



STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
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HONOLULU, HAWAII 96817

September 17, 2022

Elizabeth Pentecost
Project Manager
National Science Foundation
Room W9152
2415 Eisenhower Avenue
Alexandria, VA 22314

Re: Notice of Intent to Prepare an Environmental Impact Statement
Construction/Operation Funding for Extremely Large Telescope in Northern Hemisphere
Mauna Kea Science Reserve
Ka'ohē Ahupua'a, Hāmākua Moku, Hawai'i Moku
Tax Map Key: (3)4-4-015:009 por.

Aloha e Ms. Pentecost:

The Office of Hawaiian Affairs (OHA) is in receipt of the National Science Foundation's (NSF) Notice of Intent (NOI) to begin public scoping in preparation of an environmental impact statement (EIS) for the possible investment in the construction and operation of an extremely large telescope (ELT) in the northern hemisphere located on the summit of Mauna Kea, Hawai'i Island. The recently published 2020 Astronomy and Astrophysics Decadal Survey (Astro2020), which assists NSF in prioritizing which projects to fund, indicates that the "U.S. ELT is a critical priority for investment for ground-based astronomy". As such, the NSF believes a federal investment in at least one ELT (i.e., Giant Magellan or the Thirty Meter Telescope) should be achieved. In turn, the NSF investment would trigger Federal level review pursuant to the National Environmental Protection Act (NEPA) and the National Historic Preservation Act (NHPA).

While NEPA typically requires a comment period of at least 45 days, NSF has opted for an extended 60-day comment period for public scoping and drafted a Community Engagement Plan (CEP) to outline ways for NSF to "promote effective and meaningful public engagement". The CEP is not governed by any particular statute, but is still available for comment as part of the NEPA public scoping process. A series of public scoping meetings in preparation of a NEPA document was hosted by NSF in early August, in which OHA's Board of Trustees (BOT) Chair Carmen Hulu Lindsey and Hawai'i Island Trustee Mililani Trask already provided oral testimony on August 9. See attached Enclosure for a copy of Chair Hulu's written testimony. As stated in the testimony, OHA maintains our recommendation to NSF to withdraw the NOI and delay the NEPA process.

As you are aware from the public scoping meetings, the management of Mauna Kea is currently in transition with the recently signed House Bill 2024 HD1 SD2 CD1 into law as Act 255. This Act establishes a new Mauna Kea Stewardship and Oversight Authority, consisting of individuals appointed by the Governor, that will have the right to dictate leasing terms, establish management priorities, and ensure the protection of Native Hawaiian traditional and customary rights. Given the magnitude of such a transition, there will be a transition period of co-management with the University of Hawai‘i (UH) for 5 years that starts on July 1, 2022.

OHA would expect that rolling out NSF’s NOI and subsequent Federal processes (i.e., NEPA, NHPA) will require a significant amount of resources and funding; thus, it would arguably be a waste to expend such resources if leases for the subject area are not even assured and Mauna Kea priorities not yet known. Admittedly, OHA does not know what lease conditions or management priorities will be set by the new Mauna Kea authority; however, OHA does not advise gambling on overly optimistic and presumptuous lease expectations. As such, withdrawing the NOI for the time being is not only rationale, but also respectful of the new authority’s position and prerogative. In no way should the NEPA document presume a predetermined goal or automatically render a “no build” alternative as infeasible.

Aside from the previously provided written and verbal comments, OHA offers the following additional NEPA related comments on impacts to: Cultural Resources; Land Use; Biological Resources; Visual Resources; Water Resources; and Human Health. Following the NEPA comments, additional comments are provided regarding the Community Engagement Plan pertaining to the Application of the United Nations Declaration of the Rights of Indigenous Peoples and Expanded Public Scoping.

Cultural Resources

1) National Historic Preservation Act Integration

According to the NSF provided informational materials at the public scoping meetings and Figure 3-1 of the Community Engagement Plan (CEP), the NHPA Section 106 process is being initiated at the same time as, and in parallel with, the NEPA process. However, it is not clear how the Section 106 process will be utilized to assist in informing the NEPA document, especially with respect to the identification of adverse impacts to historic properties and cultural resources. Fortunately, the Advisory Council on Historic Preservation (ACHP) and Council on Environmental Quality did issue a handbook¹ in March 2013 for assisting Federal agencies on integrated NEPA and Section 106 reviews. While the CEP also has a section dedicated to public engagement for the Section 106 process, this handbook is not referenced.

¹ March 2013. *NEPA and NHPA: A Handbook for Integrating NEPA and Section 106*. Prepared by the Council on Environmental Quality Control, Executive Office of the President, and the ACHP.

Notably, the handbook recommends coordinating the planning schedules for both NEPA and Section 106 processes as the Section 106 process is needed to properly inform the NEPA document on possible impacts to historic properties. The handbook specifically states that,

“an EA [environmental assessment] includes the Section 106 focus on which part of the proposed action could specifically affect a historic property and describes how the resource might be affected... To coordinate Section 106 and an EA, an agency would use the Section 106 adverse effect criteria in evaluating and describing effects on historic properties. Agencies may also find it helpful to relate adverse effects under Section 106 to criteria for determining the significance of impacts under NEPA... Any treatment and mitigation measures developed through the Section 106 process should be referenced in the EA and documented in a MOA [memorandum of agreement] or PA [programmatic agreement] developed in consultation with consulting parties.”

Thus, while NSF appears to have aligned initiation of the processes, OHA is concerned that a lack of clear integration points and strategy may result in key information being left out of the NEPA document. Based on the provided NSF materials, it would appear to OHA that the draft NEPA document would be released around the same time adverse effects are being assessed under NHPA. It is further clear that the resolution of adverse effects would take place after the release of the draft NEPA document. Under this approach, any final Section 106 agreement document (i.e., MOA, PA) would be released in tandem with the published final NEPA document.

OHA does not agree with the current approach as it does not appear to allow for adverse effects and mitigation recommendations for impacts to historic properties to be properly integrated into the NEPA document. Further, as cited above, the current NSF approach appears in conflict with the ACHP handbook. Subsequently, OHA recommends adherence to the ACHP handbook and that NSF complete most of the NHPA Section 106 process prior to releasing the draft NEPA document. While this would delay the NEPA process from the current proposed timeline, OHA believes this approach would be more in-line with the intent of NEPA and the guidance from ACHP.

OHA further notes that there are some within the Native Hawaiian community that believe the NHPA Section 106 process should've already been triggered when NSF funds for three grants (AST 044399, 0947189, and 1241520) were sought for TMT in 2014. OHA inquired with NSF and the Advisory Council on Historic Preservation (ACHP) regarding the matter in June 2015. NSF responded by emphasizing that these funds were not used to authorize construction activities; but, rather were sought for planning and design efforts that ACHP believed did not qualify as a Federal undertaking pursuant to Section 106 of the NHPA. OHA acknowledges and appreciates this opinion, but believes the matter still could be a point of litigation for those who do not agree with the opinion. Some who believe that the definition of an undertaking explicitly applies to the use of any Federal funds, sees this as a failure of the NHPA process. Thus, NSF should expect to receive such criticisms as the NHPA process rolls-out.

2) *Traditional Cultural Property Classification*

As OHA believes the NHPA Section 106 process should be mostly completed prior to release of the draft NEPA document for public comment, some NHPA related comments could still be valuable to the NSF at this early stage of scoping for NEPA. When proceeding with the NHPA Section 106 process and integration of such information into the NEPA document, OHA encourages the NSF to view Mauna Kea as a traditional cultural property (TCP) and continuous cultural landscape. Per the National Park Service’s (NPS) National Register Bulletin No. 38, a TCP is defined as,

“A property that is eligible for inclusion in the National Register of Historic Places because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community’s history, and (b) are important in maintaining the continuing cultural identity of the community.”

In guidance provided by NPS, a TCP listing on the National Register of Historic Places can help to preserve physical properties with often-intangible aspects of a local community’s cultural history.² It provides a mechanism to document cultural practices, beliefs, and traditions through extensive consultation and ethnographic research. Further, a TCP listing mandates a review process for any Federal, federally licensed, or federally assisted projects that might affect the property as well as requiring consultation with the affected cultural practitioners.

As should be apparent to NSF from the abundance of testimony provided at the public scoping meetings, OHA emphasizes that Mauna Kea’s lands, resources (i.e., water, viewplane), and sites are of singular cultural value and significance to Native Hawaiians. Mauna Kea is considered the first-born child of earth-mother Papa and sky-father Wākea, the progenitors of all Native Hawaiians, and thus the mauna serves as a physical connection to ancestral understandings of creation. Given the sacredness of this area, akua (divine ancestral energies) are known to inhabit the remote summit of Mauna Kea and physically manifest as various pu‘u or features such as Lake Waiau. It is a place of worship for the snow goddess Poli‘ahu, and other akua and ‘aumkua such as Kūkahau‘ula, Lilinoe, and Waiau. Various ahu (shrines) and lele (ceremonial platforms) are present on and around the summit of Mauna Kea to not only mark cultural and religious gathering spots, but to also mark burials and star alignments. The appropriate management and assessment of such a sacred place is accordingly a matter of great concern to many in the Native Hawaiian community. As such, a TCP approach appears to be the best option for evaluating Mauna Kea during the NHPA Section 106 process.

OHA further notes that a number of rare, vulnerable or endangered animals, plants, and arthropods exist only within the Mauna Kea conservation district. The mamani-naio forest on the southwestern, eastern, and northern slopes of Mauna Kea are further mentioned as housing the entire world population of the Palila (*Loxioides bailleui*) bird, the last finch-billed honeycreeper.

² See NPS’s “National Register of Historic Places – Traditional Cultural Properties: A Quick Guide for Preserving Native American Cultural Resources” - <https://www.nps.gov/history/tribes/Documents/TCP.pdf>.

In ancient times and even some contemporary instances, these species were/are used for various Hawaiian cultural practices. Some of them are also considered kinolau (divine manifestations of the gods). Thus, while protection of these species and respective habitats do exist under Federal and State law, including them as part of a TCP discussion is wholly appropriate given their cultural significance as well and their connection to the greater cultural landscape. Further development without restoration will only add to greater cumulative impacts and more significant adverse effects to these species and a degradation of the larger TCP.

It is OHA's understanding that for NHPA Section 106 purposes, it is only necessary to determine if a historic property is eligible to be recognized as a TCP. While OHA does indeed support Mauna Kea being identified as eligible for a TCP designation, OHA believes that appropriately assessing any kind of adverse effect from further astronomy related development cannot meaningfully occur in this case unless the TCP eligible historic property is fully understood via an appropriate TCP study. The vast amount of testimony provided to NSF suggests the cultural importance of and cultural resources atop Mauna Kea are not fully understood or respected by NSF. Mitigations developed pursuant to the NHPA Section 106 process would potentially be inaccurate and premature if a TCP study is not completed first as part of the identification phase of the Section 106 process. In turn, findings from the study and Section 106 process should then be used to inform the draft NEPA document.

Land Use

Approximately 11,000 acres of the Mauna Kea summit, an area spanning from 6,000 feet (saddle road) to 13,796 feet in elevation, is within the conservation district designated by the State Department of Land and Natural Resources (DLNR). Since 1964, the Board of Land and Natural Resources (BLNR) has adopted and administered land use regulations for the **Conservation District** pursuant to the **State Land Use Law (Act 187) of 1961**. Act 187 defined Conservation as meaning the protection of watersheds and water supplies; preserving scenic areas; providing park lands, wilderness and beach reserves; conserving endemic plants, fish, and wildlife; preventing floods and soil erosion; forestry; and other related activities. Notably, Section 13-5-30I(4) of the Hawai'i Administrative Rules (HAR) prohibits a proposed land use in the conservation district that will cause a substantial adverse impact to existing natural resources.

Currently, a total of eighteen conservation district use permits (CDUP) have been granted to the University of Hawai'i (UH) for astronomy related purposes on Mauna Kea. UH further holds over 20 permits approved under HAR 13-5 for uses within the conservation district of Mauna Kea. Additional permits (i.e., TMT CDUP) would further add to this accumulated list; in turn, creating a greater cumulative impact that should be taken into consideration. Arguably, greater adverse impacts will only accumulate in the absence of any restoration or decommissioning atop Mauna Kea. Further, each permit comes with their own conditions of approval and ongoing commitments to the 2009 Mauna Kea Comprehensive Management Plan that should be fully understood by NSF.

As pointed out in OHA’s testimony from Chair Hulu Lindsey, on August 9, there is a definite concern over the continued accumulation of cumulative impacts to Mauna Kea. As cited, the 2002 Final Environmental Impact Statement (FEIS) for the NASA/Keck Telescope project already concluded that there is substantial adverse cumulative impact occurring on Mauna Kea. Thus, a critical analysis of the cumulative impacts to the conservation district must be taken into consideration as part of any draft NEPA document. Even if NSF viewed the 2002 FEIS document as “dated”, substantial adverse cumulative impacts in 2002, means 20 intervening years of additive substantial adverse cumulative impacts.

Further, compliance with ongoing commitments for previously permitted actions must be considered and demonstrated within the NEPA document to accurately account for the proposed land use and effects to the conservation district. It is advisable that NSF initiate consultation with the State of Hawai‘i Office of Conservation and Coastal Lands (OCCL) as they are responsible for administering conservation district permits.

NSF should further consult with the Mauna Kea Soil and Water Conservation District,³ a legally, self-governing unit of the State of Hawai‘i established in 1955 under Chapter 180 of the State of Hawai‘i Constitution. Their mission is to take available technical, financial, and educational resources to meet the needs of local land users in a way that implements best conservation use practices to conserve Hawai‘i’s natural resources. As such, they are a valuable resource to understanding Mauna Kea’s sensitive environment and conservation designation.

Biological Resources

As previously mentioned above in the discussion on Traditional Cultural Properties, a number of rare, vulnerable or endangered animals, plants, and arthropods exist only within the Mauna Kea conservation district. The following list includes some of these species currently known to OHA:

- **Critically Endangered Native bird species:** Palila (*Loxioides bailleui*), ‘Amakihi (*Hemignathus virens*), ‘Apapane (*Himatione sanguinea*), ‘Elepaio (*Chasiempis sandwichensis*), ‘Akiapola‘au (*Hemignathus munroi*), and ‘I‘iwi (*Vestiaria coccinea*), ‘akē‘akē (band-rumped storm-petrel).
- **Vulnerable or Endangered Species:** the Mauna Kea ‘Ahinahina (sliver sword, *Argyroxiphium sandwicense* ssp. *sandwicense*), ‘Io (Hawaiian hawk), Pueo (owl), Palila, ‘Ope‘ape‘a (bat), and Aoa (sandalwood) and the wēkiu bug (*Nysius wekiuicola*)⁴.

³ Mauna Kea Soil and Water Conservation District, 67-1185 Mamalahoa Hwy Suite H-148 Kamuela, HI 96743
Phone: (808) 885-6602 x102 Website: <http://mkswcd.wordpress.com> E-mail: mkswcd@gmail.com
<https://mkswcd.files.wordpress.com/2022/08/mkswcd-informational-brochure.-red-ohia.pdf> last accessed 090122.

⁴ Jesse Eiben UH Mānoa; Entomology. 2012. *Applied conservation research of the wēkiu bug in Hawai‘i: Life table analysis, population genetics, and phylogenetics create a holistic view of a rare and unique species.*

- **Rare Species:** Lava dubautia (*Dubautia iliolateata* ssp. *iliolateata*), 'Ohelopapa (Hawaiian strawberry, *Fragaria chiloensis*), 'na'ena (*Pseudognaphalium sandwicense*), Nohoanu (*Geranium cuneatum* ssp. *hololeucum*), and alpine tetramolopium (*Tetramolopium humile* ssp. *humile* var. *humile*).

Other similarly listed species not mentioned above could still exist on Mauna Kea as well. Any future adverse impacts caused by new development on the Mauna Kea summit will put the rare and endangered plants, animals, arthropods, fragile ecological environments, and sacred sites on Mauna Kea at risk as destruction of specific and subtle features of the terrestrial environment may lead to reduced populations of any one of these unique, rare, or endangered organisms. Further, there is a high risk of invasive plants and animals migrating to the summit and surrounding areas following the commencement of construction for any new development.

An accurate accounting of these species should further take into account seasonality and include multiple survey dates throughout the year. Consultation with cultural practitioners familiar with these species should also be sought as part of this process as they possess valuable traditional ecological knowledge passed down through generations. Some of these species (i.e., hoary bat) have poorly understood population numbers; thus, NSF, as a premier research entity in the US, should strive to accurately account for these populations and provide the most accurate information regarding habitat, migration patterns, and possible takings. Notably, depending on the findings, further Federal oversight may be needed; thus, coordination with respective entities should occur at the earliest stage possible with explicit and complete recommendations included in the draft NEPA document. Much in the way that OHA has argued that a NEPA document would be incomplete without disclosure of NHPA mitigations, the same would apply here for respective Federal processes pertaining to endangered or threatened species.

Visual Resources

The viewscapes, commanding views and open spaces (collectively “viewplanes”) are very important aspects of Mauna Kea. They were important to our ancestors and are an important part of our living culture today. The TMT will interrupt, interfere and in certain places even obscure the tangible and intangible viewplane of Mauna Kea. It will interfere with the viewplane when looking up toward the mountain (Ma-Kai up) as the TMT is a very large structure that will be seen from many points on Hawai'i island and other islands as well. It will interfere with our views when looking from the mountain (Ma-Uka outward) and outward, across the heavenly realms and the island chain.

Notably, these viewplanes are part of the Native Hawaiian cultural experience for practitioners who conduct solstice and equinox ceremonies. The presence of the TMT will undoubtedly impact these ceremonies. The TMT will interfere and obscure Native Hawaiian's ability to view and track the heavenly realms, including the motion of the stars, planets and sun. These ceremonies to track celestial precession are ancient and were likely brought to Hawai'i by our early ancestors. It is important to recognize that these ceremonies are still performed and that

Native Hawaiians rely on them to not only keep track of our seasons, but to also track the motion and movement of the pole stars commonly used for navigation and ocean voyaging traditions.

Further, the viewplanes across the island chain have both tangible and intangible aspects that align Mauna Kea to various heiau (temples) across Hawai'i and back to Mauna Kea. There is a relationship between Mauna Kea and these sacred sites, that include significant cultural/geological features like Haleakala on Maui. The TMT's proposed site is going to be placed in an area that is known as "the ring of shrines" – a physical and tangible marker establishing what archeologist refer to as the "sacred summit precinct" demarcating the area or realm of gods. Current TMT design plans show that it will be built in the middle of the ring of shrines; thus, it will disrupt, desecrate, and interfere with this sacred realm and negatively impact Native Hawaiian cultural and religious ceremonies.

Finally, an analysis of the Mauna Kea viewplane must include the great shadow of Mauna Kea that occurs at sunrise and sunset. The shadow is viewed from Mauna Kea looking down upon the cloud layers, and from sea level looking up toward the clouds. The Shadow of Mauna Kea is viewed and tracked across the sky seasonally. Thus, any kind of analysis would have to observe impacts at each season due to the Earth's rotation and orbit. The introduction of a massive telescope complex like the TMT will mar this shadow and create a lingering reminder of the TMT even though one may not be looking directly at it.

The draft NEPA document must properly account for all of these concerns and include a robust consultation component with cultural practitioners to ensure the viewplane is fully understood from a cultural perspective.

Water Resources

The waters of Mauna Kea are associated with Native Hawaiian akua (deities) as they are considered pristine and sacred. They are and have always been used for cultural and religious ceremonies. The waters of Lake Waiau and other pooling waters are harvested and collected for use in many various cultural and religious ceremonies. Aside from the liquid form of water molecules, fossil ice and snow of Mauna Kea are harvested and collected from the summit and surrounding areas for cultural and religious uses too.

Thus, any form of contamination and or pollution to any of the many states of water atop Mauna Kea should not only be viewed as an impact to a natural resource, but also a major impact to a valued cultural resource. Such contamination would be considered a desecration. These impacts must be fully understood within the NEPA document and included as a part of any cumulative impact assessment. There are many telescopes and respective facilities atop Mauna Kea that have the potential to contaminate water and generate sewage from occupant use that must be considered in addition to the installation of the TMT as a means to fully account for cumulative impacts.

Further, Hale Pohaku should not be viewed as detached from a cumulative impact analysis of water related impacts atop Mauna Kea. Tourist access at this site serve as a launching point for Mauna Kea star excursions and produces a great deal of sewage waste and water consumption. Information regarding waste and sewage handling at Hale Pohaku should thus be fully accessed, addressed, and evaluated as part of the cumulative impact analysis portion of the NEPA document.

OHA expects that site specific testing and research for each individual observatory must occur to understand the levels of existing sewage capacity, past and present hazardous material spills, run-off and drainage, and any other vectors that have the potential to cause contamination to any of Mauna Kea's sacred waters. It must be determined if any contamination has occurred in the high-level dikes and aquifers. The regional groundwater body below the summit of Mauna Kea is believed to be a dike-impounded aquifer, with five connecting aquifers – Honoka'a, Pa'uilo, Hakalau, Onomea, and Waimea. There are also an unknown number of relatively small perched water bodies associated with buried glacial deposits, and deposits of weathered ash or sediment. We expect that a comprehensive hydrology study of all Mauna Kea waters (under and above ground) by qualified/experienced geologists will be completed to properly inform the NEPA document.

Human Health

As discussed in BOT Chair Hulu Lindsey's testimony provided on August 9th, there needs to be a clear understanding of the impact of the TMT process on Native Hawaiian practitioners, beneficiaries, and communities. Many who believe that erroneous process errors occurred (i.e., conflict over expiration of the conservation district use permit; failure to initiate NHPA in 2014; ownership of the Mauna Kea access road), and felt compelled to protect Mauna Kea by blocking any kind of construction access. From 2015 to 2019, approximately 68 Native Hawaiian beneficiaries (including OHA Trustees), suffered demonization by politicians, were arrested, and had to endure three years of anxiety awaiting court trials.

Seeing these events unfold on television or social media resonated with many Native Hawaiians, creating a broader impact. Many have expressed feeling a level of deep sadness, as the "hurt" observed triggered historical trauma of injustices Native Hawaiians have faced over the years. Dr. Keawe'aimoku Kaholokua, the UH Chair of Native Hawaiian Health, has commented that the events on Mauna Kea may be causing Native Hawaiians to relive past history and traumas. Another UH professor and clinical psychologist, Dr. Robin Miyamoto, has compared the trauma felt by Native Hawaiians watching the Mauna Kea events to the trauma felt by African American slaves and even Holocaust survivors.⁵

Thus, to properly address this level of impact, NSF must comprehensively examine these issues to see if all respective Federal and State laws were previously followed. We encourage

⁵ 2019. Hirashi, Kuuwehi. Psychologists say historical trauma, Hawaiian resilience play out on Mauna Kea. Hawai'i Public Radio, August 14, 2019: <https://www.hawaiipublicradio.org/local-news/2019-08-14/psychologists-say-historical-trauma-hawaiian-resilience-play-out-on-mauna-kea>.

consultation with Dr. Kaholokua and Dr. Miyamoto to further understand the psychological impacts that have been endured, and continue to be endured, by many within the Native Hawaiian community. Moving forward with the NEPA process without examining these very real human impacts would show NSF's disregard for humanity and a demonstrated willingness to continue to perpetrate unabated psychological harm on the indigenous peoples of Hawai'i. A callous disregard of the psychological well being of indigenous Hawaiians would arguably further stand in conflict with Article 7 of the United Nations Declaration of the Rights of Indigenous People (UNDRIP), which states that indigenous individuals have rights to their mental integrity.⁶

Community Engagement Plan

1) Application of the United Nations Declaration on the Rights of Indigenous Peoples

The topic of the UNDRIP was noted in the comment summary of the Community Engagement Plan (CEP), but the comments do not appear to have been integrated into the CEP itself in a meaningful way that actually reflects Native Hawaiian status as Indigenous Peoples. More specifically, comments highlighted the need for “free, prior, and informed consent” from Native Hawaiians and acknowledgement of Native Hawaiian as Indigenous Peoples. OHA requests that NSF apply the international standards and norms regarding engaging and consultation with Indigenous Peoples including Native Hawaiians as contained in the UNDRIP. Notably, the UNDRIP was endorsed by both former United States (US) President Barrack Obama and current US President Joe Biden. Executive Orders (EOs) and Memos have been issued by President Biden and his Administration regarding Indigenous Peoples including Native Hawaiians. These EOs and Memos include but are not limited to: Climate Change Resiliency; Indigenous Traditional Ecological Knowledge; and, Environmental Justice and Equity.

NSF must incorporate these EOs and Memos and the international standards and norms provided under the UNDRIP with respect to consulting under the NEPA and NHPA Section 106 processes with the indigenous Native Hawaiians. As the TMT has various international partners, an international standard governing interaction with any impacted Indigenous Peoples in this case would be wholly appropriate. OHA would like to add, that prior to the passage of the UNDRIP, approximately 300 million Indigenous Peoples had no collective voice regarding their civil and human rights, including their right to freely determine their political, social and economic status. Thus, NSF should embrace these international standards and strive to achieve a truly respectful consultation process that ensures the voices of the Native Hawaiian people are heard and understood.

⁶ 2007. Office of the High Commissioner for Human Rights. United Nations Declaration on the Rights of Indigenous Peoples: https://www.ohchr.org/sites/default/files/Documents/Publications/Declaration_indigenous_en.pdf.

2) *Expanded Public Scoping*

OHA acknowledges that the NSF conducted a series of four public scoping meetings on Hawai‘i Island. Meeting attendance was high, with at least 70 people signing up to testify at each of the meetings. OHA observed that interested and dedicated individuals also flew in from the neighboring islands and paid out of pocket for such travel expenses. Even though NSF did run the meetings two hours longer than their original end time to accommodate as many testifiers as possible, OHA notes that in Hilo, Kona, and Waimea, around 30 to 40 people were still unable to. Individuals who could not verbally testify were thus encouraged to provide written comment by the September 17 deadline.

As previously stated in OHA’s BOT Chair Hulu’s August 9th testimony, a broader and more significant community and consultation effort is still encouraged as the reverence for Mauna Kea extends to Native Hawaiians from all islands, and even to individuals on the Continental US and around the world. We stand by this comment and highlight the attendance of interisland observers and the social media buzz that followed on various platforms (i.e., Facebook, Twitter). Further, despite the reverence for Mauna Kea demonstrated by many in the Native Hawaiian community, meetings were only held on Hawai‘i Island and could not adequately allot enough time for all to testify. As such, we believe the public scoping was inadequate and that NSF should consider additional public scoping meetings that include meetings throughout the state.

Its OHA’s understanding that the Native Hawaiian Legal Corporation (NHLC) also noted this concern in a formal letter to NSF dated August 19. As pointed out in their letter, over 60% of Native Hawaiians alone live on O‘ahu. This could include individuals that originally resided on Hawai‘i Island, but had to move for economic reasons. NHLC further noted that the meetings did not provide enough time for testifiers and that individuals were offended when NSF utilized much of the allotted meeting time for their own presentations. Four additional meetings on Hawai‘i Island, “along with at least four meetings on O‘ahu, and at least four meetings on Kaua‘i and Maui County” were ultimately recommended by NHLC to run for four hours each. OHA supports this request to ensure proper respect is afforded to this issue and that the significance of Mauna Kea is accurately captured as part of the public scoping process. Additionally, a virtual meeting platform is recommended to perhaps accommodate Native Hawaiians who cannot attend for whatever reason or have dispersed from Hawai‘i.

While the CEP discusses public scoping in the singular, the possibility of additional public engagement is mentioned under the “additional engagement” steps. Specifically, Section 3.3.4 suggests that depending on comments received during the initial 60-day comment period, NSF will implement “new suggestions for public engagement” if reasonable and feasible. For the reasons mentioned herewith, OHA believes it is reasonable to engage in additional public scoping meetings to provide a fair opportunity to all interested Native Hawaiians.

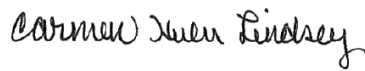
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Assuming public scoping will continue, please provide at least 30 days-notice for attendance at these meetings. NSF may want to consider consulting with the University of Hawai‘i and the Department of Hawaiian Homelands (DHHL) to explore possible venue options at Community Colleges or Community Centers, respectively. Posting in OHA’s *Ka Wai Ola* monthly print and on-line newspaper may further be useful as an outreach platform for media or notice releases.

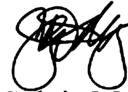
Closing Remarks

Mahalo for the opportunity to comment. OHA looks forward to seeing the NOI withdrawn and our comments taken into consideration. Again, additional public scoping meetings across various Hawaiian Islands are highly encouraged if the public scoping process is re-engaged. We are available for further discussion on the matter and look forward to any meeting invitations from the NSF.

‘O maua iho nō me ka ‘oia ‘i‘o,



Carmen Hulu Lindsey
Ke Kauhuhu, Chair, Board of Trustees



Sylvia M. Hussey, Ed.D.
Ka Pouhana, Chief Executive Officer

SH:kfkp

Enclosure: OHA Written Testimony of Chair Carmen Hulu Lindsey, August 9, 2022, National Science Foundation Public Scoping Meeting

CC: OHA Board of Trustees
Sethuraman Panchanathan, Director, National Science Foundation



Written Testimony of Carmen Hulu Lindsey
Chair, Board of Trustees

National Science Foundation
Public Scoping Meeting
August 9, 2022

NOTICE OF INTENT TO PREPARE AN ENVIRONMENTAL IMPACT STATEMENT AND
INITIATE SECTION 106 CONSULTATION FOR A POTENTIAL NATIONAL SCIENCE
FOUNDATION INVESTMENT IN THE CONSTRUCTION AND OPERATION OF AN
EXTREMELY LARGE TELESCOPE LOCATED IN THE NORTHERN HEMISPHERE

August 9, 2022 6:00 p.m. Grand Naniloa Doubletree, Hilo, Hawai'i

The Office of Hawaiian Affairs (OHA) is in receipt of the recent National Science Foundation's (NSF) federal notice¹ and request for comments, pursuant to requirements under the National Environmental Policy Act (NEPA) regarding the Thirty Meter Telescope Project (TMT) proposed for funding and construction within the summit area of the Conservation District of Mauna Kea². The notice also mentions that NSF will begin formal National Historic Preservation Act (NHPA) Section 106 consultations, but does not specify when NSF intends to begin these consultations with Native Hawaiians. Aside from this testimony, OHA still reserves the right to submit additional comments, feedback and recommendations by the September 17, 2022, published deadline if needed.

Background & Standing of OHA to Engage in NSF Processes

The Office of Hawaiian Affairs (OHA) was created in 1978 at the State of Hawai'i Constitutional Convention to address historical injustices and challenges facing the Native Hawaiian community. The convention delegates envisioned, an agency that provided a form of self-determination for Native Hawaiians³ and advocated for their overall well-being.

¹ Federal Register, Vol 87, No. 137, July 19, 2022.

² Although in modern times the spelling of "Maunakea" is often spelled as a single word, it is proper and necessary to use the historical spelling of "Mauna Kea" as two words, since it is identified (1) as a proper place name [See also "Place Names of Hawai'i Revised and expanded edition by Mary Kawena Pukui, Samuel H. Elbert & Esther T, Mookini (1974)], and (2) more importantly, it is used on old maps and legal documents to identify the metes and bounds of the land under discussion. In this case, the TMT Project is being proposed for construction on the lands of the Summit of Mauna Kea identified under TMK (3) 4-4-015:009. Kaohe, Hamakua, Hawai'i on the Island of Hawai'i.

³ OHA, uses the term "Native Hawaiian" to refer to people of aboriginal descent regardless of blood quantum. In other words, "Native Hawaiian" herein includes both "native Hawaiians" (those of 50% or more, blood



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Thus, OHA was established through Article XII of the Hawai'i State Constitution, and Chapter 10 of the Hawai'i Revised Statutes (HRS) outlines OHA's duties and purposes to: better the conditions of Native Hawaiians; serve as the principal public agency responsible for the performance, development, and coordination of programs and activities for Native Hawaiians; assess the policies and practices of other agencies; and conduct advocacy efforts, including the promotion and protection of the rights of Native Hawaiians.

Governed by an elected nine-member Board of Trustees (BOT), OHA exercises power as provided by law to manage and administer the proceeds from the sale or other dispositions of lands, natural resources, minerals, and income derived from whatever sources for Native Hawaiians, including all income and proceeds from the pro rata portions of the trust referred to in section 4 of Article XII.⁴ OHA, therefore, is mandated to ensure formal processes such as those under NEPA and NHPA, that have the ability to affect the rights and resources for which Native Hawaiians have an interest, are reasonably implemented pursuant to relevant state, federal and international laws, in ***good faith***.

Brief Overview of OHA Involvement and Relevance to the Current NSF Effort

Two decades ago, OHA sued in federal court on behalf of its beneficiaries (See OHA v. Sean O'Keefe et al., Civ. No. 02-00227 SOM/BMK) challenging the proposed NASA/KECK Outriggers Telescopes Project (NASA/KECK Telescopes Project) that included as many as ten (10) more telescopes on the land surrounding the two (2) larger W. M. KECK Telescopes, also funded by NASA. OHA argued that the NASA/KECK Telescopes Project Environmental Assessment (EA) was inadequate because it failed to properly assess, among other things, the cumulative impacts of astronomy development on Mauna Kea. The federal

quantum previously defined by the U.S. Congress and overseen by the Department of Hawaiian Homelands) and "Native Hawaiians" (those of 49% or less blood quantum) as defined by state law.

⁴ Hawai'i State Constitution, Article XII, Section 4, PUBLIC TRUST: The lands granted to the State of Hawai'i by Section 5(b) of the Admissions Act and pursuant to Article XVI, Section 7, of the State Constitution, shall be held by the State as a public trust for native Hawaiians and the general public. Further, Article XII Section 7, of the State Constitution provides that, "the State reaffirms and shall protect all rights, customarily and traditionally exercised for subsistence cultural and religious purposes and possessed by ahupua'a tenants who are descendants of native Hawaiians who inhabited the Hawaiian Islands prior to 1778, subject to the right of the state to regulate such rights."



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court agreed with OHA, finding that NASA's EA was in fact, inadequate and that NASA/KECK must compete a more in-depth and rigorous Federal Environmental Impact Statement (FEIS). NASA did follow the courts order by completing a FEIS for the NASA/KECK Telescopes Project.

OHA, however, did not need to challenge the adequacy of the NASA FEIS, as a separate but concurrent Third Circuit case was filed against the State's Board of the Land and Natural Resources (BLNR) where the court overturned the NASA Conservation District Use Permit (CDUP) for the NASA/KECK Telescopes Project, in favor of the Plaintiffs and Native Hawaiians. In the end, NASA did not pursue the original NASA/KECK project permitting and the NASA/KECK Outrigger Telescopes Project was never built on the summit of Mauna Kea. What is relevant to the discussion at hand and the current NSF effort is that the federal court in OHA v. O'Keefe affirmed the following:

"The Ninth Circuit has held that 'an EA may be deficient if it fails to include a cumulative impacts analysis or to tier to an EIS that has conducted such an analysis... **Cumulative impact is defined as the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or nonfederal) or person undertakes such other actions. Cumulative impacts can result from other individually minor but collectively significant actions taking place over a period of time.**' 40 C.F.R. § 1508.7."
(Emphasis added)

Notably, prior to abandoning the process, the NASA/KECK Telescopes Project **FEIS found that there is a substantial adverse cumulative impact occurring on Mauna Kea. These FEIS findings identified nearly twenty (20) years ago are of great concern.** First because cumulative impacts are valuable and necessary, the review of the TMT will valuably be ***additive*** to the previously determined NASA/KECK Telescopes Project cumulative impact studies. Because the previous NASA/KECK NEPA FEIS and NHPA Section 106 Consultations with Native Hawaiians is the only Federal review processes that has ever occurred on Mauna Kea since construction of observatories began in 1968, OHA believes that the past FEIS and Section 106 findings **must be included** in the current Cumulative Impact analysis. As such, the NASA/KECK FEIS and NHPA comments, should



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be included in NSF's own FEIS and NHPA Sections 106 Consultation efforts and activities with Native Hawaiians.

Overall Summary of Considerations

OHA's written testimony herein highlights OHA's considerations and expectations, including that NSF should address the: (1) Implications of NEPA and NHPA Processes on Mauna Kea Activities, Including Astronomy, on Ceded Lands and Public Land Trust Obligations to Native Hawaiians; (2) Impact of the Implementation of the Newly Created Mauna Kea Stewardship and Oversight Authority to Governance of Mauna Kea Lands and Activities, Including Voluntary Delay of the Formal Environmental Comment Period under NEPA as well as the NHPA Section 106 Consultation; (3) Implementation of NSF's NEPA and NHPA Processes Should Include Impacts of Prior Erroneous Processes on Native Hawaiian Practitioners, Beneficiaries and Communities; (4) Unresolved, Uncompensated and Possibly Impermissible, Transfer of the Mauna Kea Access Road to the State of Hawai'i, by the Department of Hawaiian Homelands, Without Consultation with Hawaiian Homes Commission Act Beneficiaries by either the State of Hawai'i or the U.S. Department of the Interior; (5) Status of General Lease S-4191 and the Associated Sub-Leases of the Individual Telescopes and/or Observatories; (6) Challenge to the Conservation District Use Permit; (7) Status of the National Pollutant Discharge and Elimination Systems Permit, Under the Clean Water Act, Including Documentation of Studies and Waste and Sewage Systems; (8) Financial Implications of Construction and Operations Funding of TMT in the Cumulative Assessment Analysis; (9) Implications on Iwi Kupuna; and (10) Broader and More Significant Community Engagement and Consultation Efforts. Aside from this testimony, OHA reserves the right to provide further comments, feedback, considerations and recommendations by the September 17, 2022 published deadline if needed.



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1. Implications of Mauna Kea Activities, Including Astronomy, on Ceded Lands and Public Land Trust Obligations to Native Hawaiians

State lands on Mauna Kea are ceded⁵ lands and a part of the public land trust⁶. NSF's federal notice and request for comments, pursuant to requirements under the National Environmental Policy Act (NEPA) regarding the Thirty Meter Telescope Project (TMT) proposed for funding and construction within the summit area of the Conservation District of Mauna Kea, **must understand** that such activities on Mauna Kea become a part of the historic fiduciary trust responsibilities of the federal and state governments.

Mauna Kea summit lands are Crown and Government lands that are often referred to as "Ceded Lands". The NSF notice incorrectly identifies only Department of Hawaiian Homelands (DHHL) lands as ceded lands to be included in the NSF FEIS and NHPA analysis and consultations. While the 'Aina Mauna lands include DHHL lands, NSF NEPA and NHPA processes must identify all the lands in the area of impact. The summit lands reside in what is referred to as the Wao Akua or realm of the Akua (Divine Deities). The entire traditional and historic district of Kaohe encompasses the district of Hamakua, up to the summit of Mauna Kea, down and across the plains of Pohakuloa and then up to the summit of Mauna Loa. Pohakuloa lands and impacts should be included in the NHPA analysis because they are closely connected. The lands are connected traditionally and culturally and have significant Native Hawaiian consultation responsibilities.

⁵ Note the term "ceded" is used to reference the classification of the lands in discussion and does not imply an acceptance of the illegal overthrow of the Hawaiian monarchy in 1893, the subsequent United States actions of annexation, the territorial government and statehood. This testimony acknowledges that the lands were ceded without the consent of or compensation to the Native Hawaiian people of Hawai'i or other sovereign government (P.L. 103-15019)

⁶ The terms of statehood considered the plight of the Hawaiian people, specifically in the Admission Act of 1959. Section 5(f) of the Act refers to the crown and government lands of the Hawaiian Kingdom, which had been designated "ceded" to the Republic of Hawai'i, and then to the United States. The Act conveyed these lands to the new State of Hawai'i with the caveat that revenues were to constitute a trust for five purposes. One of these was the betterment of the conditions of Native Hawaiians.



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2. Impact of the Implementation of the Newly Created Mauna Kea Stewardship and Oversight Authority to Governance of Mauna Kea Lands and Activities, Including Voluntary Delay of the Formal Environmental Comment Period under NEPA as well as the NHPA Section 106 Consultation

During the 2022 Hawai'i State Legislature session, House Bill 2024 HD1 SD2 CD1 was signed into law as Act 255 (2022)⁷, which established the Mauna Kea Stewardship and Oversight Authority (MKSOA). While governance constructs and powers and responsibilities were articulated in Act 255, OHA has concerns regarding the implementation of the newly created MKSOA and its implicit, unintended, and/or explicit impacts to the governance and operations of a broad range of activities (e.g., access, land leasing, astronomy, cultural practices, stewardship) on and associated with Mauna Kea. Greater clarity is needed regarding the transfer of, jurisdiction and control of Mauna Kea lands from the BLNR to the University of Hawai'i and the newly created MKSOA.

Also, OHA is in receipt of United State Congressmen Kai Kahele's (Hawai'i Congressional District 2) recent letter requesting that the NSF consider "delaying" to a later date formal environmental review regarding the Thirty Meter Telescope (TMT) because the Mauna Kea Stewardship and Oversight Authority is not yet organized, and it will not be for quite some time.⁸

OHA believes that a voluntary delay of the formal environmental comment period under NEPA as well as the NHPA Section 106 consultation with Native Hawaiians is necessary until the impacts of the implementation of the MKSOA is known to impacted stakeholders, including the NSF.

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⁷ https://www.capitol.hawaii.gov/session2022/bills/GM1358_.PDF

⁸ Congressmen Kai Kahele's, July 19, 2022, Letter addressed to Honorable Panchanathan, Director, National Science Foundation.



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3. Implementation of NSF’s NEPA and NHPA Processes, Should Include Impacts of Prior Erroneous Processes on Native Hawaiian Practitioners, Beneficiaries and Communities

NEPA and NHPA processes include assessments and considerations of impacts of federal projects and undertakings, and should include process impacts on practitioners, beneficiaries and communities. For example, the kia’i (guardians, protectors), Native Hawaiian beneficiaries and advocacy communities (collectively, Kia’i) were aware of multiple process errors related to TMT and forced to take swift action to prevent irreparable harm to their sacred mountain when such erroneous processes were allowed to continue. The Kia’i felt they had to protect Mauna Kea because TMT had not followed the law and its related processes. In so doing, Kia’i faced threats of physical harm, arrests, and detainment. From 2015 to 2019, approximately 68 Native Hawaiians Beneficiaries (including OHA Trustees), suffered demonization by politicians, had their liberty seized, and had to endure three years awaiting court trials.

Consequently, in July 2019, the OHA BOT approved a resolution explicitly authorizing OHA’s Administration to take action to advocate for the rights, safety, and well-being of beneficiaries engaging in peaceful protest of the decades-long mismanagement of Maunakea⁹, perpetuating Native Hawaiian traditional and customary practices, and exercising their rights to freedom of speech and assembly.

Similarly, with the 2019 Mauna Kea Access Road (MKAR) closure, the Department of Land and Natural Resources (DLNR), Division of Conservation and Resource Enforcement (DOCARE) officers arguably exacerbated the situation by staking out the MKAR in a way that compelled Kupuna (elders) and Kia’i to sit down on the road in front to protect the Mauna from being destroyed or desecrated by bulldozers. The Kia’i did this in tradition of Kapu Aloha – peace and non-violence. What must be acknowledged is that when the DOCARE Officers were ordered by the Governor and Attorney General’s office to close the MKAR, they were also preventing Native Hawaiians access to Mauna Kea to exercise their constitutionally protected traditional and customary rights.

OHA expects NSF’s NEPA and NHPA processes to include prior erroneous process(es) impacts, actions and inactions on Native Hawaiian practitioners, beneficiaries, and communities in this public scoping process.

⁹ The use of “Maunakea” in the resolution was an intentional descriptor choice (vs. Mauna Kea); and both uses (Maunakea, Mauna Kea) are considered appropriate in the context in which it is used.



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4. Unresolved, Uncompensated and Possibly Impermissible, Transfer of the Mauna Kea Access Road to the State of Hawai‘i, by the Department of Hawaiian Homelands, Without Consultation with Hawaiian Homes Commission Act Beneficiaries by Either the State of Hawai‘i or the U.S. Department of the Interior

The Mauna Kea Access Road (MKAR) is an approximately six-mile long paved roadway that leads from the Daniel K. Inouye Highway to a Visitor Information Station located on Mauna Kea. Activating NSF NEPA and NHPA activities renew OHA and community concerns regarding the ownership and control of 65 acres of land in the Hawaiian Homes Land Trust (HHLT or Trust) in the Mauna Kea area including the State’s unresolved, uncompensated, and possibly impermissible use of Trust lands. Mauna Kea is a mountain sacred to many Native Hawaiians but nevertheless is used by the University of Hawai‘i for the construction and operation of large-scale industrial telescope facilities. The University of Hawai‘i’s mismanagement of this significant mountain is well documented and ongoing. Not surprisingly, the MKAR, which was constructed by the State of Hawai‘i between the 1960s - 1970’s and is located almost entirely in the HHLT, triggered renewed beneficiary scrutiny of the State’s ongoing pattern of disregard for native Hawaiian and Hawaiian interests and concerns regarding Mauna Kea. It is unclear whether the State obtained the consent of the Hawaiian Homes Commission (HHC) before commencing construction of the MKAR, which has been used continuously and without compensation to the Trust. The circumstances surrounding the MKAR has in many ways now become emblematic of decades-long concerns regarding the improper and uncompensated use of Trust lands, including for roads and highways. Given the renewed and growing outcry over the MKAR and similarly situated lands, OHA strongly believes the U.S. Department of the Interior (DOI) must be included in the discussions between the State and the HHC to appropriately carry out its oversight role.

MKAR issues are unresolved and involve state and federal trust responsibilities, another reason to delay NSF NEPA and NHPA processes.



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5. Status of General Lease S-4191 and the Associated Sub-Leases of the Individual Telescopes and/or Observatories

As it currently stands, the General Lease for the Conservation District lands of Mauna Kea is set to expire in 2033. In recent media coverage on May 6, 2022, the University of the Hawai'i President David Lassner wrote to the Hawaii Tribune Herald saying "...the UH will pause all sublease negotiations with current observatories ... and halt work towards a new master lease post-2033 and an associated environmental review."¹⁰ The Chair of the BLNR was also quoted in the same article, "The Department of Land and Natural Resources, had stronger words for the bill... issuing a statement... that the measure as written is significantly flawed and could be worst for Maunakea than the current state of affairs."¹¹ DLNR went on to say "...the bill does not provide for the lands' current Conservation District regulations to continue, which could in theory allow the Authority to freely develop anywhere within those lands..."¹²

As NSF is moving forward with NEPA and NHPA processes, OHA highlights the significant underlying uncertainty(ies) of General Lease S-4191 and its profound impact on NSF's intentions.

6. Challenge to the Conservation District Use Permit

It is OHA's understanding that the Conservation District Use Permit (CDUP) for the TMT is being challenged by Native Hawaiian beneficiaries and community members. They filed a Motion to reopen the TMT contested case hearing on May 24, 2021. The challenge came because the original CDUP allotted only 2 years for construction to begin. BLNR was **allowed** to issue a single extension but was not allowed to issue a second extension (for 2019-2021) without approval of the full BLNR Board; instead, it was signed only by the BLNR Chair. Further University of Hawai'i at Hilo (UHH), Board of Regents (BOR) was required to notify the Department in writing when construction activities were initiated and also when completed. The Chair of the BLNR signed off on

¹⁰ Hawai'i Tribune Herald (HTH), "UH pumps breaks on astronomy leases", May 6, 2022.

¹¹ *Id.* HTH

¹² *Id.* HTH



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the UHH's false claim that actual construction of the TMT had begun prior to the two-year deadline.

7. Status of the National Pollutant Discharge and Elimination Systems Permit, Under the Clean Water Act, Including Documentation of Studies and Waste and Sewage Systems

NSF's NEPA and NHPA processes should include a listing of all the hazardous material and human waste that is generated by each of the observatories as a part of the Cumulative Impact analysis consistent with what is required under the National Pollutant Discharge and Elimination Systems (NPDES) permit under the Clean Water Act (CWA). No comprehensive hydrological studies have been done on Mauna Kea that included this information. The information must include what hazardous waste and sewage systems are used (i.e., septic tank, leech fields or other systems), and documentation of exactly what their handling and disposal methods are for each. If any discharge from observatories have or do occur, then OHA expects clear and concise information documented and included in both NEPA and NHPA documents for review and comment. A proper assessment of cumulative impacts cannot be done any other way. This is especially important because Mauna Kea is sacred and an important source of drinking water for Hawai'i Island. The waters of Mauna Kea are harvested and collected for cultural and religious ceremonies and lastly, we must not forget that no human can live without clean water – water is life!

NSF should be aware of the NPDES permit requirements under the CWA, in continuing with NEPA and NHPA processes.

8. Financial Implications of Construction and Operations Funding of TMT in the Cumulative Assessment Analysis

According to a recent Associated Press (AP) news release, the 2022 cost of construction of the TMT is now at \$2.65 billion dollars.¹³ If the NSF is considering funding a portion of the costs of construction of TMT (\$850 million dollars), approximately 32%, there is still a significant financial short fall.

¹³ Associated Press, "US environmental study launched for Thirty Meter Telescope", July 19, 2022



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As a part of the federal NEPA cumulative impact assessment, OHA expects NSF will include detailed information regarding the lease and sublease rent paid by the observatories, including an up-to-date accounting of the international TMT Partners actual dedicated financial contributions, the current cost of construction and operations of TMT, and financing, including applicable construction bonds.

9. Implications on Iwi Kupuna

The 'Aina Mauna lands, including Mauna Kea and areas within Pohakuloa, are known to be burial grounds and therefore home to some of our most sacred and revered ancestors. The sacred realms are specifically demarcated by cultural landforms and human made markers establishing what archeologist refer to as a 'sacred precinct' at the highest areas of the summit regions of Mauna Kea. Its sanctity prescribes how it is culturally and spiritually treated. For example, it was forbidden for warriors or war parties to traverse beyond the tree line because the tree line is a natural marker indicating the sacred realms of the Heavens and Pu'uhonua (a sanctuary). The land above the tree line therefore is considered too sacred for the mundane affairs of man to transpire within this realm.

NSF must be aware of provisions of the Native American Graves Protection and Repatriation Act (NAGPRA) as the NEPA and NHPA processes continue; and OHA expects broad engagement and compliance with NAGPRA provisions.

10. Broader and More Significant Community Engagement and Consultation Efforts

There is no question that Native Hawaiians living on Hawai'i Island have deeply held religious and cultural attachments to the sacred and ritual land scape of Mauna Kea. Mauna Kea is held in reverence and is significant to Native Hawaiians who do not live on Hawai'i but rather live across the Ko Pae 'Aina and Moku Honu (the United States). This was clearly evident during the 2015 and 2019 stands on Mauna Kea which were national and international in scope, nature and participation. Mauna Kea's importance to the Native Hawaiian people has been recorded in the modern and historical times. It has also been recorded in administrative hearings (i.e., state held contested case hearings), federal and state court cases, and in all forms of national and international engagement and advocacy, changed by social media forever.



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Notably, the Advisory Council on Historic Preservation (ACHP) handbook specifically references Section 106 Consultation relating the Mauna Kea:

“Native Hawaiian organizations that attach religious and cultural significance to historic properties that may be affected by undertakings must be consulted. Federal agencies must make “a reasonable and good faith” effort to identify **each and every such Native Hawaiian organization and invite them to be consulting parties in the Section 106 review process. **This includes Native Hawaiian organizations that live nearby as well as those that no longer reside in or near the project area but that, for example, may still have ancestral ties to that area. It is also possible that a Native Hawaiian organization attaches religious and cultural significance to a historic property on another island. For example, Mauna Kea, on the island of Hawai’i, is widely regarded as a place of religious and cultural significance to many individual Native Hawaiians and Native Hawaiian organizations throughout the State of Hawai’i. Accordingly, a proposed undertaking that might affect Mauna Kea could necessitate consultation with Native Hawaiian organizations throughout the state.”** *(Emphasis added)***

Therefore, NSF must consider reaching out to Native Hawaiian individuals and Native Hawaiian organizations (NHOs) in a more significant and broader way to reach Native Hawaiians throughout the State of Hawai’i, nationally and internationally.

Mahalo for the opportunity to testify. OHA still reserves the right to provide further comments during this public scoping process by the September 17, 2022 deadline. We further extend an invitation to NSF to meet with the OHA prior to the published deadline.