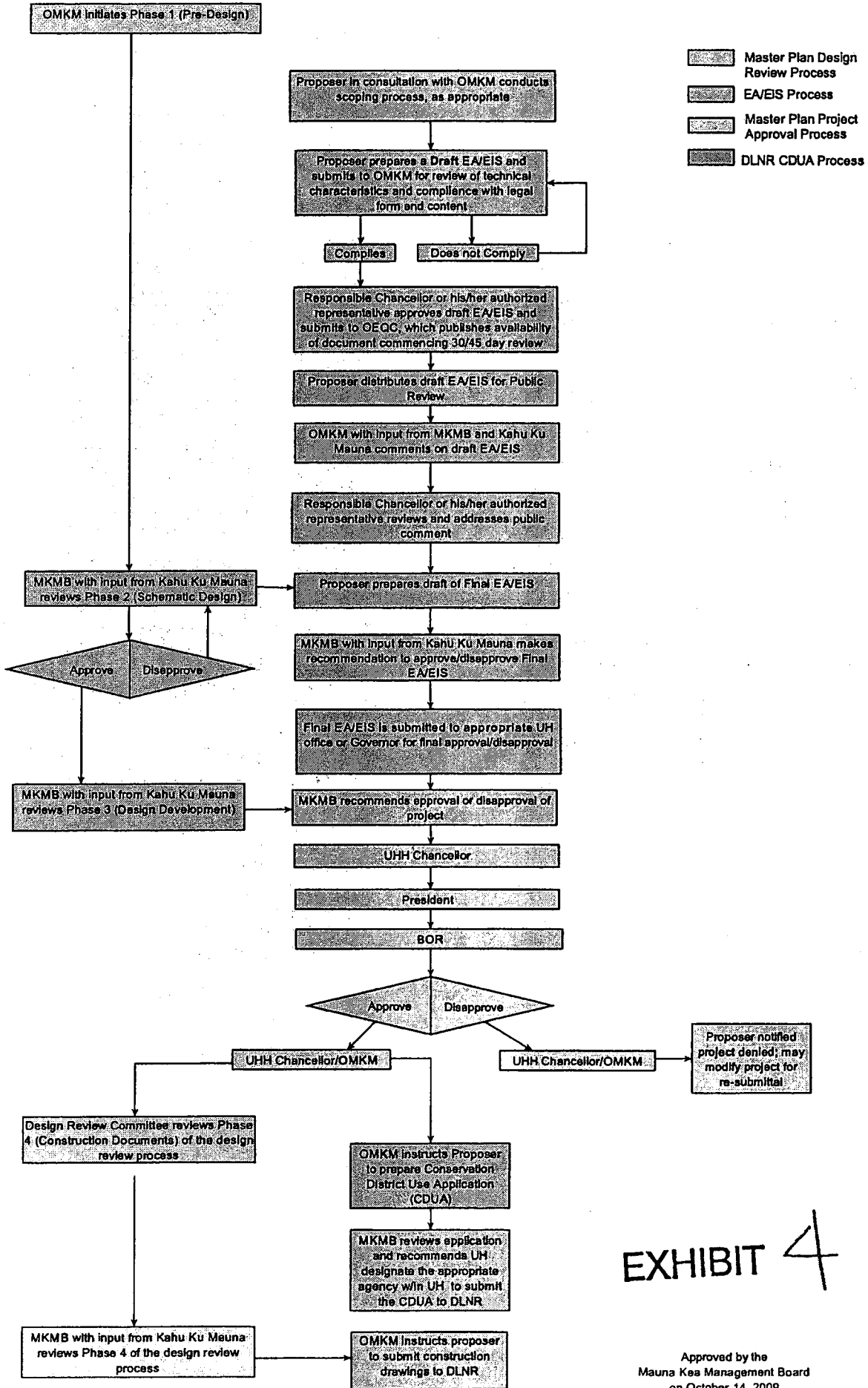
UH Management Areas

Draft Environmental Assessment for the
Mauna Kea Comprehensive Management Plan (CMP)

EXHIBIT 2



MAJOR PROJECT REVIEW STEPS

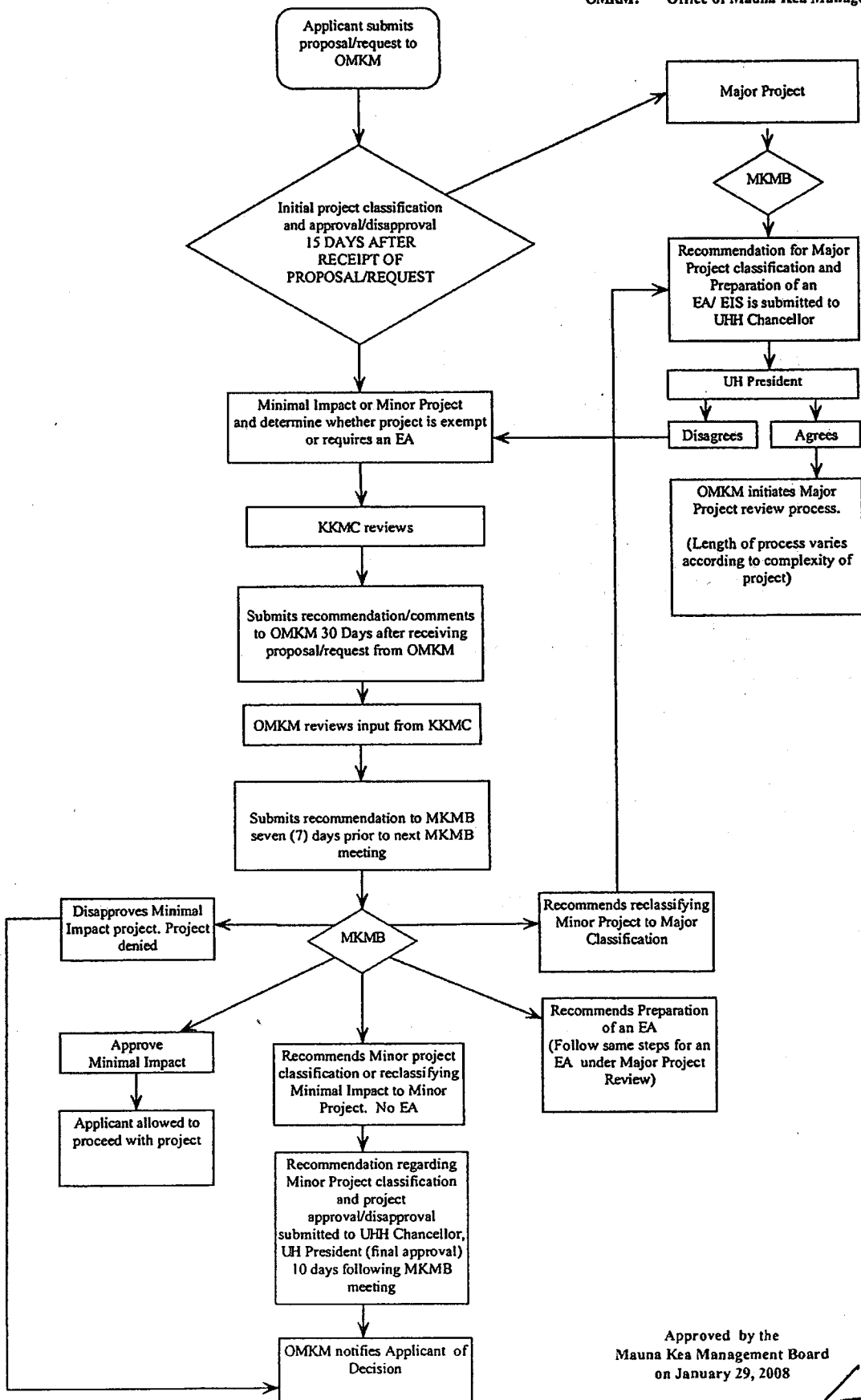


- Master Plan Design Review Process
- E/A/EIS Process
- Master Plan Project Approval Process
- DLNR CDUA Process

EXHIBIT 4 1 of 2

SCHEDULE FOR PROCESSING PROPOSALS SUBMITTED TO OMKM

KKMC: Kahu Ku Mauna Council
 MKMB: Mauna Kea Management Board
 OMKM: Office of Mauna Kea Management



Approved by the
 Mauna Kea Management Board
 on January 29, 2008

EXHIBIT

4

2012

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
Honolulu, Hawaii

March 25, 2010

Board of Land and
Natural Resources

REGARDING: Request for Approval of Natural Resources Management Plan, Cultural Resource Management Plan, Public Access Plan, Decommissioning Plan, Project Development and Management Framework, and Approval of Delegation of Implementing Authority from the University of Hawaii Board of Regents to the Office of Mauna Kea Management, Pursuant to the Mauna Kea Comprehensive Management Plan

APPLICANT: University of Hawaii

LANDOWNER: State of Hawaii, Leased to the University of Hawaii

LOCATION: Mauna Kea Science Reserve, Including Hale Pohaku, and Summit Access Road, Island of Hawaii

TMKs: TMK: (3) 4-4-15:9 (Science Reserve)
TMK: (3) 4-4-15:12 (Hale Pohaku)

AREA OF PARCEL: +11,288 acres (Science Reserve)
+ 19 acres (Hale Pohaku)

SUBZONE: Resource

Document Access: The Natural Resources Management Plan, Cultural Resource Management Plan, Public Access Plan, and Decommissioning Plan are too large to attach to this report and can be viewed on line at the following web address: <http://hawaii.gov/dlnr/occl/mauna-kea-management-plan/mauna-kea-management-plan>. Hard copies may also be reviewed at the Department of Land and Natural Resources, Land Division Office, at 75 Aupuni Street, Room 204, Hilo,

**Mauna Kea Comprehensive Management Plan
Sub Plans**

or at 1151 Punchbowl Street, Honolulu, Room 131.
Electronic (CD) copies of these plans may also be made
available by written request.

BACKGROUND:

On April 9, 2009 the Board of Land and Natural Resources (BLNR) approved the Mauna Kea Comprehensive Management Plan (CMP) subject to eight (8) conditions (Exhibit 1). The BLNR action required UH to submit four (4) sub plans within one year of April 9, 2009: Natural Resources Management Plan; Cultural Resource Management Plan; Public Access Plan; Decommissioning Plan, including a financial element; and Project Development and Management Framework. The BLNR action also required UH to submit an annual status report on the development of each sub plan and a status report on the development of each management action¹. Additionally, condition one (1) required the BLNR to approve any delegation of authority, for implementation of the CMP, from the University of Hawaii Board of Regents to the Office of Mauna Kea Management.

DESCRIPTION OF AREA AND CURRENT USE:

The Mauna Kea Science Reserve (MKSR) encompasses 11,288 acres of State land leased to the University of Hawaii (UH) under General Lease S-4191. According to the University of Hawaii, Institute for Astronomy (UHifa), about 0.36 percent (40.5 acres) of the lease area is currently being used by observatories and related development. UH also controls + 19 acres of land at Hale Pohaku (mid-level facilities), which includes the support facilities for the observatories. The third area within the UH Management Area is the Summit Access Road that extends from Hale Pohaku to the boundary of the Mauna Kea Science Reserve, including a 400-yard wide corridor on either side of the road, excluding those areas within the adjacent Mauna Kea Ice Age Natural Area Reserve (Exhibit 2, UH Management Areas). Surrounding land uses include the Mauna Kea Ice Age Natural Area Reserve and the Mauna Kea Forest Reserve. The Science Reserve is located within the Resource subzone of the State Conservation District (Exhibit 3, Conservation District Subzones).

¹ The first annual status report will be presented the Board at the April 8, 2010 Land Board Meeting.

**Mauna Kea Comprehensive Management Plan
Sub Plans**

PROPOSED ACTION

UH is seeking the approval of the BLNR for the CMP sub plans under the BLNR's authority to consider such plans, pursuant to Chapter 183C, Hawaii Revised Statutes (HRS). The BLNR's authority to consider management plans falls under Section 183C-1, HRS, which states as follows:

The legislature finds that lands within the state land use conservation district contain important natural resources essential to the preservation of the State's fragile natural ecosystems and the sustainability of the State's water supply. It is therefore, the intent of the legislature to conserve, protect, and preserve the important natural resources of the State through appropriate management and use to promote their long-term sustainability and the public, health, safety and welfare.

The CMP was prepared in accordance with the Third Circuit Court's Decision and Order (Civ. No 04-1-397) in the Keck Outrigger Telescopes Appeal. The CMP is intended to be consistent with guidance found in the court's January 19, 2007 decision. In that matter, which resulted in the reversal of the Keck Outrigger Telescope Conservation District Use Permit (CDUP), the circuit court ruled that the Management Plan submitted and approved by the BLNR for the project was not comprehensive under Hawaii Administrative Rules (HAR) 13-5-24. The circuit court's conclusions of law suggested that any Management Plan for Mauna Kea would need to be "comprehensive" and should not be project-by-project based (which was the case in the Keck Outrigger Telescope), and that the Management Plan should cover multiple land uses within the larger overall areas that UH controls at the top on Mauna Kea in the Conservation District. The circuit court's decision also stipulated that a management plan would be a precondition to the granting of a CDUP for R3 (Astronomy Facilities).

The CMP builds on pre-existing management plans including the 1995 Management Plan for UH Management Areas (approved by the BLNR, and updated and incorporated into the CMP), and the 2000 Mauna Kea Master Plan (approved by the UH Board of Regents).

Mauna Kea Comprehensive Management Plan Sub Plans

A Draft Environmental Assessment (EA) for the CMP was published in the OEQC Bulletin for public review on February 2, 2009. UH approved the EA on April 1, 2009, through the issuance of a Finding of No Significant Impact FONSI to the Environment.

All sub-plans are part of the overall management strategy being implemented for the UH Management Areas on Mauna Kea. These plans help OMKM meet its mission and to allow for multiple uses of the mountain while protecting resources. They provide detailed discussions of particular elements and related management solutions: NRMP (ecological issues); CRMP (cultural and archaeological resources); PAP (public access plan); and DP (decommissioning plan). All sub-plans contain lists that cross-reference Mauna Kea CMP management actions to related sections in the sub-plans to aid in implementation. Management on Mauna Kea requires collaboration and cooperation among the various stakeholders because there are overlapping jurisdictions and because ecosystems do not recognize political or property boundaries.

CONTENTS OF CMP SUB PLANS

Natural Resources Management Plan

The Natural Resources Management Plan (NRMP) provides the implementing guidelines and framework for the protection of natural resources in the UH Management Areas. The NRMP provides a detailed assessment on the status and threats to natural resources and the development of a management program to conserve the resources. The NRMP was initiated as a project of the Mauna Kea Management Board (MKMB) Environment Committee, and is unique because it is the first plan to focus on the protection and preservation of natural resources in the UH Management Areas. The plan offers specific management actions to reduce the identified threats to natural resources and to guide adaptive responses to future threats.

The areas covered in the NRMP include some of Hawai'i's unique and rare alpine ecosystems. These fragile ecosystems are valuable resources to the citizens of Hawai'i and to the global community. The NRMP is based on a scientific framework that includes comprehensive review of existing scientific studies, biological inventories, historical documentation, and human uses of the area that identifies

**Mauna Kea Comprehensive Management Plan
Sub Plans**

the current state of knowledge of resources, information gaps, threats, management activities and the effectiveness of current management actions. Community consultation was also part of the process, with surveys, email and phone interviews, and meetings held in Hilo and Honolulu to gather input from scientific experts, natural resource managers, and concerned members of the public.

The NRMP includes five component plans, which describe the core elements of the proposed management program. Each component plan explains why it is needed; details its goals and objectives; provides a brief review of the current understanding of the natural resources and management needs; and provides recommended management actions. Managers will use the NRMP as guidance, in concert with other management directives, to prioritize and implement relevant parts. It is not the intent of this plan that all of the management actions be implemented, but rather the best ones may be chosen depending on management priorities, situation, availability of funding, and the results of baseline inventories and long-term monitoring. An adaptive management approach will ensure that the management strategies reflect input received from inventory, monitoring and research activities in order to preserve and protect the natural resources of Mauna Kea.

Natural Resource Inventory, Monitoring and Research Component Plan: describes the development of an Inventory, Monitoring and Research (IM&R) program and identifies data gaps and information needs for the natural resources found within UH Management Areas. Comprehensive and well-designed IM&R programs allow managers to determine the status of natural resources, track changes in resources over time, identify new threats, measure progress towards meeting management objectives, and plan future research and management. IM&R needs are prioritized according to current understanding of the resources and data gaps. The IM&R program is divided into: baseline inventories, long-term monitoring, and research. To date, only limited baseline data has been collected on natural resources in UH Management Areas. Decisions on what resources to monitor over the long term will be based on the results of the baseline inventory and the objectives of the management program, including adhering to any legal requirements.

Threat Prevention and Control Component Plan: reviews current and potential threats to natural resources, and

Mauna Kea Comprehensive Management Plan Sub Plans

presents a range of management actions to deal with identified threats. For many threats, the magnitude of the impact will depend on the types of activities that occur on the land and the level of use - e.g., human uses and activities. Management activities to control or prevent threats will by necessity be focused primarily in areas of high impact.

Natural Resources Preservation, Enhancement, and Restoration Component Plan: describes and prioritizes preservation, enhancement, or restoration management activities to protect native plant and animal communities and their habitats.

Education and Outreach Component Plan: describes the continued development of OMKM's educational and outreach efforts and provides recommended education and outreach activities to improve understanding of the unique natural resources found within UH Management Areas to provide visitors and users with the information they need to understand and protect the natural resources.

Information Management Component Plan: describes the activities needed to successfully manage information on natural resources to inform management decisions. Recommendations include establishment of a geographic information system (GIS) system at OMKM, maintaining data, and continued support and improvement of the OMKM library.

The Mauna Kea Management Board (MKMB) approved the NRDP on October 14, 2009 followed by approval by the BOR on November 19, 2009.

Cultural Resources Management Plan

The Cultural Resources Management Plan (CRMP) provides OMKM with the tools it needs to meet its cultural resource management responsibilities in several ways. It begins by identifying key management objectives and goals that can be used in making budget decisions, assessing staffing needs, and setting up contracts for specialized services. The major objectives include:

- promoting a greater understanding of the rich cultural heritage of Mauna Kea;
- preserving and managing cultural resources in a sustainable manner so that future generations

**Mauna Kea Comprehensive Management Plan
Sub Plans**

will be able share in and contribute to a better understanding of the historic properties that exist in the summit region, which is of major cultural significance to Hawaiians;

- maintaining opportunities for Native Hawaiians to engage in cultural and religious practices; and
- preserving the cultural landscape for the benefit of cultural practitioners, researchers, recreationalists, and other users.

The Management Plan is divided into three parts: (1) general management issues; (2) specific public and commercial uses, and (3) long-term management programs, plans, strategies and other needs.

The CRMP examines specific activities in terms of the potential threats or impacts that each may have on historic properties and presents appropriate mitigation measures to avoid or minimize impacts. In some cases there are existing policies and regulations that can be followed to protect cultural and archeological resources. In other cases, new policies, guidelines, or regulations are needed. For example, one of the issues addressed in the Management Plan is the perceived need for the Hawaiian community to consider the possible effects of on-going cultural and religious practices on historic properties. OMKM's cultural advisory group, the Kahu Kū Mauna Council, will take the lead in consulting with Hawaiian organizations and individuals with historical ties to Mauna Kea, cultural practitioners, and the Mauna Kea Management Board in developing procedures and protocols regarding cultural issues such as on-going cultural and religious practices including the construction of new shrines.

The Management Plan identifies several priority management actions: (1) preparation of a Burial Treatment Plan; and (2) preparation and implementation of a final Archeological Monitoring Plan and development of a archeological monitoring program. OMKM can proceed with the preparation of these two mitigation plans once the archeological inventory survey report for the Mauna Kea Science Reserve has been approved (sometime in early April).

The Mauna Kea Management Board (MKMB) approved the CRMP on October 14, 2009 followed by approval by the BOR on November 19, 2009.

**Mauna Kea Comprehensive Management Plan
Sub Plans**

Public Access Plan

The Public Access Plan for the UH Management Areas on Mauna Kea (PAP) sets forth principles and policies to be used as guidelines for future administrative rules and management decisions/actions that will serve to protect the area's natural and cultural resources while enabling public and Native Hawaiian activities and uses. Throughout the PAP six key tenets are consistently stressed: (1) The UH Management Areas on Mauna Kea are public lands held in trust for Native Hawaiians and the general public by the State and UH; (2) Protection of public health and safety is of paramount importance when managing these public lands; (3) An informed public is best prepared to make good decisions and act responsibly while on Mauna Kea; (4) Native Hawaiian traditional and customary rights are legally and constitutionally protected and can be accommodated and reasonably regulated in the interest of public health and safety and protection of natural and cultural resources; (5) Management decisions and actions should be guided by reliable data; and (6) UH has the responsibility to establish rules to govern public activities. The rules are subject to review and approval by DLNR and should allow for a range of methods to control public activities, starting with the lowest levels of control.

Recognizing that diverse activities and purposes bring people into the Mauna Kea upper elevation lands, a key approach to developing the PAP was gathering information through in-depth interviews, small focus groups, and roundtable discussions. Emphasis was placed on interviewing people who had the most on-the-ground experience in Mauna Kea's challenging environment and extensive interaction with the variety of people who go there. This group included rangers (past and present), facility managers, DLNR resource managers, and enforcement authorities. Other stakeholders brought into the planning process included Native Hawaiian cultural practitioners and community leaders, hunters, astronomers, snow players, commercial tour operators and educators. In all, over 80 individuals were interviewed, participated in three small group meetings or two roundtable discussions.

Principles, policies, and recommendations are the product of integrating the information obtained from years of data collection, interviews, meetings and roundtable discussions

Mauna Kea Comprehensive Management Plan Sub Plans

with existing written reports, plans and studies about Mauna Kea and other relevant references. Recommendations are focused on education, interpretation and signage, resource protection, and continuing to monitor human impacts. A range of recommendations for new or improved access guidelines for commercial and non-commercial visitors is provided - e.g., maintaining a presence of interpretive and enforcement personnel to educate visitors and to provide deterrents for inappropriate behavior, improving signage to encourage visitors to stop at the visitor station, and providing alternatives to visitors at the midlevel facilities to reduce visitors in the summit area, just to name a few.

The Mauna Kea Management Board (MKMB) approved the Public Access Plan on January 19, 2010 followed by approval by the BOR on January 28, 2010.

Decommissioning Plan

The Decommissioning Plan describes a process for decommissioning observatories on Mauna Kea, including financial planning, that is acceptable to UH and DLNR. It clearly outlines expectations for both existing and future observatories on Mauna Kea and describes the roles of DLNR (land owner and lessor), UH (lessee), and the observatories (sublesses). Observatories that follow the decommissioning process outlined in this plan will ensure that all elements of the process adhere to all applicable statutes and local ordinances and are coordinated with and approved by UH and DLNR.

Decommissioning is initiated when a sublessee decides to cease operation due to changing priorities, lack of funding, or obsolescence; when the sublease expires; or if UH revokes a sublease. The plan defines decommissioning as a process that results in the *partial or total* removal of all structures associated with an observatory facility and the restoration of the site, to the *greatest extent possible*, to its pre-construction condition. Provisions for financial planning for decommissioning are included to ensure that adequate funds are available to pay for the costs of deconstruction and site restoration at the end of the life of the observatory.

The Decommissioning Plan outlines the decommissioning terms currently contained in the master lease and subleases and

**Mauna Kea Comprehensive Management Plan
Sub Plans**

addresses potential terms for new and/or renegotiated subleases. The plan acknowledges the distinction between the requirements for existing and new and/or renegotiated subleases. In particular, it is recommended that existing sublesses utilize this process in the eventual removal of their observatories. The process and proposed requirements may also be included in any new or renegotiated leases or subleases in the Science Reserve.

Guidance for practical implementation of the decommissioning process including site restoration is presented, including specific details on the course of action to be implemented by sublesses to comply with terms of subleases related to decommissioning. The components of *Site Decommissioning Plan* for any decommissioning include: Notice of Intent, Environmental Due Diligence Review, Site Deconstruction and Removal Plan, Site Restoration Plan, and Decommissioning Funding Plan. CDUPs may be required as part of the decommissioning process when the observatory is demolished and provide the opportunity for BLNR to impose additional conditions.

UH addresses its goal of maintaining a world-class observatory complex and the role of telescope decommissioning in achieving limited growth to further protect natural and cultural resources at Mauna Kea. Current observatory plans (proposed construction, decommissioning) indicate, based on UH's current understanding, that there may be a total of ten observatories in the Astronomy Precinct by the end of the current master lease (2033). There are currently twelve telescopes in the Astronomy Precinct, and one outside the precinct (VLBA). The Decommissioning Plan does not address specific timelines or dates for decommissioning observatories, except that all decommissioning activities shall be completed by the end of the master lease, nor does it address the process of renegotiation of a new master lease or sublease agreements. It should be recognized that if no new lease is granted, the observatories will need to be removed and the site restored no later than the end of the master lease.

The Mauna Kea Management Board (MKMB) approved the Decommissioning Plan on January 19, 2010 followed by approval by the BOR on January 28, 2010.

Project Development Implementation Framework (Exhibit 4)

Mauna Kea Comprehensive Management Plan Sub Plans

The basis for successful management of UH's managed lands on Mauna Kea is the 2000 Mauna Kea Science Reserve Master Plan (Master Plan). The goal of the Master Plan was to set UH on the right path by discontinuing past practices and gaining trust and support from the Hawai'i Island community. The key to successful management was to allow the Hawai'i Island community to lead in the management of the mountain by creating a new management structure under the University of Hawai'i at Hilo (UHH) replacing the top-down approach based out of Manoa. The intent of the Master Plan was a bottom-up approach to management while still keeping final decision making at the president and Board of Regents levels.

New Management Structure

The new management structure consists of:

- Office of Mauna Kea Management (OMKM)
 - Reports directly to the UHH chancellor

- Mauna Kea Management Board (MKMB)
 - Composed of seven members of the Hawai'i Island Community
 - Advises the UHH chancellor

- Kahu Ku Mauna Council (KKMC)
 - Native Hawaiian council that advises the MKMB and UHH chancellor on cultural matters and issues

In addition to serving as advisory bodies, both the MKMB and KKMC provide input regarding the implementation of the Master Plan and CMP. They also provide input in the development of management policies. One of the key roles of the MKMB is their review, and with input from KKMC, recommend approval or denial of projects proposed for UH's managed lands on Mauna Kea.

The Mauna Kea Management Board (MKMB) developed a flowchart illustrating the Master Plan's project review and approval process including the identification of responsible parties and their respective roles. One of the categories of proposed projects are classified as major projects, in particular, observatory development. Processing major projects is a complicated process requiring extensive UH internal reviews and approvals, as well as coordination

**Mauna Kea Comprehensive Management Plan
Sub Plans**

with State and/or Federal Environmental Impact Statement (EIS) and DLNR permitting processes.

The first step for all proposed projects is the classification of the project, whether it is minimal impact, minor or major. For minimal impact projects the MKMB reviews, approves and instructs the proposer to proceed with their project, pending approval, if required, by DLNR. Minimal impact projects involve little or no impact to the surrounding environment, such as the attachment of a camera or weather instrument to an existing building.

Minor projects include those that may have some ground disturbance to already disturbed areas and have little impact to the environment, such as adding a conduit in a shallow trench, or adding an escape external safety stairway. Major projects are large structural ones, including the development of observatories. For both minor and major projects, the MKMB recommends classification with final approval by the President. In addition, the MKMB can recommend minor project classification and approval concurrently, with final approval by the president. Major projects, are subjected to a rigorous design review process while simultaneously undergoing the EIS process. Approval of major projects requires the MKMB to first approve the final EIS followed by recommending approval of the project. The next step is review and recommendation by the UH Hilo chancellor, followed by the President. The BOR has the final authority for approving major projects.

Following BOR approval for major projects, the applicant is instructed to prepare their construction documents and the University submits a CDUA to DLNR. It should be noted that all uses (major or minor) are also subject to Hawaii Administrative Rules (Title 13-5), which is administered by the Department of Land and Natural Resources.

The Board of Regents approved the Project Development Implementation Framework on February 18, 2010.

Delegation of Authority

When OCCL originally presented this matter to the BLNR on April 8-9, 2009, staff was concerned whether the University had the necessary commitments in place to implement the CMP. Although it was clear that OMKM would be responsible

**Mauna Kea Comprehensive Management Plan
Sub Plans**

for implementing the CMP and ensuring adherence to its provisions, OCCL was unsure in many cases who would develop each sub plan, and when this would be accomplished given the numerous sub plans identified in the CMP

On April 16, 2009, the University of Hawaii Board of Regents accepted the responsibility for implementing the CMP subject to oversight by the BLNR. At the same time, the BOR authorized and directed "through normal University governance channels the University of Hawai'i at Hilo, the Office of Mauna Kea Management, and the Mauna Kea Management Board to undertake implementation of the Comprehensive Management Plan including all conditions imposed by the Board of Land and Natural Resources and including any necessary ancillary activities and uses thereto" (BOR, Minutes, April 16, 2009).

Thus, among other things, OCCL will be seeking the BLNR's approval of the University of Hawaii's Board of Regents (BOR) delegation of implementing authority for the CMP to the University of Hawai'i at Hilo, Office of Mauna Kea Management and Mauna Kea Management Board, pursuant to condition one (1) of the BLNR's April 9, 2009 approval.

DISCUSSION:

Staff believes that the University has complied with the BLNR's requirements regarding the development of a Comprehensive Management Plan for Mauna Kea. Heretofore all land uses and activities that take place within UH managed areas will be evaluated according to these plans and processes, subject to future modifications based on an adaptive management framework.

A considerable amount of thought and effort has been devoted to the development of these plans and DLNR looks forward to achieving mutual objectives and goals through coordination with OMKM on the implementation of the plans. UH recognizes that BLNR retains final approval of uses/activities on the Mauna Kea but through these plans UH intends to carry out its stewardship responsibilities for managing Mauna Kea's unique and fragile cultural and natural resources. Staff believes that these plans along with better management capabilities within the UH system, will vastly improve our ability to protect and conserve Mauna Kea for the benefit of present and future generations.

**Mauna Kea Comprehensive Management Plan
Sub Plans**

It is staff's understanding that the university will provide the BLNR with a status update of the development of each management action in the Comprehensive Management Plan at the April 8, 2010 Land Board meeting.

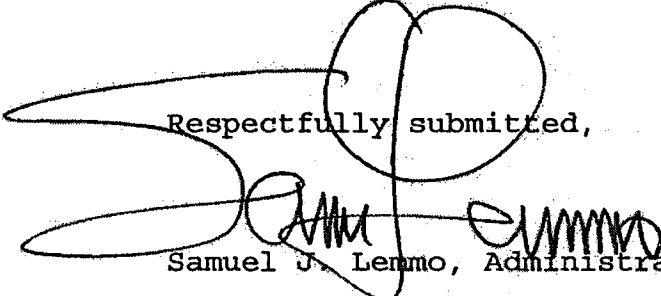
This approval of sub plans should not be considered as acceptance or approval of any pending or future project, plans or proposals contained therein. Such pending or future actions require a separate review and consideration by the Department or Board of Land and Natural Resources.

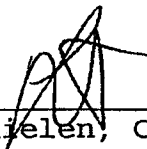
Thus, staff recommends as follows:

RECOMMENDATION

Based on the preceding analysis, staff recommends that the Board of Land and Natural Resources approve the University of Hawaii's Mauna Kea Comprehensive Management Plan, Sub Plans and Project Development and Management Framework, and approval of delegation of implementing authority from the University of Hawaii Board of Regents to the Office of Mauna Kea Management.

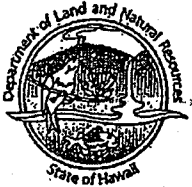
Respectfully submitted,


Samuel J. Lemmo, Administrator



Laura H. Thielen, Chairperson
Board of Land and Natural Resources

LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

Laura H. Thiele
Chairperson
Board of Land and Natural Resources
Commission on Water Resource Management

Russell Y. Tsuji
First Deputy

Ken C. Kawahara
Deputy Director - Water

Aquatic Resources
Boating and Ocean Recreation
Bureau of Conveyances
Commission on Water Resource Management
Conservation and Coastal Lands
Conservation and Resources Enforcement
Endangered
Forestry and Wildlife
Historic Preservation
Kahooolawe Island Reserve Commission
Land
State Parks

APR 15 2009

Mr. David McClain, President
University of Hawaii
2444 Dole Street, Bachman Hall
Honolulu, Hawaii 96822

Dear President McClain:

Subject: Mauna Kea Comprehensive Management Plan

This is to inform you that on April 9, 2009, the Board of Land and Natural Resources (BLNR) approved the University of Hawaii's Mauna Kea Comprehensive Management Plan (CMP), subject to the following conditions:

- 1) That the University of Hawaii Board of Regents (BOR) is the entity responsible for the implementation of the CMP, subject to the oversight of the BLNR. The BOR may delegate its responsibility with the accompanying authorities to another entity within the University system, subject to the approval of the BLNR;
- 2) That within one year of the BLNR approval of the CMP, the BOR or its authorized designee shall provide the BLNR in writing and in person with the following information:
 - Status of the development of each sub plan;
 - Status of the development of each management action;
- 3) That the BOR or its authorized designee shall continue to submit annual reports to the BLNR (in writing and in person), which shall include the items listed in condition No. 2;
- 4) That within one year of the BLNR approval of the CMP, or the submission of a Conservation District Use Application, whichever occurs sooner, the University shall submit for review and approval the following sub plans:
 - A cultural resources management plan;
 - A natural resources management plan;
 - A decommissioning plan, including a financial plan; and
 - A public access plan;
- 5) That amendments to the CMP shall be reviewed and approved first by the BOR, and second by the BLNR;

EXHIBIT

1

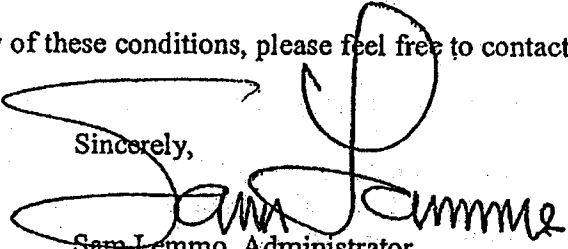
1 of 2

- 6) That the BOR recognizes that by approving the CMP, the BLNR has not delegated any authority (not already in existence) to the University with respect to land use approvals, leasing, or public access at Mauna Kea;
- 7) That within one year of the BLNR approval the CMP, or the submission of a Conservation District Use Application, whichever occurs sooner, the BOR or its authorized designee shall provide the BLNR (for review and approval) with a management and implementation framework, that has been authorized by the BOR, for project developments within UH Management Areas that is consistent with the specific management actions, conditions and policies of the CMP;
- 8) That failure to comply with these conditions may subject the University to the imposition of additional conditions to ensure compliance with the CMP and any penalties allowed under the law.

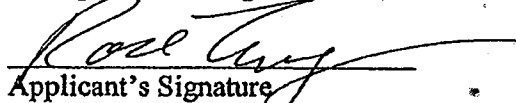
Please have the BOR's authorized designee acknowledge receipt of this approval with the above noted conditions, in the space provided below. Please sign two copies. Retain one and return the other within thirty (30) days.

Should you have any questions on any of these conditions, please feel free to contact me at 587-0377.

Sincerely,


Sam Lemmo, Administrator
Office of Conservation and Coastal Lands

Receipt acknowledged:


Applicant's Signature

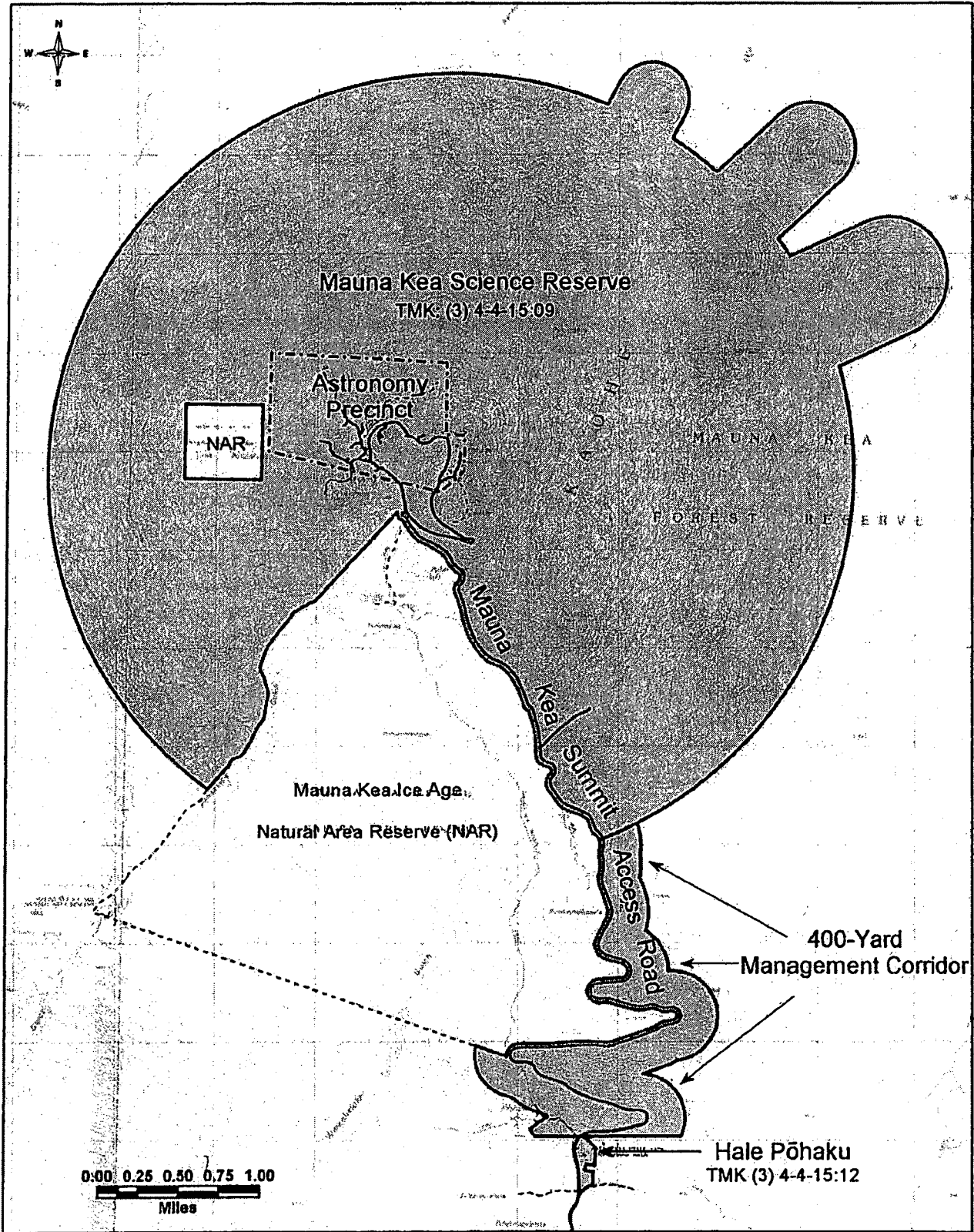
Date June 2, 2009

c: Chairperson, Board Members
Hawaii District Land Agent
Historic Preservation Division
NARS
Kuiwalu
OMKM

EXHIBIT

1

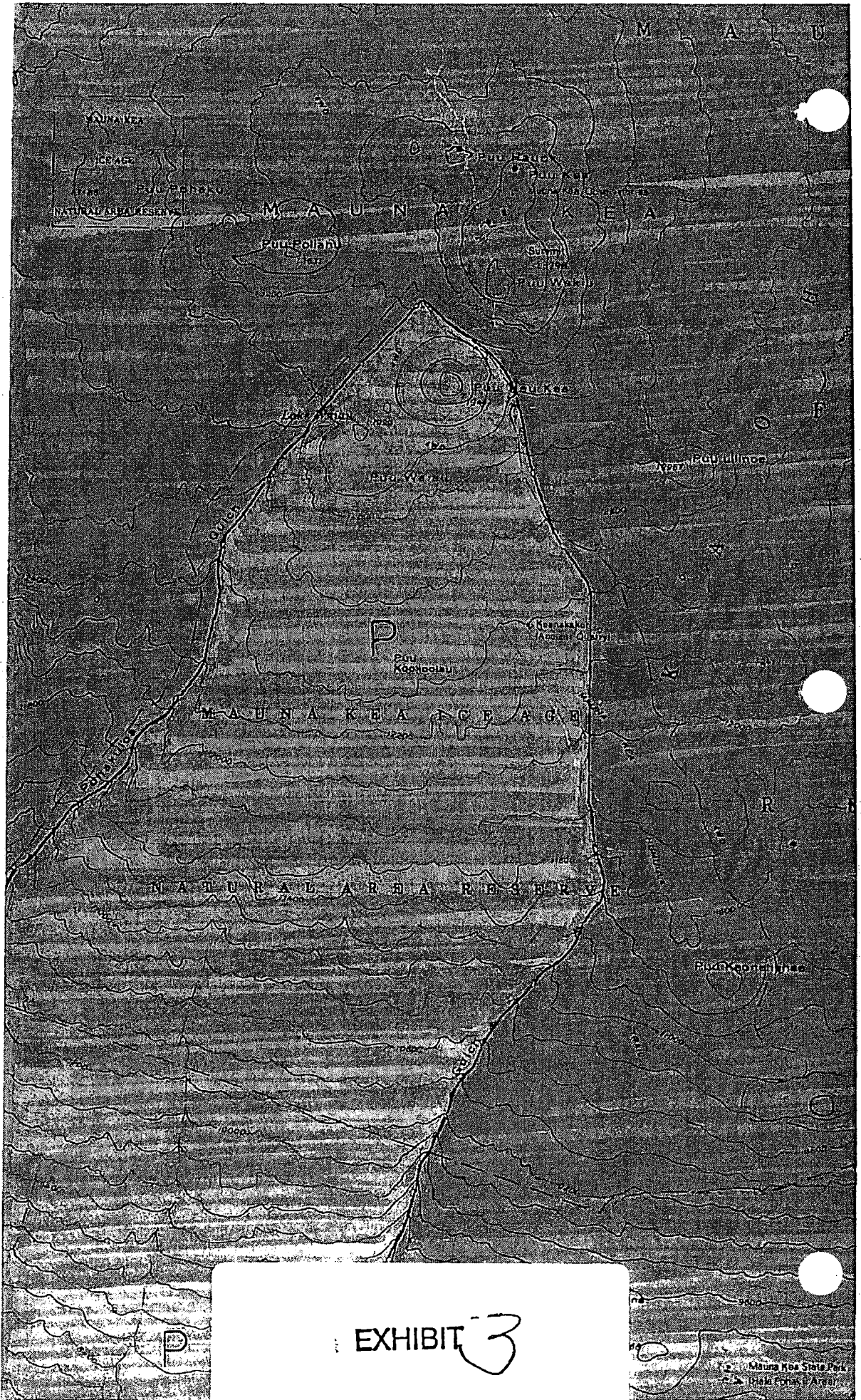
2 of 2



UH Management Areas

Draft Environmental Assessment for the
Mauna Kea Comprehensive Management Plan (CMP)

EXHIBIT 2



P

EXHIBIT 3

Mauna Kea State Park
Hale Pohai, Hawaii

MAJOR PROJECT REVIEW STEPS

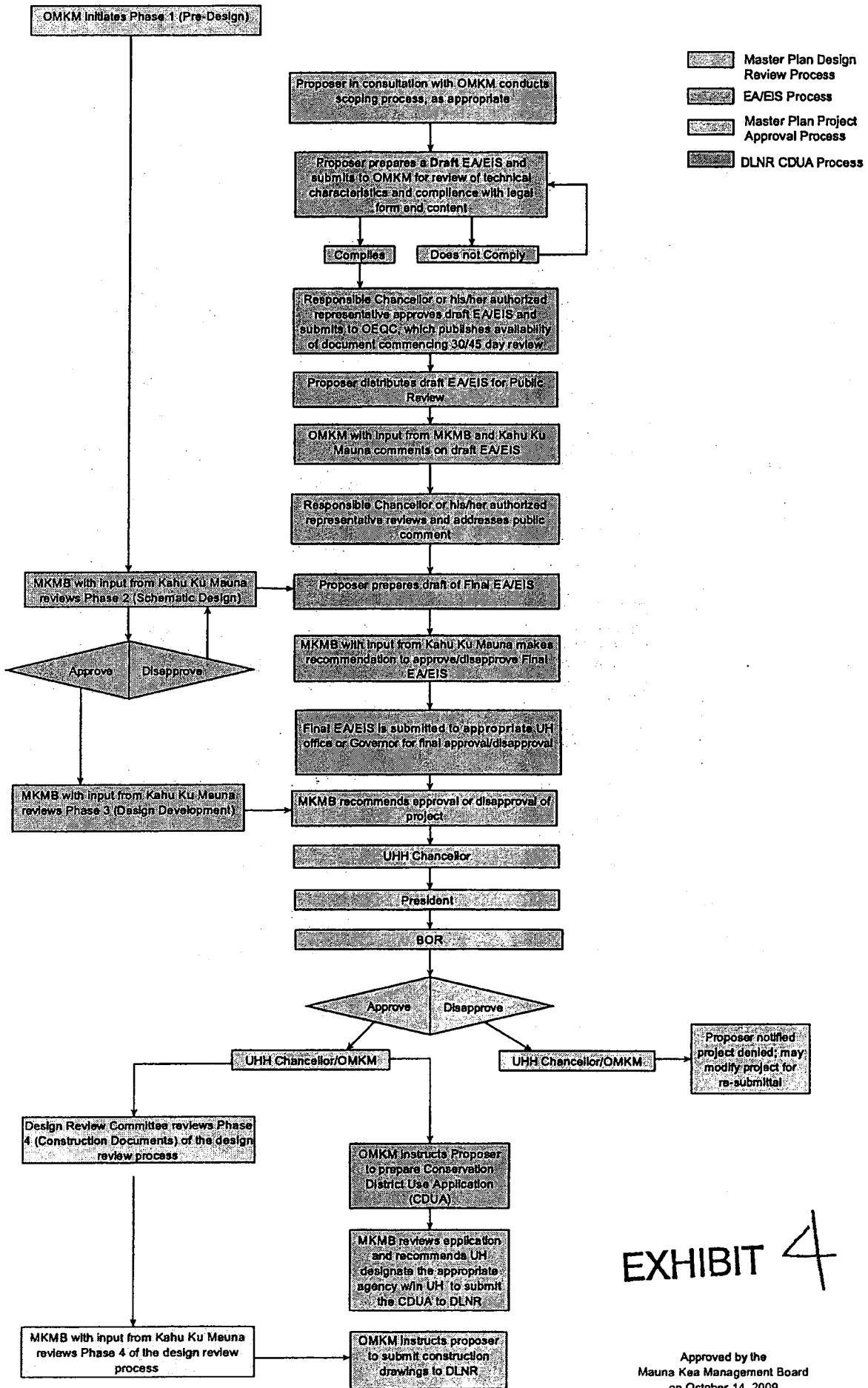
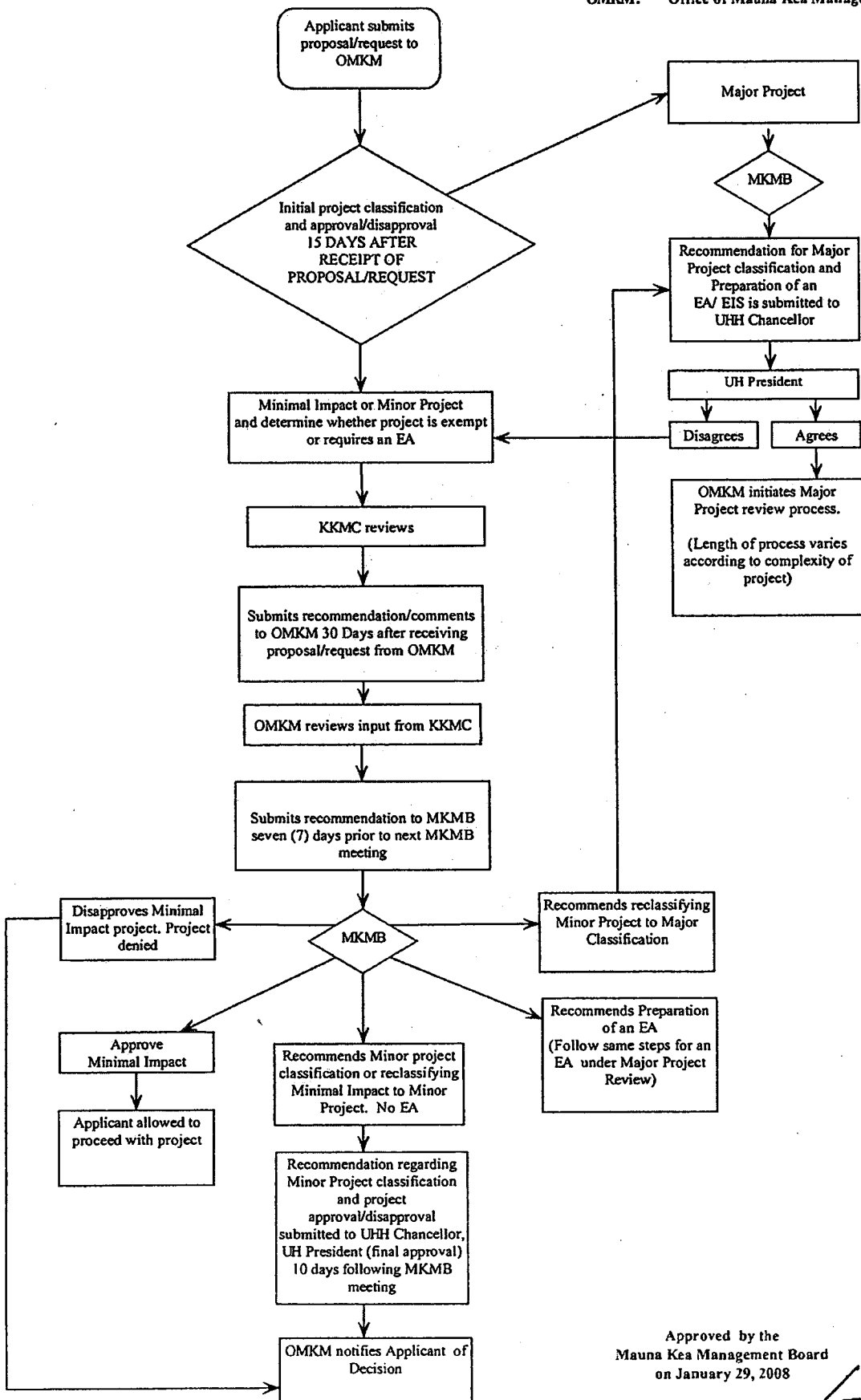


EXHIBIT 4 1 of 2

SCHEDULE FOR PROCESSING PROPOSALS SUBMITTED TO OMKM

KKMC: Kahu Ku Mauna Council
MKMB: Mauna Kea Management Board
OMKM: Office of Mauna Kea Management



Approved by the
 Mauna Kea Management Board
 on January 29, 2008

EXHIBIT

4

2012

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
Honolulu, Hawaii

March 25, 2010

Board of Land and
Natural Resources

REGARDING: Request for Approval of Natural Resources Management Plan, Cultural Resource Management Plan, Public Access Plan, Decommissioning Plan, Project Development and Management Framework, and Approval of Delegation of Implementing Authority from the University of Hawaii Board of Regents to the Office of Mauna Kea Management, Pursuant to the Mauna Kea Comprehensive Management Plan

APPLICANT: University of Hawaii

LANDOWNER: State of Hawaii, Leased to the University of Hawaii

LOCATION: Mauna Kea Science Reserve, Including Hale Pohaku, and Summit Access Road, Island of Hawaii

TMKs: TMK: (3) 4-4-15:9 (Science Reserve)
TMK: (3) 4-4-15:12 (Hale Pohaku)

AREA OF PARCEL: +11,288 acres (Science Reserve)
+ 19 acres (Hale Pohaku)

SUBZONE: Resource

Document Access: The Natural Resources Management Plan, Cultural Resource Management Plan, Public Access Plan, and Decommissioning Plan are too large to attach to this report and can be viewed on line at the following web address: <http://hawaii.gov/dlnr/occl/mauna-kea-management-plan/mauna-kea-management-plan>. Hard copies may also be reviewed at the Department of Land and Natural Resources, Land Division Office, at 75 Aupuni Street, Room 204, Hilo,

**Mauna Kea Comprehensive Management Plan
Sub Plans**

or at 1151 Punchbowl Street, Honolulu, Room 131.
Electronic (CD) copies of these plans may also be made
available by written request.

BACKGROUND:

On April 9, 2009 the Board of Land and Natural Resources (BLNR) approved the Mauna Kea Comprehensive Management Plan (CMP) subject to eight (8) conditions (Exhibit 1). The BLNR action required UH to submit four (4) sub plans within one year of April 9, 2009: Natural Resources Management Plan; Cultural Resource Management Plan; Public Access Plan; Decommissioning Plan, including a financial element; and Project Development and Management Framework. The BLNR action also required UH to submit an annual status report on the development of each sub plan and a status report on the development of each management action¹. Additionally, condition one (1) required the BLNR to approve any delegation of authority, for implementation of the CMP, from the University of Hawaii Board of Regents to the Office of Mauna Kea Management.

DESCRIPTION OF AREA AND CURRENT USE:

The Mauna Kea Science Reserve (MKSR) encompasses 11,288 acres of State land leased to the University of Hawaii (UH) under General Lease S-4191. According to the University of Hawaii, Institute for Astronomy (UHIFA), about 0.36 percent (40.5 acres) of the lease area is currently being used by observatories and related development. UH also controls + 19 acres of land at Hale Pohaku (mid-level facilities), which includes the support facilities for the observatories. The third area within the UH Management Area is the Summit Access Road that extends from Hale Pohaku to the boundary of the Mauna Kea Science Reserve, including a 400-yard wide corridor on either side of the road, excluding those areas within the adjacent Mauna Kea Ice Age Natural Area Reserve (Exhibit 2, UH Management Areas). Surrounding land uses include the Mauna Kea Ice Age Natural Area Reserve and the Mauna Kea Forest Reserve. The Science Reserve is located within the Resource subzone of the State Conservation District (Exhibit 3, Conservation District Subzones).

¹ The first annual status report will be presented the Board at the April 8, 2010 Land Board Meeting.

Mauna Kea Comprehensive Management Plan
Sub Plans

PROPOSED ACTION

UH is seeking the approval of the BLNR for the CMP sub plans under the BLNR's authority to consider such plans, pursuant to Chapter 183C, Hawaii Revised Statutes (HRS). The BLNR's authority to consider management plans falls under Section 183C-1, HRS, which states as follows:

The legislature finds that lands within the state land use conservation district contain important natural resources essential to the preservation of the State's fragile natural ecosystems and the sustainability of the State's water supply. It is therefore, the intent of the legislature to conserve, protect, and preserve the important natural resources of the State through appropriate management and use to promote their long-term sustainability and the public, health, safety and welfare.

The CMP was prepared in accordance with the Third Circuit Court's Decision and Order (Civ. No 04-1-397) in the Keck Outrigger Telescopes Appeal. The CMP is intended to be consistent with guidance found in the court's January 19, 2007 decision. In that matter, which resulted in the reversal of the Keck Outrigger Telescope Conservation District Use Permit (CDUP), the circuit court ruled that the Management Plan submitted and approved by the BLNR for the project was not comprehensive under Hawaii Administrative Rules (HAR) 13-5-24. The circuit court's conclusions of law suggested that any Management Plan for Mauna Kea would need to be "comprehensive" and should not be project-by-project based (which was the case in the Keck Outrigger Telescope), and that the Management Plan should cover multiple land uses within the larger overall areas that UH controls at the top on Mauna Kea in the Conservation District. The circuit court's decision also stipulated that a management plan would be a precondition to the granting of a CDUP for R3 (Astronomy Facilities).

The CMP builds on pre-existing management plans including the 1995 Management Plan for UH Management Areas (approved by the BLNR, and updated and incorporated into the CMP), and the 2000 Mauna Kea Master Plan (approved by the UH Board of Regents).

Mauna Kea Comprehensive Management Plan Sub Plans

A Draft Environmental Assessment (EA) for the CMP was published in the OEQC Bulletin for public review on February 2, 2009. UH approved the EA on April 1, 2009, through the issuance of a Finding of No Significant Impact FONSI to the Environment.

All sub-plans are part of the overall management strategy being implemented for the UH Management Areas on Mauna Kea. These plans help OMKM meet its mission and to allow for multiple uses of the mountain while protecting resources. They provide detailed discussions of particular elements and related management solutions: NRMP (ecological issues); CRMP (cultural and archaeological resources); PAP (public access plan); and DP (decommissioning plan). All sub-plans contain lists that cross-reference Mauna Kea CMP management actions to related sections in the sub-plans to aid in implementation. Management on Mauna Kea requires collaboration and cooperation among the various stakeholders because there are overlapping jurisdictions and because ecosystems do not recognize political or property boundaries.

CONTENTS OF CMP SUB PLANS

Natural Resources Management Plan

The Natural Resources Management Plan (NRMP) provides the implementing guidelines and framework for the protection of natural resources in the UH Management Areas. The NRMP provides a detailed assessment on the status and threats to natural resources and the development of a management program to conserve the resources. The NRMP was initiated as a project of the Mauna Kea Management Board (MKMB) Environment Committee, and is unique because it is the first plan to focus on the protection and preservation of natural resources in the UH Management Areas. The plan offers specific management actions to reduce the identified threats to natural resources and to guide adaptive responses to future threats.

The areas covered in the NRMP include some of Hawai'i's unique and rare alpine ecosystems. These fragile ecosystems are valuable resources to the citizens of Hawai'i and to the global community. The NRMP is based on a scientific framework that includes comprehensive review of existing scientific studies, biological inventories, historical documentation, and human uses of the area that identifies

Mauna Kea Comprehensive Management Plan Sub Plans

the current state of knowledge of resources, information gaps, threats, management activities and the effectiveness of current management actions. Community consultation was also part of the process, with surveys, email and phone interviews, and meetings held in Hilo and Honolulu to gather input from scientific experts, natural resource managers, and concerned members of the public.

The NRMP includes five component plans, which describe the core elements of the proposed management program. Each component plan explains why it is needed; details its goals and objectives; provides a brief review of the current understanding of the natural resources and management needs; and provides recommended management actions. Managers will use the NRMP as guidance, in concert with other management directives, to prioritize and implement relevant parts. It is not the intent of this plan that all of the management actions be implemented, but rather the best ones may be chosen depending on management priorities, situation, availability of funding, and the results of baseline inventories and long-term monitoring. An adaptive management approach will ensure that the management strategies reflect input received from inventory, monitoring and research activities in order to preserve and protect the natural resources of Mauna Kea.

Natural Resource Inventory, Monitoring and Research Component Plan: describes the development of an Inventory, Monitoring and Research (IM&R) program and identifies data gaps and information needs for the natural resources found within UH Management Areas. Comprehensive and well-designed IM&R programs allow managers to determine the status of natural resources, track changes in resources over time, identify new threats, measure progress towards meeting management objectives, and plan future research and management. IM&R needs are prioritized according to current understanding of the resources and data gaps. The IM&R program is divided into: baseline inventories, long-term monitoring, and research. To date, only limited baseline data has been collected on natural resources in UH Management Areas. Decisions on what resources to monitor over the long term will be based on the results of the baseline inventory and the objectives of the management program, including adhering to any legal requirements.

Threat Prevention and Control Component Plan: reviews current and potential threats to natural resources, and

**Mauna Kea Comprehensive Management Plan
Sub Plans**

presents a range of management actions to deal with identified threats. For many threats, the magnitude of the impact will depend on the types of activities that occur on the land and the level of use - e.g., human uses and activities. Management activities to control or prevent threats will by necessity be focused primarily in areas of high impact.

Natural Resources Preservation, Enhancement, and Restoration Component Plan: describes and prioritizes preservation, enhancement, or restoration management activities to protect native plant and animal communities and their habitats.

Education and Outreach Component Plan: describes the continued development of OMKM's educational and outreach efforts and provides recommended education and outreach activities to improve understanding of the unique natural resources found within UH Management Areas to provide visitors and users with the information they need to understand and protect the natural resources.

Information Management Component Plan: describes the activities needed to successfully manage information on natural resources to inform management decisions. Recommendations include establishment of a geographic information system (GIS) system at OMKM, maintaining data, and continued support and improvement of the OMKM library.

The Mauna Kea Management Board (MKMB) approved the NRDP on October 14, 2009 followed by approval by the BOR on November 19, 2009.

Cultural Resources Management Plan

The Cultural Resources Management Plan (CRMP) provides OMKM with the tools it needs to meet its cultural resource management responsibilities in several ways. It begins by identifying key management objectives and goals that can be used in making budget decisions, assessing staffing needs, and setting up contracts for specialized services. The major objectives include:

- promoting a greater understanding of the rich cultural heritage of Mauna Kea;
- preserving and managing cultural resources in a sustainable manner so that future generations

**Mauna Kea Comprehensive Management Plan
Sub Plans**

will be able share in and contribute to a better understanding of the historic properties that exist in the summit region, which is of major cultural significance to Hawaiians;

- maintaining opportunities for Native Hawaiians to engage in cultural and religious practices; and
- preserving the cultural landscape for the benefit of cultural practitioners, researchers, recreationalists, and other users.

The Management Plan is divided into three parts: (1) general management issues; (2) specific public and commercial uses, and (3) long-term management programs, plans, strategies and other needs.

The CRMP examines specific activities in terms of the potential threats or impacts that each may have on historic properties and presents appropriate mitigation measures to avoid or minimize impacts. In some cases there are existing policies and regulations that can be followed to protect cultural and archeological resources. In other cases, new policies, guidelines, or regulations are needed. For example, one of the issues addressed in the Management Plan is the perceived need for the Hawaiian community to consider the possible effects of on-going cultural and religious practices on historic properties. OMKM's cultural advisory group, the Kahu Kū Mauna Council, will take the lead in consulting with Hawaiian organizations and individuals with historical ties to Mauna Kea, cultural practitioners, and the Mauna Kea Management Board in developing procedures and protocols regarding cultural issues such as on-going cultural and religious practices including the construction of new shrines.

The Management Plan identifies several priority management actions: (1) preparation of a Burial Treatment Plan; and (2) preparation and implementation of a final Archaeological Monitoring Plan and development of a archeological monitoring program. OMKM can proceed with the preparation of these two mitigation plans once the archeological inventory survey report for the Mauna Kea Science Reserve has been approved (sometime in early April).

The Mauna Kea Management Board (MKMB) approved the CRMP on October 14, 2009 followed by approval by the BOR on November 19, 2009.

**Mauna Kea Comprehensive Management Plan
Sub Plans**

Public Access Plan

The Public Access Plan for the UH Management Areas on Mauna Kea (PAP) sets forth principles and policies to be used as guidelines for future administrative rules and management decisions/actions that will serve to protect the area's natural and cultural resources while enabling public and Native Hawaiian activities and uses. Throughout the PAP six key tenets are consistently stressed: (1) The UH Management Areas on Mauna Kea are public lands held in trust for Native Hawaiians and the general public by the State and UH; (2) Protection of public health and safety is of paramount importance when managing these public lands; (3) An informed public is best prepared to make good decisions and act responsibly while on Mauna Kea; (4) Native Hawaiian traditional and customary rights are legally and constitutionally protected and can be accommodated and reasonably regulated in the interest of public health and safety and protection of natural and cultural resources; (5) Management decisions and actions should be guided by reliable data; and (6) UH has the responsibility to establish rules to govern public activities. The rules are subject to review and approval by BLNR and should allow for a range of methods to control public activities, starting with the lowest levels of control.

Recognizing that diverse activities and purposes bring people into the Mauna Kea upper elevation lands, a key approach to developing the PAP was gathering information through in-depth interviews, small focus groups, and roundtable discussions. Emphasis was placed on interviewing people who had the most on-the-ground experience in Mauna Kea's challenging environment and extensive interaction with the variety of people who go there. This group included rangers (past and present), facility managers, DLNR resource managers, and enforcement authorities. Other stakeholders brought into the planning process included Native Hawaiian cultural practitioners and community leaders, hunters, astronomers, snow players, commercial tour operators and educators. In all, over 80 individuals were interviewed, participated in three small group meetings or two roundtable discussions.

Principles, policies, and recommendations are the product of integrating the information obtained from years of data collection, interviews, meetings and roundtable discussions

Mauna Kea Comprehensive Management Plan Sub Plans

with existing written reports, plans and studies about Mauna Kea and other relevant references. Recommendations are focused on education, interpretation and signage, resource protection, and continuing to monitor human impacts. A range of recommendations for new or improved access guidelines for commercial and non-commercial visitors is provided - e.g., maintaining a presence of interpretive and enforcement personnel to educate visitors and to provide deterrents for inappropriate behavior, improving signage to encourage visitors to stop at the visitor station, and providing alternatives to visitors at the midlevel facilities to reduce visitors in the summit area, just to name a few.

The Mauna Kea Management Board (MKMB) approved the Public Access Plan on January 19, 2010 followed by approval by the BOR on January 28, 2010.

Decommissioning Plan

The Decommissioning Plan describes a process for decommissioning observatories on Mauna Kea, including financial planning, that is acceptable to UH and DLNR. It clearly outlines expectations for both existing and future observatories on Mauna Kea and describes the roles of DLNR (land owner and lessor), UH (lessee), and the observatories (sublesses). Observatories that follow the decommissioning process outlined in this plan will ensure that all elements of the process adhere to all applicable statutes and local ordinances and are coordinated with and approved by UH and DLNR.

Decommissioning is initiated when a sublessee decides to cease operation due to changing priorities, lack of funding, or obsolescence; when the sublease expires; or if UH revokes a sublease. The plan defines decommissioning as a process that results in the *partial or total* removal of all structures associated with an observatory facility and the restoration of the site, to the *greatest extent possible*, to its pre-construction condition. Provisions for financial planning for decommissioning are included to ensure that adequate funds are available to pay for the costs of deconstruction and site restoration at the end of the life of the observatory.

The Decommissioning Plan outlines the decommissioning terms currently contained in the master lease and subleases and

Mauna Kea Comprehensive Management Plan Sub Plans

addresses potential terms for new and/or renegotiated subleases. The plan acknowledges the distinction between the requirements for existing and new and/or renegotiated subleases. In particular, it is recommended that existing sublesses utilize this process in the eventual removal of their observatories. The process and proposed requirements may also be included in any new or renegotiated leases or subleases in the Science Reserve.

Guidance for practical implementation of the decommissioning process including site restoration is presented, including specific details on the course of action to be implemented by sublesses to comply with terms of subleases related to decommissioning. The components of *Site Decommissioning Plan* for any decommissioning include: Notice of Intent, Environmental Due Diligence Review, Site Deconstruction and Removal Plan, Site Restoration Plan, and Decommissioning Funding Plan. CDUPS may be required as part of the decommissioning process when the observatory is demolished and provide the opportunity for BLNR to impose additional conditions.

UH addresses its goal of maintaining a world-class observatory complex and the role of telescope decommissioning in achieving limited growth to further protect natural and cultural resources at Mauna Kea. Current observatory plans (proposed construction, decommissioning) indicate, based on UH's current understanding, that there may be a total of ten observatories in the Astronomy Precinct by the end of the current master lease (2033). There are currently twelve telescopes in the Astronomy Precinct, and one outside the precinct (VLBA). The Decommissioning Plan does not address specific timelines or dates for decommissioning observatories, except that all decommissioning activities shall be completed by the end of the master lease, nor does it address the process of renegotiation of a new master lease or sublease agreements. It should be recognized that if no new lease is granted, the observatories will need to be removed and the site restored no later than the end of the master lease.

The Mauna Kea Management Board (MKMB) approved the Decommissioning Plan on January 19, 2010 followed by approval by the BOR on January 28, 2010.

Project Development Implementation Framework (Exhibit 4)

Mauna Kea Comprehensive Management Plan Sub Plans

The basis for successful management of UH's managed lands on Mauna Kea is the 2000 Mauna Kea Science Reserve Master Plan (Master Plan). The goal of the Master Plan was to set UH on the right path by discontinuing past practices and gaining trust and support from the Hawai'i Island community. The key to successful management was to allow the Hawai'i Island community to lead in the management of the mountain by creating a new management structure under the University of Hawai'i at Hilo (UHH) replacing the top-down approach based out of Manoa. The intent of the Master Plan was a bottom-up approach to management while still keeping final decision making at the president and Board of Regents levels.

New Management Structure

The new management structure consists of:

- Office of Mauna Kea Management (OMKM)
 - Reports directly to the UHH chancellor
- Mauna Kea Management Board (MKMB)
 - Composed of seven members of the Hawai'i Island Community
 - Advises the UHH chancellor
- Kahu Ku Mauna Council (KKMC)
 - Native Hawaiian council that advises the MKMB and UHH chancellor on cultural matters and issues

In addition to serving as advisory bodies, both the MKMB and KKMC provide input regarding the implementation of the Master Plan and CMP. They also provide input in the development of management policies. One of the key roles of the MKMB is their review, and with input from KKMC, recommend approval or denial of projects proposed for UH's managed lands on Mauna Kea.

The Mauna Kea Management Board (MKMB) developed a flowchart illustrating the Master Plan's project review and approval process including the identification of responsible parties and their respective roles. One of the categories of proposed projects are classified as major projects, in particular, observatory development. Processing major projects is a complicated process requiring extensive UH internal reviews and approvals, as well as coordination

**Mauna Kea Comprehensive Management Plan
Sub Plans**

with State and/or Federal Environmental Impact Statement (EIS) and DLNR permitting processes.

The first step for all proposed projects is the classification of the project, whether it is minimal impact, minor or major. For minimal impact projects the MKMB reviews, approves and instructs the proposer to proceed with their project, pending approval, if required, by DLNR. Minimal impact projects involve little or no impact to the surrounding environment, such as the attachment of a camera or weather instrument to an existing building.

Minor projects include those that may have some ground disturbance to already disturbed areas and have little impact to the environment, such as adding a conduit in a shallow trench, or adding an escape external safety stairway. Major projects are large structural ones, including the development of observatories. For both minor and major projects, the MKMB recommends classification with final approval by the President. In addition, the MKMB can recommend minor project classification and approval concurrently, with final approval by the president. Major projects, are subjected to a rigorous design review process while simultaneously undergoing the EIS process. Approval of major projects requires the MKMB to first approve the final EIS followed by recommending approval of the project. The next step is review and recommendation by the UH Hilo chancellor, followed by the President. The BOR has the final authority for approving major projects.

Following BOR approval for major projects, the applicant is instructed to prepare their construction documents and the University submits a CDUA to DLNR. It should be noted that all uses (major or minor) are also subject to Hawaii Administrative Rules (Title 13-5), which is administered by the Department of Land and Natural Resources.

The Board of Regents approved the Project Development Implementation Framework on February 18, 2010.

Delegation of Authority

When OCCL originally presented this matter to the BLNR on April 8-9, 2009, staff was concerned whether the University had the necessary commitments in place to implement the CMP. Although it was clear that OMKM would be responsible

**Mauna Kea Comprehensive Management Plan
Sub Plans**

for implementing the CMP and ensuring adherence to its provisions, OCCL was unsure in many cases who would develop each sub plan, and when this would be accomplished given the numerous sub plans identified in the CMP

On April 16, 2009, the University of Hawaii Board of Regents accepted the responsibility for implementing the CMP subject to oversight by the BLNR. At the same time, the BOR authorized and directed "through normal University governance channels the University of Hawai'i at Hilo, the Office of Mauna Kea Management, and the Mauna Kea Management Board to undertake implementation of the Comprehensive Management Plan including all conditions imposed by the Board of Land and Natural Resources and including any necessary ancillary activities and uses thereto" (BOR, Minutes, April 16, 2009).

Thus, among other things, OCCL will be seeking the BLNR's approval of the University of Hawaii's Board of Regents (BOR) delegation of implementing authority for the CMP to the University of Hawai'i at Hilo, Office of Mauna Kea Management and Mauna Kea Management Board, pursuant to condition one (1) of the BLNR's April 9, 2009 approval.

DISCUSSION:

Staff believes that the University has complied with the BLNR's requirements regarding the development of a Comprehensive Management Plan for Mauna Kea. Heretofore all land uses and activities that take place within UH managed areas will be evaluated according to these plans and processes, subject to future modifications based on an adaptive management framework.

A considerable amount of thought and effort has been devoted to the development of these plans and DLNR looks forward to achieving mutual objectives and goals through coordination with OMKM on the implementation of the plans. UH recognizes that BLNR retains final approval of uses/activities on the Mauna Kea but through these plans UH intends to carry out its stewardship responsibilities for managing Mauna Kea's unique and fragile cultural and natural resources. Staff believes that these plans along with better management capabilities within the UH system, will vastly improve our ability to protect and conserve Mauna Kea for the benefit of present and future generations.

**Mauna Kea Comprehensive Management Plan
Sub Plans**

It is staff's understanding that the university will provide the BLNR with a status update of the development of each management action in the Comprehensive Management Plan at the April 8, 2010 Land Board meeting.

This approval of sub plans should not be considered as acceptance or approval of any pending or future project, plans or proposals contained therein. Such pending or future actions require a separate review and consideration by the Department or Board of Land and Natural Resources.


Thus, staff recommends as follows:

RECOMMENDATION

Based on the preceding analysis, staff recommends that the Board of Land and Natural Resources approve the University of Hawaii's Mauna Kea Comprehensive Management Plan, Sub Plans and Project Development and Management Framework, and approval of delegation of implementing authority from the University of Hawaii Board of Regents to the Office of Mauna Kea Management.

Respectfully submitted,


Samuel J. Lemmo, Administrator



Laura H. Thielen, Chairperson
Board of Land and Natural Resources

LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAHARA
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

APR 15 2009

Mr. David McClain, President
University of Hawaii
2444 Dole Street, Bachman Hall
Honolulu, Hawaii 96822

Dear President McClain:

Subject: Mauna Kea Comprehensive Management Plan

This is to inform you that on April 9, 2009, the Board of Land and Natural Resources (BLNR) approved the University of Hawaii's Mauna Kea Comprehensive Management Plan (CMP), subject to the following conditions:

- 1) That the University of Hawaii Board of Regents (BOR) is the entity responsible for the implementation of the CMP, subject to the oversight of the BLNR. The BOR may delegate its responsibility with the accompanying authorities to another entity within the University system, subject to the approval of the BLNR;
- 2) That within one year of the BLNR approval of the CMP, the BOR or its authorized designee shall provide the BLNR in writing and in person with the following information:
 - Status of the development of each sub plan;
 - Status of the development of each management action;
- 3) That the BOR or its authorized designee shall continue to submit annual reports to the BLNR (in writing and in person), which shall include the items listed in condition No. 2;
- 4) That within one year of the BLNR approval of the CMP, or the submission of a Conservation District Use Application, whichever occurs sooner, the University shall submit for review and approval the following sub plans:
 - A cultural resources management plan;
 - A natural resources management plan;
 - A decommissioning plan, including a financial plan; and
 - A public access plan;
- 5) That amendments to the CMP shall be reviewed and approved first by the BOR, and second by the BLNR;

EXHIBIT

1

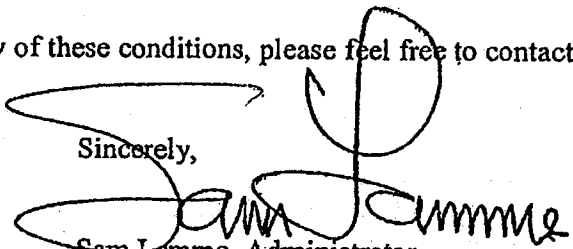
1052

- 6) That the BOR recognizes that by approving the CMP, the BLNR has not delegated any authority (not already in existence) to the University with respect to land use approvals, leasing, or public access at Mauna Kea;
- 7) That within one year of the BLNR approval the CMP, or the submission of a Conservation District Use Application, whichever occurs sooner, the BOR or its authorized designee shall provide the BLNR (for review and approval) with a management and implementation framework, that has been authorized by the BOR, for project developments within UH Management Areas that is consistent with the specific management actions, conditions and policies of the CMP;
- 8) That failure to comply with these conditions may subject the University to the imposition of additional conditions to ensure compliance with the CMP and any penalties allowed under the law.

Please have the BOR's authorized designee acknowledge receipt of this approval with the above noted conditions, in the space provided below. Please sign two copies. Retain one and return the other within thirty (30) days.

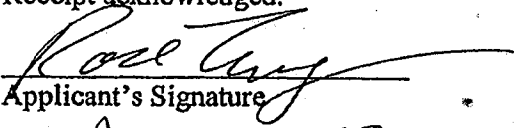
Should you have any questions on any of these conditions, please feel free to contact me at 587-0377.

Sincerely,


Sam Lemmo, Administrator

Office of Conservation and Coastal Lands

Receipt acknowledged:


Applicant's Signature

Date

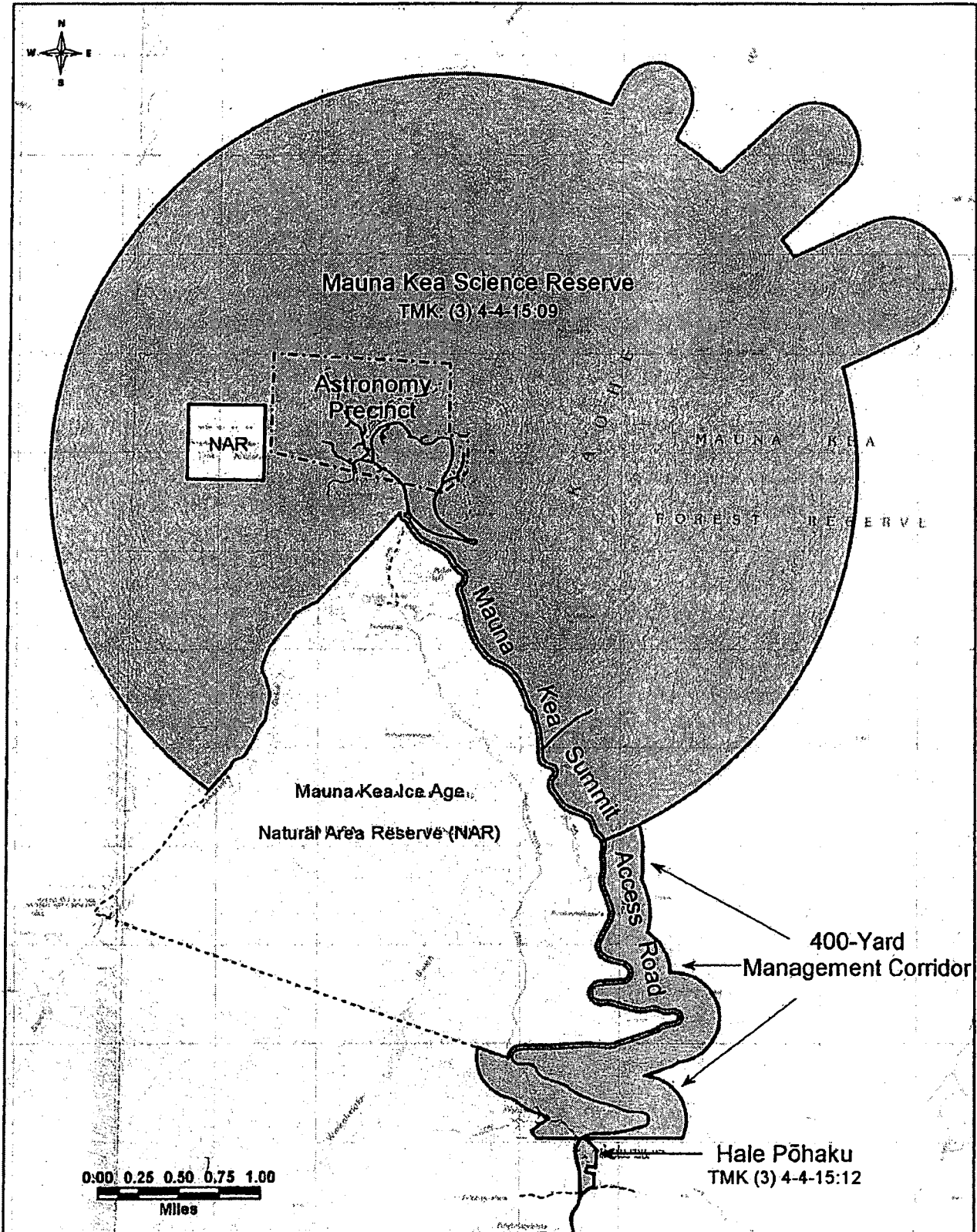
June 2, 2009

c: Chairperson, Board Members
Hawaii District Land Agent
Historic Preservation Division
NARS
Kuiwalu
OMKM

EXHIBIT

1

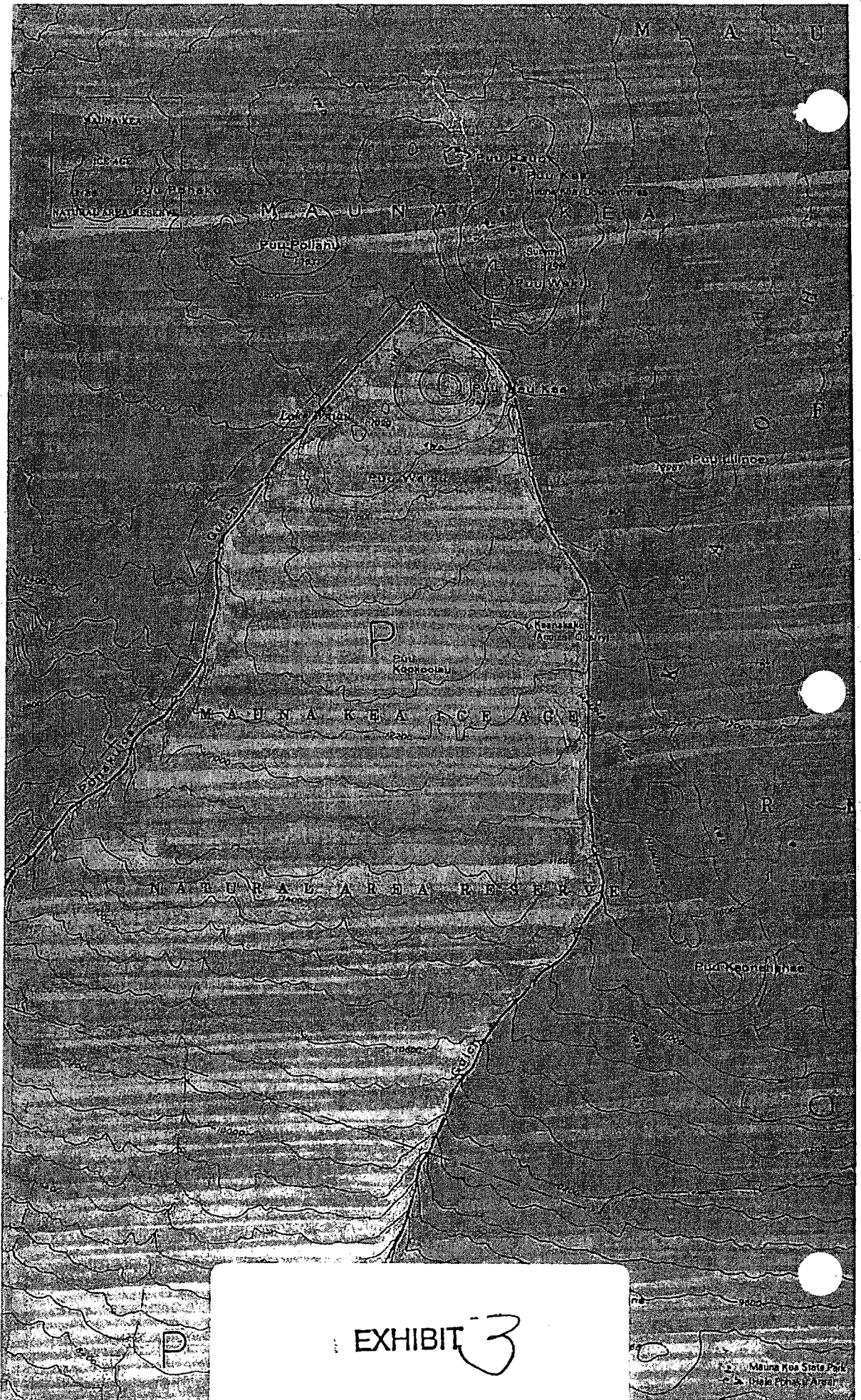
2 of 2



UH Management Areas

Draft Environmental Assessment for the
Mauna Kea Comprehensive Management Plan (CMP)

EXHIBIT 2



MAUNAKEA
ICE AGE
NATURAL AREA RESERVE

MAUNAKEA

MAUNAKEA ICE AGE

NATURAL AREA RESERVE

EXHIBIT 3

Mauna Kea State Park
Hale Puna, Hawaii

MAJOR PROJECT REVIEW STEPS

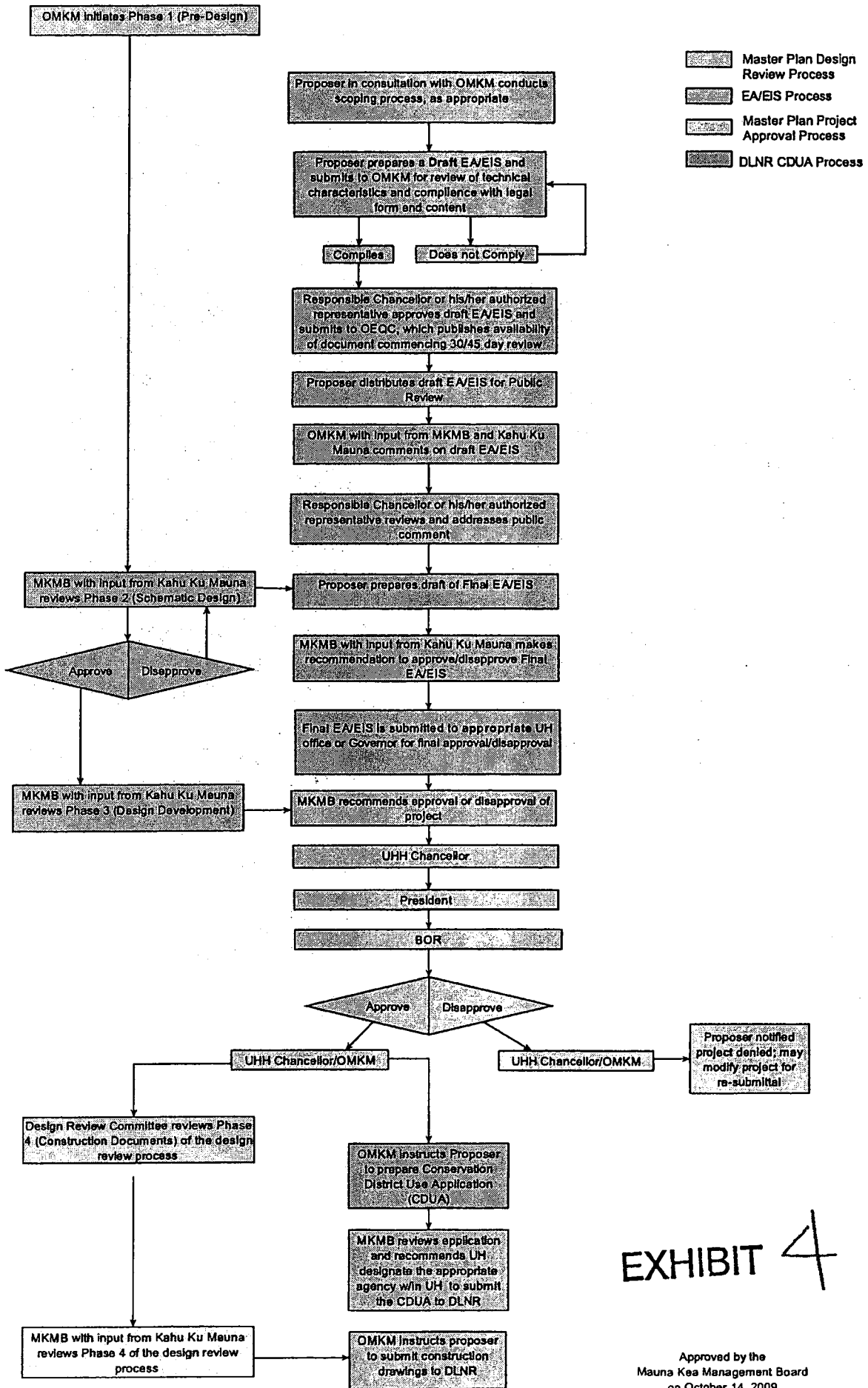
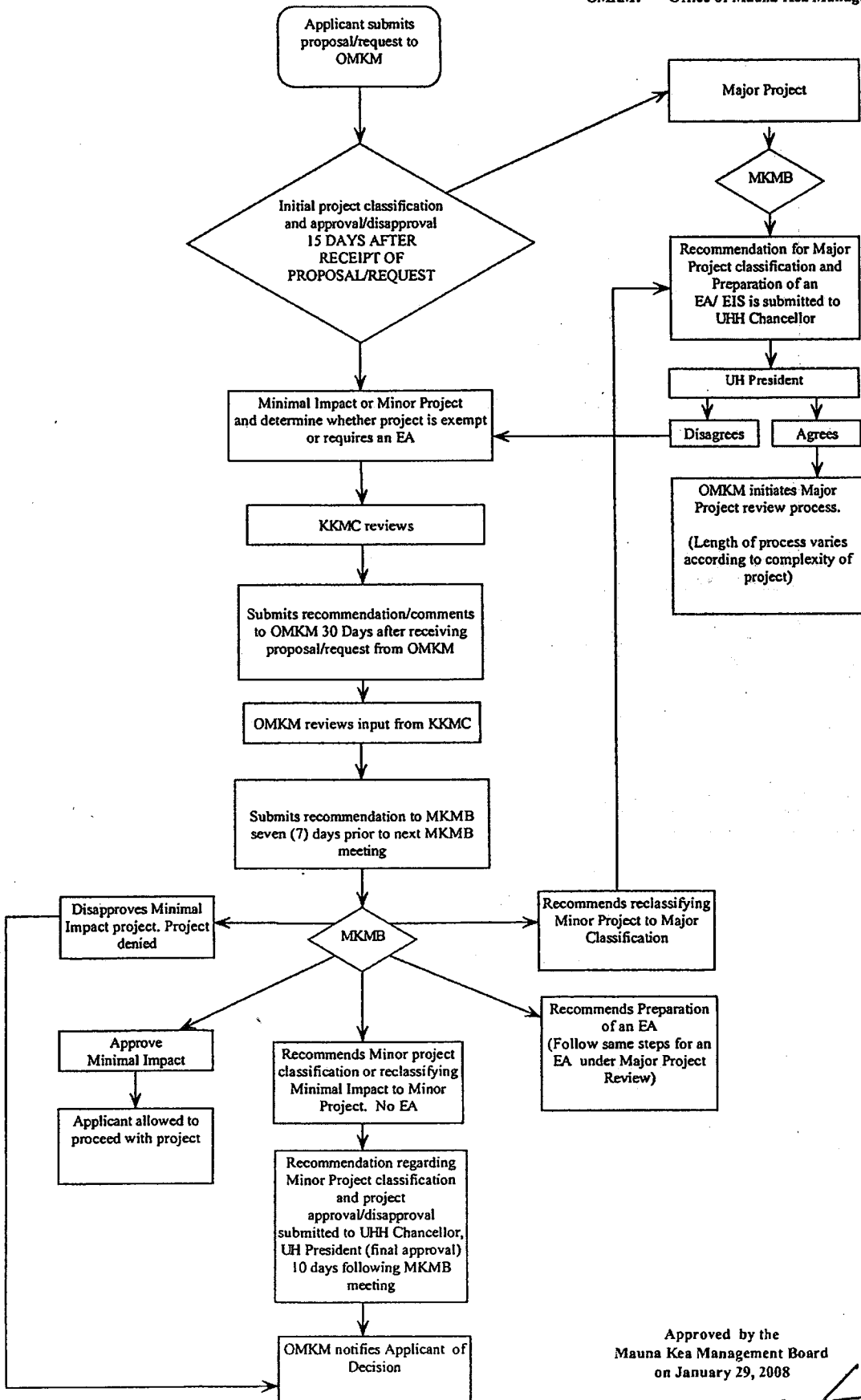


EXHIBIT 4 1 of 2

SCHEDULE FOR PROCESSING PROPOSALS SUBMITTED TO OMKM

KKMC: Kahu Ku Mauna Council
 MKMB: Mauna Kea Management Board
 OMKM: Office of Mauna Kea Management



Approved by the
 Mauna Kea Management Board
 on January 29, 2008

EXHIBIT

4

2012

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
Honolulu, Hawaii

March 25, 2010

Board of Land and
Natural Resources

REGARDING: Request for Approval of Natural Resources Management Plan, Cultural Resource Management Plan, Public Access Plan, Decommissioning Plan, Project Development and Management Framework, and Approval of Delegation of Implementing Authority from the University of Hawaii Board of Regents to the Office of Mauna Kea Management, Pursuant to the Mauna Kea Comprehensive Management Plan

APPLICANT: University of Hawaii

LANDOWNER: State of Hawaii, Leased to the University of Hawaii

LOCATION: Mauna Kea Science Reserve, Including Hale Pohaku, and Summit Access Road, Island of Hawaii

TMKs: TMK: (3) 4-4-15:9 (Science Reserve)
TMK: (3) 4-4-15:12 (Hale Pohaku)

AREA OF PARCEL: +11,288 acres (Science Reserve)
+ 19 acres (Hale Pohaku)

SUBZONE: Resource

Document Access: The Natural Resources Management Plan, Cultural Resource Management Plan, Public Access Plan, and Decommissioning Plan are too large to attach to this report and can be viewed on line at the following web address: <http://hawaii.gov/dlnr/occl/mauna-kea-management-plan/mauna-kea-management-plan>. Hard copies may also be reviewed at the Department of Land and Natural Resources, Land Division Office, at 75 Aupuni Street, Room 204, Hilo,

**Mauna Kea Comprehensive Management Plan
Sub Plans**

or at 1151 Punchbowl Street, Honolulu, Room 131.
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On April 9, 2009 the Board of Land and Natural Resources (BLNR) approved the Mauna Kea Comprehensive Management Plan (CMP) subject to eight (8) conditions (Exhibit 1). The BLNR action required UH to submit four (4) sub plans within one year of April 9, 2009: Natural Resources Management Plan; Cultural Resource Management Plan; Public Access Plan; Decommissioning Plan, including a financial element; and Project Development and Management Framework. The BLNR action also required UH to submit an annual status report on the development of each sub plan and a status report on the development of each management action¹. Additionally, condition one (1) required the BLNR to approve any delegation of authority, for implementation of the CMP, from the University of Hawaii Board of Regents to the Office of Mauna Kea Management.

DESCRIPTION OF AREA AND CURRENT USE:

The Mauna Kea Science Reserve (MKSR) encompasses 11,288 acres of State land leased to the University of Hawaii (UH) under General Lease S-4191. According to the University of Hawaii, Institute for Astronomy (UHIFA), about 0.36 percent (40.5 acres) of the lease area is currently being used by observatories and related development. UH also controls + 19 acres of land at Hale Pohaku (mid-level facilities), which includes the support facilities for the observatories. The third area within the UH Management Area is the Summit Access Road that extends from Hale Pohaku to the boundary of the Mauna Kea Science Reserve, including a 400-yard wide corridor on either side of the road, excluding those areas within the adjacent Mauna Kea Ice Age Natural Area Reserve (Exhibit 2, UH Management Areas). Surrounding land uses include the Mauna Kea Ice Age Natural Area Reserve and the Mauna Kea Forest Reserve. The Science Reserve is located within the Resource subzone of the State Conservation District (Exhibit 3, Conservation District Subzones).

¹ The first annual status report will be presented the Board at the April 8, 2010 Land Board Meeting.

**Mauna Kea Comprehensive Management Plan
Sub Plans**

PROPOSED ACTION

UH is seeking the approval of the BLNR for the CMP sub plans under the BLNR's authority to consider such plans, pursuant to Chapter 183C, Hawaii Revised Statutes (HRS). The BLNR's authority to consider management plans falls under Section 183C-1, HRS, which states as follows:

The legislature finds that lands within the state land use conservation district contain important natural resources essential to the preservation of the State's fragile natural ecosystems and the sustainability of the State's water supply. It is therefore, the intent of the legislature to conserve, protect, and preserve the important natural resources of the State through **appropriate management** and use to promote their long-term sustainability and the public, health, safety and welfare.

The CMP was prepared in accordance with the Third Circuit Court's Decision and Order (Civ. No 04-1-397) in the Keck Outrigger Telescopes Appeal. The CMP is intended to be consistent with guidance found in the court's January 19, 2007 decision. In that matter, which resulted in the reversal of the Keck Outrigger Telescope Conservation District Use Permit (CDUP), the circuit court ruled that the Management Plan submitted and approved by the BLNR for the project was not comprehensive under Hawaii Administrative Rules (HAR) 13-5-24. The circuit court's conclusions of law suggested that any Management Plan for Mauna Kea would need to be "comprehensive" and should not be project-by-project based (which was the case in the Keck Outrigger Telescope), and that the Management Plan should cover multiple land uses within the larger overall areas that UH controls at the top on Mauna Kea in the Conservation District. The circuit court's decision also stipulated that a management plan would be a precondition to the granting of a CDUP for R3 (Astronomy Facilities).

The CMP builds on pre-existing management plans including the 1995 Management Plan for UH Management Areas (approved by the BLNR, and updated and incorporated into the CMP), and the 2000 Mauna Kea Master Plan (approved by the UH Board of Regents).

Mauna Kea Comprehensive Management Plan Sub Plans

A Draft Environmental Assessment (EA) for the CMP was published in the OEQC Bulletin for public review on February 2, 2009. UH approved the EA on April 1, 2009, through the issuance of a Finding of No Significant Impact FONSI to the Environment.

All sub-plans are part of the overall management strategy being implemented for the UH Management Areas on Mauna Kea. These plans help OMKM meet its mission and to allow for multiple uses of the mountain while protecting resources. They provide detailed discussions of particular elements and related management solutions: NRMP (ecological issues); CRMP (cultural and archaeological resources); PAP (public access plan); and DP (decommissioning plan). All sub-plans contain lists that cross-reference Mauna Kea CMP management actions to related sections in the sub-plans to aid in implementation. Management on Mauna Kea requires collaboration and cooperation among the various stakeholders because there are overlapping jurisdictions and because ecosystems do not recognize political or property boundaries.

CONTENTS OF CMP SUB PLANS

Natural Resources Management Plan

The Natural Resources Management Plan (NRMP) provides the implementing guidelines and framework for the protection of natural resources in the UH Management Areas. The NRMP provides a detailed assessment on the status and threats to natural resources and the development of a management program to conserve the resources. The NRMP was initiated as a project of the Mauna Kea Management Board (MKMB) Environment Committee, and is unique because it is the first plan to focus on the protection and preservation of natural resources in the UH Management Areas. The plan offers specific management actions to reduce the identified threats to natural resources and to guide adaptive responses to future threats.

The areas covered in the NRMP include some of Hawai'i's unique and rare alpine ecosystems. These fragile ecosystems are valuable resources to the citizens of Hawai'i and to the global community. The NRMP is based on a scientific framework that includes comprehensive review of existing scientific studies, biological inventories, historical documentation, and human uses of the area that identifies

**Mauna Kea Comprehensive Management Plan
Sub Plans**

the current state of knowledge of resources, information gaps, threats, management activities and the effectiveness of current management actions. Community consultation was also part of the process, with surveys, email and phone interviews, and meetings held in Hilo and Honolulu to gather input from scientific experts, natural resource managers, and concerned members of the public.

The NRMP includes five component plans, which describe the core elements of the proposed management program. Each component plan explains why it is needed; details its goals and objectives; provides a brief review of the current understanding of the natural resources and management needs; and provides recommended management actions. Managers will use the NRMP as guidance, in concert with other management directives, to prioritize and implement relevant parts. It is not the intent of this plan that all of the management actions be implemented, but rather the best ones may be chosen depending on management priorities, situation, availability of funding, and the results of baseline inventories and long-term monitoring. An adaptive management approach will ensure that the management strategies reflect input received from inventory, monitoring and research activities in order to preserve and protect the natural resources of Mauna Kea.

Natural Resource Inventory, Monitoring and Research Component Plan: describes the development of an Inventory, Monitoring and Research (IM&R) program and identifies data gaps and information needs for the natural resources found within UH Management Areas. Comprehensive and well-designed IM&R programs allow managers to determine the status of natural resources, track changes in resources over time, identify new threats, measure progress towards meeting management objectives, and plan future research and management. IM&R needs are prioritized according to current understanding of the resources and data gaps. The IM&R program is divided into: baseline inventories, long-term monitoring, and research. To date, only limited baseline data has been collected on natural resources in UH Management Areas. Decisions on what resources to monitor over the long term will be based on the results of the baseline inventory and the objectives of the management program, including adhering to any legal requirements.

Threat Prevention and Control Component Plan: reviews current and potential threats to natural resources, and

Mauna Kea Comprehensive Management Plan Sub Plans

presents a range of management actions to deal with identified threats. For many threats, the magnitude of the impact will depend on the types of activities that occur on the land and the level of use - e.g., human uses and activities. Management activities to control or prevent threats will by necessity be focused primarily in areas of high impact.

Natural Resources Preservation, Enhancement, and Restoration Component Plan: describes and prioritizes preservation, enhancement, or restoration management activities to protect native plant and animal communities and their habitats.

Education and Outreach Component Plan: describes the continued development of OMKM's educational and outreach efforts and provides recommended education and outreach activities to improve understanding of the unique natural resources found within UH Management Areas to provide visitors and users with the information they need to understand and protect the natural resources.

Information Management Component Plan: describes the activities needed to successfully manage information on natural resources to inform management decisions. Recommendations include establishment of a geographic information system (GIS) system at OMKM, maintaining data, and continued support and improvement of the OMKM library.

The Mauna Kea Management Board (MKMB) approved the NRDP on October 14, 2009 followed by approval by the BOR on November 19, 2009.

Cultural Resources Management Plan

The Cultural Resources Management Plan (CRMP) provides OMKM with the tools it needs to meet its cultural resource management responsibilities in several ways. It begins by identifying key management objectives and goals that can be used in making budget decisions, assessing staffing needs, and setting up contracts for specialized services. The major objectives include:

- promoting a greater understanding of the rich cultural heritage of Mauna Kea;
- preserving and managing cultural resources in a sustainable manner so that future generations

**Mauna Kea Comprehensive Management Plan
Sub Plans**

will be able share in and contribute to a better understanding of the historic properties that exist in the summit region, which is of major cultural significance to Hawaiians;

- maintaining opportunities for Native Hawaiians to engage in cultural and religious practices; and
- preserving the cultural landscape for the benefit of cultural practitioners, researchers, recreationalists, and other users.

The Management Plan is divided into three parts: (1) general management issues; (2) specific public and commercial uses, and (3) long-term management programs, plans, strategies and other needs.

The CRMP examines specific activities in terms of the potential threats or impacts that each may have on historic properties and presents appropriate mitigation measures to avoid or minimize impacts. In some cases there are existing policies and regulations that can be followed to protect cultural and archeological resources. In other cases, new policies, guidelines, or regulations are needed. For example, one of the issues addressed in the Management Plan is the perceived need for the Hawaiian community to consider the possible effects of on-going cultural and religious practices on historic properties. OMKM's cultural advisory group, the Kahu Kū Mauna Council, will take the lead in consulting with Hawaiian organizations and individuals with historical ties to Mauna Kea, cultural practitioners, and the Mauna Kea Management Board in developing procedures and protocols regarding cultural issues such as on-going cultural and religious practices including the construction of new shrines.

The Management Plan identifies several priority management actions: (1) preparation of a Burial Treatment Plan; and (2) preparation and implementation of a final Archaeological Monitoring Plan and development of a archeological monitoring program. OMKM can proceed with the preparation of these two mitigation plans once the archeological inventory survey report for the Mauna Kea Science Reserve has been approved (sometime in early April).

The Mauna Kea Management Board (MKMB) approved the CRMP on October 14, 2009 followed by approval by the BOR on November 19, 2009.

**Mauna Kea Comprehensive Management Plan
Sub Plans**

Public Access Plan

The Public Access Plan for the UH Management Areas on Mauna Kea (PAP) sets forth principles and policies to be used as guidelines for future administrative rules and management decisions/actions that will serve to protect the area's natural and cultural resources while enabling public and Native Hawaiian activities and uses. Throughout the PAP six key tenets are consistently stressed: (1) The UH Management Areas on Mauna Kea are public lands held in trust for Native Hawaiians and the general public by the State and UH; (2) Protection of public health and safety is of paramount importance when managing these public lands; (3) An informed public is best prepared to make good decisions and act responsibly while on Mauna Kea; (4) Native Hawaiian traditional and customary rights are legally and constitutionally protected and can be accommodated and reasonably regulated in the interest of public health and safety and protection of natural and cultural resources; (5) Management decisions and actions should be guided by reliable data; and (6) UH has the responsibility to establish rules to govern public activities. The rules are subject to review and approval by BLNR and should allow for a range of methods to control public activities, starting with the lowest levels of control.

Recognizing that diverse activities and purposes bring people into the Mauna Kea upper elevation lands, a key approach to developing the PAP was gathering information through in-depth interviews, small focus groups, and roundtable discussions. Emphasis was placed on interviewing people who had the most on-the-ground experience in Mauna Kea's challenging environment and extensive interaction with the variety of people who go there. This group included rangers (past and present), facility managers, DLNR resource managers, and enforcement authorities. Other stakeholders brought into the planning process included Native Hawaiian cultural practitioners and community leaders, hunters, astronomers, snow players, commercial tour operators and educators. In all, over 80 individuals were interviewed, participated in three small group meetings or two roundtable discussions.

Principles, policies, and recommendations are the product of integrating the information obtained from years of data collection, interviews, meetings and roundtable discussions

**Mauna Kea Comprehensive Management Plan
Sub Plans**

with existing written reports, plans and studies about Mauna Kea and other relevant references. Recommendations are focused on education, interpretation and signage, resource protection, and continuing to monitor human impacts. A range of recommendations for new or improved access guidelines for commercial and non-commercial visitors is provided - e.g., maintaining a presence of interpretive and enforcement personnel to educate visitors and to provide deterrents for inappropriate behavior, improving signage to encourage visitors to stop at the visitor station, and providing alternatives to visitors at the midlevel facilities to reduce visitors in the summit area, just to name a few.

The Mauna Kea Management Board (MKMB) approved the Public Access Plan on January 19, 2010 followed by approval by the BOR on January 28, 2010.

Decommissioning Plan

The Decommissioning Plan describes a process for decommissioning observatories on Mauna Kea, including financial planning, that is acceptable to UH and DLNR. It clearly outlines expectations for both existing and future observatories on Mauna Kea and describes the roles of DLNR (land owner and lessor), UH (lessee), and the observatories (sublesses). Observatories that follow the decommissioning process outlined in this plan will ensure that all elements of the process adhere to all applicable statues and local ordinances and are coordinated with and approved by UH and DLNR.

Decommissioning is initiated when a sublessee decides to cease operation due to changing priorities, lack of funding, or obsolescence; when the sublease expires; or if UH revokes a sublease. The plan defines decommissioning as a process that results in the *partial or total* removal of all structures associated with an observatory facility and the restoration of the site, to the greatest extent possible, to its pre-construction condition. Provisions for financial planning for decommissioning are included to ensure that adequate funds are available to pay for the costs of deconstruction and site restoration at the end of the life of the observatory.

The Decommissioning Plan outlines the decommissioning terms currently contained in the master lease and subleases and

**Mauna Kea Comprehensive Management Plan
Sub Plans**

addresses potential terms for new and/or renegotiated subleases. The plan acknowledges the distinction between the requirements for existing and new and/or renegotiated subleases. In particular, it is recommended that existing sublesses utilize this process in the eventual removal of their observatories. The process and proposed requirements may also be included in any new or renegotiated leases or subleases in the Science Reserve.

Guidance for practical implementation of the decommissioning process including site restoration is presented, including specific details on the course of action to be implemented by sublesses to comply with terms of subleases related to decommissioning. The components of *Site Decommissioning Plan* for any decommissioning include: Notice of Intent, Environmental Due Diligence Review, Site Deconstruction and Removal Plan, Site Restoration Plan, and Decommissioning Funding Plan. CDUPs may be required as part of the decommissioning process when the observatory is demolished and provide the opportunity for BLNR to impose additional conditions.

UH addresses its goal of maintaining a world-class observatory complex and the role of telescope decommissioning in achieving limited growth to further protect natural and cultural resources at Mauna Kea. Current observatory plans (proposed construction, decommissioning) indicate, based on UH's current understanding, that there may be a total of ten observatories in the Astronomy Precinct by the end of the current master lease (2033). There are currently twelve telescopes in the Astronomy Precinct, and one outside the precinct (VLBA). The Decommissioning Plan does not address specific timelines or dates for decommissioning observatories, except that all decommissioning activities shall be completed by the end of the master lease, nor does it address the process of renegotiation of a new master lease or sublease agreements. It should be recognized that if no new lease is granted, the observatories will need to be removed and the site restored no later than the end of the master lease.

The Mauna Kea Management Board (MKMB) approved the Decommissioning Plan on January 19, 2010 followed by approval by the BOR on January 28, 2010.

Project Development Implementation Framework (Exhibit 4)

Mauna Kea Comprehensive Management Plan Sub Plans

The basis for successful management of UH's managed lands on Mauna Kea is the 2000 Mauna Kea Science Reserve Master Plan (Master Plan). The goal of the Master Plan was to set UH on the right path by discontinuing past practices and gaining trust and support from the Hawai'i Island community. The key to successful management was to allow the Hawai'i Island community to lead in the management of the mountain by creating a new management structure under the University of Hawai'i at Hilo (UHH) replacing the top-down approach based out of Manoa. The intent of the Master Plan was a bottom-up approach to management while still keeping final decision making at the president and Board of Regents levels.

New Management Structure

The new management structure consists of:

- Office of Mauna Kea Management (OMKM)
 - Reports directly to the UHH chancellor

- Mauna Kea Management Board (MKMB)
 - Composed of seven members of the Hawai'i Island Community
 - Advises the UHH chancellor

- Kahu Ku Mauna Council (KKMC)
 - Native Hawaiian council that advises the MKMB and UHH chancellor on cultural matters and issues

In addition to serving as advisory bodies, both the MKMB and KKMC provide input regarding the implementation of the Master Plan and CMP. They also provide input in the development of management policies. One of the key roles of the MKMB is their review, and with input from KKMC, recommend approval or denial of projects proposed for UH's managed lands on Mauna Kea.

The Mauna Kea Management Board (MKMB) developed a flowchart illustrating the Master Plan's project review and approval process including the identification of responsible parties and their respective roles. One of the categories of proposed projects are classified as major projects, in particular, observatory development. Processing major projects is a complicated process requiring extensive UH internal reviews and approvals, as well as coordination

**Mauna Kea Comprehensive Management Plan
Sub Plans**

with State and/or Federal Environmental Impact Statement (EIS) and DLNR permitting processes.

The first step for all proposed projects is the classification of the project, whether it is minimal impact, minor or major. For minimal impact projects the MKMB reviews, approves and instructs the proposer to proceed with their project, pending approval, if required, by DLNR. Minimal impact projects involve little or no impact to the surrounding environment, such as the attachment of a camera or weather instrument to an existing building.

Minor projects include those that may have some ground disturbance to already disturbed areas and have little impact to the environment, such as adding a conduit in a shallow trench, or adding an escape external safety stairway. Major projects are large structural ones, including the development of observatories. For both minor and major projects, the MKMB recommends classification with final approval by the President. In addition, the MKMB can recommend minor project classification and approval concurrently, with final approval by the president. Major projects, are subjected to a rigorous design review process while simultaneously undergoing the EIS process. Approval of major projects requires the MKMB to first approve the final EIS followed by recommending approval of the project. The next step is review and recommendation by the UH Hilo chancellor, followed by the President. The BOR has the final authority for approving major projects.

Following BOR approval for major projects, the applicant is instructed to prepare their construction documents and the University submits a CDUA to DLNR. It should be noted that all uses (major or minor) are also subject to Hawaii Administrative Rules (Title 13-5), which is administered by the Department of Land and Natural Resources.

The Board of Regents approved the Project Development Implementation Framework on February 18, 2010.

Delegation of Authority

When OCCL originally presented this matter to the BLNR on April 8-9, 2009, staff was concerned whether the University had the necessary commitments in place to implement the CMP. Although it was clear that OMKM would be responsible

Mauna Kea Comprehensive Management Plan Sub Plans

for implementing the CMP and ensuring adherence to its provisions, OCCL was unsure in many cases who would develop each sub plan, and when this would be accomplished given the numerous sub plans identified in the CMP

On April 16, 2009, the University of Hawaii Board of Regents accepted the responsibility for implementing the CMP subject to oversight by the BLNR. At the same time, the BOR authorized and directed "through normal University governance channels the University of Hawai'i at Hilo, the Office of Mauna Kea Management, and the Mauna Kea Management Board to undertake implementation of the Comprehensive Management Plan including all conditions imposed by the Board of Land and Natural Resources and including any necessary ancillary activities and uses thereto" (BOR, Minutes, April 16, 2009).

Thus, among other things, OCCL will be seeking the BLNR's approval of the University of Hawaii's Board of Regents (BOR) delegation of implementing authority for the CMP to the University of Hawai'i at Hilo, Office of Mauna Kea Management and Mauna Kea Management Board, pursuant to condition one (1) of the BLNR's April 9, 2009 approval.

DISCUSSION:

Staff believes that the University has complied with the BLNR's requirements regarding the development of a Comprehensive Management Plan for Mauna Kea. Heretofore all land uses and activities that take place within UH managed areas will be evaluated according to these plans and processes, subject to future modifications based on an adaptive management framework.

A considerable amount of thought and effort has been devoted to the development of these plans and DLNR looks forward to achieving mutual objectives and goals through coordination with OMKM on the implementation of the plans. UH recognizes that BLNR retains final approval of uses/activities on the Mauna Kea but through these plans UH intends to carry out its stewardship responsibilities for managing Mauna Kea's unique and fragile cultural and natural resources. Staff believes that these plans along with better management capabilities within the UH system, will vastly improve our ability to protect and conserve Mauna Kea for the benefit of present and future generations.

**Mauna Kea Comprehensive Management Plan
Sub Plans**

It is staff's understanding that the university will provide the BLNR with a status update of the development of each management action in the Comprehensive Management Plan at the April 8, 2010 Land Board meeting.

This approval of sub plans should not be considered as acceptance or approval of any pending or future project, plans or proposals contained therein. Such pending or future actions require a separate review and consideration by the Department or Board of Land and Natural Resources.


Thus, staff recommends as follows:

RECOMMENDATION

Based on the preceding analysis, staff recommends that the Board of Land and Natural Resources approve the University of Hawaii's Mauna Kea Comprehensive Management Plan, Sub Plans and Project Development and Management Framework, and approval of delegation of implementing authority from the University of Hawaii Board of Regents to the Office of Mauna Kea Management.

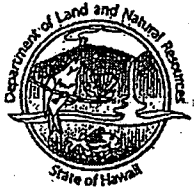
Respectfully submitted,


Samuel J. Lemmo, Administrator



Laura H. Thielen, Chairperson
Board of Land and Natural Resources

LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUI
FIRST DEPUTY

KEN C. KAWAHARA
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

APR 15 2009

Mr. David McClain, President
University of Hawaii
2444 Dole Street, Bachman Hall
Honolulu, Hawaii 96822

Dear President McClain:

Subject: Mauna Kea Comprehensive Management Plan

This is to inform you that on April 9, 2009, the Board of Land and Natural Resources (BLNR) approved the University of Hawaii's Mauna Kea Comprehensive Management Plan (CMP), subject to the following conditions:

- 1) That the University of Hawaii Board of Regents (BOR) is the entity responsible for the implementation of the CMP, subject to the oversight of the BLNR. The BOR may delegate its responsibility with the accompanying authorities to another entity within the University system, subject to the approval of the BLNR;
- 2) That within one year of the BLNR approval of the CMP, the BOR or its authorized designee shall provide the BLNR in writing and in person with the following information:
 - Status of the development of each sub plan;
 - Status of the development of each management action;
- 3) That the BOR or its authorized designee shall continue to submit annual reports to the BLNR (in writing and in person), which shall include the items listed in condition No. 2;
- 4) That within one year of the BLNR approval of the CMP, or the submission of a Conservation District Use Application, whichever occurs sooner, the University shall submit for review and approval the following sub plans:
 - A cultural resources management plan;
 - A natural resources management plan;
 - A decommissioning plan, including a financial plan; and
 - A public access plan;
- 5) That amendments to the CMP shall be reviewed and approved first by the BOR, and second by the BLNR;

EXHIBIT

1

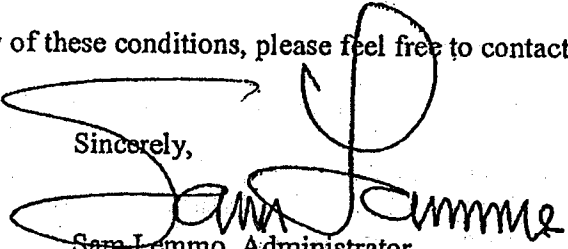
1 of 2

- 6) That the BOR recognizes that by approving the CMP, the BLNR has not delegated any authority (not already in existence) to the University with respect to land use approvals, leasing, or public access at Mauna Kea;
- 7) That within one year of the BLNR approval the CMP, or the submission of a Conservation District Use Application, whichever occurs sooner, the BOR or its authorized designee shall provide the BLNR (for review and approval) with a management and implementation framework, that has been authorized by the BOR, for project developments within UH Management Areas that is consistent with the specific management actions, conditions and policies of the CMP;
- 8) That failure to comply with these conditions may subject the University to the imposition of additional conditions to ensure compliance with the CMP and any penalties allowed under the law.

Please have the BOR's authorized designee acknowledge receipt of this approval with the above noted conditions, in the space provided below. Please sign two copies. Retain one and return the other within thirty (30) days.

Should you have any questions on any of these conditions, please feel free to contact me at 587-0377.

Sincerely,


Sam Lemmo, Administrator
Office of Conservation and Coastal Lands

Receipt acknowledged:


Applicant's Signature

Date

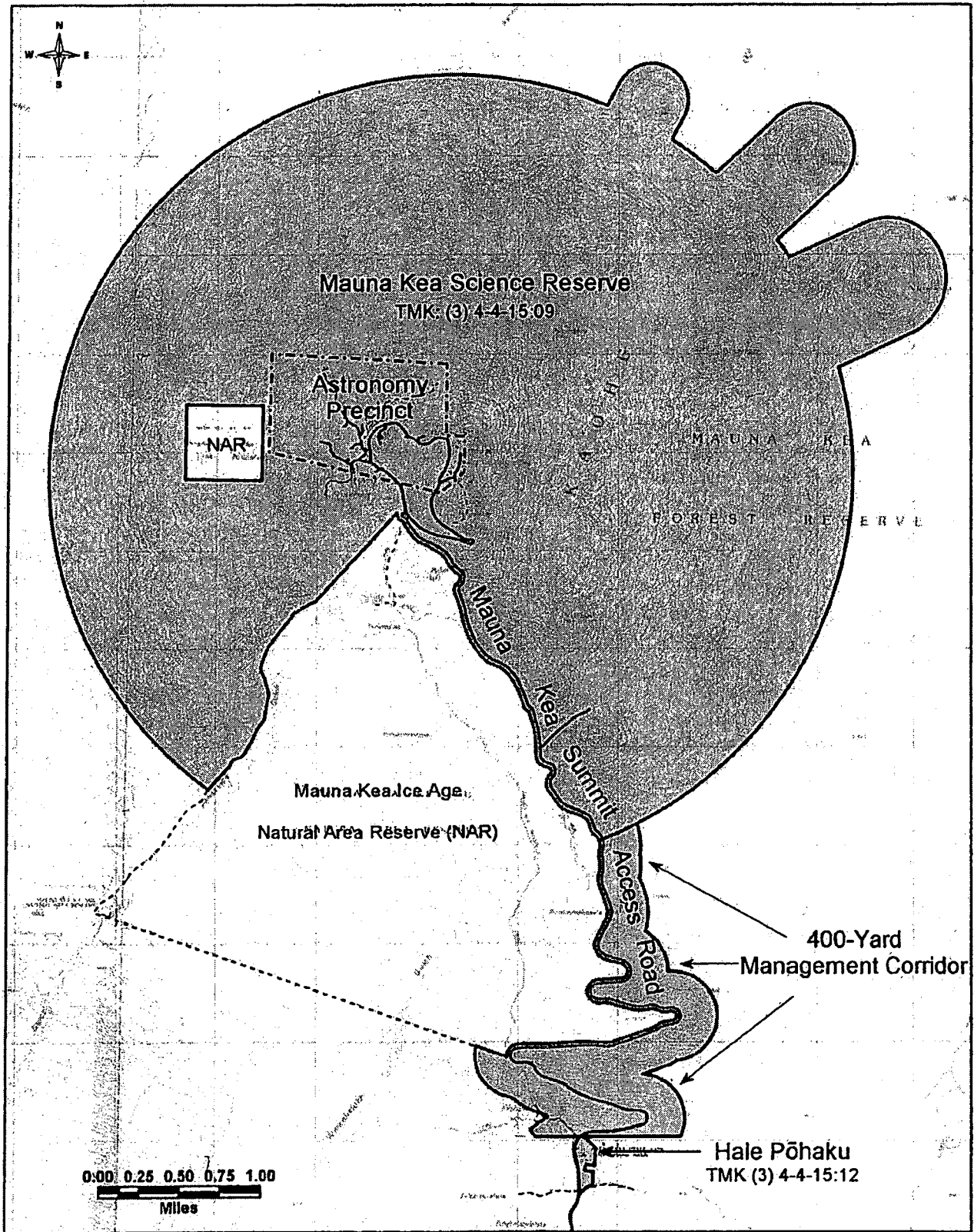
June 2, 2009

c: Chairperson, Board Members
Hawaii District Land Agent
Historic Preservation Division
NARS
Kuiwalu
OMKM

EXHIBIT

1

2 of 2



UH Management Areas

Draft Environmental Assessment for the
Mauna Kea Comprehensive Management Plan (CMP)

EXHIBIT 2

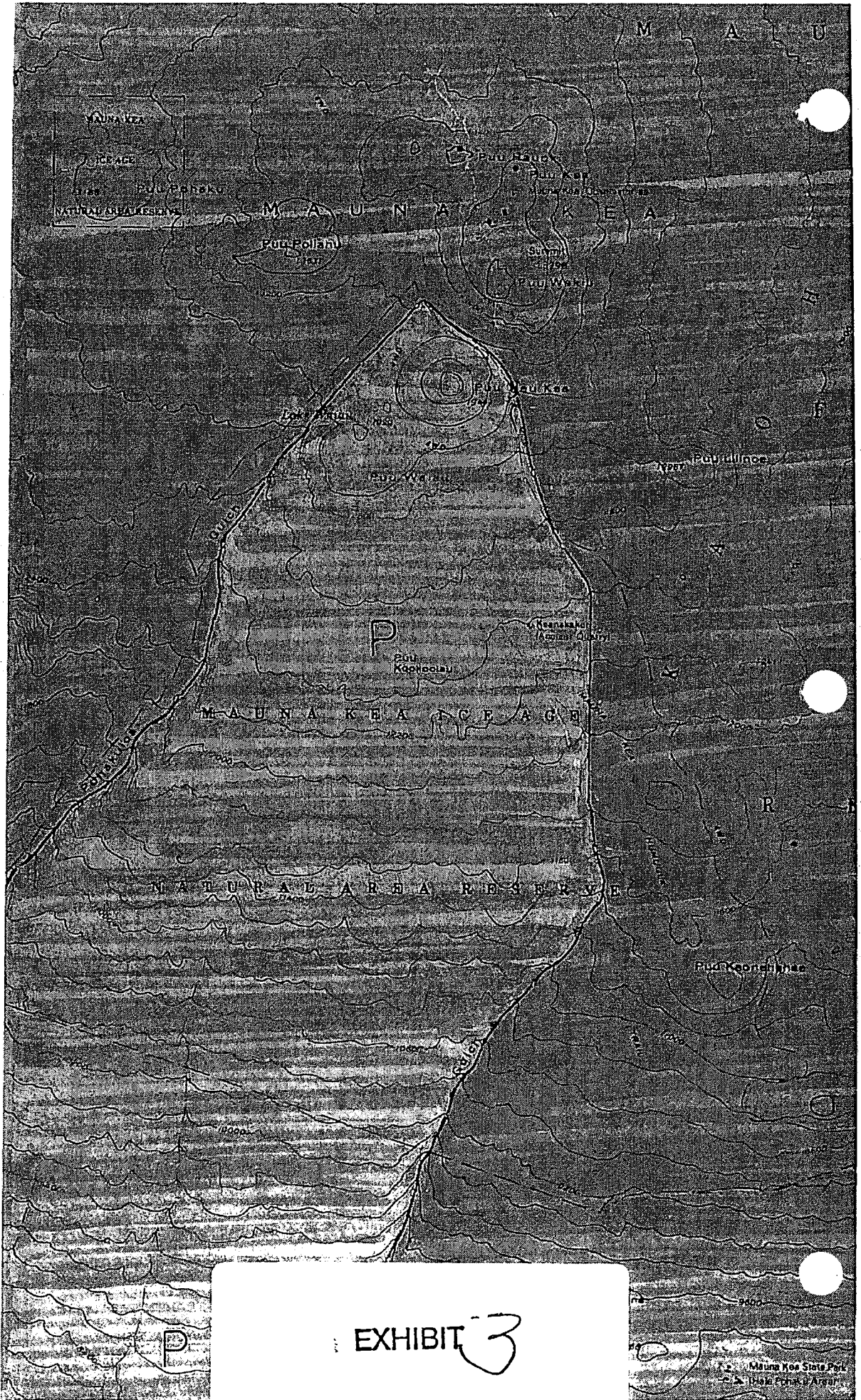


EXHIBIT 3

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MAJOR PROJECT REVIEW STEPS

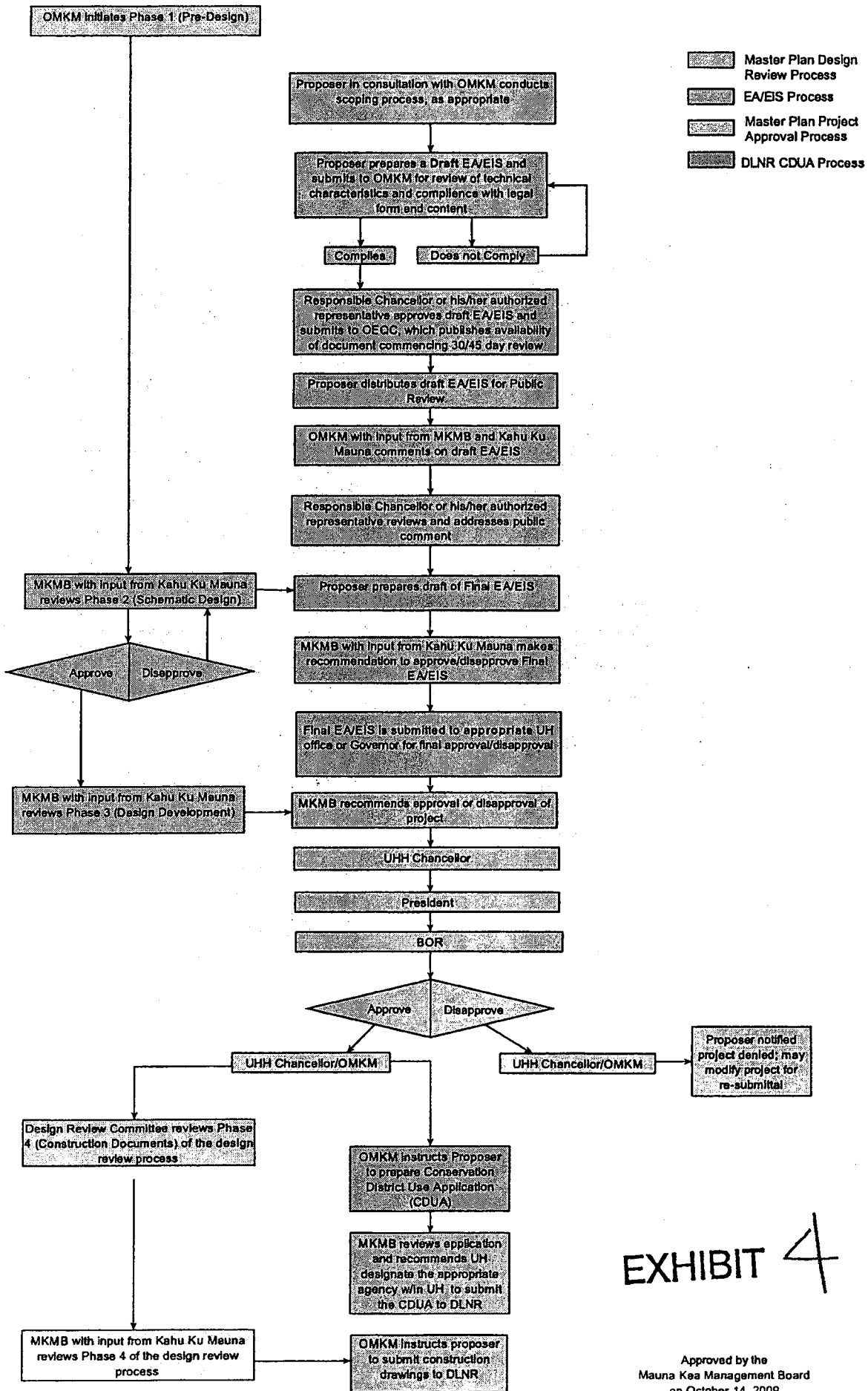
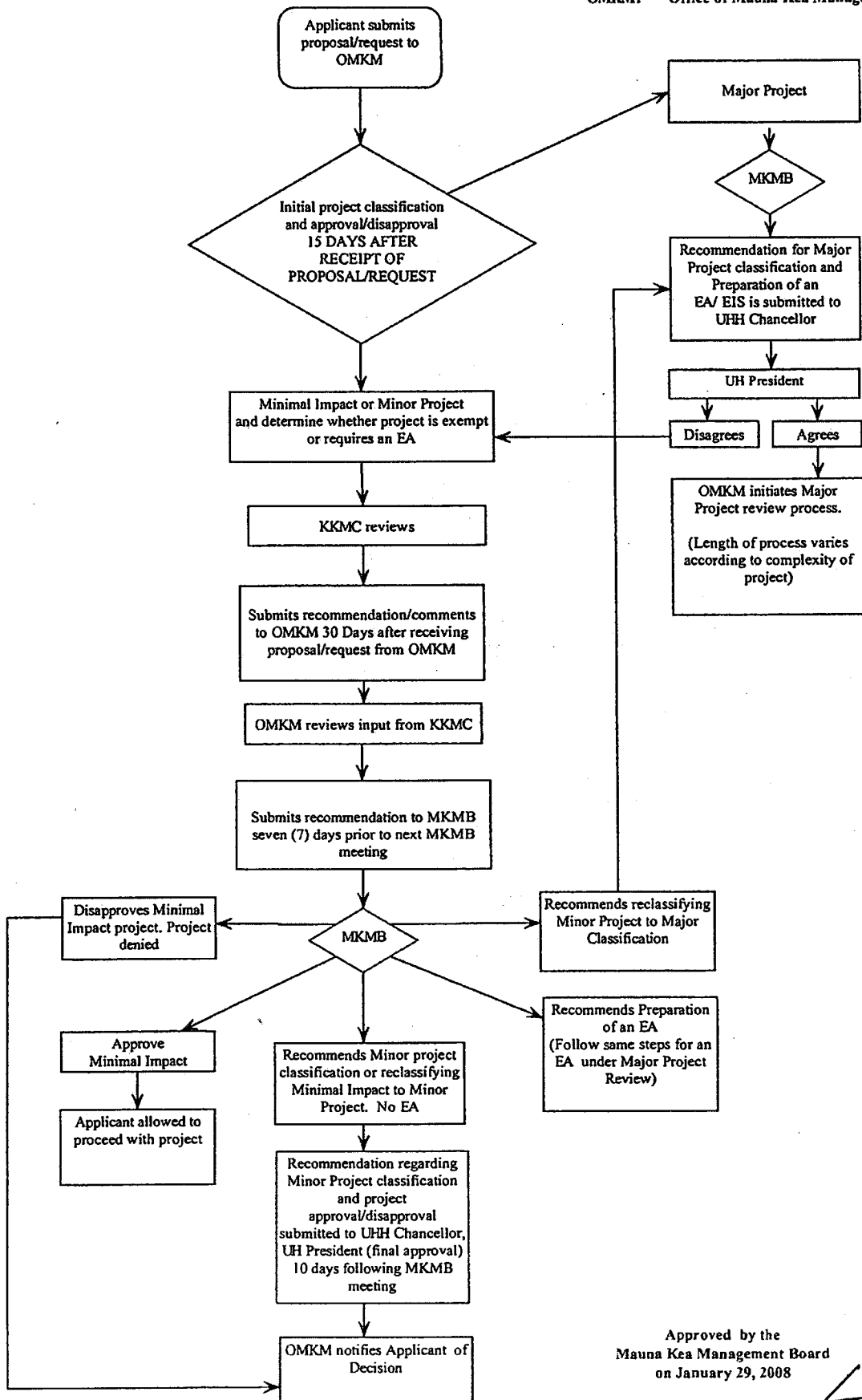


EXHIBIT 4 1 of 2

SCHEDULE FOR PROCESSING PROPOSALS SUBMITTED TO OMKM

KKMC: Kahu Ku Mauna Council
 MKMB: Mauna Kea Management Board
 OMKM: Office of Mauna Kea Management



Approved by the
 Mauna Kea Management Board
 on January 29, 2008

EXHIBIT

4

2012

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
Honolulu, Hawaii

March 25, 2010

Board of Land and
Natural Resources

REGARDING: Request for Approval of Natural Resources Management Plan, Cultural Resource Management Plan, Public Access Plan, Decommissioning Plan, Project Development and Management Framework, and Approval of Delegation of Implementing Authority from the University of Hawaii Board of Regents to the Office of Mauna Kea Management, Pursuant to the Mauna Kea Comprehensive Management Plan

APPLICANT: University of Hawaii

LANDOWNER: State of Hawaii, Leased to the University of Hawaii

LOCATION: Mauna Kea Science Reserve, Including Hale Pohaku, and Summit Access Road, Island of Hawaii

TMKS: TMK: (3) 4-4-15:9 (Science Reserve)
TMK: (3) 4-4-15:12 (Hale Pohaku)

AREA OF PARCEL: +11,288 acres (Science Reserve)
+ 19 acres (Hale Pohaku)

SUBZONE: Resource

Document Access: The Natural Resources Management Plan, Cultural Resource Management Plan, Public Access Plan, and Decommissioning Plan are too large to attach to this report and can be viewed on line at the following web address: <http://hawaii.gov/dlnr/occl/mauna-kea-management-plan/mauna-kea-management-plan>. Hard copies may also be reviewed at the Department of Land and Natural Resources, Land Division Office, at 75 Aupuni Street, Room 204, Hilo,

**Mauna Kea Comprehensive Management Plan
Sub Plans**

or at 1151 Punchbowl Street, Honolulu, Room 131.
Electronic (CD) copies of these plans may also be made
available by written request.

BACKGROUND:

On April 9, 2009 the Board of Land and Natural Resources (BLNR) approved the Mauna Kea Comprehensive Management Plan (CMP) subject to eight (8) conditions (Exhibit 1). The BLNR action required UH to submit four (4) sub plans within one year of April 9, 2009: Natural Resources Management Plan; Cultural Resource Management Plan; Public Access Plan; Decommissioning Plan, including a financial element; and Project Development and Management Framework. The BLNR action also required UH to submit an annual status report on the development of each sub plan and a status report on the development of each management action¹. Additionally, condition one (1) required the BLNR to approve any delegation of authority, for implementation of the CMP, from the University of Hawaii Board of Regents to the Office of Mauna Kea Management.

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The Mauna Kea Science Reserve (MKSR) encompasses 11,288 acres of State land leased to the University of Hawaii (UH) under General Lease S-4191. According to the University of Hawaii, Institute for Astronomy (UHIfA), about 0.36 percent (40.5 acres) of the lease area is currently being used by observatories and related development. UH also controls + 19 acres of land at Hale Pohaku (mid-level facilities), which includes the support facilities for the observatories. The third area within the UH Management Area is the Summit Access Road that extends from Hale Pohaku to the boundary of the Mauna Kea Science Reserve, including a 400-yard wide corridor on either side of the road, excluding those areas within the adjacent Mauna Kea Ice Age Natural Area Reserve (Exhibit 2, UH Management Areas). Surrounding land uses include the Mauna Kea Ice Age Natural Area Reserve and the Mauna Kea Forest Reserve. The Science Reserve is located within the Resource subzone of the State Conservation District (Exhibit 3, Conservation District Subzones).

¹ The first annual status report will be presented the Board at the April 8, 2010 Land Board Meeting.

**Mauna Kea Comprehensive Management Plan
Sub Plans**

PROPOSED ACTION

UH is seeking the approval of the BLNR for the CMP sub plans under the BLNR's authority to consider such plans, pursuant to Chapter 183C, Hawaii Revised Statutes (HRS). The BLNR's authority to consider management plans falls under Section 183C-1, HRS, which states as follows:

The legislature finds that lands within the state land use conservation district contain important natural resources essential to the preservation of the State's fragile natural ecosystems and the sustainability of the State's water supply. It is therefore, the intent of the legislature to conserve, protect, and preserve the important natural resources of the State through **appropriate management** and use to promote their long-term sustainability and the public, health, safety and welfare.

The CMP was prepared in accordance with the Third Circuit Court's Decision and Order (Civ. No 04-1-397) in the Keck Outrigger Telescopes Appeal. The CMP is intended to be consistent with guidance found in the court's January 19, 2007 decision. In that matter, which resulted in the reversal of the Keck Outrigger Telescope Conservation District Use Permit (CDUP), the circuit court ruled that the Management Plan submitted and approved by the BLNR for the project was not comprehensive under Hawaii Administrative Rules (HAR) 13-5-24. The circuit court's conclusions of law suggested that any Management Plan for Mauna Kea would need to be "comprehensive" and should not be project-by-project based (which was the case in the Keck Outrigger Telescope), and that the Management Plan should cover multiple land uses within the larger overall areas that UH controls at the top on Mauna Kea in the Conservation District. The circuit court's decision also stipulated that a management plan would be a precondition to the granting of a CDUP for R3 (Astronomy Facilities).

The CMP builds on pre-existing management plans including the 1995 Management Plan for UH Management Areas (approved by the BLNR, and updated and incorporated into the CMP), and the 2000 Mauna Kea Master Plan (approved by the UH Board of Regents).

Mauna Kea Comprehensive Management Plan Sub Plans

A Draft Environmental Assessment (EA) for the CMP was published in the OEQC Bulletin for public review on February 2, 2009. UH approved the EA on April 1, 2009, through the issuance of a Finding of No Significant Impact FONSI to the Environment.

All sub-plans are part of the overall management strategy being implemented for the UH Management Areas on Mauna Kea. These plans help OMKM meet its mission and to allow for multiple uses of the mountain while protecting resources. They provide detailed discussions of particular elements and related management solutions: NRMP (ecological issues); CRMP (cultural and archaeological resources); PAP (public access plan); and DP (decommissioning plan). All sub-plans contain lists that cross-reference Mauna Kea CMP management actions to related sections in the sub-plans to aid in implementation. Management on Mauna Kea requires collaboration and cooperation among the various stakeholders because there are overlapping jurisdictions and because ecosystems do not recognize political or property boundaries.

CONTENTS OF CMP SUB PLANS

Natural Resources Management Plan

The Natural Resources Management Plan (NRMP) provides the implementing guidelines and framework for the protection of natural resources in the UH Management Areas. The NRMP provides a detailed assessment on the status and threats to natural resources and the development of a management program to conserve the resources. The NRMP was initiated as a project of the Mauna Kea Management Board (MKMB) Environment Committee, and is unique because it is the first plan to focus on the protection and preservation of natural resources in the UH Management Areas. The plan offers specific management actions to reduce the identified threats to natural resources and to guide adaptive responses to future threats.

The areas covered in the NRMP include some of Hawai'i's unique and rare alpine ecosystems. These fragile ecosystems are valuable resources to the citizens of Hawai'i and to the global community. The NRMP is based on a scientific framework that includes comprehensive review of existing scientific studies, biological inventories, historical documentation, and human uses of the area that identifies

Mauna Kea Comprehensive Management Plan Sub Plans

the current state of knowledge of resources, information gaps, threats, management activities and the effectiveness of current management actions. Community consultation was also part of the process, with surveys, email and phone interviews, and meetings held in Hilo and Honolulu to gather input from scientific experts, natural resource managers, and concerned members of the public.

The NRMP includes five component plans, which describe the core elements of the proposed management program. Each component plan explains why it is needed; details its goals and objectives; provides a brief review of the current understanding of the natural resources and management needs; and provides recommended management actions. Managers will use the NRMP as guidance, in concert with other management directives, to prioritize and implement relevant parts. It is not the intent of this plan that all of the management actions be implemented, but rather the best ones may be chosen depending on management priorities, situation, availability of funding, and the results of baseline inventories and long-term monitoring. An adaptive management approach will ensure that the management strategies reflect input received from inventory, monitoring and research activities in order to preserve and protect the natural resources of Mauna Kea.

Natural Resource Inventory, Monitoring and Research Component Plan: describes the development of an Inventory, Monitoring and Research (IM&R) program and identifies data gaps and information needs for the natural resources found within UH Management Areas. Comprehensive and well-designed IM&R programs allow managers to determine the status of natural resources, track changes in resources over time, identify new threats, measure progress towards meeting management objectives, and plan future research and management. IM&R needs are prioritized according to current understanding of the resources and data gaps. The IM&R program is divided into: baseline inventories, long-term monitoring, and research. To date, only limited baseline data has been collected on natural resources in UH Management Areas. Decisions on what resources to monitor over the long term will be based on the results of the baseline inventory and the objectives of the management program, including adhering to any legal requirements.

Threat Prevention and Control Component Plan: reviews current and potential threats to natural resources, and

**Mauna Kea Comprehensive Management Plan
Sub Plans**

presents a range of management actions to deal with identified threats. For many threats, the magnitude of the impact will depend on the types of activities that occur on the land and the level of use - e.g., human uses and activities. Management activities to control or prevent threats will by necessity be focused primarily in areas of high impact.

Natural Resources Preservation, Enhancement, and Restoration Component Plan: describes and prioritizes preservation, enhancement, or restoration management activities to protect native plant and animal communities and their habitats.

Education and Outreach Component Plan: describes the continued development of OMKM's educational and outreach efforts and provides recommended education and outreach activities to improve understanding of the unique natural resources found within UH Management Areas to provide visitors and users with the information they need to understand and protect the natural resources.

Information Management Component Plan: describes the activities needed to successfully manage information on natural resources to inform management decisions. Recommendations include establishment of a geographic information system (GIS) system at OMKM, maintaining data, and continued support and improvement of the OMKM library.

The Mauna Kea Management Board (MKMB) approved the NRDP on October 14, 2009 followed by approval by the BOR on November 19, 2009.

Cultural Resources Management Plan

The Cultural Resources Management Plan (CRMP) provides OMKM with the tools it needs to meet its cultural resource management responsibilities in several ways. It begins by identifying key management objectives and goals that can be used in making budget decisions, assessing staffing needs, and setting up contracts for specialized services. The major objectives include:

- promoting a greater understanding of the rich cultural heritage of Mauna Kea;
- preserving and managing cultural resources in a sustainable manner so that future generations

Mauna Kea Comprehensive Management Plan Sub Plans

will be able share in and contribute to a better understanding of the historic properties that exist in the summit region, which is of major cultural significance to Hawaiians;

- maintaining opportunities for Native Hawaiians to engage in cultural and religious practices; and
- preserving the cultural landscape for the benefit of cultural practitioners, researchers, recreationalists, and other users.

The Management Plan is divided into three parts: (1) general management issues; (2) specific public and commercial uses, and (3) long-term management programs, plans, strategies and other needs.

The CRMP examines specific activities in terms of the potential threats or impacts that each may have on historic properties and presents appropriate mitigation measures to avoid or minimize impacts. In some cases there are existing policies and regulations that can be followed to protect cultural and archeological resources. In other cases, new policies, guidelines, or regulations are needed. For example, one of the issues addressed in the Management Plan is the perceived need for the Hawaiian community to consider the possible effects of on-going cultural and religious practices on historic properties. OMKM's cultural advisory group, the Kahu Kū Mauna Council, will take the lead in consulting with Hawaiian organizations and individuals with historical ties to Mauna Kea, cultural practitioners, and the Mauna Kea Management Board in developing procedures and protocols regarding cultural issues such as on-going cultural and religious practices including the construction of new shrines.

The Management Plan identifies several priority management actions: (1) preparation of a Burial Treatment Plan; and (2) preparation and implementation of a final Archaeological Monitoring Plan and development of a archeological monitoring program. OMKM can proceed with the preparation of these two mitigation plans once the archaeological inventory survey report for the Mauna Kea Science Reserve has been approved (sometime in early April).

The Mauna Kea Management Board (MKMB) approved the CRMP on October 14, 2009 followed by approval by the BOR on November 19, 2009.

**Mauna Kea Comprehensive Management Plan
Sub Plans**

Public Access Plan

The Public Access Plan for the UH Management Areas on Mauna Kea (PAP) sets forth principles and policies to be used as guidelines for future administrative rules and management decisions/actions that will serve to protect the area's natural and cultural resources while enabling public and Native Hawaiian activities and uses. Throughout the PAP six key tenets are consistently stressed: (1) The UH Management Areas on Mauna Kea are public lands held in trust for Native Hawaiians and the general public by the State and UH; (2) Protection of public health and safety is of paramount importance when managing these public lands; (3) An informed public is best prepared to make good decisions and act responsibly while on Mauna Kea; (4) Native Hawaiian traditional and customary rights are legally and constitutionally protected and can be accommodated and reasonably regulated in the interest of public health and safety and protection of natural and cultural resources; (5) Management decisions and actions should be guided by reliable data; and (6) UH has the responsibility to establish rules to govern public activities. The rules are subject to review and approval by DLNR and should allow for a range of methods to control public activities, starting with the lowest levels of control.

Recognizing that diverse activities and purposes bring people into the Mauna Kea upper elevation lands, a key approach to developing the PAP was gathering information through in-depth interviews, small focus groups, and roundtable discussions. Emphasis was placed on interviewing people who had the most on-the-ground experience in Mauna Kea's challenging environment and extensive interaction with the variety of people who go there. This group included rangers (past and present), facility managers, DLNR resource managers, and enforcement authorities. Other stakeholders brought into the planning process included Native Hawaiian cultural practitioners and community leaders, hunters, astronomers, snow players, commercial tour operators and educators. In all, over 80 individuals were interviewed, participated in three small group meetings or two roundtable discussions.

Principles, policies, and recommendations are the product of integrating the information obtained from years of data collection, interviews, meetings and roundtable discussions

Mauna Kea Comprehensive Management Plan Sub Plans

with existing written reports, plans and studies about Mauna Kea and other relevant references. Recommendations are focused on education, interpretation and signage, resource protection, and continuing to monitor human impacts. A range of recommendations for new or improved access guidelines for commercial and non-commercial visitors is provided - e.g., maintaining a presence of interpretive and enforcement personnel to educate visitors and to provide deterrents for inappropriate behavior, improving signage to encourage visitors to stop at the visitor station, and providing alternatives to visitors at the midlevel facilities to reduce visitors in the summit area, just to name a few.

The Mauna Kea Management Board (MKMB) approved the Public Access Plan on January 19, 2010 followed by approval by the BOR on January 28, 2010.

Decommissioning Plan

The Decommissioning Plan describes a process for decommissioning observatories on Mauna Kea, including financial planning, that is acceptable to UH and DLNR. It clearly outlines expectations for both existing and future observatories on Mauna Kea and describes the roles of DLNR (land owner and lessor), UH (lessee), and the observatories (sublessees). Observatories that follow the decommissioning process outlined in this plan will ensure that all elements of the process adhere to all applicable statutes and local ordinances and are coordinated with and approved by UH and DLNR.

Decommissioning is initiated when a sublessee decides to cease operation due to changing priorities, lack of funding, or obsolescence; when the sublease expires; or if UH revokes a sublease. The plan defines decommissioning as a process that results in the *partial or total* removal of all structures associated with an observatory facility and the restoration of the site, to the *greatest extent possible*, to its pre-construction condition. Provisions for financial planning for decommissioning are included to ensure that adequate funds are available to pay for the costs of deconstruction and site restoration at the end of the life of the observatory.

The Decommissioning Plan outlines the decommissioning terms currently contained in the master lease and subleases and

**Mauna Kea Comprehensive Management Plan
Sub Plans**

addresses potential terms for new and/or renegotiated subleases. The plan acknowledges the distinction between the requirements for existing and new and/or renegotiated subleases. In particular, it is recommended that existing sublesses utilize this process in the eventual removal of their observatories. The process and proposed requirements may also be included in any new or renegotiated leases or subleases in the Science Reserve.

Guidance for practical implementation of the decommissioning process including site restoration is presented, including specific details on the course of action to be implemented by sublesses to comply with terms of subleases related to decommissioning. The components of *Site Decommissioning Plan* for any decommissioning include: Notice of Intent, Environmental Due Diligence Review, Site Deconstruction and Removal Plan, Site Restoration Plan, and Decommissioning Funding Plan. CDUPs may be required as part of the decommissioning process when the observatory is demolished and provide the opportunity for BLNR to impose additional conditions.

UH addresses its goal of maintaining a world-class observatory complex and the role of telescope decommissioning in achieving limited growth to further protect natural and cultural resources at Mauna Kea. Current observatory plans (proposed construction, decommissioning) indicate, based on UH's current understanding, that there may be a total of ten observatories in the Astronomy Precinct by the end of the current master lease (2033). There are currently twelve telescopes in the Astronomy Precinct, and one outside the precinct (VLBA). The Decommissioning Plan does not address specific timelines or dates for decommissioning observatories, except that all decommissioning activities shall be completed by the end of the master lease, nor does it address the process of renegotiation of a new master lease or sublease agreements. It should be recognized that if no new lease is granted, the observatories will need to be removed and the site restored no later than the end of the master lease.

The Mauna Kea Management Board (MKMB) approved the Decommissioning Plan on January 19, 2010 followed by approval by the BOR on January 28, 2010.

Project Development Implementation Framework (Exhibit 4)

Mauna Kea Comprehensive Management Plan Sub Plans

The basis for successful management of UH's managed lands on Mauna Kea is the 2000 Mauna Kea Science Reserve Master Plan (Master Plan). The goal of the Master Plan was to set UH on the right path by discontinuing past practices and gaining trust and support from the Hawai'i Island community. The key to successful management was to allow the Hawai'i Island community to lead in the management of the mountain by creating a new management structure under the University of Hawai'i at Hilo (UHH) replacing the top-down approach based out of Manoa. The intent of the Master Plan was a bottom-up approach to management while still keeping final decision making at the president and Board of Regents levels.

New Management Structure

The new management structure consists of:

- Office of Mauna Kea Management (OMKM)
 - Reports directly to the UHH chancellor

- Mauna Kea Management Board (MKMB)
 - Composed of seven members of the Hawai'i Island Community
 - Advises the UHH chancellor

- Kahu Ku Mauna Council (KKMC)
 - Native Hawaiian council that advises the MKMB and UHH chancellor on cultural matters and issues

In addition to serving as advisory bodies, both the MKMB and KKMC provide input regarding the implementation of the Master Plan and CMP. They also provide input in the development of management policies. One of the key roles of the MKMB is their review, and with input from KKMC, recommend approval or denial of projects proposed for UH's managed lands on Mauna Kea.

The Mauna Kea Management Board (MKMB) developed a flowchart illustrating the Master Plan's project review and approval process including the identification of responsible parties and their respective roles. One of the categories of proposed projects are classified as major projects, in particular, observatory development. Processing major projects is a complicated process requiring extensive UH internal reviews and approvals, as well as coordination

**Mauna Kea Comprehensive Management Plan
Sub Plans**

with State and/or Federal Environmental Impact Statement (EIS) and DLNR permitting processes.

The first step for all proposed projects is the classification of the project, whether it is minimal impact, minor or major. For minimal impact projects the MKMB reviews, approves and instructs the proposer to proceed with their project, pending approval, if required, by DLNR. Minimal impact projects involve little or no impact to the surrounding environment, such as the attachment of a camera or weather instrument to an existing building.

Minor projects include those that may have some ground disturbance to already disturbed areas and have little impact to the environment, such as adding a conduit in a shallow trench, or adding an escape external safety stairway. Major projects are large structural ones, including the development of observatories. For both minor and major projects, the MKMB recommends classification with final approval by the President. In addition, the MKMB can recommend minor project classification and approval concurrently, with final approval by the president. Major projects, are subjected to a rigorous design review process while simultaneously undergoing the EIS process. Approval of major projects requires the MKMB to first approve the final EIS followed by recommending approval of the project. The next step is review and recommendation by the UH Hilo chancellor, followed by the President. The BOR has the final authority for approving major projects.

Following BOR approval for major projects, the applicant is instructed to prepare their construction documents and the University submits a CDUA to DLNR. It should be noted that all uses (major or minor) are also subject to Hawaii Administrative Rules (Title 13-5), which is administered by the Department of Land and Natural Resources.

The Board of Regents approved the Project Development Implementation Framework on February 18, 2010.

Delegation of Authority

When OCCL originally presented this matter to the BLNR on April 8-9, 2009, staff was concerned whether the University had the necessary commitments in place to implement the CMP. Although it was clear that OMKM would be responsible

Mauna Kea Comprehensive Management Plan Sub Plans

for implementing the CMP and ensuring adherence to its provisions, OCCL was unsure in many cases who would develop each sub plan, and when this would be accomplished given the numerous sub plans identified in the CMP

On April 16, 2009, the University of Hawaii Board of Regents accepted the responsibility for implementing the CMP subject to oversight by the BLNR. At the same time, the BOR authorized and directed "through normal University governance channels the University of Hawai'i at Hilo, the Office of Mauna Kea Management, and the Mauna Kea Management Board to undertake implementation of the Comprehensive Management Plan including all conditions imposed by the Board of Land and Natural Resources and including any necessary ancillary activities and uses thereto" (BOR, Minutes, April 16, 2009).

Thus, among other things, OCCL will be seeking the BLNR's approval of the University of Hawaii's Board of Regents (BOR) delegation of implementing authority for the CMP to the University of Hawai'i at Hilo, Office of Mauna Kea Management and Mauna Kea Management Board, pursuant to condition one (1) of the BLNR's April 9, 2009 approval.

DISCUSSION:

Staff believes that the University has complied with the BLNR's requirements regarding the development of a Comprehensive Management Plan for Mauna Kea. Heretofore all land uses and activities that take place within UH managed areas will be evaluated according to these plans and processes, subject to future modifications based on an adaptive management framework.

A considerable amount of thought and effort has been devoted to the development of these plans and DLNR looks forward to achieving mutual objectives and goals through coordination with OMKM on the implementation of the plans. UH recognizes that BLNR retains final approval of uses/activities on the Mauna Kea but through these plans UH intends to carry out its stewardship responsibilities for managing Mauna Kea's unique and fragile cultural and natural resources. Staff believes that these plans along with better management capabilities within the UH system, will vastly improve our ability to protect and conserve Mauna Kea for the benefit of present and future generations.

**Mauna Kea Comprehensive Management Plan
Sub Plans**

It is staff's understanding that the university will provide the BLNR with a status update of the development of each management action in the Comprehensive Management Plan at the April 8, 2010 Land Board meeting.

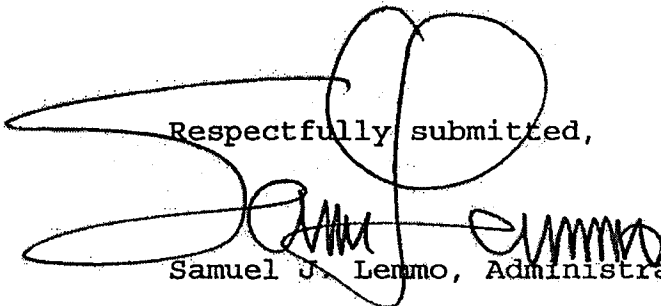
This approval of sub plans should not be considered as acceptance or approval of any pending or future project, plans or proposals contained therein. Such pending or future actions require a separate review and consideration by the Department or Board of Land and Natural Resources.

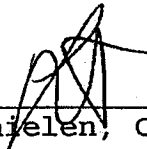
Thus, staff recommends as follows:

RECOMMENDATION

Based on the preceding analysis, staff recommends that the Board of Land and Natural Resources approve the University of Hawaii's Mauna Kea Comprehensive Management Plan, Sub Plans and Project Development and Management Framework, and approval of delegation of implementing authority from the University of Hawaii Board of Regents to the Office of Mauna Kea Management.

Respectfully submitted,


Samuel J. Lemmo, Administrator



Laura H. Thielen, Chairperson
Board of Land and Natural Resources

LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

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HONOLULU, HAWAII 96809

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
RUSSELL Y. TSUJI
FIRST DEPUTY
KEN C. KAWAHARA
DEPUTY DIRECTOR - WATER
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

APR 15 2009

Mr. David McClain, President
University of Hawaii
2444 Dole Street, Bachman Hall
Honolulu, Hawaii 96822

Dear President McClain:

Subject: Mauna Kea Comprehensive Management Plan

This is to inform you that on April 9, 2009, the Board of Land and Natural Resources (BLNR) approved the University of Hawaii's Mauna Kea Comprehensive Management Plan (CMP), subject to the following conditions:

- 1) That the University of Hawaii Board of Regents (BOR) is the entity responsible for the implementation of the CMP, subject to the oversight of the BLNR. The BOR may delegate its responsibility with the accompanying authorities to another entity within the University system, subject to the approval of the BLNR;
- 2) That within one year of the BLNR approval of the CMP, the BOR or its authorized designee shall provide the BLNR in writing and in person with the following information:
 - Status of the development of each sub plan;
 - Status of the development of each management action;
- 3) That the BOR or its authorized designee shall continue to submit annual reports to the BLNR (in writing and in person), which shall include the items listed in condition No. 2;
- 4) That within one year of the BLNR approval of the CMP, or the submission of a Conservation District Use Application, whichever occurs sooner, the University shall submit for review and approval the following sub plans:
 - A cultural resources management plan;
 - A natural resources management plan;
 - A decommissioning plan, including a financial plan; and
 - A public access plan;
- 5) That amendments to the CMP shall be reviewed and approved first by the BOR, and second by the BLNR;

EXHIBIT

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- 6) That the BOR recognizes that by approving the CMP, the BLNR has not delegated any authority (not already in existence) to the University with respect to land use approvals, leasing, or public access at Mauna Kea;
- 7) That within one year of the BLNR approval the CMP, or the submission of a Conservation District Use Application, whichever occurs sooner, the BOR or its authorized designee shall provide the BLNR (for review and approval) with a management and implementation framework, that has been authorized by the BOR, for project developments within UH Management Areas that is consistent with the specific management actions, conditions and policies of the CMP;
- 8) That failure to comply with these conditions may subject the University to the imposition of additional conditions to ensure compliance with the CMP and any penalties allowed under the law.

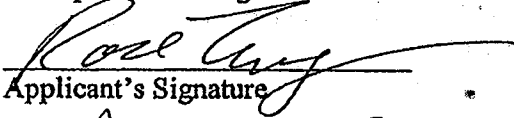
Please have the BOR's authorized designee acknowledge receipt of this approval with the above noted conditions, in the space provided below. Please sign two copies. Retain one and return the other within thirty (30) days.

Should you have any questions on any of these conditions, please feel free to contact me at 587-0377.

Sincerely,


Sam Lemmo, Administrator
Office of Conservation and Coastal Lands

Receipt acknowledged:


Applicant's Signature

Date

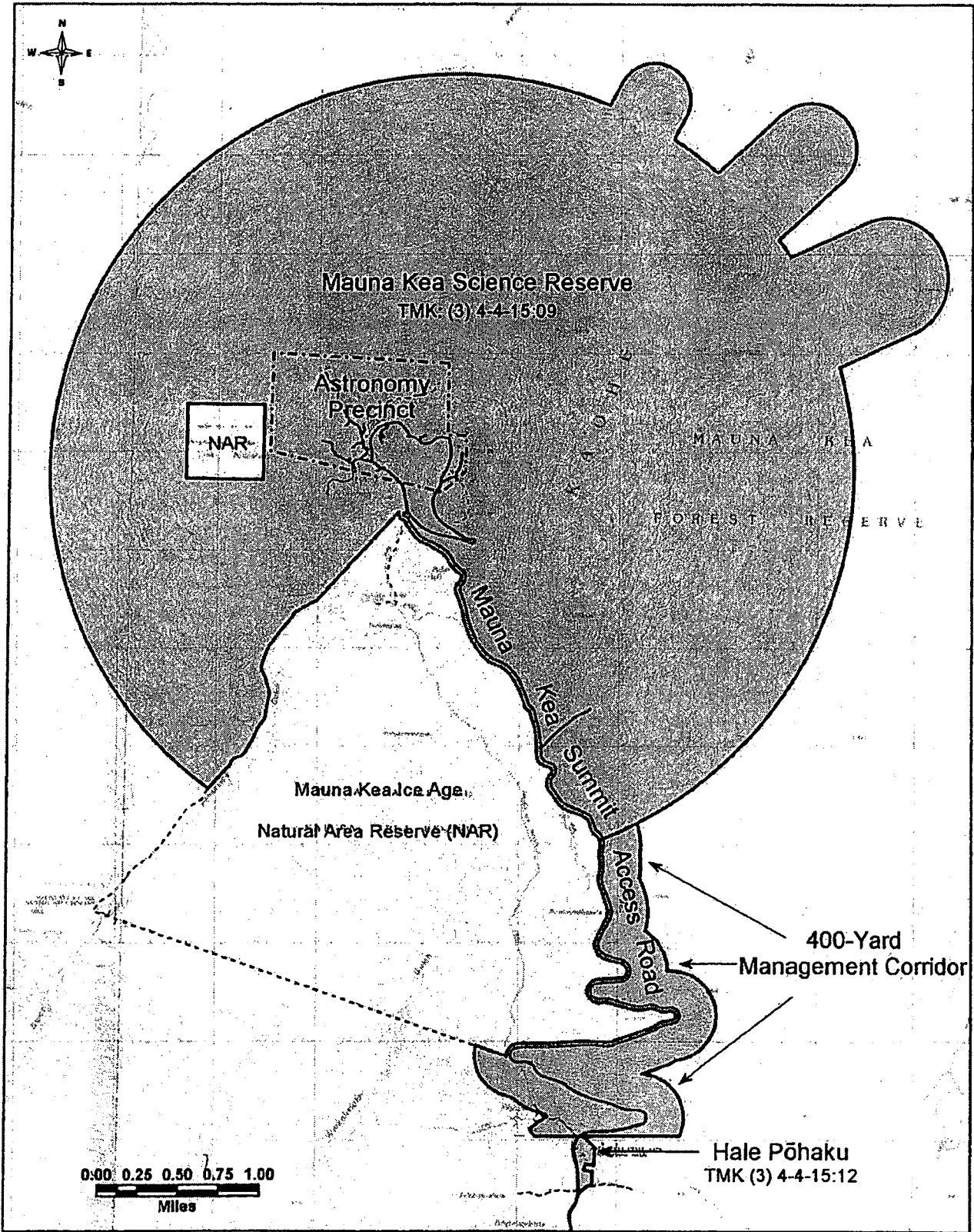
June 2, 2009

c: Chairperson, Board Members
Hawaii District Land Agent
Historic Preservation Division
NARS
Kuiwalu
OMKM

EXHIBIT

1

2 of 2



UH Management Areas

Draft Environmental Assessment for the
Mauna Kea Comprehensive Management Plan (CMP)

EXHIBIT 2

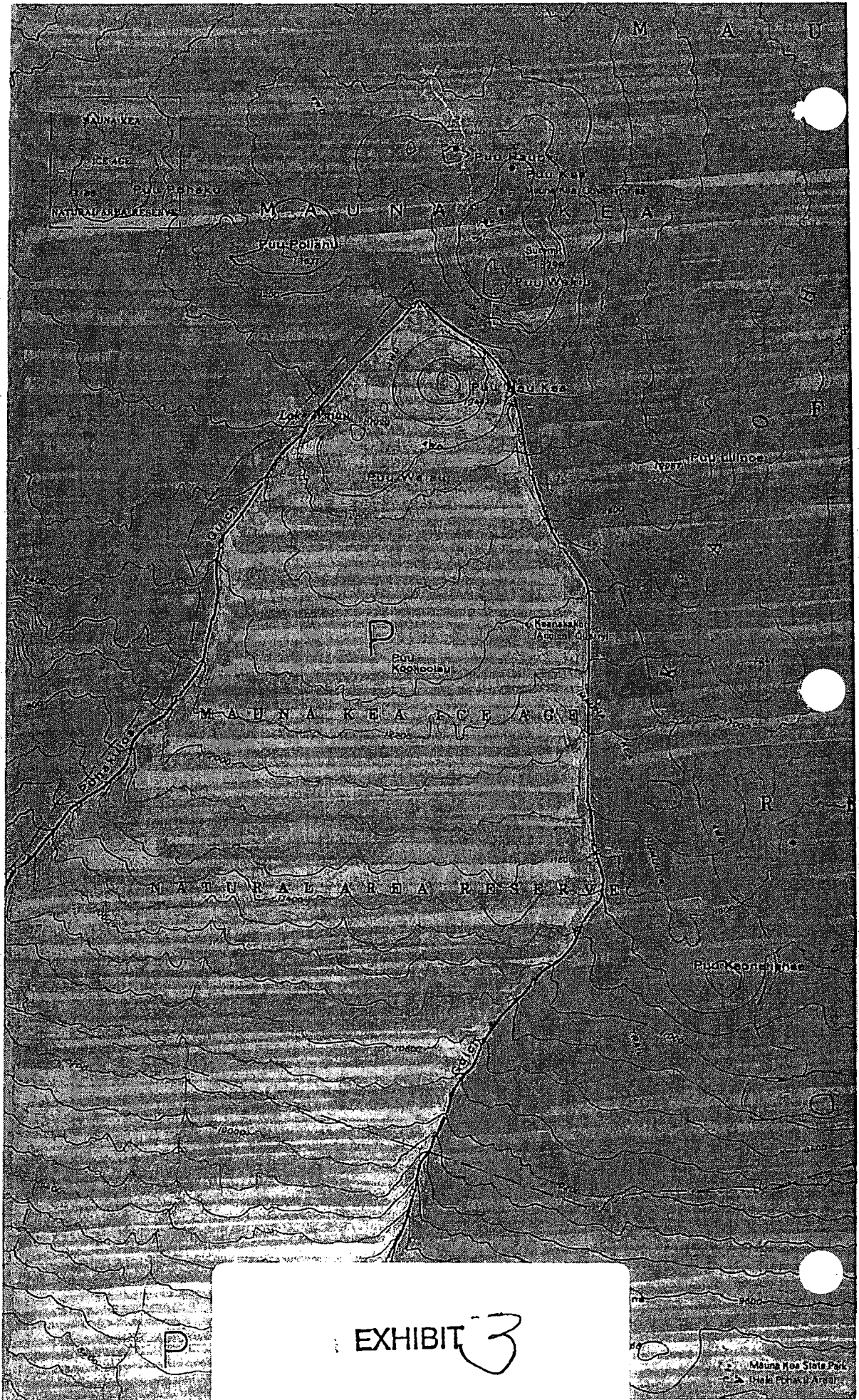
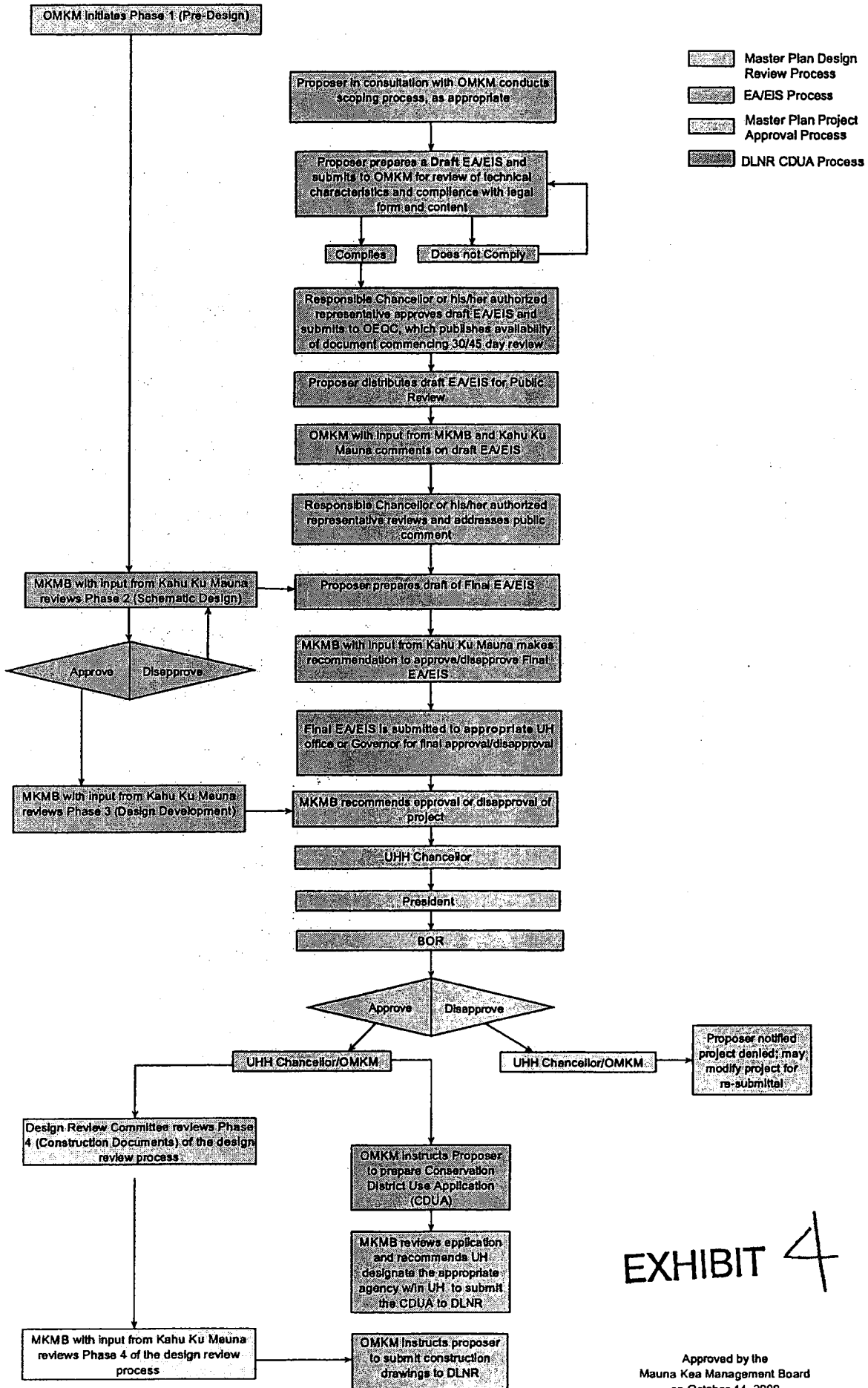


EXHIBIT 3

Mauna Kea State Park
Mauna Kea Ice Age Natural Area Reserve

MAJOR PROJECT REVIEW STEPS



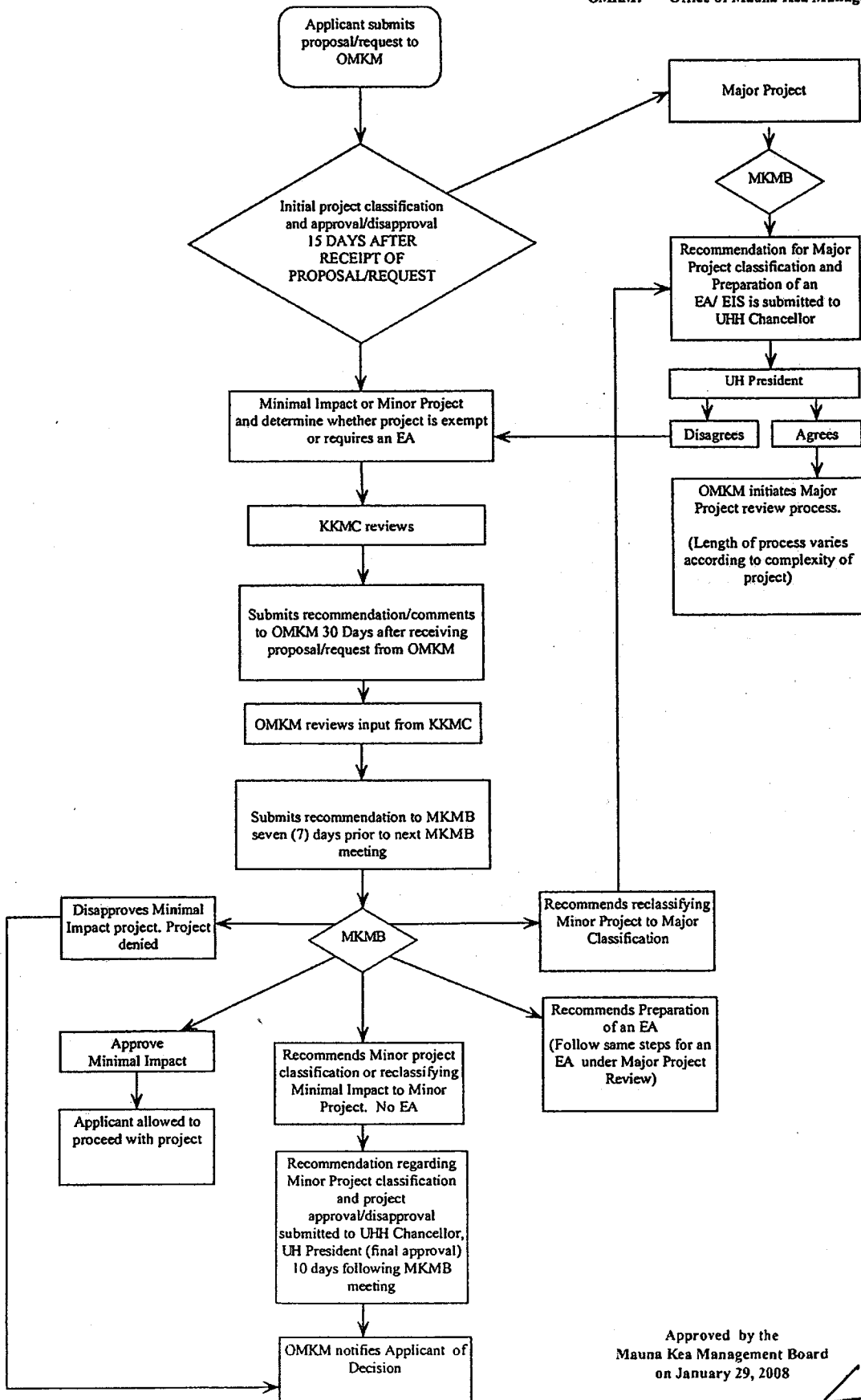
- Master Plan Design Review Process
- E/A/EIS Process
- Master Plan Project Approval Process
- DLNR CDUA Process

EXHIBIT 4

1 of 2

SCHEDULE FOR PROCESSING PROPOSALS SUBMITTED TO OMKM

KKMC: Kahu Ku Mauna Council
 MKMB: Mauna Kea Management Board
 OMKM: Office of Mauna Kea Management



Approved by the
 Mauna Kea Management Board
 on January 29, 2008

EXHIBIT

4

2 of 2