

**HE LĀ HOU KĒIA MA  
MAUNA A WĀKEA:  
A NEW DAY ON  
MAUNA A WĀKEA**

MAUNA KEA WORKING GROUP

A Report to the Legislature of the State of Hawaii

(Page Intentionally Left Blank)

DRAFT

# TABLE OF CONTENTS

Foreword.....	1
Executive Summary .....	6
<b>Chapter 1: Introduction</b>	
Scope of Report.....	8
Organization of Report.....	8
<b>Chapter 2: Background</b>	
Historical and Cultural Significance of Mauna a Wākea.....	12
No Ka Honua, Concerning the Earth.....	12
House Resolution 33 .....	15
Process and Methodology of the Working Group.....	17
<b>Chapter 3: A New Governance and Management Structure for Mauna a Wākea</b>	
Values and Guiding Principles.....	20
Jurisdiction .....	21
Organizational Structure.....	21
Powers and Duties .....	24
Access and Use Priorities.....	26
Funds and Financial Support.....	27
<b>Chapter 4: Closing</b>	
Reflection .....	28
<b>Appendices</b>	
House Resolution 33 .....	30
Summaries of Working Group Meetings .....	X
Public Comments .....	X
Maps of Mauna a Wākea.....	X

# FOREWORD

‘O Kupulanakehau wahine

I noho ia kahiko o Kahiko-luamea

Hānau o Paupaniākea

‘O Wākea no ia

Kupulanakehau is the female

Coexisted with the male, Kahikoluamea

Created was Paupaniākea

It is Wākea, indeed!

This is an excerpt from the Kumulipo chant, Ka Wa Umikumamaha, Chapter 14, Lines 1844-1847. This pauku describes the nascency of Wākea. The initial entity of origin for Wākea is the female parent, Kupulanakehau, followed by recognition of the male, Kahikoluamea. The first born is Paupaniākea, a nomenclature for Wākea. They are one and the same.

‘O hānau ka mauna a Wākea

‘Opu‘u a‘e ka mauna a Wākea

‘O Wākea ke kane, ‘O Papa, o walinu‘u ka wahine

Hānau Ho‘ohōkū he wahine

Hānau Hāloa he ali‘i

Hānau ka mauna

He keiki mauna a Wākea

# FOREWORD

The mountain of Wākea is born

Wākea's mountain pushes up and out

Wākea is the male, the supple, powerful female entity is Papa

Ho‘ohōkū is generated, a female

Hāloa is generated, a chief

The mountain is born

It is the spatial mountain progeny of Wākea

This chant is a portion of He Mele No Kauikeaouli, a chant in honor of Kamehameha III. It honors and acknowledges the wahipana o Mauna a Wākea as the eldest offspring, born of Wākea and Papawalinu‘u, male and female energies from which all life springs.

The authors of this report have chosen to utilize the nomenclature, Mauna a Wākea interchangeably with Mauna Kea to honor the significance of this mauna to the environment, island, and people.

Mauna a Wākea stands 13,803 feet above sea level near the center of Hawai‘i Island, more than 2,300 miles away from any other large land mass in the Pacific Ocean. Measured from base to peak at more than 33,500 feet, Mauna a Wākea is the tallest mountain on earth. Its physical stature as well as the neighboring Mauna Loa, which is 13,679 feet above sea level, dominate the landscape of the Island of Hawai‘i and create the myriad of climates which contribute to the island communities experiencing eleven of the world's thirteen different climate zones. Significantly, Mauna a Wākea and Mauna Loa's immense height affect the meteorology and hydrology of Hawai‘i Island, uplifting clouds pushed against the mountains by prevailing northeast tradewinds, inducing rainwater to percolate through layers of volcanic rock causing more than a billion gallons of fresh water to discharge from deep artesian aquifers into the ocean every day. (Thomas, 2008)

Interest in establishing astronomical facilities on the summit area of Mauna a Wākea began in the 1960's. In 1968, the Board of Land and Natural Resources provided a 65-year lease to the University of Hawai‘i. In 1970, the University of Hawai‘i built the first UH 88-inch telescope. By the end of the decade, five more telescopes were built, including the United Kingdom Infra-Red Telescope, the Canada-France-

# FOREWORD

Hawai'i Telescope, the NASA Infrared Telescope Facility and two smaller instruments. By 1999, fourteen telescopes were built on the summit area, including the Caltech Submillimeter Observatory, James Clerk Maxwell Telescope, Keck I, Very Long Baseline Array, Keck II, Subaru, Gemini Northern Telescope, and the Smithsonian Submillimeter Array. (Ciotti, 2011)

In 1998, following complaints filed by the Sierra Club and community members, the State of Hawai'i Legislative Auditor's office conducted an audit and issued a scathing report of the mismanagement of the Board of Land and Natural Resources and the University of Hawai'i citing little had been done to protect natural resources of the mauna and lack of follow through on recommended actions. Subsequent reports, which still identified shortcomings, were filed by the State Legislative Auditor's office in 2005, 2014, 2017, and 2019.

Further, the Board of Land and Natural Resources granted a Conservation District Use Plan (CDUP) to the Thirty-Meter Telescope Project to develop a site near the summit area of Mauna a Wākea, which created a groundswell of opposition from communities across the State of Hawai'i. After exhausting legal challenges opposition to the project resulted in a stand-off with hundreds of kia'i, or protectors, halting construction on the proposed project site in 2015. In 2019, a second attempt by the project to begin construction was met with even more opposition which resulted in thirty-eight kupuna being arrested in a peaceful protect and a backlash from across the islands and supporters outside of Hawai'i.

The December 2020 Ku'iwalu report provides the Department of Land and Natural Resources (DLNR) an independent evaluation of the University of Hawai'i's (UH), specifically the Office of Mauna Kea Management's (OMKM), implementation of the CMP management actions contained in Section 7 of the CMP and the public input on how effective UH is managing Mauna a Wākea. This comprehensive report concluded that while OMKM has made progress in implementing most of the CMPs and CMP Managed Areas, three areas of CMP were not being effectively implemented including: timely adoption of administrative rules to ensure protection of Mauna a Wākea and its resources; lack of consultation of key stakeholders on matters relating to cultural resources issues; and that OMKM did not engage with the community, particularly the Native Hawaiian community on education and outreach.

Currently, in 2021 the Board of Land and Natural Resources Chair has granted the controversial Thirty-Meter Telescope a permit to begin construction. The project remains on hold, however, as they seek additional funding from the U.S. National Science Foundation. (Astro 2020 Decadal Survey, 2021)

# FOREWORD

In consideration of these findings, the Working Group offers this report. It is with a renewed sense of hope that the new Entity and its partners will be further equipped to care for Mauna a Wākea with consistent and earnest application of the Kumu Kānāwai in all of its activities.

## **Kumu Kānāwai: The Native Hawaiian Concept of Environmental Kinship**

The setting of a kahua for this report and for the establishment of a new entity to properly manage Mauna a Wākea, rooted in Hawaiian understanding is paramount. Toward this end, the following is an offering to establish a firm foundation.

Native Hawai'i cosmivision, corpus of knowledge, and praxis emerges from a worldview that includes natural phenomena as a part of the socioecological world of relationships in which all are intimately connected.

This worldview is evidenced in the Kumulipo, the preeminent Hawaiian genealogy composed for Lonoikamakahiki circa 1700. This genealogy chronicles the genesis of the Hawaiian universe to the creation of our islands to the appearance of the simplest life forms and to the evolution to man. The Kumulipo ends with the birth of Lonoikamakahiki, thus cementing man's relationship to every single life form in these islands and conveying the idea that all life is equal, the life of a human is equal to the life of the 'ōhi'a lehua of the forest and the coral of the ocean - all organisms are related and all contribute to the health of our 'āina (land) and ourselves. The Kumulipo not only relates man's relationship to flora and fauna, but also to the 'āina that nurtures us.

Traditionally, four kānāwai (laws of nature) govern our relationship to our 'āina, ensuring the health of the 'āina so that it will continue to nurture all life forms:

**Ho'okikī Kānāwai** - the edict of continuum; the cycles that balance and regulate our environment, inclusive of the hydrologic cycle, carbon cycle, nitrogen cycle, and rock cycle. It is imperative that these cycles are maintained for any disturbance throws the environment out of balance and wreaks havoc on livelihoods and communities.

**Kua'ā Kānāwai** - the edict of emergency; the cycles of our environment, replete with natural phenomena and elemental activity, provide warnings that forecast an impending disaster, such as earthquakes that may trigger an eruption or tsunami, the receding ocean that exposes the sea floor, distant thunder and rising water levels in rivers portending flash flooding, high surf that results in strong currents and dangerous shorebreaks, freezing temperatures and blizzard conditions. Elemental activity, and

## FOREWORD

their potential hazards, should dictate our actions and our responses. Ignoring these hazards may lead to injury and death.

**Kai‘okia Kānāwai** - the edict of boundaries; natural boundaries and pathways are delineated by lava flows, rivers, valleys, ocean, shoreline, land, sky and forest, kū and hina or vertical and horizontal divisions of air, ocean and earth. Traditionally, land deemed safe for residential and commercial activity were zoned as wao kanaka, where man could live and work. Other lands were set aside and zoned as wao akua, where human activity was kept to a minimum, either for safety from elemental activity or to keep the area pristine to maintain our natural resources.

**Kīho‘iho‘i Kānāwai** - the edict of regeneration; when natural disaster or human activity changes the landscape, the land needs time to regenerate and reestablish its natural cycles. In the case of natural disasters, ecosystems can respond to restore balance in short order. Our ancestors understood this and recorded these phenomena in the Kumulipo, ‘o ke akua ke komo, ‘a‘oe komo kanaka. In the case of human disturbances, however, the capacity of natural systems to adjust depends on the nature of the system, the scope, scale, and duration of the activity, as well as the nature of its byproducts. Ecosystems with severe human disturbance often take longer to regain its balance, necessitating sustainable human intervention.

Normalizing the use of these traditional kānāwai in our modern society protects the life of kanaka, flora and fauna, as well as the health of the environment and the balance of its natural cycles. Developing this worldview can start with an inquiry into native ecology, observing nature, developing a relationship and appreciation of natural phenomena, and exhibiting a sense of responsibility in protecting that which nurtures and feeds us, the ‘āina.



(PLACEHOLDER)

DRAFT

# INTRODUCTION



Photography Credit: Ku'ulei Kanahale, Ph.D.

The kānāwai that were first introduced in the Foreword will be used as a framework for this report. Chapter 1 begins the cycle with Ho'okikī Kānāwai, the edict of continuum. Ho'okikī kānāwai is an articulation of the cycles that balance and regulate our environment. The continuance of these cycles is the reason that there is life in these islands. Of import, Mauna a Wākea generates life-giving water resources for all inhabitants of Hawai'i Island to benefit from and to appreciate. The organization of this report is described through the four kānāwai to set the organizational cornerstones for which the new entity may be firmly established and in recognition that Native Hawaiian worldview is a central cord that ties and affirms the continuance of mutual responsibility of kanaka to its 'āina.

**Kānāwai Kūikawao** - the edict of atmospheric trees; presence of large canopy trees that touch and attract the clouds in regions from wao akua to wao nāhele is required;

# INTRODUCTION

this includes the urgent necessity to reforest upper reaches of mountains; corridor planting helps create kīpuka for more rapid reforestation.

**Kānāwai Kāmilohae and Kūha‘imoana** - the edict of passage; ability for underground water and magma to have uninterrupted underground passages vertically and horizontally; for the health of ocean creatures in the freshwater areas; for the health of the island as fresh cool waters deter hurricanes from decimating islands.

## SCOPE OF THE REPORT

This report was prepared as a result of the adoption of House Resolution No. 33, H.D. 1, (Regular Session of 2021), which convened a Mauna Kea Working Group (Working Group) to develop recommendations for a new governance and management structure for Mauna a Wākea that collaboratively engages with all stakeholders, particularly the Native Hawaiian community. The findings and recommendations in this report were made by consensus by the members of the Working Group, unless noted otherwise, regarding Mauna a Wākea and how it should be managed going forward. Furthermore, while this report does not include legislation that reflects the recommendations of the Working Group, it is the intent of the Working Group that legislation be introduced in the 2022 Regular Session to reflect the recommendations made in this report. Additionally, it is not the intent of this Working Group to limit Native Hawaiian rights or cultural access to Mauna a Wākea. It is the hope of the Working Group that the new plan for Mauna a Wākea, as outlined in this report, will allow for the proper management of this spiritual, cultural, and environmentally sensitive wahi pana.

## ORGANIZATION OF THIS REPORT

The remaining chapters of this report are organized as follows:

Chapter 2 provides a comprehensive background of Mauna a Wākea, including a cultural history of Mauna a Wākea; the creation of the Mauna Kea Working Group; and an overview of the process and methodology of the Working Group in developing its recommendations.

Chapter 3 outlines the recommendations of the Working Group for a new governance and management structure for Mauna a Wākea, including the values and guiding principles, jurisdiction, organizational structure, powers and duties, access and use priorities, and funds and financial support.

# INTRODUCTION

Chapter 4 concludes the report by reflecting on the importance of this work and the recommendations of the Working Group.

DRAFT

## CHAPTER 2



Photography Credit: Ku'u'lei Kanahale, Ph.D.

## CHAPTER 2



*Pahu wai, attracting and storing water; photos showing both the pristine nature and inherent hazards of being in that elevation.*  
Photography Credit: Ku'uilei Kanahale, Ph.D.

**Kua'ā Kānāwai** - the edict of emergency, is a proclamation that dictates one's behavior in respect to natural phenomena and significant cultural sites. The history and cultural significance of an object or place informs one of the proper protocols and behavior needed upon approach. Thus, the Mauna a Wākea Working Group prioritized the preparation for productive debate, contemplation and conversation to align towards a unified purpose and generational commitment to accountable environmental kinship systems by learning about the Kumu Kānāwai.

**Kānāwai Pahulau** - the edict of 400 chambers; concerning the care of hot, steamy lands and their relationship to the ecosystems.

**Kānāwai Ulu La'au** - protection of forest at all wao levels as nurseries for further growth and promise for water recharge.

## BACKGROUND

### HISTORICAL AND CULTURAL SIGNIFICANCE OF MAUNA A WĀKEA

A subcommittee focused on Hawaiian culture content and context provides further explanation of Kumu Kānāwai as a foundational set of guidelines and a framework for fundamentally shifting from continental modeled behaviors and value systems towards Island Consciousness: to think and live like an island.

These kānāwai are intended to guide and inform how the entity designs and implements its governance and management frameworks; and performs its day to day operations by recentering permissible human use and access activities towards the overall, cumulative health and resilience of Mauna a Wākea. Conversely, the kānāwai should be applied to evaluate activities that may have adverse effects on the ecosystem. Furthermore, the kānāwai should be incorporated into policies, procedures and monitoring systems such as the review of lease renewals.

With comprehensive and consistent application of the kānāwai into the total governing and managing systems of Mauna a Wākea, the ʻāina and resident community will benefit from a strengthened reciprocal relationship. The following tenets are subprinciples to the main text and seek to describe the importance of Mauna a Wākea, which are deserving of the highest kapu. In addition, by reestablishing Kumu Kānāwai into the ethos of the Governing Entity, an increase in understanding and appreciation of Native Hawaiian history and cultural practices will be effectuated.

In summary, it is the intent of the Mauna a Wākea Working Group to adopt administrative rules enabling the Entity to ensure the protection of this vital ecosystem, in a timely manner and to actively encourage the participation of Native Hawaiians in this process.

### NO KA HONUA, CONCERNING THE EARTH

**Kānāwai Kuahiwi** - the edict of the spine of the islands affects all areas that are designated kua or tops of the islands. This includes kuahiwi or high mountains that

## CHAPTER 2

attract big clouds that gestate into rainfall. Kua provide the elemental activities that kanaka cannot reduplicate which are responsible for attracting all manner of mist, clouds, snow, water accented by names like Ka'ōhe. Other kuahiwi deter big winds and divide initial wind strength. Mokupuni or islands are made up of mauna or kuahiwi. Mokupuni are inseparable entities from the ocean floor to the crest of their summit.

Most kua summits exist at the 'Āpapanu'u spatial level or below the earth's atmosphere. The kua of Mauna Loa and Mauna a Wākea are in the 'Āpapalani spatial level. 'Āpapalani is the upper stratum of the earth's atmosphere; it is also a term used for chiefs of the highest order. It is where the gods dwell. Therefore, the mauna belongs to the atmosphere and not to the earth.

**Kānāwai Kūikawao** - the edict of atmospheric trees; presence of large canopy trees that touch and attract the clouds in regions from wao akua to wao nāhele is required; this includes the urgent necessity to reforest upper reaches of mountains; corridor planting helps create kīpuka for more rapid reforestation.

**Kānāwai Kupukupu** - the edict of "little eyes" or 'ōmaka; must allow for regeneration on land and kai; refers to new plants, coral and fish spawning seasons; seasons of germination; seasons for fledglings; season for calving as in whales. 'Ōmaka is the beginning of regeneration.

**Kānāwai Kūkeao** - health of clouds; affected by pollution in atmosphere and privatization of water cycle - care must be given to the atmosphere. Ao process includes transpiration, condensation, sublimation, rainbow, precipitation and downpour. Kahualani, cloud seeding may be a way to add to cloud health.

**Kānāwai Ulu La'au** - protection of forest at all wao levels as nurseries for further growth and promise for water recharge.

**Kānāwai Pahulau** - the edict of 400 chambers; concerning the care of aquifers and their relationship to ocean health & reef ecosystems.

**Kānāwai Pahukini** - the edict of 4,000 chambers; concerning the care of aquifers, water tables, glaciers, snow caps, caves; recognition of all manner watersheds in all strata.

**Kānāwai Kāmilohae and Kūha'imoana** - the edict of passage; ability for groundwater and underground water to have uninterrupted underground passages vertically and horizontally; for the health of ocean creatures in the freshwater areas; for health of island as fresh cool waters deter hurricanes from decimating islands.



## CHAPTER 2

**Elevated Hawaiian Practices for Mauna a Wākea are listed according to their importance as dictated by the Kānāwai and the mele oli Hānau Ka Mauna.**

1. The height of the mauna sits at an atmospheric level that prohibits occupation. The top is revered and should be treated with utmost reverence. It is the makahiapo or the oldest child and is "kapu"; therefore, prohibited for occupation. According to the mele oli the mauna has continued to grow until it was out of the earth's atmosphere, which gives it the privilege of "makahiapo keiki kapu". It also has the respect of the sun which rises each morning thus offering obeisance to the mauna. The sun is also a "keiki kapu". This is the highest kapu or prohibition owing Mauna a Wākea.
2. The gathering of water is the function of Mauna a Wākea. All water forms listed in the above kānāwai (s) are localized at different levels of the mauna. Water flows over land to Hāmākua, Hilo, and Puna and through the subterranean channels to fill the underground aquifers of the island. The pahuwai of Ka'ōhe fills the large ponds of Hilo and Puna with fresh water. The cold ocean of Hilo and Puna indicates freshwater seepage out to the ocean to refresh the reef system and the growth of limu.
3. The cloud system feeds the forest of Hāmākua, Hilo, and Puna; therefore, the water cycle between forest and atmosphere is healthy. Maintaining the continuous growth of forest trees is the reciprocity we can offer as kanaka for a continuous and healthy water cycle. Maintaining, encouraging and restoring the growth of large forests is our kuleana as kanaka for the health of this island.
4. Application of "'ohana" or environmental kinship includes genealogical connections to fire names or Pelehonuamea, the ocean or Kanaloa, the moon or Hina, the sun or Kāne, the mauna or Wākea and Papa, and the forest trees or Kū and Laka. We inherit names such as Likolehua, Mauna a Wākea, Moananui, Kalāho'ohie, Nāhuihui a Makali'i, Ahi'enaopuna, Noe, Mahina, etc. This provides the privilege of owning the element and studying its makeup, developing a personality and becoming a part of the environment and therefore the protest for the mauna displays the need to protect 'ohana.

## CHAPTER 2

### HOUSE RESOLUTION 33

The Independent Evaluation of the Implementation of the Mauna Kea Comprehensive Management Plan, prepared for the Department of Land and Natural Resources by Ku'iwalu and published in December 2020, concluded that while the University of Hawai'i has effectively implemented most of the management actions related to protecting the natural and cultural resources on Mauna a Wākea, the management actions designed to respect the Hawaiian cultural practices and resources and conduct education and outreach that were intended to restore trust between the University of Hawai'i and the Native Hawaiian community have not been effectively implemented. The report also found that the lack of genuine consultation with the Native Hawaiian community has resulted in greater mistrust of the University of Hawai'i and management of Mauna a Wākea, leading to polarizing viewpoints between various stakeholders on Mauna a Wākea and local communities.

As a result, on March 4, 2021, the Hawaii House of Representatives adopted House Resolution No. 33, H.D. 1, (Regular Session of 2021), to reconcile this mismanagement, mistrust, and polarization by convening the Working Group to develop recommendations, building on the findings of the Independent Evaluation of the Implementation of the Mauna Kea Comprehensive Management Plan, for a new governance and management structure for Mauna a Wākea that collaboratively engages with all stakeholders, particularly the Native Hawaiian community. The fifteen-member Working Group was further tasked with submitting a report of its findings and recommendations, including any proposed legislation, to the Legislature no later than December 31, 2021.

The Working Group consisted of the following membership:

1. One member to be appointed by the Speaker of the House of Representatives to serve as the Chairperson of the Working Group to facilitate the group to develop a consensus;
2. Three members of the House of Representatives to be appointed by the Speaker of the House of Representatives;
3. Seven members who are Native Hawaiian to be nominated by Native Hawaiian groups, organizations, or communities and appointed by the Speaker of the House of Representatives;
4. One representative from the Office of Hawaiian Affairs;
5. One representative from the Board of Land and Natural Resources;

## CHAPTER 2

6. One representative from the University of Hawai'i Board of Regents; and
7. One representative from the Mauna Kea Observatories.

As noted by Speaker of the House of Representatives Scott K. Saiki, since the management of Mauna a Wākea has long been an area of contention between various stakeholders and communities and continues to be one of the top issues that the State needs to resolve, the composition of the initial Working Group included eleven members who are Native Hawaiian and eleven members who reside on Hawaii Island. The members of the Working Group are:

- Representative Mark Nakashima, Chair, House of Representatives
- Representative Ty J.K. Cullen, House of Representatives
- Representative Stacelynn K.M. Eli, House of Representatives
- Representative David A. Tarnas, House of Representatives
- Ms. Jocelyn Leialoha M. Doane, Native Hawaiian Community Representative
- Dr. Lui Hokoana, Native Hawaiian Community Representative
- Dr. Bonnie Irwin, Chancellor, University of Hawai'i at Hilo
- Dr. Pualani Kanaka'ole Kanahale, Native Hawaiian Community Representative
- Mr. Joshua Lanakila Mangaul, Native Hawaiian Community Representative
- Mr. Robert K. Masuda, First Deputy, Board of Land and Natural Resources
- Mr. Rich Matsuda, Interim Chief of Operations, W.M. Keck Observatory
- Ms. Brialyn Onodera, Native Hawaiian Community Representative
- Mr. Shane Palacat-Nelsen, Native Hawaiian Community Representative
- Mr. Sterling Wong, Office of Hawaiian Affairs\*
- Dr. Noe Noe Wong-Wilson, Native Hawaiian Community Representative
- Mr. Wayne Tanaka, Office of Hawaiian Affairs\*
- Dr. Sylvia Hussey, Office of Hawaiian Affairs\*

(\*These individuals served partial-terms on the Working Group as the Office of Hawaiian Affairs representative and did not serve concurrently.)

## CHAPTER 2

### PROCESS AND METHODOLOGY OF THE WORKING GROUP

Although the formation of the Working Group brought together a group of individuals with varying opinions and diverse experiences, the Group consisted of people who all shared a deep connection to and appreciation for Mauna a Wākea. The Working Group's goal was to submit a report to the Legislature by December 31, 2021, that included recommendations for a new governance and management structure for Mauna a Wākea. The Legislature would then hold public hearings on legislation based on these recommendations to create laws needed to enact an effective governance and management structure for Mauna a Wākea.

The Working Group convened via videoconference beginning on July 1, 2021, with meetings initially scheduled on the second and fourth Wednesdays of each month. However, beginning in September, meetings were scheduled weekly, including two in-person meetings at the University of Hawai'i at Hilo, at the 'Imiloa Astronomy Center and Ka Haka 'Ula o Ke'elikōlani, respectively. Ms. Mahina Paishon-Duarte and Mr. Sterling Wong were also invited to the meetings to provide assistance as facilitators to aid the Working Group in its discussions.<sup>1</sup>

During the initial meetings, members gained a comprehensive understanding of Mauna a Wākea from the Native Hawaiian perspective, including the sacredness of Mauna a Wākea and its connection to Native Hawaiians. As the discussions turned to what the members envisioned for the future of Mauna a Wākea and its management, setting a Native Hawaiian cultural foundation became a priority for the Working Group, with the development of additional action steps to devise its recommendation for a new governing entity.

To help reach their goals and better guide decision-making, the members of the Working Group established the following unifying purpose statement and guiding value and principles:

"We recognize that Native Hawaiians have an inseparable environmental kinship with 'āina. Therefore, the health and integrity of Maunakea is paramount. Our purpose is to establish a collaborative and holistic management framework for Maunakea that is grounded in Kānāwai and the laws of nature; prioritizes Native Hawaiian voices; contributes to environmental and social justice; and is sensitive to diverse perspectives."

---

<sup>1</sup> Mr. Wong volunteered to serve as a facilitator after leaving the Working Group. He was initially appointed as the representative from the Office of Hawaiian Affairs.

## CHAPTER 2

To provide a better understanding of Mauna a Wākea and other working models for management and governance, the Working Group participated in several presentations on various topics, including cultural perspectives relating to Mauna a Wākea, the Kaho‘olawe Island Reserve, water systems, role of astronomy and the University of Hawai‘i on Mauna a Wākea, Papahānaumokuākea Marine National Monument, and Native Hawaiian concepts of environmental kinship. These presentations were informative and provided the members with opportunities to ask key questions. Additionally, the Working Group looked at several maps of Mauna a Wākea that highlighted specific features and data sets to assist with its decision-making process (see Appendix D).

A myriad of issues were discussed and considered by the Working Group at its meetings, including but not limited to water resources, stakeholders and right holders, ceded lands and public land trust lands, and the astronomical significance of Mauna a Wākea to name a few. However, due to the scope of the task of the Working Group and relatively limited timeframe, two subgroups were established – the Native Hawaiian Culture Subgroup and Astronomy Subgroup – to meet outside of regularly scheduled Working Group meetings to discuss issues related to their respective topics. The subgroups later shared their findings with the entire Working Group. Additionally, to assist with the decision-making and writing of this report, two writing groups were established – the Governance Writing Group and Access and Use Writing Group – that met outside of regularly scheduled Working Group meetings to develop ideas related to their respective topic to bring back to the Working Group for decision-making. Through robust discussions in the respective writing groups, key issues were prioritized for the discussion by the entire Working Group.

Decisions by the Working Group for its recommendations in this report were made by consensus by the call of the Chairperson of the Working Group. If consensus could not be reached, agreement could be made by a two-thirds majority of the members with indication of the minority voice in this report.

To ensure transparency and public input, updates on the Working Group's efforts were posted on the Working Group's website (see Appendix B) and members of the public were welcome to submit comments by email to [maunakeawg@capitol.hawaii.gov](mailto:maunakeawg@capitol.hawaii.gov). Additionally, the first draft of this report was posted online for public comment (see Appendix C).

## CHAPTER 3

Kai'okia Kānāwai, the edict of boundaries, delineates the organizational structure and stewardship of land and society. The recommendations outlined in this chapter pertain largely to the management of human activity and to the drawing of new management boundaries that better enable an integrated and attuned whole systems approach to daily and seasonal management. In following Kai'okia Kānāwai, the entity will aspire to regularly review designated access and use areas and activities and will assess direct and cumulative impact to Mauna a Wākea.



A photo of Smithsonian Submillimeter Array at Poli'ahu, to show human access and use of the conservation district. Photography Credit: Ku'ulei Kanahale, Ph.D.

## CHAPTER 3

# A NEW GOVERNANCE AND MANAGEMENT STRUCTURE FOR MAUNA A WĀKEA

This chapter outlines the recommendations of the Working Group for the new governance and management structure (Governing Entity) for Mauna a Wākea. It is the intent of the Working Group that legislation will be introduced by the Legislature that establishes a Governing Entity with the following values and guiding principles, jurisdiction, organizational structure, powers and duties, access and use priorities, and funds and financial support.

### VALUES AND GUIDING PRINCIPLES

The Working Group recognized the importance that the Governing Entity for Mauna a Wākea be grounded in Native Hawaiian values and guiding principles, specifically the Kumu Kānāwai, or the Native Hawaiian concept of environmental kinship. This prioritization of environmental stewardship and cultural recognition ensures the necessary guidance for the Governing Entity in its decision-making and management processes and functions. Therefore, the Working Group recommends the following guiding operational values and principles for the Governing Entity:

Mauna Aloha: We understand the reciprocal value of the mauna and our long-term commitment to maintaining the integrity of Maunakea.

‘Ōpū Kupuna: We understand and embrace our duty and accountability to Maunakea, the natural environment, and to perpetuate the Hawaiian cultural values embedded in the sacred landscape of the mauna.

Holomua ‘Oi Kelakela: We are driven by creativity and innovation, constantly challenging the status quo. Our stewardship of Maunakea is informed based on existing knowledge and traditions (kānāwai) as well as on new and expanding knowledge. We are mindful and observant of needs, trends, and opportunities and seek new knowledge and opportunities in ways that enhance our ability to serve as stewards without jeopardizing our foundation of ‘āina aloha.

# CHAPTER 3

## JURISDICTION

Due to the many stakeholders and complexity of topography on Mauna a Wākea, the Working Group thoroughly discussed the management area for the Governing Entity. The issue of ensuring that the management area was appropriately manageable by a single entity was discussed and taken into consideration by the Working Group, as an area too large would present resource and other logistical challenges. Also, the Working Group considered how the Governing Entity would work with other landowners on Mauna a Wākea so that there was open communication about its management goals and policies. Therefore, the Working Group recommends the following jurisdiction and associated responsibilities for the Governing Entity:

The jurisdiction area for the Governing Entity shall be state-owned lands above the 6,500 foot elevation line, inclusive of Pu‘u Huluhulu to the summit of Mauna a Wākea, in order to care for Mauna a Wākea through an integrated, whole systems approach. Additionally, for lands outside of its jurisdiction, the Governing Entity shall enter into cooperative management agreements with the Department of Hawaiian Home Lands, County of Hawai‘i, and private landowners whose lands are within the jurisdiction area.

## ORGANIZATIONAL STRUCTURE

To establish the organizational structure of the Governing Entity, the Working Group first identified and discussed key stakeholders, state constitutionally-recognized right holders, right holders with property interests, and Native Hawaiian cultural practitioners. Once these individuals and entities were recognized, the Working Group determined an organizational structure for the Governing Entity that best represented these individuals and entities. However, the Working Group could not reach consensus on whether to include an astronomy representative on the board. While some members of the Working Group recognized the contributions such a member could bring to the board, other members shared concerns about potential conflicts of interest and preferred that representatives from the astronomy community serve the Governing Entity in an advisory capacity. Consideration was also given to include representation on the board from the Department of Hawaiian Home Lands, County of Hawaii, and private landowners whose lands are within the jurisdiction area. However, it was determined that the Governing Entity should instead seek out cooperative agreements with those entities for cooperative and coordinated management of Mauna a Wākea. Still, while not all of the organizational details could be outlined by the Working Group,



## CHAPTER 3

many of the major structural concepts were discussed and agreed upon. Therefore, the Working Group recommends the following organizational structure for the Governing Entity:

The Governing Entity shall be attached to the Office of the Chairperson of the Board of Land and Natural Resources for administrative purposes.<sup>2</sup> Decision-making for the Governing Entity shall be made by a nine-member board, of which seven seats shall be appointed and two seats shall be held by ex-officio members, with the board selecting a Chair from among its non-ex-officio members; provided that the Chair shall not be the Executive Director of the Governing Entity. Additionally, of the nine members, four of the seven non-ex-officio board members shall be Native Hawaiian Hawaii Island residents, with a preference for Native Hawaiian Hawaii Island residents for all seven non-ex-officio board seats.

In nominating its three respective board seats, the Office of Hawaiian Affairs shall develop a list of candidates for consideration by the Governor. In developing a list of nominees, the Office of Hawaiian Affairs shall seek input from the Native Hawaiian community and work in coordination with the Edith Kanaka'ole Foundation and I Ola Hāloa Hawaiian Studies Program at Hawai'i Community College, using the existing selection process used for Island Burial Council candidates as a model. The Office of Hawaiian Affairs, in coordination with the Edith Kanaka'ole Foundation and I Ola Hāloa Hawaiian Studies Program at Hawai'i Community College, shall submit six names for the three Native Hawaiian Cultural Practitioner seats to the Governor for consideration.

In nominating its four respective board seats, the nominating committee shall develop a list of candidates for consideration by the Governor. Each list for a vacant board seat shall contain three names, and all nominees whose names are submitted to the Governor for selection shall be made public at the time of submission.

The nominating committee shall be comprised of individuals named and appointed by each of the following: the Speaker of the House of Representatives, Senate President, and Chief Executive Officer of the Office of Hawaiian Affairs, with consideration given to Hawaii Island residents.

The Governing Entity shall review and may revise the nominating process every three years.

The nine-member board shall include the following:

---

<sup>2</sup> Dr. Hussey abstained from this recommendation.

## CHAPTER 3

- (1) The Chairperson of the Board of Land and Natural Resources, or the Chairperson's designee (ex-officio member);
- (2) The Chief Executive Officer of the Office of Hawaiian Affairs, or the Chief Executive Officer's designee (ex-officio member);<sup>3</sup>
- (3) A current resident of Hawai'i Island with 'āina resource management expertise and a track record of Hawai'i Island-based management, nominated by the nominating committee;
- (4) A current resident of Hawai'i Island with infrastructure and land management experience and a track record of Hawai'i Island-based management, nominated by the nominating committee;
- (5) An individual with educational expertise in P-12 public education; community, culture, and Hawaiian language medium-based education; or post-secondary education, nominated by the nominating committee;
- (6) An individual with business and finance experience, nominated by the nominating committee; and
- (7) Three Native Hawaiian Cultural Practitioners nominated by the Office of Hawaiian Affairs, in coordination with the Edith Kanaka'ole Foundation and I Ola Hāloa Hawaiian Studies Program at Hawai'i Community College.

All members of the board, except for the Chairperson of the Board of Land and Natural Resources and Chief Executive Officer of the Office of Hawaiian Affairs, shall be appointed by the Governor pursuant to section 26-34, Hawaii Revised Statutes.

The board shall appoint an Executive Director who shall serve as Chief Executive Officer. Additionally, the Governing Entity shall determine its administration organizational structure and expertise needs, including but not limited to employing rangers to serve as education, general safety, and outreach resources; and shall establish its offices on Hawai'i Island.

---

<sup>3</sup> Dr. Hussey recused herself from voting on this recommendation.

# CHAPTER 3

## POWERS AND DUTIES

The Working Group recognized that the scope of managing an area of such important cultural significance and geographic size presents many challenges. Additionally, because Mauna a Wākea is the kuahiwi, or backbone, of Hawai‘i Island in a structural, physical, and spiritual sense, the Governing Entity should work toward decreasing the human footprint of all users and visitors of Mauna a Wākea. Therefore, the Working Group recommends the following powers and duties for the Governing Entity to ensure that it can uphold the responsibilities of managing Mauna a Wākea:

The Governing Entity shall be the sole authority for the management of designated state-owned lands on Mauna a Wākea (See JURISDICTION). The public land trust lands held by the Governing Entity shall be held in trust as part of the public land trust; provided that the State shall transfer management and control of the lands to a sovereign Native Hawaiian entity upon its recognition by the United States and the State of Hawai‘i.<sup>4</sup> Furthermore, the Governing Entity shall protect Native Hawaiian rights.

The Governing Entity shall have land disposition authority for its lands with similar land disposition processes and lease terms that are consistent with chapter 171, Hawaii Revised Statutes. The Governing Entity shall also provide a specific process that ensures transparency, analysis, and justification for lease terms and shall be prohibited from selling, gifting, transferring, or exchanging its land.

To assure that the Governing Entity has adequate time to establish itself, the Governing Entity shall have a transition period of three years to assume management of Mauna a Wākea lands.

Furthermore, the Governing Entity shall develop a single plan that dictates the management of land uses; human activities, uses, and access; stewardship; and disposition. The plan shall be developed during the transition period; finalized and approved, and operational by the end of the transition period; and updated every ten years with a focus on long-term, comprehensive, coordinated planning for all of the managed lands. Additionally, the plan shall consider the State's energy and sustainability goals, as well as impacts to climate change, including adapting to climate change and developing mitigation measures to climate change, and shall incorporate indigenous management and cultural processes and values.

---

<sup>4</sup> This language mirrors §6K-9, Hawaii Revised Statutes, related to the Kaho‘olawe Island Reserve Commission.

## CHAPTER 3

The Governing Entity shall develop a framework to limit astronomy development on the mauna, through development limitations that may include limitations on the number of astronomy facilities or an astronomy facility footprint limitation; provided that in establishing a framework to control astronomy development on the mauna, the Governing Entity shall establish a plan to return the mauna above 9,200 feet elevation to its natural state.<sup>5</sup>

To ensure community input and engagement, the Governing Entity shall engage in community dialogue, outreach, engagement, and consultation processes, as appropriate, on significant matters not less than on an annual basis and more frequently, as needed.

To maximize transparency, the Governing Entity shall be subject to administrative procedure pursuant to chapter 91, Hawaii Revised Statutes; Sunshine Law, pursuant to chapter 92, Hawaii Revised Statutes; the State Procurement Code, pursuant to chapter 103D, Hawaii Revised Statutes; and chapters 183, 205, 205A, and 343, Hawaii Revised Statutes.

To ensure accountability, the Governing Entity shall submit an annual report to the Legislature at least twenty days prior to the convening of each Regular Session. The report shall include a review of the entity's management actions; review of the implementation of all legislatively required plans, including financial and management plans; review of the impacts of human uses on the natural and cultural resources of Mauna a Wākea; assessment of cumulative impacts to Mauna a Wākea; and review of all community dialogue, outreach, engagement, and consultation.

To address enforcement issues and responsibilities, the Governing Entity shall work with the Department of Land and Natural Resources' Division of Conservation and Resources Enforcement and Hawai'i County Police enforcement structure to enforce rules and monitor public safety through cooperative agreement. Additionally, the Governing Entity shall create operational procedures that are guided by the Kumu Kānāwai and implemented by enforcement partners.

---

<sup>5</sup> The full Working Group had a robust conversation as to whether the Governing Entity should be prohibited from allowing either an increase to the current number of astronomy facilities or an increase to the current astronomy development footprint. Ultimately, the Working Group was not able to reach an agreement, with some members preferring not to set a specific astronomy footprint or astronomy facility number limit in legislation and others wanting a smaller footprint or less telescopes than what currently exists. Some members wanted a lower number of telescopes, such as the Governor's and the University of Hawaii's proposed nine telescopes. Nine telescopes, while a lower number than the thirteen telescopes that currently exist on the mauna, still represents an increase in the current astronomy footprint, which was unacceptable to some members.

# CHAPTER 3

## ACCESS AND USE PRIORITIES

Due to Mauna a Wākea's significance, the Working Group took a comprehensive approach in determining the existing uses of Mauna a Wākea, including Native Hawaiian practices, astronomical and other scientific research, tourism, resource gathering, conservation, and recreation. The Working Group determined that prioritizing these uses and better managing access to Mauna a Wākea would assist the Governing Entity in meeting its responsibilities and management priorities. Therefore, the Working Group recommends the following access and use priorities for the Governing Entity:

The Governing Entity shall establish a management framework guided by the Kumu Kānāwai to manage access, stewardship, education, research, permitted uses for frequent and seasonal users, and overall operations. The Governing Entity shall also prohibit commercial use and activities (not including astronomy) above Hale Pohaku and develop rules to designate areas for permissible use, including defining "commercial use".

The Governing Entity shall consider restrictions via applications and registration processes to ensure user compliance.<sup>6</sup> Additionally, the Governing Entity shall require an application for all recreational uses, including fees, and create guidelines on limits by monitoring the impacts of recreational use over time.

The Governing Entity shall ensure that, as a condition of any lease, an observatory shall plan for and finance its decommissioning process on Mauna a Wākea and return and restore the impacted areas, to the greatest extent possible, to their pre-construction condition. Additionally, the Governing Entity shall determine what site restoration shall be based on, including but not limited to the protection of the natural and cultural resources of Mauna a Wākea and in accordance with the Kumu Kānāwai, and develop a process to enforce lease requirements compliance, such as establishing fines. Additionally, the Governing Entity shall establish a trust fund, special fund, or other funding mechanism designated for decommissioning costs that the observatories shall be required to contribute toward as a condition of their leases.

To further reinforce the management principles for Mauna a Wākea, the Governing Entity shall require all people accessing Maunakea to undergo an annual orientation anchored by the Kumu Kānāwai and require all employees, contractors,

---

<sup>6</sup> Ms. Doane noted for the record that bona fide practitioners should not be unduly burdened from exercising their constitutionally protected Native Hawaiian practices and, when setting up its access processes, the Governing Entity should consider what process should specifically apply for constitutionally protected practitioners.

## CHAPTER 3

leaseholders, and others who regularly access Mauna a Wākea to have more extensive and frequent training on the Kumu Kānāwai.

As a way to capture information about users, establish an education outreach post, collect fees, and close access to Mauna a Wākea in case of an emergency, the Governing Entity shall determine an appropriate site for an entryway to Mauna a Wākea.

### **FUNDS AND FINANCIAL SUPPORT**

The Working Group recognized that financing the operations of the Governing Entity would be critical in ensuring the perpetuity of Mauna a Wākea. Several funding mechanisms were presented by the members of the Working Group with the intent of ensuring that the Governing Entity had authority to secure funding from a variety of sources. Therefore, the Working Group recommends the following financing for the Governing Entity:

To support the Governing Entity, a special fund shall be created as an on-going revenue base of funding. The Governing Entity shall consider various supplemental revenue sources to be deposited into the special fund, including but not limited to renegotiated lease terms and fees; observatory use fees; common area maintenance; toll fees; general funds; ecosystem service fees; user fees; other surcharges or fee structures; and state, county and federal funding.

To help establish the Governing Entity, general funds should be allocated by the Legislature for at least the first five years. Special funds shall also be used to provide financial support for the Governing Entity.



Photography Credit: Ku'ulei Kanahale, Ph.D.

### CLOSING

#### REFLECTION

Kīho'ihō'i Kānāwai, the edict of regeneration, is a necessary component of all living systems to heal and grow. This can be physical or spiritual. With this in mind, the existing management structures may be viewed as a microcosm of 'āina that is in need of care, a time for fallow and for regeneration. To this end, the chasm that exists between 'āina and people will persist, without careful attention towards the human governance and management systems that have the power and authority to serve Mauna a Wākea for the sake of its own health and vitality. Indeed, Mauna a Wākea is a cherished ancestor, to be cared for and protected for all generations.

**Kānāwai Kupukupu** - the edict of "little eyes" or 'ōmaka; must allow for regeneration on land and kai; refers to new plants, coral and fish spawning seasons; seasons of

## CHAPTER 4

germination; seasons for fledglings; season for whale calving. ‘Ōmaka is the beginning of regenerations.

**Kānāwai Kūkeao** - health of clouds; pollution in atmosphere and privatization of water cycle-care given to the atmosphere. Ao process includes transpiration, condensation, sublimation, rainbow, precipitation and downpour. Kahualani, cloud seeding may be a way to add to cloud health.

DRAFT



# APPENDICES

(House Resolution 33 to be attached)

DRAFT

# APPENDICES

(Summaries of Working Group meetings from website to be attached)

DRAFT

# APPENDICES

(Public comments on first draft of report to be attached)

DRAFT

# APPENDICES

(Maps to be attached)<sup>7</sup>

DRAFT

---

<sup>7</sup> Two maps will be included in the final version of the report: a map of the 6,500 foot elevation jurisdiction on Mauna a Wākea that includes Pu‘uhuluhulu with ahupua‘a names and waterways, but no land ownership boundaries; and a map of the 6,500 foot elevation jurisdiction on Mauna a Wākea that includes Pu‘uhuluhulu with land ownership boundaries.