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BOARD OF LAND AND NATURAL RESOURCES
STATE OF HAWAII

In the Matter of:) Case No. BLNR-CC-16-002
)
A Contested Case Hearing Re Conservation) KAHEA: THE HAWAIIAN
District Use Permit (COUP) HA-3568 for the) ENVIRONMENTAL ALLIANCE'S
Thirty Meter Telescope at the Mauna Kea) EXCEPTIONS TO THE HEARING
Science Reserve, Ka'ōhe Mauka, Hamakua) OFFICER'S FINDINGS OF FACT,
District, Island of Hawai'i, TMK (3) 4-4-) CONCLUSIONS OF LAW, AND DECISION
015:009) AND ORDER DATED JULY 26, 2017;
) CERTIFICATE OF SERVICE
)
)
_____)

**KAHEA: THE HAWAIIAN ENVIRONMENTAL ALLIANCE'S EXCEPTIONS
TO THE HEARING OFFICER'S PROPOSED FINDINGS OF FACT,
CONCLUSIONS OF LAW AND DECISION AND ORDER DATED JULY 26, 2017**

I. INTRODUCTION

Pursuant to Minute Order No. 103, Petitioner KAHEA: The Hawaiian Environmental Alliance ("KAHEA"), submits its exceptions to the Proposed Findings of Fact, Conclusions of Law, and Decision and Order tendered by the Hearings Officer on July 26, 2017 (Report) as being clearly erroneous, wrong and against the reliable, probative and substantial evidence.

KAHEA submits that the Report propounded by the Hearings Officer (HO) contains substantial factual and legal errors and omissions that the Board of Land and Natural Resources (BLNR/Board) must consider.

The Report omits relevant, persuasive and substantial evidence which were highlighted in KAHEA's Proposed FOFs, COLs and Decision and Order, along with their co-Petitioners MKAH, Pisciotta, Ching, Flores-Case Ohana, Neves and Ward and other co-Petitioners as well, including but not limited to Temple of Lono, Kakalia, Sleightholm, W. Freitas, C. Freitas, and Kihoi.

The Report is unreliable in that it represents and relies upon the written direct testimonies ("WDTs") propounded by the UHH and its alter ego TIO which were admittedly NOT written by the witness or else written some six (6) years ago. In fact, the application was itself dated September 2, 2010, and its supporting appendices were of similar vintage. The Report adopted by and large unsupported claims and information from UHH/TIO's Proposed FOFs, Cols & DnOs.

While acknowledging the protections afforded to Hawaiian usage under HRS Sec. 1-1 and to those rights afforded native Hawaiians of their rights customarily and traditionally exercised for cultural and religious purposes under the Hawaii State Constitution, the Report relies upon a "practice" centered analysis of the specific of the between 8.7 to 11.288 acre site being proposed for the TMT. The emphasis on "practice" versus "exercise", in a region considered kapu to many and universally viewed as sacred (HO Proposed FOF 361-423), is dissonant with the very notion of Hawaiian spirituality.

The Report similarly adopts the UHH definition of "welfare" as in its materialistic sense at COL 292, by adopting the notion of "prosperity" as connoting "public welfare". It chose to ignore Black's Law Dictionary's definition of "public welfare" as being "a society's well-being in matters of health, safety, order, morality, economics and politics."

It is incredible that this Report adopts the finding at COL 289 that no showing was made by Petitioners and Opposing Intervenors that the TMT would be detrimental to public health, safety and welfare. And in this light, Kahea urges the Board NOT to rely upon the Report in making its final decision.

MAUNA A WAKEA, MAUNA KAPU

E ala ē me ke aloha, e pili i ka piko o ke aloha o Mauna a Wākea.
Awaken with aloha, connecting in the piko of love and light of Mauna a Wākea.

The Report while including findings on the widely- acknowledged sacred nature of Mauna Kea, then characterizes Petitioners as holding unprotectable religious beliefs (HO's COL 360-390). KAHEA objects/takes exception to the aforesaid COLs and reiterates for the Board the underpinnings of the rights of native Hawaiians' customarily and traditionally exercised for religious purposes at or about Mauna Kea.

Mauna a Wākea (Mountain of Wākea) is the name given breath to by the ancestors because the summit region of this mountain stands majestically above the cloud stratum into the heavenly realms of Wākea (Sky Father) who is personified in the atmosphere that envelops Papahānaumoku (Earth Mother). It is a sacred landscape, also known as Mauna a Kea or Mauna Kea, that provides a genealogical, physical, and spiritual connection between Ke Akua (The Creator), ancestral realms, and *kanaka* (humans). It is a *piko* (portal) for life forces and energies to flow into these islands that requires a pristine environment free of any physical and spiritual obstructions. HO's FOFs 361-423, Exhibit A-122.

Mauna a Wākea has long been regarded as an extremely sacred place in Ka Pae o Aina o Hawai'i (the Hawaiian Islands) by Native Hawaiians of the past and still remembered and cherished by those today, and it has been, and continues to be used as a place to conduct traditional and customary practices. Mauna Kea remains a place of significant worship for Hawaiians, as well as non-Hawaiians. HO's FOFs 361-423, A-122.

Mauna a Wākea or Mauna Kea represents many things to the Native Hawaiian peoples and to many peoples from around the world. The upper regions of Mauna Kea are situate in Wao Akua, the realm of na akua and aumakua, considered elementals in the Hawaiian world view . It is also considered the Temple of the Supreme Being and is acknowledged as such in many oral histories and written histories throughout Polynesia which predate modern science by millennia. It is home of Nā Akua (the Divine Deities), Nā `Aumākua (the Divine Ancestors) and it is the meeting place of Papa (Earth Mother) and Wākea (Sky Father) who are considered the progenitors of the Hawaiian People. It is said Mauna Kea is where the Sky and Earth separated to form the Great-Expanse-of-Space and the Heavenly Realms. Mauna Kea in every respect

represents the zenith of the Native Hawaiian peoples ancestral ties to Creation itself. HOF's FOFs 361-423.

In its reports and studies, the University has affirmed the significance and importance of Mauna a Wākea as a "burial ground and living temple", a "wahi pana", and "cultural anchor" HO FOFs 675, 697, 361-423, Exhibits A-122, A-9. In addition, the University acknowledges that the past construction of observatories on Mauna a Wākea has resulted in substantial, significant, and adverse cumulative impacts. Exhibit B.13d; HO COL 186.

Yet, despite what has been written or documented about this sacred mountain, the University intends to push forward the proposed TMT Project notwithstanding it will contribute further to these detrimental impacts. So, why is this project still being proposed on this sacred landscape? It is apparent that the University and proponents of the TMT Project have either intentionally disregarded its significance or do not fully understand why Mauna a Wākea is still sacred, significant, and afforded multiple layers of protection. Otherwise, they would not be proposing to build a project of such an immense scale on an open space area still pristine, pure, and in its natural state where no other observatory exists today.

Perhaps there is a need to restate why this mountain is still significant and sacred. Beloved Mauna a Wākea is a temple. It is a holy site, comparable to many sacred sites in the world, protected by Poli'ahu and other deities and ancestors. Yet by some, Mauna a Wākea is not afforded the same respect as other significant holy sites of the world. It is important to remember that many peoples, including Native Hawaiians have a reverential relationship with the living conscious Earth. As a result, huge structures or *heiau* (temples) were never built on the summit to avoid creating a disturbance to this sacred landscape. Instead, Mauna a Wākea is a site of pilgrimage confirmed by the several hundred shrines found on the mountain. One entity, one corporation, or one conglomeration of entities does not have the right to occupy this hallowed space and desecrate a temple. These sacred sites are necessary for the healing, blessings, prayers, and connections between native Hawaiians and their akua and aumakua dwelling on this mountain. Alterations of the landscape not only have a significant effect on the mountain itself, but also have a damaging effect on everything and everyone that is physically, genealogically, spiritually, and culturally tied to these islands of Hawai'i.

Hawai'i law and its Constitution mandate the protection of Mauna a Wākea from inappropriate land uses. Everyone is responsible and accountable for their own actions that

would adversely impact this sacred landscape. The stewardship entrusted to the BLNR for our precious ceded and public lands in the Mauna Kea conservation district is to insure that they are acknowledged and preserved for present and future generations. In essence, the development on the summit of Mauna a Wa□kea is a commercial enterprise under the guise of science, education, and economic opportunities.

As one stands upon Mauna Kea, you stand upon sacred ground. Remember, while you stand on this mountain looking heavenward into the realm of Wākea, you have a responsibility to care for your foundation, your cultural anchor, the mountain itself.

Mauna a Wākea is our *piko*. Our Mauna is sacred.

II. EXCEPTIONS

A. TMT CDUA FAILS TO SATISFY THE EIGHT CRITERIA OF HAR 13-5-30(C)

1. TMT Not Consistent with Purpose of Conservation District

A plain reading of the entire relevant statute and regulation makes clear that conservation of natural resources is the purpose of conservation districts. It is for this reason that the Petitioner objects/takes exception to HO FOFs 431-464, and COLs 129-141 on the ground they are clearly erroneous, wrong and against the reliable, probative and substantial evidence.

The Conservation District is the most restrictive of the four land use classifications authorized under Hawai`i's Land Use Law, Chapter 205. The Conservation District is defined to include:

areas necessary for protecting watersheds and water sources; preserving scenic and historic areas; providing park lands, wilderness, and beach reserves; conserving indigenous or endemic plants, fish, and wildlife, including those which are threatened or endangered; preventing floods and soil erosion; forestry; open space areas whose existing openness, natural condition, or present state of use, if retained, would enhance the present or potential value of abutting or surrounding communities, or would maintain or enhance the conservation of natural or scenic resources; areas of value for recreational purposes; other related activities; and other permitted uses not detrimental to a multiple use conservation concept.

Haw. Rev. Stat. § 205-2(e).

The law provides for distinct districts, such as urban, agriculture, and conservation, because these land areas have characteristics suited to each district designation; the activities allowed in each district are consistent with characteristics of those land areas. Conservation districts are designated to provide for public uses and purposes (i.e. protecting watershed zones, conservation, public parks, open spaces, protection of endangered indigenous and endemic species, and protection of historic resources etc.). Haw. Rev. Stat. § 205-2(e),(f). No land use is allowed in the Conservation District without a permit. Indeed, the conservation district rules specifically state that “land uses shall not be undertaken in the conservation district.” HAR 13-5-30(b). The rules allow only those land uses that comply with all eight criteria – that is to say, land uses that do not have a “substantial adverse impact” -- to be undertaken in the conservation district. HAR 13-5-30(c)(4).

The Board manages the Conservation District consistent with Article XI, Section 1 of the Hawai'i Constitution and Chapter 183C. Article XI, Section 1 provides:

For the benefit of present and future generations, the State and its political subdivisions shall conserve and protect Hawaii's natural beauty and all natural resources, including land, water, air, minerals and energy sources, and shall promote the development and utilization of these resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the State. All public natural resources are held in trust by the State for the benefit of the people.

The Board and the Department of Land and Natural Resources administer lands within the Conservation District pursuant to Haw. Rev. Stat. 183C as further outlined in HAR §13-5-1 as noted below in Subchapter 1: (emphasis added)

The purpose of this chapter is to regulate land-use in the conservation district for the **purpose of conserving, protecting, and preserving the important natural resources** of the State through appropriate management and use to promote their long-term sustainability and the public health, safety, and welfare.

Moreover, the HO's report relies heavily on the University's multiple management plans to justify compliance with this first criterion, while ignoring the inadequacy of these plans. This finding is supported by the recent Intermediate Court of Appeals ruling on the “Comprehensive Management Plan.” The ICA held in January 2012 that the University's Comprehensive Management Plan is essentially a plan to plan that does not in and of itself accomplish anything

of consequence. *Mauna Kea Anaina Hou v. Bd. of Land & Natural Resources*, 126 Hawaii 265, 272 (2012, unpublished). For these reasons, HO COLs 129-141 must be rejected.

2. TMT Not Consistent with Objectives of Resource Subzone

The proper interpretation of HAR 13-5-30(c)(2) provides that where a proposed land use is not consistent with the subzone of the conservation district in which it is proposed, then it cannot be granted a permit. Contrary to the HO's findings and conclusions, identifying astronomy facilities as one of many possible land uses does not exempt the Applicant from demonstrating it complies with all eight criteria. It is for this reason that the Petitioner objects/takes exception to HO FOFs 467-76, 478, 480, 481, 483-489, 492 and COLs 143-165 (including COL 161 where the OMKM has failed to update the CMP as it was required to do every five (5) years) on the ground they are clearly erroneous, wrong and against the reliable, probative and substantial evidence.

According to HAR § 13-5-13(a), “[t]he objective of this [Resource] subzone is to develop, with proper management, areas to **ensure sustained use of the natural resources of those areas.**” *Id.* (emphasis added). Ensuring *sustained* use of Mauna Kea's natural resources necessarily means ensuring that the “plants, aquatic life and wildlife, cultural, historic, and archeological sites, and minerals” are actually conserved, maintained, or enhanced; not degraded. HAR § 13-5-2, (definition of “natural resources”).

When this version of the conservation district rules were adopted in 1993, DLNR published a report entitled “Conservation District Review Project: The Discussion Draft” to explain the purpose and function of the hierarchical permitting requirements in these rules (in descending order of appropriateness to the conservation district: Allowable Uses, Administrative Permits, BLNR Permits). B.03t. The Atwater Report (B.03t) stated that astronomy facilities as an identified use in the Resource Subzone requiring a BLNR Permit, meaning they must meet BLNR criteria for a CDUP (or apply for a variance). Astronomy facilities may be constructed in the conservation district *only if* it meets, amongst other criteria, the requirement that it will not entail substantial adverse impacts on conservation district natural resources. *See* HAR 13-5-2(c)(4). Because the TMT Project cannot mitigate the substantial adverse impact of existing telescope development to a less than substantial level, TMT project-specific adverse impacts will thus be “substantial” and in violation of another CDUP criterion. TMT- EIS, Exhibit A-3 at 3-

34. Thus, the TMT does not comply with criterion two and the CDUA must be denied. HAR §13-5-30(c)(2).

3. TMT Not Consistent with Provisions & Guidelines of Coastal Zone Management

The conservation district rules require that the proposed land use be consistent with the provisions and guidelines of the Coastal Zone Management Act, regardless if the proposal triggers additional permitting through that Act. Moreover, the Coastal Zone Management Act requires compliance with its objectives and policies, regardless of the Special Management Area. Haw. Rev. Stat. §205A-4(b).

Moreover, the statute states that:

In implementing the objectives of the coastal zone management program, the agencies shall give full consideration to ecological, cultural, historic, esthetic, recreational, scenic, and open space values, and coastal hazards, as well as to needs for economic development. HRS § 204A-4(a).

Thus, the question before the BLNR, under this criterion, is whether issuing a CDUP for the TMT would be consistent with the following relevant objectives:

- (2) Historic resources: Protect, preserve, and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture
- (3) Scenic and open space resources: Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.
- (6) Coastal hazards: Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution. HRS §205A-2(a).

The TMT would undermine important scenic viewplanes, destroy areas of historic importance, and increase the risk of water pollution. The issues of important viewplanes, scenic and open space resources, historic sites and risks to water quality are addressed in the analysis of criterion four, six, and eight respectively. The fact that the Applicant's proposal would have a substantial adverse impact on these important resources under those criteria, is grounds for also denying the request under this criterion. It is for this reason that the Petitioner objects/takes exception to HO FOFs 497-507 and COLs 167-177 on the grounds they are clearly erroneous, wrong and against the reliable, probative and substantial evidence.

4. TMT Would Cause Substantial Adverse Impacts to Existing Natural Resources

Contrary to HO FOF 897, the TMT Project would cause substantial adverse impacts to existing natural resources on Mauna Kea. It is for this reason that the Petitioner objects/takes exception to HO FOF 509-897 and COLs 179-221 on the grounds they are clearly erroneous, wrong and against the reliable, probative and substantial evidence.

a. Substantial Adverse Impacts to Cultural Resources & Historic Properties

The proposed TMT Project would cause substantial, significant, and adverse impacts to cultural resources as well as historic and traditional cultural properties (TCPs) contained within the Mauna Kea Summit Region Historic District (MKSRLHD). It is for this reason that the Petitioners object to HO FOFs 563-833 COL 179-194 as they are inaccurate, irrelevant, incomplete, and/or misleading, clearly erroneous, wrong and against the reliable, probative and substantial evidence. Furthermore, the Petitioners are reiterating the following significant and relevant information that was omitted from the Report.

“It is our view that the effect of astronomy development on cultural resources and on the landscape of Mauna Kea has been significant and adverse. While a project such as the TMT can bring new resources into play that may mitigate certain cultural impacts... **we believe the project will increase the level of impact on cultural resources, which remains significant and adverse.**” (emphasis in bold) (citing Laura Thielen, Chair, DLNR; Ex A-4, FEIS Vol II p. 17 of 531)

The TMT would be the first observatory to be constructed at the elevation and the specific zone on the north plateau that includes several hundred shrines and other religious structures. Likewise, the proposed TMT observatory would drastically alter the surrounding environment and cause visual and alignment obstructions for many of these cultural and religious sites, thus adversely impacting the constitutionally protected traditional and customary practices exercised by Hawaiian practitioners.

The CDUA for the TMT Project is inaccurate and incomplete because it failed to address the actual adverse impacts upon the whole historic district, failed to properly identify important historic and cultural sites within the project area, and failed to adequately analyze the visual impacts that the project would have on the traditional and customary practices exercised by Petitioners and Native Hawaiian cultural practitioners.

The DLNR-SHPD determined the Mauna Kea Summit Region Historic District to be significant under all four criteria (A, B, C, & D) of the National Register of Historic Places. With the recognition of the MKSRHD as eligible for the National Register, there is now a single frame of reference that can be used in evaluating site significance for all of the historic properties on the top of Mauna Kea. It was reiterated by SHPD and repeated in archaeological reports that, **“Within the historic district, the effect of a project on the historic district as a whole needs to be assessed as well as the project's effect on individual historic properties located within or immediately adjacent to the project area. The effect of a project on the historic district must be addressed even if no individual historic properties are found within or immediately adjacent to the project area.”** (emphasis added). Furthermore, to be listed in the National Register of Historic Places, a property must not only be shown to be significant under the National Register criteria, but it also must have integrity. The retention of specific aspects of integrity is paramount for a property to convey its significance. A district is not eligible if it contains so many alterations or new intrusions that it no longer conveys the sense of a historic environment. The CDUA was also incomplete because it failed to assess the impact of the TMT Project upon the Historic District’s integrity and eligibility to the National Register.

Both the Applicant and Petitioners agree that the proposed TMT Observatory site, the TMT Access Way, and the Batch Plant Staging Area are all within the Mauna Kea Summit Region Historic District (SHPD No. 50-10-23-26869) which includes a concentration of significant historic properties that are linked through their setting, historic use, traditional associations, and ongoing cultural practices. The properties include shrines, adze quarry complexes and workshops, burials, stone markers/memorials, temporary shelters, historic campsites, traditional cultural properties, historic trails, and sites of unknown function. They are also in agreement that the Mauna Kea Summit Region Historic District was determined by the DLNR - State Historic Preservation Division to be significant under all five criteria (A, B, C, D, & E) of the Hawaiʻi Register of Historic Places and as defined in §13-275 of the Hawaiʻi Administrative Rules.

An assessment of the TMT Project’s impacts upon the collective arrangement of 263 historic properties and 339 cultural resources (“find spots”) situated within the Historic District was omitted from the CDUA. The locations of these sites are identified in Figure 3.7: Historic Properties, Traditional Cultural Properties, and Find Spots. See, Exhibit A-5 FEIS Vol. III

Appendix I at 3-12. The largest concentration of historic properties and cultural resources is on the northern slope of Mauna Kea below the summit cones where TMT Observatory and facilities propose to be placed at the same elevation where no other observatory presently exists among the “ring of shrines”. In spite of this, the CDUA did not include any assessment of the TMT Project’s impacts upon these particular sites.

Another example of the incompleteness of the CDUA was the failure to provide a visual analysis of the TMT Observatory’s visual impacts upon the historic properties and cultural resources located on the northern slope within the Historic District. According to the Cultural Resources Management Plan done by PCSI, *“Effects on the historic district would consider the visual impact of a facility on the surrounding landscape (i.e., the various land forms creating the setting and context of the multiple historic properties encompassed by the district) and on those individual historic properties that contribute to the significance of the district.”*

(emphasis added) Exhibit A-11 at 4-38. A viewshed analysis on top of Mauna Kea was limited to the summit region of Kūkahau‘ula. In addition, the Mauna Kea Science Reserve Master Plan (2000) recommended that the placement of new observatories and facilities should have “Minimum visual impact from significant cultural areas. Views from the pu‘u and archaeological sites will be respected in the siting of future facilities. The location of new facilities will avoid interference with the visual connections between the major pu‘u and the shrine complexes.” Exhibit A-48 at IX-22.

In addition, HO FOF 563-833/ COL 179-194 are clearly erroneous, wrong and against the reliable, probative and substantial evidence as they rely upon Applicant/UHH’s limited the discussion in Section 4 - Cultural Resources of the CDUA to only a select few historic properties (4 in Area E & 2 near the Batch Plant) and cultural resources (2 “find spots” in Area E) even though there are several other historic properties and cultural resources in the locality of the TMT Project.

Such omissions mask the TMT Project’s actual adverse impacts upon historic properties in the locality of the TMT Observatory, Access Way, and associated facilities as well as surrounding areas. This can be seen when comparing Figure 4.1: Historic Properties in the Vicinity of the TMT Project Areas in the CDUA (Exhibit A-1 at 4-2; Exhibit G-20) with Figure 5.1: Location of Historic Properties and Find Spots in the Astronomy Precinct and Surrounding

Areas in the Final Report: Archaeological Inventory Survey of the Astronomy Precinct in the Mauna Kea Science Reserve (Exhibit A-55 at 5-5). The Applicant formulated a ‘telescoping effect’ by zooming into the Astronomy Precinct in Figure 4.1 so that one’s perspective would be drastically constrained when compared to the original archaeological survey map in Figure 5.1. Furthermore, Figure 4.1 in the CDUA when compared to Figure 5.1 demonstrates that the CDUA does not properly represent the archaeological survey information required to evaluate significant impacts to the cultural and natural resources of the Mauna Kea Summit Region Historic District and the associated Traditional Cultural Properties (TCPs). For example, **all the Statewide Inventory Historic Properties (SIHP) Numbers for the adjacent historic properties (on right-hand side of the figure) and all the “find spots” were eliminated from Figure 4.1.** Similarly, any discussion about historic properties (SIHP Nos. 16169 and 2144) was omitted from the CDUA even though these sites are identified in Figure 4.1 and are clearly located within the Astronomy Precinct. In contradiction, Figures 4.1 and 5.1 are competent and credible evidence that these sites were omitted from the CDUA resulting in it being inaccurate and incomplete.

Consequently, when the HO FOFs/ COLs aforesaid are reliant upon Ex. A-1 which omit or fail to locate of other such sites in this locality and surrounding areas, the potential and actual adverse impacts of the TMT Project upon the contributing historic properties and cultural resources within the Mauna Kea Summit Region Historic District are not considered. Likewise, the CDUA failed to assess the impacts of the TMT Project upon the Mauna Kea Summit Region Historic District as a whole as the historic preservation laws require. It is for these reasons that the CDUA is considered inaccurate and incomplete. Exhibit A-1 at 4-1 – 4-5.

The Report omitted significant and relevant information provided by the Petitioners as noted below. The Applicant concedes that by constructing observatories near and on the slopes of the cinder cones that comprise the Historic Property of Kūkahau‘ula, spiritually the most important area of Mauna Kea, little consideration was given to the potential impact on traditional cultural resources. As a result, construction of these observatories has had cumulative impacts on cultural, archaeological, and historic resources that are substantial, significant, and adverse. The Applicant also admits that existing astronomical observatories are prominent visual elements on the summit of Mauna Kea. At the summit, the existing observatories obscure portions of the 360-degree panoramic view from the summit area. Overall, the existing level of the cumulative

visual impact from past projects at the summit is considered to be substantial, significant, and adverse.

HO FOFs 684, 686, 696 are misleading, clearly erroneous, wrong and against the reliable, probative and substantial evidence because they attempt to bracket the northern plateau from the rest of the Mauna Kea summit region, which thereby mischaracterizes both the geographic location of the northern plateau (which is part of the summit region) *and*, more egregiously, the cultural practices that use the entire Mauna Kea summit region.

SHPD rejects the approach taken by HO FOF 684, 686 and 696 -- bracketing the northern plateau's cultural and historic significance from that of the entire Mauna Kea summit region. The proposed TMT project location is within the Mauna Kea Summit Region Historic District (MKSRHD) (State Inventory of Historic Place #50-10-23-26869) which SHPD determined to be historically and culturally significant under all five criteria (A, B, C, D, & E) of the Hawai'i Register of Historic Places and Hawai'i Administrative Rules (§13-275) and under all four criteria (A, B, C, & D) of the National Register of Historic Places. Exhibit A-37, SHPD letter at 1. SHPD reports, "[w]ithin the historic district, the effect of a project on the historic district as a whole needs to be assessed as well as the project's effect on individual historic properties located within or immediately adjacent to the project area. The effect of a project on the historic district must be addressed even if no individual historic properties are found within or immediately adjacent to the project area." Exhibit A-5, TMT FEIS at G-59. SHPD's Mauna Kea Historic Preservation Plan (2000) likewise asserts:

Within the [Mauna Kea Summit Region] historic district, the significance of properties is not evaluated individually because the summit region as a whole is considered eligible for inclusion in the National Register. Instead, the required assessments consider how each newly or previously recorded property potentially affected by a project contributes to the significance of the historic district as a whole.

Exhibit A-5, TMT FEIS at G-55.

Just as MKSRHD historic properties can not be evaluated in isolation, native Hawaiian rights customarily exercised for religious and cultural purposes are not exercised in discrete areas of the Mauna Kea summit. The Mauna Kea summit region in its entirety is a 'cultural landscape' -- a geographically definable area that clearly reflects patterns of

occupation and land use over a long time period, as well as the cultural values and attitudes which guide and regulate human interaction with the physical environment. Exhibit A-122. DLNR-SHPD archaeologists have also referred to the summit region as a ‘ritual landscape’ with all of the individual parts contributing to the integrity of the whole summit region.” Exhibit A-122.

Based on the Native Hawaiian traditional cultural practices and beliefs associated with Mauna Kea, as documented in the Maly (1999) oral history and consultation study, UHH consultants have considered the MKSRHD to be a special type of cultural landscape referred to by the National Park Service as “ethnographic landscapes”: “those landscapes imbued with such intangible meanings that they continue to be deemed significant or even sacred by contemporary people who have continuous ties to the site or area.” Exhibit B.03ab, App. N at 45. Likewise, Maly has employed a landscape-wide approach to assessing the connection of many Native Hawaiians to Mauna Kea.” Exhibit B.03ab. Such connections are “cultural attachments”:

“[cultural attachment] embodies the tangible and intangible values of a culture. It is how a people identify with and personify the environment (both natural and manmade) around them. Cultural attachment is demonstrated in the intimate relationship (developed over generations of experiences) that a people of a particular culture share with their landscape--for example, the geographic feature, the natural phenomena and resources, and traditional sites, etc., that make up their surroundings. This attachment to environment bears direct relationship to their beliefs, practices, cultural evolution, and identity of a people. In Hawai`i, cultural attachment is manifest in the very core of Hawaiian spirituality and attachment to landscape. The creative forces of nature which gave birth to the islands (e.g., Hawai`i), the mountains (e.g. Mauna Kea) and all forms of nature, also gave birth to *na kanaka* (the people), thus in Hawaiian tradition, island and human kind share the same genealogy...”

Exhibit B.03ab, App.I at 27.

FOF 828 further fails to acknowledge that the largest concentration of historic properties and cultural resources is on the northern slope of Mauna Kea below the summit cones where TMT Observatory and facilities propose to be placed at the same elevation where no other observatory presently exists among the “ring of shrines”. Exhibit B.01a, B.01q. The term ‘shrine’ is used by Archaeologist [McCoy] to describe all of the religious structures that exist in the summit region of Mauna Kea. Exhibit B-03ab, App.N at 21; A-122. Shrines were placed in prominent location with commanding views of the landscape.

Exhibit B-03ab, App.N at 21. FOF 828 is also misleading because it focuses on “known” cultural practices “associated with a specific historic property” -- thus mischaracterizing the cultural value of the northern slope.

Numerous historic properties and cultural resources (find spots) on the northern plateau that have been identified in the Archaeological Inventory Survey of the Mauna Kea Science Reserve (AIS-MKSR). Exhibit A-55, AIS-MKSR at 3-12. The largest concentration of historic properties and cultural resources is on the northern slope of Mauna Kea below the summit cones. Exhibit A-55, FAIS-AP at 6-1. Many of these sites are located within a narrow 220-ft contour interval, between the 12,900-ft and 13-100-ft elevations on the northern slope. Exhibit A-55, FAIS-AP at 6-1. Findings by UHH consultants, and emphasized by Petitioners, demonstrate that the entire summit district, including Area E and the historic properties contained therein, are associated with traditional and customary practices.

Contrary to FOF _____, the northern plateau is an undeveloped, wide open space that is critical to Hawaiian cultural practices, as well as and recreational uses, of Mauna Kea. Petitioners have provided substantial evidence that their traditional and customary practices involve viewplane alignments that pass through the proposed TMT project areas and will thus be substantially adversely impacted by the TMT, as they have been by other observatories. *See e.g.* Exhibit B.01a, B.01t.

b. Substantial Adverse Impacts to Biological Resources

Botanical Resources

Development of astronomy facilities, utility corridors, and roadways has caused substantial adverse impacts to the fragile floral ecosystems on Mauna Kea. It is for this reason, the Petitioners/KAHEA object/take exception to HO FOFs 298-311 on the grounds that these statements are misleading, clearly erroneous, wrong and against the reliable, probative and substantial evidence, by attempting to downplay the actual adverse impacts to the lichen and moss habitat and communities described by the Applicant’s witness.

The summit of Mauna Kea supports an interesting variety of species, many of which are found nowhere else in the world. Of the 25 different lichens found in a 1982 botany survey, half of the species were endemic to Hawaii, with two occurring only on Mauna Kea. Of the twelve

mosses found in the summit area, less than a quarter were endemic. The fern *Cystopteris douglasii* was one of six vascular plants found at the summit, and the Mauna Kea Silversword, a sub-species unique to the mountain, was once reported in the summit region. Pet. Ward FOF 153, 154 p. 24.

The HO FOF 536 is misleading as it pertains to Douglas' bladderfern (*Cystopteris douglasii*), considered a *Species of Concern* by the USFWS, because the potential impacts were not adequately addressed in the CDUA even though it was found throughout Area E. *Species of Concern* are those species about which regulatory agencies have some concerns regarding status and threats, but for which insufficient information is available to indicate a need to list the species under the Endangered Species Act. Pet Ward FOF 154, p. 24. The TMT Project site is habitat to Species of Concern and is been habitat for a species previously identified as a Candidate for protection as Federal and State Endangered Species. No mitigation measures have been described to address the vegetation or its habitat. Mitigation measures are proposed are insufficient to conserve, protect or restore habitat in the Project area.

According to the Applicant's expert witness, Dr. Smith, "The construction of observatories has had a permanent impact on the biological resources in the immediate area as well as batch plant areas, roads, and associated areas. No new lichens or mosses have become established in the area as a consequence of the construction...The long-term stability of the lichen and moss communities is dependent on minimizing the disturbance in the area...recovery of disturbed areas will be extremely low." Exhibit B-34 Appendix D Page APP-D-8-9. Dated 2012. See Pet Ward FOF 105-121.

This fact alone would be considered a substantial adverse impact to the biological resources resulting from the proposed TMT Project. Even though this FOF is considered relevant to this contested case and was previously submitted as evidence by the Petitioners/KAHEA, it is one of numerous Petitioners' FOFs including Pet. Ward FOF 151-159 p. 24 that were omitted from the Report without any apparent justification. According to HO FOF 534, potential impacts will be "mitigated by measures described herein", but no such measures are described at any point in the document.

Faunal Resources

Development of astronomy facilities, utility corridors, and roadways has caused substantial adverse impacts to the fragile faunal ecosystems on Mauna Kea Moreover, mitigation

actions proposed by the Applicant do not appropriately address the adverse impact to the habitat of the wekiu bug or other arthropods in the area of the proposed Project nor do they restore arthropod habitat damaged by the Applicant's actions. It is for this reason, the Petitioners/KAHEA object/take exception to HO FOFs 543, 550,552, 555- 557, 559,561, and 562 on the grounds that these statements are misleading, clearly erroneous, wrong and against the reliable, probative and substantial evidence, by attempting to downplay the actual adverse impacts to the Wekiu bug habitat and population.

Furthermore, the Petitioners/ KAHEA are reiterating the following significant and relevant information that was omitted from the Report. Overall, the entire TMT project area including the Observatory site and Access Way would destroy and/or disturb over 8.7 acres of Wekiu bug habitat that is comprised of Type 3, 4, 5, and 6 habitats as well as kill Wekiu bugs in these areas. The primary loss, degradation, and reduction of Wekiu bug habitat on the summit of Mauna Kea was the result of astronomy development of telescope facilities and associated roads. Exhibit A-10 NRMP at 2.2-43-44.

Contrary to HO FOF 543, copied identically from the Applicant's erroneous citation (including an error in the witness's name) which stated that restoration is currently being implemented, the proposal recommended by the Applicant's experts to restore Wekiu bug habitat were withdrawn from the TMT FEIS, and no restoration is underway. Exhibit A-4, Vol II

Contrary to HO FOF 561, copied identically from the Applicant's erroneous citation, a number non-native species have been introduced to the summit region, (See Bishop Museum Exhibit B.17(1)), and although the *Ochetellus glaber*, was introduced to the Hale Pohaku area recently, *Ochetellus* is not the invasive fire ant as described by the applicant. The Applicant has misread its own exhibit. The opposite is the case; *Ochetellus glaber*, known as a black ant, displaces fire ants and termites. Exhibit A135 p3. See Pet Ward' response to Appl FOF 501.

c. Substantial Adverse Impacts to Geological Resources

The Petitioners/KAHEA object to the omission of references in the Report to the impacts of the TMT Project upon the geological resources. HO COL 196 intimates that existing astronomy facilities have been constructed on pahoehoe foundation, when in fact, they have been constructed on the summit ridge cinder cone, a substrate entirely unlike the pahoehoe substrate of Area E. The development of the existing observatories significantly modified the preexisting

terrain. The tops of certain *pu'u* or cinder cones were flattened to accommodate the foundations for observatory facilities.

Consequently, the existing level of cumulative impact on geology, soils, and slope stability is considered to be substantial, significant, and adverse, according to the Applicant's EIS. The TMT project would cause additional impact to the geological resources of the particular lava flow morphology and glacial features on the northern plateau, which is separate, distinct, and different from the geology of the summit ridge. Moreover, there will be substantial grading and excavation involved with the construction of the TMT Project. Over 100,000 cubic yards of landscape would be excavated and over 8.7 acres would be disturbed during construction. In addition, Applicant's witness and TMT Project Manager, Mr. Sanders, testified that even if the TMT was decommissioned, "the restoration of the site is unlikely to be perfect and back to a pristine state."

According to Rory Westberg, NPS Acting Regional Director, "The National Park Service contends that the permanent destruction of any surface geologic structures within the Mauna Kea National Natural Landmark is significant and it denigrates from its overall status as a national natural landmark." It was also stated, "[T]he review of the DEIS has brought to our attention the incremental addition with resultant impacts of ten observatories to Mauna Kea NNL since its establishment as a national natural landmark in 1972. Realizing that additional observatories may be a consideration in the future, the NPS intends to review the current NNL designation and at the very least may consider removal of the 525 acre Astronomy Precinct from the current MK NNL designation." A-4 FEIS Vol II p 4 of 531. Pet. Ward FOF 109 p. 18

d. Substantial Adverse Impacts to Visual Resources

HO FOF 834 inaccurately downplays the substantial adverse impacts to visual resources and by asserting in the CDUA review process that the TMT Project's visual impact will be "*less than significant*". It is obvious that the TMT Project's visual impact would have a significant effect on the natural and visual resources both if assessed individually or cumulatively per HAR § 11-200-12. It is for this reason that the Petitioner KAHEA objects to HO FOF 834 on the ground they are inaccurate, irrelevant, and/or misleading, clearly erroneous, wrong and against the reliable, probative and substantial evidence. Several critical errors in the Report as well as

the CDUA regarding the assessment of the TMT Project's visual impacts are discussed further in detail in Criteria 5.

e. Proposed Mitigation Measures Inadequate & Insufficient to Reduce Substantial Adverse Impacts

The proposed TMT will have a substantial adverse impact on the natural resources of Mauna Kea – both in terms of the project-specific harms and the cumulative impact of astronomy activities on the mountain. *See* Exhibit A-3, FEIS Vol 1, at S-8, S-9. The Applicant admits that during the construction and decommissioning, there will be temporary adverse impacts due to noise, traffic, dust, visual intrusion, and the increase in human presence on the mountain; possible adverse impacts during construction and decommissioning also include potential disturbance beyond project limits. As with other activities, there is a potential for accidents, including fire, and accidental release of hazardous materials or solid waste, including trash and construction materials. *Id.*, FEIS at S-7. “The magnitude or significance of cumulative impact to the alpine stone desert ecosystem from activities to date is not fully determined. . . . The cumulative impact of past and present actions to geologic resources in the astronomy precinct has been substantial, significant and adverse, primarily due to the reshaping of the summit cinder cones. . . The cumulative impact to the alpine shrublands and grasslands and mamane subalpine woodlands has also been substantial, significant and adverse, due to grazing by hoofed animals and establishment of invasive plants. . . In general the Project will add a limited increment to the current level of cumulative impact.” *Id.*, FEIS at S-8. These substantial and adverse impacts are not reduced to a level that is less than significant based on the mitigation measures proposed by the Applicant in its CDUA. It is for this reason that the Petitioners object to HO's COLs 179-221 on the grounds that they are clearly erroneous, wrong and against the reliable, probative and substantial evidence .

First, the University's mitigation measures fail to address the existing substantial adverse impact of telescope activity on the conservation resources of Mauna Kea. The TMT FEIS concedes that the cumulative impact of past, present, and reasonably foreseeable telescope activities is already significant, substantial, and adverse. Exhibit A-3, FEIS Vol 1, at S-8, S-9. The TMT would contribute to this existing state of substantial adverse impact. The fourth criterion, however, prohibits land uses that cause substantial adverse impact. Because the BLNR

and the University have failed to address the existing substantial impact on the mountain's resource, it is improper to consider any new projects that would contribute to that substantial impact in anyway. There are no exceptions to the fourth criterion. The threshold of significance has already been surpassed on Mauna Kea, the TMT Project would contribute to that existing significant impact, thus it cannot be granted a construction permit. The method and extent of any remediation is the topic of a separate permit application that is not before the BLNR at this time. This is to say, given the context of substantial adverse harm from current telescope activities, consideration of the TMT CDUA is unreasonable.

Second, the mitigation measures proposed by the University are indirect and insufficient to reduce the substantial adverse impacts identified here. In *Morimoto v. Bd. of Land & Natural Res.*, 107 Haw. 296 (2005), the question posed to the Court was whether BLNR had the authority to consider mitigation measures when applying the 8 criteria of HAR 13-5-30(c). In addition to concluding that the BLNR does have the authority to consider mitigation measures when evaluating a CDUA, the Court also gave direction as to characteristics of adequate mitigation. The court specifically found that the mitigation actions imposed on the Federal Highway Administration's (FHA) road realignment project actually served to "protect and enhance the natural environmental, cultural, historical, and other resources" of the district. *Id.* at 303, fn. 20. The harmful impact of the proposed project – paving over *Palila* habitat – was *directly* ameliorated by the legally binding requirement to restore habitat nearby – specifically, the re-vegetation of 10,000 acres of prime *Palila* habitat. In *Morimoto*, the FHA had considered several alternative paths for the realignment of Saddle Road. The U.S. Fish and Wildlife Service reviewed the many alternatives and issued a Biological Opinion (BO) in which the agency agreed that redesigning the highway project to create more habitat and reintroduce endangered species would mitigate project-related disturbances to *palila* and *Silene hawaiiensis*.^[4] The mitigation measures were memorialized and made enforceable through a Memorandum of Understanding between the FHA and the BLNR. *See, Morimoto v. BLNR*, 107 Haw. 296, 299; 113 P.3d 172, 175 (2005).

By contrast, the Applicant in this case has not designed the TMT Project mitigation actions in accord with guiding documents nor demonstrated that the proposed mitigation actions would *directly* reduce the admitted significant impacts of the project to a level that is less than significant. The University's own self-made management plans are not of the same quality of

guidance as that provided by a federal agency, such as a biological opinion from the Fish and Wildlife Service. And if they were, then the TMT does not even comply with its own guidance documents because it did not follow the recommendations in the cultural impact assessment to construct the TMT on a recycled telescope site. It is important to note that the Applicant has the burden of proving that mitigation measures offered would actually reduce the significant impact of the TMT Project proposal to a level that is less than significant. They have not done that here. The Applicant's proposed mitigations can be categorized into three groups:

1) **Location.** The Applicant contends that locating the TMT project on the northern plateau minimizes the substantial impact of the project on visual and scenic resources. The Applicant has not shown that locating the TMT on the ridge would have been desirable or even possible. Indeed, the Cultural Impact Assessment (CIA) specifically "recommended that the TMT Observatory project be built on a recycled site of an outdated telescope on the summit instead of Area E". Ex. A-3, p. 204-5. Furthermore, the Mauna Kea Science Reserve Master Plan (MKS RMP) states, "Siting Areas A, B and C are already developed with observatories...There is little area available for new telescope development in these three siting areas, however, redevelopment of existing facilities would be possible." Exhibit A-48/ C-11 at IX-23. Instead of considering this alternative location, the Applicant summarily dismissed this recommendation as "not deemed feasible." Ex. A-1, p. 3-32. The fact is, the Applicant's siting process only considered "Area E" on the northern plateau. Ex A-1, p. 4-5. Due to the fact that there is no available space on the summit, locating the five-acre TMT Project on the northern plateau cannot be claimed as a mitigation measure for its unsightliness.

2) **Size.** The Applicant has not shown that the size of the project would reduce the significant impact of the project as proposed to a level that is less than significant. The fact that the project designers could have engineered a bigger, uglier structure but didn't, does not prove that the significant impacts of the project that is proposed will be minimized to a level that is less than significant. Without evidence, the Applicant cannot prove that "it could have been worse" is any mitigation at all.

3) **Money.** The promise to pay "substantial rent" is not a mitigation measure. Not only is such a claim too indefinite and uncertain to serve as a basis for any decision, it also pits compliance with one law against another. Pursuant to HRS 171-17 and -18, fair-market rent is required to be paid into the general fund for the private use of public lands. All telescope

facilities should be paying rent to the general fund, regardless of any other requirements or pre-requisites for permission to be on Mauna Kea. It is improper for the DLNR staff to suggest that compliance with this requirement – paying fair market rent – mitigates the substantial adverse impact of the proposed TMT project “because management costs money.” (Ex. A-7). The requirement to pay rent is not a management fee, it is not a fine, and it is not a rationalization for authorizing a land use that otherwise fails to comply with the basic requirements for a permit. If a proposed land use has unmitigated substantial adverse impacts, then its CDUA cannot be granted, in which case the BLNR never reaches the question of what would be fair-market rent for that land use.

The additional offers of money for educational services and workforce development are completely irrelevant to the BLNR’s consideration of whether this CDUA complies with the eight requirements for a permit. No matter how many jobs or classes the Applicant promises to provide in exchange for permission to build in the conservation district, the BLNR cannot based its decision on such factors for they are outside the confines of the eight criteria for a permit and the BLNR’s jurisdiction over the conservation district.

The cacophony of additional mitigation measures offered by the Applicant (furnishing items with a sense of place, ride-sharing, paving some roads while remediating others, monitoring Wēkiu bugs, painting facilities, complying with laws, etc.) do not directly address the harm caused by the proposed TMT or telescope activities in general. The Applicant failed to present evidence that these mitigation measures would actually reduce the substantial impact of the project to a level that is less than substantial. By contrast, the Petitioners presented evidence that demonstrates the mitigation measures do not minimize the substantial and adverse impacts of the project and in some instances actually worsen the injury (highly reflective aluminum-like coating) or add insult to the injury of the proposed project on Mauna Kea (art and furnishing in the project for a sense of the place just recently destroyed). In fact, the Applicant admits that even with proposed mitigation measures for the TMT, significant impacts on the Mauna Kea conservation district will persist.

Lastly, unlike the *Morimoto* case, where the mitigation actions were legally enforceable through a separately binding Memorandum of Agreement, the proposed mitigation measures suggested through the UH CMP are not legally enforceable. There is no mechanism or trigger to ensure that the UH CMP does not “remain[] an unimplemented plan.” . Because the

substantial harms of the telescopes on Mauna Kea cannot be mitigated to a level that is less than substantial, the BLNR could not approve this CDUA.

f. TMT is distinguishable from Kilakila ‘o Haleakala v BLNR 138 Haw. 383

The Haleakala Advanced Technology Solar Telescope (ATST) is fundamentally distinguishable from TMT in that the ATST FEIS says there’s no difference on the surrounding area whether the telescope is built or not, whereas as the TMT FEIS says negative impacts would not occur if TMT is not built.

- ATST is being built shoulder to shoulder with existing telescopes, while TMT is being built a half mile away from other telescopes . Ex. A-3, 2-1
- ATST is being built on a recycled site, TMT is being built on the pristine northern plateau. Ex. A-3, 2-1
- ATST has a .74 acre footprint, while TMT proposes an 8 acre footprint. Ex. A-3, 2-1.
- TMT could not be built amongst the other telescopes on Mauna Kea summit because of its immense size. Ex. A-3, 2-8
- The land on which ATST is being built is owned in fee simple by the UH. And it may be used in perpetuity for astronomy facilities. TMT is proposed for a site being leased to UH and scheduled to terminate in 2033. A-3, 3-238
- ATST FEIS concluded that substantial adverse impacts exist irrespective of whether the preferred action or the no action alternative were selected. Kilakila, 138 Haw. 383, 403.
- The TMT FEIS took the position that no adverse impacts would occur if the “no action” alternative were chosen. Ex. A-3, 4-6
- The ATST mitigation plan has been adopted by the BLNR and is being implemented by UH. Kilakila at 403. The Mauna Kea Comprehensive Management Plan is a plan to plan and is not operational without additional permit approvals. TMT cannot rely upon the MKCMP to reduce its negative impacts, it must obtain more approvals.

In brief, the natural and cultural resources of Haleakala have already been destroyed by the astronomy facilities already there and the likelihood of removal is low. On Mauna Kea, however, the natural and cultural resources

to be preserved and improved upon still exist on the northern plateau despite the astronomy facilities a half mile away on the summit, which facilities are scheduled to be decommissioned sometime in the future.

5. TMT Not Compatible with the Locality & Surrounding Areas

Proposing the TMT Project to be constructed in the Astronomy Precinct along with other existing observatories does not automatically make this new development appropriate and compatible with the locality and surrounding areas of Mauna Kea. It is important to remember that the locality and surrounding areas being considered for this new observatory development are within the **conservation district** of the Mauna Kea Science Reserve that is also encompassed by the Mauna Kea Summit Region Historic District. It is for this reason that the Petitioner objects/takes exception to HO FOFs 898-912, 918-920 and COL 223-230 on the grounds they are inaccurate, irrelevant, and misleading, clearly erroneous, wrong and against the reliable, probative and substantial evidence.

This project is *incompatible with the surrounding area*, which is 11,288 Acre MKSR within the conservation district, which extends from 6,000 feet to the summit. The proposed location of the TMT – the northern plateau – is undeveloped land, wide open space important to cultural practices and recreational uses on Mauna Kea. *See* Exhibit A-3, TMT EIS at 3-100, fig. 3-23.

The immense size and height of the TMT observatory is a significant reason why this project is inappropriate and incompatible for this conservation district. Due to the TMT observatory's enormous size of 216 feet in diameter and its extreme height of over 180 feet, it would be the LARGEST observatory on Mauna Kea as well as the TALLEST building on Hawai'i Island surpassing the maximum height limits of 90 feet (120 feet for Hilo) for any commercial or resort buildings on this island based upon Hawai'i County zoning codes. Hawai'i County restricts the height of buildings to protect the cherished island landscape from obtrusive development. Yet, the Applicant proposes a man-made structure in the conservation district that would be at least twice as high as most existing commercial and resort buildings on the island and over 60 feet high of a select few buildings in Hilo. Hence, the TMT Project is not only inappropriate and incompatible for Mauna Kea, but it is also inappropriate and incompatible for the entire Hawai'i County.

Contrary to HO FOF 899, locating the TMT Project in Area E does not result in its impacts being “*less than significant*” upon historic properties, cultural resources, and customary and traditional cultural practices, as well as on viewplanes, species habitat, and existing facilities. The University has conceded that the past construction of these observatories had cumulative impacts on the cultural, archaeological, and historic resources **that are substantial, significant, and adverse**. The TMT FEIS also affirms that, “**From a cumulative perspective, the impact of past and present actions on cultural, archaeological, and historic resources is substantial, significant, and adverse; the impacts would continue to be substantial, significant and adverse with the consideration of the Project and other reasonably foreseeable future actions.**” (emphasis in bold) Exhibit A-3; B.13d. As such, the TMT Project would not reduce or diminish these impacts. Instead, it would contribute further to these cumulative impacts that will be substantial, significant, and adverse. If the existing observatory development on Mauna Kea (many of which were retroactively permitted after construction) resulted in such cumulative impacts, then these projects were never in fact appropriate and compatible for this conservation district. The proposed TMT Project cannot be considered appropriate and compatible at this time.

Building the TMT in Area E would introduce a new, gigantic, metallic dome into a viewplane that is currently natural and intact. The view from the northern ridge of Kūkahau‘ula towards Haleakala is one of the last intact natural viewplanes from the summit region. There are **currently no telescope structures visible on the northern plateau**. Exhibit A-3 at 3-100. The northern plateau of Mauna Kea is relatively untouched by modern astronomy. Therefore, building the TMT on the northern plateau would not be compatible with the surrounding locality of that area. Indeed, the Cultural Impact Assessment (CIA) to the TMT EIS recommended that the TMT be built on a recycled telescope site, instead of breaking new ground and allowing the industrialization of the mountain to spread to a wider area, and obstructing an otherwise intact viewplane. Exhibit A-4, TMT EIS Vol. 2, CIA.

The statements presented in HO FOF 898-912, 918-920 are misleading clearly erroneous, wrong and against the reliable, probative and substantial evidence and thus downplay the substantial adverse impacts of the TMT Project in the proposed locality of the 13N site in Area E. The TMT Project on the northern plateau is incompatible with the natural resources (inclusive

of plants, aquatic life, wildlife, cultural, historic and archaeological sites, and minerals as defined in HAR §13-5-2) of this locality and surrounding areas. In addition to disturbing over 8.7 acres and excavating over 100,000 cubic yards of this sacred landscape during construction, the TMT observatory would be situated amongst the ‘ring of shrines’ consisting of several hundred historic properties and cultural resources that contribute to the significance of the Mauna Kea Summit Region Historic District. In addition, the northern plateau is not a built environment, it is still in a natural state with an open vista, notable for its breathtaking views, and one of the last open space areas with unhindered views from the summit region down to the sea, along the coasts, and across the island chain.

Likewise, the TMT Observatory will be highly visible to island residents and visitors that reside within the viewshed areas in addition to those who reside outside the viewshed areas who will be able to see this structure when they are travelling through or visiting locations within the viewshed. Exhibit A-4 at 3-86, 3-99. These aspects are covered in further detail in Exceptions to HO FOF/COLs concerning CDUP Criteria 4 and 6.

The HO FOFs 898-912, 918-920 are inaccurate clearly erroneous, wrong and against the reliable, probative and substantial evidence by downplaying these adverse visual impacts and by asserting in the CDUA review process that the TMT Project’s visual impact will be “*less than significant*” per HAR § 11-200-12.[5] However, it is very obvious that the TMT Project’s visual impact would have a significant effect on the environment both if assessed individually or cumulatively per HAR § 11-200-12. It is for this reason that the Petitioners object to HO FOFs 898-955 on the ground they are inaccurate, incomplete, irrelevant, and/or misleading, clearly erroneous, wrong and against the reliable, probative and substantial evidence. Several critical errors in the Report as well as the CDUA regarding the assessment of the TMT Project’s visual impacts are discussed below.

Both the University and Petitioners agree that the TMT Observatory will be visible from locations within the summit region, particularly from the northern plateau and the northern ridge of Kūkahau‘ūla. In addition, the TMT Observatory will add a substantial new visual element in the open space that will be visible from viewpoints along the northern ridge of Kūkahau‘ūla, Pu‘u Poli‘ahu, and by people as they travel within the northern portion of the summit region.

When Native Hawaiian cultural practitioners as well as visitors go to the summit region, there are very few areas where one can stand and peer into the horizon without having the

existing man-made observatories, associated facilities, and infrastructure obstructing one's view plane. There are no unobstructed 360-degree views on the summit region. Open view planes are limited to where and however one can get around the existing observatories to find an open space. Also, one is restricted to positioning oneself on the summit roadway looking east or at the northern edge of the observatories looking north in order to avoid the existing adverse visual impacts.

Should the TMT Observatory be built on the northern plateau, ***the only unobstructed view plane from the summit region remaining*** would be on the eastern side of Kūkahau'ula. ***Therefore, eliminating one of last two unobstructed views from the summit region is a prime example of why the TMT Project's visual impacts would be substantial, significant, and adverse and not compatible with this particular locality.***

The CDUA was incomplete because it failed to disclose the visual impacts upon the surrounding cultural landscape and on those several hundred historic properties and cultural resources located on the northern plateau which contribute to the significance of the Mauna Kea Summit Region Historic District. In addition, the CDUA did not consider the visual impact upon Hawaiian cultural practitioners, ancestral *akua*, *aumakua*, and *kupua* connected to Mauna a Wakea. Important alignments, both physical and spiritual, would be blocked, interfering with the ability of cultural practitioners to perform those ceremonies and customary, cultural, and religious practices associated with those alignments.

As noted by cultural practitioner Neves, "When we look out on the plateau where the TMT is proposing to site their project-- it is not just that it will now be blocking our eyes (depending on where we are looking from) but it will be the most dominant feature in our eyes and therefore the most dominant feature in our customary and traditional view plane. It is this view plane that we use to look and to honor the high maunas down the island chain." Likewise, as stated by cultural practitioner Pisciotta, "The TMT will impact us and many other people that seek to observe the sunset from Mauna Kea. The TMT will be in direct line of site of many traditional spiritual and religious view planes, including those towards Haleakala, the sunset and other sacred sites." Ex. B.02a. Also, the CDUA did not analyze the impact to cultural practitioners' nighttime viewing.

The CDUA outlined three project-level mitigation measures for the known visual impacts of the proposed TMT observatory:

(A) The location of the TMT project is the primary impact avoidance measure, as it is north of and below the summit.

Contrary to HO FOF 906, the proposed location of the TMT is a function of available space, not mitigation. Figure 1-3: Mauna Kea Summit Region: Existing Facilities, Features, & Future Development Areas in the CDUA shows that the location of TMT north of and below the summit is due to the fact there is no available room on the summit for a project of an enormous size within the Astronomy Precinct due to the existing observatories. According to the TMT FEIS, “When it comes to siting new optical/infrared observatories on Maunakea, the 2000 Master Plan states “the height and diameter restrictions in Areas A and B are related to a number of factors, including visibility, potential impacts to existing observatories, and wind forces.” “The second priority for siting new [optical/infrared observatories] will be at two new [areas] within the Astronomy Precinct, and only if a suitable summit ridge site cannot be utilized for redevelopment.” The two new areas identified in the 2000 Master Plan are Areas E and F. Recycling an existing optical/infrared observatory is not an option for the TMT observatory because the TMT Observatory would exceed the diameter and height requirements.” Ex. A-3 at 2-8. Likewise, the University has never provided any alternative sites on the summit other than Area E in any of its documents or witness testimonies. Therefore, locating the TMT Observatory on the northern plateau is not a mitigation measure for eliminating the visual impact of the TMT observatory. This area was designated for the TMT Observatory because the University has presently utilized all available and suitable sites on the summit.

At over 180 feet, the TMT would be the TALLEST building on Hawai‘i Island, surpassing the maximum height limits of 90 feet (120 feet for Hilo) for any commercial or resort buildings on this island based upon Hawai‘i County zoning codes.

(B) The coating of the dome will be a reflective aluminum-like coating, which during the day reflects the sky and reduces the visibility of the structure.

Contrary to HO FOF 906, the proposed aluminum-like coating would actually be more visible due to the reflective nature of the dome shape that would instead reflect the sunlight back into one’s eyes when viewing it. The proposed mitigation of utilizing the aluminum-like coating

on the TMT dome is contradictory to the Design Guidelines section of the UH's Mauna Kea Science Reserve Master Plan 2000 (Ex. A-48), which states; "As much as possible, surfaces should be **non-reflective in the visible spectrum to minimize glare and visibility from distant areas.**" (emphasis in bold).

The HO FOF 906 as well as the CDUA are also inaccurate because it states that the proposed aluminum-like finish for the TMT dome would minimize the adverse visual impacts by reflecting the sky and ground. This statement can be confirmed as erroneous by simply viewing the existing observatories. The TMT Observatory will be more visible, similar to the existing visual impacts of the Gemini Observatory with its aluminum-like coating and dome shape that does not reflect the sky or ground during the day to reduce the visual impacts as implied. The comparison of the TMT Observatory with the Subaru Observatory was an inaccurate analysis because their reflective characteristics differ due to the TMT being a dome shape and the Subaru being a cylinder-like shape. The TMT dome shape would more appropriately be compared to the existing Gemini Observatory dome. As a result, the photo simulations in the CDUA that depicted the aluminum-like coating were inaccurate, particularly in Figures 7.5 and 7.8.

The viewshed analysis, Visual Impact Assessment Technical Report (VIATR) Ex. A-54 of the FEIS, included several deficiencies and inaccuracies. Consequently, when such information was inserted into the Report as well as the CDUA, it still remained incomplete and inaccurate. For example, Pu'ukohola Heiau National Historic Site, one of the culturally significant viewpoints in the visual analysis, was inaccurately identified in the photos (Viewpoint 6) of the VIATR. In another example, the data was actually altered from the original VIATR when inserted into the CDUA to downplay the visual impacts. Upon comparison, Table 7.5 in the CDUA inaccurately stated "No" to the question if the TMT Observatory was "*Visible in silhouette?*" from viewpoint #18 – North ridge of Kūkahau'ula. Yet, this same exact question was answered as "*Full*" in Table 4-4 in the VIATR. Moreover, Figure 7.8 of the CDUA confirms that the TMT would cast a full silhouette view from the north ridge of the Pu'u Kūkahau'ula State Historic Property. Ex. A-1, p. 7-8 & 7-12, Ex. A-27, p. 42.

The Report as well as the CDUA were also in error for omitting relevant and significant facts that would have provided a comprehensive view of the adverse visual impacts of the proposed TMT observatory. In order to downplay these impacts, the CDUA also narrowed the viewshed analysis to only 18 select viewpoints sites and to a limited "primary view" discussion.

Significant areas such as the large residential/resort communities of Waikoloa Village [with a population of 4,806 and 1,750 households according to 2000 Census], Puako, Mauna Kea Resort, Kuki‘o, and Kona Village as well as areas of South Kona and North Kohala have been excluded from this viewshed analysis resulting in this CDUA being incomplete. The CDUA did not provide a complete visual impact analysis that includes any data or statistics on the number of visitors and island residents that reside outside the viewshed who would be able to see the TMT Observatory when they travel through and visit locations within the viewshed. In addition, there are significant numbers of visitors that reside at the resort areas within the TMT viewsheds as well as residents who commute regularly from outside of the TMT viewsheds to work in these resort areas who have not been accounted for in the visual impact analysis. Also, the potential impact upon the Hawai‘i Island visitor industry that promotes the island’s natural resources and scenic vistas was not addressed in the CDUA.

The CDUA also omitted significant information or inserted misleading statements to downplay the visual impacts that do not conform to the Hawai‘i County General Plan (2005). For example, the Applicant narrowed the discussion to only one goal (b) and eliminated any assessment on the other established goals (a & c) in the area of Natural Beauty (7.2 Goals) as noted below; (a) Protect, preserve and enhance the quality of areas endowed with natural beauty, including the quality of coastal scenic resources. (b) Protect scenic vistas and view planes from becoming obstructed. (c) Maximize opportunities for present and future generations to appreciate and enjoy natural and scenic beauty. In addition, the CDUA failed to disclose that the TMT Project does not conform to the General Plan goals established for the Natural Resources. It is for this reason that the Petitioners object to HO FOFs 834-854 on the ground they are inaccurate and/or misleading.

It is undisputed the existing observatories occupy the summit region of Mauna a Wākea and create a substantial, significant, and adverse visual impact on this sacred landscape. HO COL 186. This assessment of the visual impacts of the past and present astronomy-related activities in the Mauna Kea Science Reserve was affirmed by Mr. Hayes and the Outrigger Telescopes Project FEIS Ex. B.13d. Observatory construction on Pu‘u Kūkahau‘ula State Historic Property have caused substantial alteration to the landscape that have impacted the viewplanes from the summit. It is difficult to escape these man-made structures on the mountain

where they are visible from approximately 43% of Hawai‘i Island. Accordingly, when the TMT Observatory is combined with the existing conditions, the cumulative visual impact of development on or near the summit of Mauna Kea will continue to be significant as noted in the TMT FEIS. However, if TMT Project is not built under the No Build Alternative, it would not create a new visual impact or contribute to the existing adverse impacts, as recommended in Ex. B.44; B.57

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The existing development on the summit is causing adverse impacts and significant disturbances to the natural electromagnetic fields and vortexes on the mountain. In addition, the electrical substation, power lines, and high voltage current that runs to the top of the summit is interfering and disturbing the electromagnetic fields and vortexes that naturally occur on the mountain. The TMT Project would cause further disturbance to these electromagnetic fields and vortexes especially with the increased current and voltage associated with the electrical upgrades. The CDUA is incomplete for not conducting an electromagnetic analysis and assessment for the TMT Project.

When the summit region is obstructed with the physical excavation of the landscape, asphalt and cement pavement, metal posts implanted in ground, buildings, and construction, it curtails or prevents the flow of energy and life forces into these islands through this *piko*. Therefore, the TMT Project construction would contribute to additional obstructions to this *piko*.

Moreover, construction of the TMT would not be compatible with recreational and other public uses in the surrounding areas of the Mauna Kea conservation district. Recreational users visit Mauna Kea for trail hiking, snow play, amateur astronomy, hunting, nature study and wilderness experience, including unfettered vistas, silence, spiritual peace, natural beauty, and cultural significance. Ex. B.17a, WDT Ward at 2. Visitors from the world over, and average of 302 commercial tours per month, or as many as 240 visitors per day, and 11,900 visitor trips per year, ascend the mountain for sightseeing, hiking, amateur astronomy, hunting, sled, ski, snowboard, and enjoy the unique conditions. In addition, Mauna Kea’s unique natural landscape is a popular site for commercial film activities. Exhibit A-3 Vol 1 at p-3, 3-153, 3-165.

Consequently, the proposed land use with the construction of the TMT observatory, structures, paved access way, and associated development are incompatible and inappropriate for this cultural and recreational landscape of the northern plateau and the surrounding sacred

areas within the conservation district that encompasses the Mauna Kea Summit Region Historic District.

6. Will Not Preserve or Improve upon the Existing Physical & Environmental Aspects of the Land, such as Natural Beauty & Open Space

The TMT Project, as proposed, neither preserves nor improves upon Mauna Kea's existing physical and environmental aspects, such as its natural beauty and open space. The Applicant has not and cannot meet the requirement under the sixth criterion. Likewise, the information inserted by the Applicant into the CDUA (2.6 Preservation of Environment) Exhibit A-1 at 2-27 – 2-28 is inaccurate and exceedingly irrelevant to this criteria. It is for this same reason that the Petitioner objects/takes exception to HO FOFs 921-955 and COL 232-260 on the ground they are clearly erroneous, wrong and against the reliable, probative and substantial evidence. The vast majority of these particular FOFs are irrelevant to this criteria.

The TMT Observatory is an industrial massive man-made structure that unequivocally impacts the existing physical and environmental aspects of Mauna Kea. As such, no evidence was presented to demonstrate the TMT Project would **preserve or improve upon the existing physical and environmental aspects** as required in the sixth criterion of the CDUA.

Firstly, the observatory's footprint, support buildings, parking lot, access way, and area disturbed during construction will adversely impact the proposed site within the conservation district. Moreover, there will be substantial grading and excavation involved with the construction of the TMT Project. Over 100,000 cubic yards of landscape would be excavated and over 8.7 acres would be disturbed during construction. Ex. A-1. According to the Applicant's expert witness, Mr. Smith, it would take 100 years before flora would regenerate after the proposed excavation and disturbance at TMT site. In addition, Applicant's witness and TMT Project Manager, Mr. Sanders, testified that even if the TMT was decommissioned, "the restoration of the site is unlikely to be perfect and back to a pristine state." Hence, this further demonstrates that the TMT Project will not preserve or improve upon the existing physical and environmental aspects of Mauna Kea.

Secondly, the TMT Observatory would cause substantial, significant, and adverse visual impacts to the open space, scenic viewplane, cultural landscape, and sacred slopes on Mauna a Wākea due to its immense size at 216 feet in diameter and its extreme height of over 180 feet, it

would be the TALLEST building on the island as well as on the mountain. It is proposed to be located on the northern plateau amongst the ‘ring of shrines’ consisting of several hundred historic properties and cultural resources, which, significantly, is one of the last open space areas with unhindered views from the summit region down to the sea, along the coasts, and across the island chain. The TMT Project would intrude upon the currently unobstructed view of Haleakala Mountain from the northern ridge of Kukahau`ula, as well as the primary view of the setting sun from the mountain. It will also obstruct viewplanes used for traditional, customary, spiritual, and religious Native Hawaiian practices. Likewise, this project will impede upon the open space and degrade the natural beauty cherished by residents, visitors, and recreational users.

Area E in the northern plateau has not been substantially altered and is not already populated by any observatories and other related facilities. It is still a natural, open vista, notable for its breathtaking views. To characterize the northern plateau as anything but open space – as the Applicant attempts to do – belies the facts in this record. The site visit to Mauna Kea made clear that the view from the northern ridge of Kukahau`ula looking towards Haleakala is still wide open and all-natural. Figure 7.7 in the CDUA with a view from the northern plateau clearly indicates there are no structures on the plateau. Whereas, Figure 7.8 depicts how the proposed TMT 18-story observatory, 5-acre industrial infrastructure, and support building would be the dominant and only man-made feature on the northern plateau. Exhibit A-1 at 7-12; *See also*, attached exhibit images. Indeed, the Applicant concedes that “[t]he TMT Observatory will add a substantial new visual element in the landscape that will be visible from viewpoints along the northern ridge of Kūkahau‘ula.”

The presence of the Project in the currently undeveloped northern plateau would introduce new elements, including the observatory, a new road, vehicle traffic, noise, dust, and an increased number of visitors, 24 TMT employees on average, UH management personnel, and tourists, in addition to cultural practitioners. The TMT employees and visitors would be accessing a portion of the Historic District that is not usually visited. The increase of employee and visitor traffic in the vicinity of the north plateau may result in some potential impacts to individual historic properties. It may also result in the alteration of existing historic properties by non-TMT employees. Exhibit A-3 Vol 1 at 3-28, 3-45, 3-50, 3-51.

The natural beauty of Mauna Kea embraces the vast pristine landscape, the scenic views and visual resources, the geologic terrain, the circle of shrines, the silent interaction of light and

shadow, the interplay of mist and snow on the plateau -- a conservation resource treasured by the world. The loss of this resource would be irrevocable, is unacceptable, and is counter to the laws that protect the conservation district.

Because the massive TMT Observatory, Access Way, and associated facilities would not preserve or improve upon the existing physical and environmental aspects, such as its natural beauty and open space of the Mauna Kea conservation district, the sixth criterion is not satisfied and the TMT CDUA must be denied.

7. TMT Would Further Subdivide Conservation District

The Applicant claims there is no subdivision at issue in the TMT CDUA because a formal subdivision was not requested (HO COL 268), and because if it were, then not only would all existing telescope subleases constitute a subdivision (HO COL 269), but no future CDUPs could be issued because any construction would constitute a subdivision (HO COL 275). This is a misstatement of the requirement of HAR 13-5-30(c)(7). It is for this reason that the Petitioner objects/takes exception to HO FOFs 956-965 and COL 262-276 on the grounds that they are clearly erroneous, wrong and against the reliable, probative and substantial evidence.

To begin, “subdivision” is defined in the conservation district rules as “the division of a parcel of land into more than one parcel.” HAR §15-3-2. This definition is consistent with *BLACK’S LAW DICTIONARY*, where “subdivision” is defined as “1) The division of a thing into smaller parts, 2) A parcel of land in a larger development.” Such a division, in and of itself, is not prohibited by the rules. However, where such a division of land is undertaken in order to “intensify land uses” on the parcel, it is forbidden under HAR 13-5-30(c)(7).

While it is true that the University has not officially requested permission to subdivide the Mauna Kea conservation district in this CDUA, the Applicant’s actions on Mauna Kea have resulted in the *de facto* subdivision of this land for the purpose of intensifying land uses undertaken there. This improper, *de facto* subdivision takes two forms: 1) Astronomy Precinct, 2) Subleases to telescope operators. The Astronomy Precinct, as Ms. Nagata confirmed, was subdivided from the remainder of the “UH managed lands” in order to focus future telescope construction in a 500-acre area of the conservation district. In addition, the TMT would operate on a sublease, which as other similar subleases indicate, effectively result in the division of the

Mauna Kea Science Reserve into a many separate parcels under the control of different telescope operators.

Despite these facts, the Applicant makes several attempts to claim compliance with the seventh criterion. First, the Applicant contends that because it did not apply for a subdivision in its CDUA for the TMT, there is no subdivision of land. Not so. In the definition of “subdivision,” *BLACK’S LAW DICTIONARY* offers a very useful example of an “illegal subdivision.” “The division of a tract of land into smaller parcels in violation of local subdivision regulations, as when a developer begins laying out streets, installing sewer and utility lines, and constructing houses without the authorization of the local planning commission.” *BLACK’S LAW DICTIONARY*, 7th ed, (2000) at 1155.

BLACK’S makes clear that a subdivision of land can occur regardless if the applicant properly applies for permission or not. Land use in the summit region of the Mauna Kea conservation district has the hallmarks of a *de facto* subdivision: facilities and improvements cost sharing, planned development, and defined, independent property interests. As the site visit and the record indicate, the telescope subleases intensified land use by increasing the burden of vehicles, visitors, and long-term personnel that use access roads, sewage, electricity, utilities, and base-level and mid-level facilities. HAR §13-5-30(c)(7) specifically guards against the intensification of land use like that found on Mauna Kea that is usually associated with the subdivision of land.

Second, the Applicant contends that a completely separate law exempts the University from the requirements of this law. The Applicant offers no reason to look outside the four corners of HAR 13-5 or HRS 183C for guidance in the interpretation of the conservation district rules. HAR 13-5-30(c)(7) is not ambiguous or unclear, as such there is no reason to refer to other statutes for interpretation, especially where that interpretation contradicts the plain meaning of the rule in question. Because there is no reason to reference Hawaii’s Uniform Land Sales Practices Act, the Applicant’s reliance on the government exception is misplaced. There is no exception to HAR 13-5-30(c)(7).

However, if even there were an exception, the University is not entitled to “government” status in this situation because the University is more akin to a developer than a government agency when it comes to development in the Mauna Kea conservation district. The University has undertaken sublease agreements to gain telescope resources, viewing time, and other benefits

and thus demised Mauna Kea conservation district land parcels to other telescope vendors. The University continues to be the primary advocate for construction in the Mauna Kea conservation district. Indeed, the University is the ONLY applicant listed on the CDUA.

Third, the Applicant contends that reading the plain meaning of HAR 13-5-30(c)(7) would lead to an absurd result and thus should not be followed. The plain reading of the rule is that a CDUA cannot be granted where subdivision is used to increase the intensity of land uses in the conservation district. This does not say, as the Applicant contends, that nothing could ever be built in a conservation district. Rather, it directs that when construction is proposed in the conservation district the land cannot be subdivided -- that is divided into smaller parcels -- in order to increase the intensity of the land uses in the district.

Unfortunately, that is exactly what has happened on Mauna Kea in both regards. The University has “subdivided” the lands under its general lease to ensure more land use in the astronomy precinct AND it has facilitated subleases with individual telescope owners and operators as a basis for construction of many industrial structures in the Mauna Kea conservation district. Indeed, by the University’s own requirement, the TMT could not be built without a sublease.

Because the proposed TMT project is premised on and would further the subdivision of land in the Mauna Kea conservation district, the CDUA is not consistent with criterion seven and cannot be approved.

8. TMT Would be Materially Detrimental to Public Health, Safety & Welfare

Petitioners object to HO FOFs 957-965 and COL 278-297 on the grounds that they are clearly erroneous, wrong and against the reliable, probative and substantial evidence as more fully set forth herein below.

The HO FOFs 957-965 are irrelevant to the CDUA and this criteria. In the context of BLNR’s rules and responsibility, it is tasked with protecting the conservation district for the benefit of the public. BLNR’s rules do not authorize the BLNR to destroy conservation district resources in exchange for economic benefits. What is relevant to the BLNR’s consideration of this CDUA is how the impact of the TMT Project on Mauna Kea will affect a significant public resource? The TMT Project will exacerbate risks to water quality, contribute to the multi-

generational trauma of desecration on Mauna Kea, and ruin a wilderness important for reprieve and rejuvenation.

a. Water Quality

The Report is incomplete because it fails to take into account the potential detrimental impacts upon the water aquifers located associated with Mauna Kea. The Mauna Kea Science Reserve is located above five State of Hawai'i delineated aquifers. Exhibit A-301 at 5-32. The TMT project would increase telescope activities at the proposed project site Area E, as well as the Batch Plant, Access Way, the roadway, Hale Pohaku, and the electrical substation, thus potentially affecting more than just the one aquifer near Area E.

The Applicant states the TMT Observatory facilities would have a zero-discharge wastewater system, but it cannot claim to have a zero-accident spill system. As observatory operators have demonstrated, spills and run-off from telescopes, the Access Way, and a potential Mid-Level Facility have been allowed to “percolate into the ground[.]” Ex. A-3, FEIS Vol.1, p. 3-120. In May 2009, as much as twelve gallons of spilled hydraulic fluid at Caltech Submillimeter Observatory flowed down a drain pipe that opened directly into a cinder cone of the summit, where evidence of a previous spills was unearthed as well. In March 2008, as much as 1,000 gallons of sewage overflowed onto the ground and was “quickly absorbed” into highly porous ground beneath which also flows to aquifers. Ex. A-9, CMP, p. 6-10. The CMP further acknowledges the high probability of impact to natural resources from vehicle accidents, petroleum products, and human waste. The Final EIS states that a spill protection and response plan will be developed for accidental spills of hazardous materials, petroleum products, sewage waste. The Applicant confirmed that the TMT CDUA does not contain this document and the spill prevention and response plan is not available for review.

Not only does the University lack a vehicle accident spill response plan to address the contamination that results from vehicle accidents, the University has no method of assessing the risk to water resources from transporting waste down the mountain. Ex. A-9 and A-10, CMP NRMP.

It is undisputed that beneath the summit is a “high level” aquifer comprised solely of fresh water. Four components of the hydrology of the Mauna Kea summit region remain unknown: 1) watershed calculations of snow-water distribution, 2) outcomes of leachate and

liquid waste from septic and cesspool systems, 3) distribution and impacts of permafrost, and 4) groundwater maps of water levels, flow paths, and recharge rates. The Applicant's evidence also indicates that surface runoff at the summit does not extend below an elevation of 6,000 feet, which means that "the majority of the water ultimately ends up percolating and **becoming groundwater recharge** with only a small amount lost to evaporation. A series of springs lead occur on the southern slopes of Mauna Kea above 11,000 feet and contribute to Pōhakuloa Gulch. Ex. B.03ab, Maly 2005, p. 257. These springs are fed by Ka-wai-hū-a-Kāne and lie in the vicinity of Houpo-a-Kāne, the sacred region of Mauna Kea (between the 10,000-11,000 foot elevation. Ex. B.03ab Maly 2005, p. 154, n. 22. No studies have been conducted of the groundwater system of Mauna Kea.

"The main activities that have potential to result in a release of contaminants include vehicle travel (on and off road) and accidents; release of hazardous material and petroleum product use by observatories and support operations; sewage generation; and transport of hazardous materials and sewage off-site," citing Ex A-9 CMP, p. 6-14.

This record indicates that groundwater resources are at risk from telescope activities on Mauna Kea. The Applicant failed to present evidence to the contrary and moreover failed to demonstrate the increased telescope activities from the TMT would not further jeopardize underground water resources on Mauna Kea. Operation of the TMT would increase the use and storage of chemicals on Mauna Kea. The chemicals will be stored underground and transported by truck -- although the number of trucks and frequency of trips was not known by the Applicant's witness on the CDUA. The TMT project would require the use, handling and storage of hazardous materials at Mauna Kea including: propylene glycol, acetone, methyl ethyl ketone, at least 2,000 gallons of diesel fuel, ethylene glycol, hydraulic fluid, liquid adhesives, coating metals, acids, paints, solvents, and other cleaning chemicals. Ex A-9, B.29 CMP FEIS Vol. 1, p. 3-129. Without evidence proving otherwise, the Applicant cannot demonstrate compliance with criterion eight and the CDUA must be denied.

b. Noise Levels

The impact of noise on the esthetic wilderness experience for the recreational user has been discounted and dismissed by HO FOF 994-1002 in the Report. The conclusions are misleading and do not reflect the evidence in the record. The noise and dust generated by Project

activities will adversely affect the spiritual and sacred quality of Maunakea and the Historic District. (Ex. A-5, TMT FEIS, p. G-61) As a recreational user Ward, including witnesses Townsend and Fujikane have experienced the noise of observatory air conditioning, blowers, generators, associated vehicles and industrial activity and has found it disturbing to other recreational users. Noise level in the vicinities of the existing observatories varied from 38 dBA to 77dBA Leq, and 40-78 dBA L10, with noise levels at or below 60 dBA Leq beyond a distance of 50 feet from HVAC exhausts. The loudest noise levels of 68 and 77 dBA Leq and 69 and 78 dBA L10, were measured at locations within 15 feet of HVAC exhaust outputs. (Ex A-3 FEIS Section 3.13 Noise p 3-175, 176) The Applicant does not define “noise sensitive areas.” (Ex A-3 FEIS Section 3.13 Noise p 3-179) Applicant does not analyze the cultural impacts of noise levels and offers no analysis of noise from culturally significant places like Pu`u Poliahu. (Ex A-3 FEIS Section 3.13 Noise p 3-179) The Applicant concedes that significant noise would result from construction activities such as excavation, trenching, grading, pouring of foundations, and erection of structures. (Ex A-3, FEIS, p 3-202) Construction of the proposed project would violate noise regulations, such that a noise variance would be required under HAR 11-46-8 for construction of the TMT Observatory. (Ex A-3 FEIS, p 3-202) The Applicant acknowledges the proposed project would generate construction-related noise in the 80-100 dBA range at 50 feet for front-end loaders, backhoes, tractors, scrapers, graders, pavers, trucks, concrete mixers, concrete pumps, cranes, compressors, pneumatic wrenches, jack hammers, and rock drills. Short periods of blasting may also be necessary to dig foundations for the TMT Observatory. (Ex A-3FEIS, p 3-202)

c. Multi-Generational Trauma upon the Health of Native Hawaiians

There are long-term health implications for Native Hawaiians directly tied to multi-generational trauma resulting from the desecration of the *‘āina* (land) due to the existing and planned astronomy development on the sacred Mauna a Wākea. Yet, it is no one else’s burden to prove compliance with criterion eight, but the Applicant’s. That is to say, the Applicant holds the burden of proof. The Applicant must prove by a preponderance of the evidence that the proposed land use will not be materially detrimental to public health. The connection between the welfare of the people and the fate of the land of Hawai‘i is well documented. The 1993 Apology Resolution recognizes that "the health and well-being of the

Native Hawaiian people is intrinsically tied to their deep feelings and attachment to the land[.]” (Joint Resolution, U.S. Public Law 203-150). Hawai’i Revised Statute 711-1107 on Desecration specifically prohibits desecration of "a place of worship or burial," and the statute defines "desecrate" as "defacing, damaging, polluting, or otherwise physically mistreating in a way that the defendant knows will outrage the sensibilities of persons likely to observe or discover the defendant's action.". Even, the Applicant’s own documents demonstrate that it knew or should have known of the connection between the people of this land and this place of such immense significance.

Construction of industrial structures on the summit of sacred Mauna Kea is a known source of pain for some Native Hawaiians. The analysis of Dr. Tualii confirms that the evidence of pain and distress can translate into anxiety, depression, or other ailments. Ex. B.04a

Petitioner KAHEA joins in the exceptions made by Co-Petitioners on this matter, including but not limited to those advances by Petitioners Flores-Case Ohana, Kihoi, Sleightholm, Freitas, Neves, Pisciotta and Temple of Lono.

d. Rest and Rejuvenation Lost

The wilderness of the Mauna Kea conservation district is important to the health and welfare of the public. The Applicant dismisses this, again opting to focus solely on economic growth – a consideration that is outside the scope of Haw. Admin. R. §13-5 and BLNR’s jurisdiction. Focusing, however, on those factors BLNR is responsible for, it is apparent the TMT will further undermine the quality of the wilderness on Mauna Kea and thus the public health and welfare that relies on it.

Construction of the TMT on Mauna Kea would pollute the conservation district with dust, fumes, and noise – all of which are categorically inapposite to the tranquility and purity that one can still find on the northern plateau of Mauna Kea. The Applicant concedes that air quality and noise levels are directly related to human activity on the mountain – the more human activity the greater the air pollution and louder the ambient noise. Construction of the TMT would not only increase the basic level of human activity on Mauna Kea, but would specifically generate “vehicle exhaust, chemical fumes from construction and maintenance activities, and fugitive dust”. Construction activities, such as excavation, trenching, grading, pouring of foundations,

and erection of structures, would generate significant noise levels in excess of 80-100 dBA, which violates noise restrictions.

Creating an urban environment at the top of Mauna Kea undermines the character of the conservation district for which people rely on it for rest, rejuvenation, and spiritual connection. The Petitioners are just a few examples of the kinds of people who walk out to the northern plateau to escape the sight and sounds of buildings and roads that have intruded on the natural vista of the summit. Building the TMT on the northern plateau would expand the degradation and destruction found on the summit area to the northern plateau and irrevocably harm the ability of people to find a quiet, natural environment on the northern plateau of the mountain..

Because construction of the TMT would undermine the one of the last remaining wilderness area on Mauna Kea where people go for rest and rejuvenation, the TMT CDUA does not satisfy criterion 8 and must be denied. It is for these reasons that the Petitioner objects/takes exception to HO's COLs 296 and 297 on the grounds they are clearly erroneous, wrong and against the reliable, probative and substantial evidence.

e. Welfare of All

The Report wrongly adopts a definition of "welfare" in its most materialistic sense in COL 292. And it ignores the more appropriate definition of "public welfare" as found in Black's Law Dictionary 8th Ed., as being "a society's well-being in matters of health, safety, order, morality, economics and politics." As such, the Report mirrors the current President of the United States and his inability to grasp community values and standards in pursuit of the "deal" or making America Great Again. The Report also fails to grasp that Native Hawaiians live and experience the "elements" as deities and ancestors, in a multitude of ways, in dreams, and mele, visions, smell, from afar and from close up. The Mauna rises up and has always risen up as that great birthing of the very selves of Native Hawaiians who came before, are here today, and will come in the future. It is the cornerstone of this living temple, the cultural anchor of all that can be known from before, today, and in the future. Failing in this understanding, there can be little understanding about those rights customarily exercised by Native Hawaiians for cultural and religious purposes.

For these many reasons, the TMT CDUA does not satisfy any of the eight criteria required by HAR 13-5-30(c) and thus must be denied. It is also for these reasons that Petitioners object/take exception to HO FOFs and COL excepted above on the grounds that they are clearly erroneous, wrong and against the reliable, probative and substantial evidence.

B. THE TMT PROJECT VIOLATES THE PUBLIC TRUST DOCTRINE

Petitioner objects/takes exception to HO's FOFs 1034-1046 and COL 301-328 on the grounds that they are clearly erroneous, wrong and against the reliable, probative and substantial evidence as more fully set forth herein below.

HO's COL 304 is clearly erroneous and stands contrary to the concurring opinion of the Hawai'i Supreme Court in *Mauna Kea Anaina Hou v. BLNR*, 136 Hawai'i 376, 403-408, 363 P.3d 224, 251-256 (2015) as well as the plain language of Article XI Section 1 that "Mauna Kea, as State conservation land, is within the public trust and entitled to protections that the public trust provides" *Mauna Kea Anaina Hou* at 136 Hawai'i at 408, 363 P.3d at 256.

HO's COL 304 erroneously implies that the Public Trust Doctrine, under Article XI, Section 1 is limited to water resources, and determines that the TMT Project will not restrict or otherwise impair any water resources (which Petitioner strongly asserts is clearly wrong and contrary to the reliable, probative and substantial evidence). HO cites Hawai'i Supreme Court decision *In Re Water Use Permit Application*, 94 Hawai'i at 133, 9 P.3d at 445 (*Waiāhole*) as support for HO's COL 304.

HO's COL 305 erroneously holds that the public trust doctrine does not apply to consideration of the TMT Project, using erroneous HO COL 304 as justification for HO COL 305. While clearly wrong and erroneous on so many levels, Petitioner points to the following:

1. **The *Waiāhole* decision Does Not Restrict Protections Provided Under the Public Trust Doctrine to Water**

HO's COL 304 misrepresents the Supreme Court's holding in *Waiāhole*. While directing its focus on the specific issue (water permit application) on appeal, the Hawai'i Supreme Court held that "We need not define the full extent of article XI, section 1's

reference to 'all public resources' at this juncture." Id at 133, 9 P.3d at 445. In fact, there is no holding by the Court in *Waiāhole* that limits protections provided under the public trust doctrine only to water. Accordingly, HO's COL 304 directly inferring that the public trust doctrine does not include land resources, including Mauna Kea and the proposed site for the TMT Project is clearly erroneous and a complete misreading of Hawai'i case law concerning Article XI, Section 1.

2. **The Clear, Unambiguous Language of Art. XI, Sec. 1 Provides Protections Provided Under the Public Trust Doctrine to Land**

As stated in HO COL 300, Article XI, section 1 of the Hawai'i State Constitution provides that public natural resources are held in trust by the state:

"For the benefit of present and future generations, the State and its political subdivisions shall conserve and protect Hawai'i's natural beauty and all natural resources **including land**, water, air, minerals and energy sources, and shall promote the development and utilization of these resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the State."

All public natural resources are held in trust by the State for the Benefit of the people." [Emphasis added.]

The Concurring opinion of the Supreme Court in *Mauna Kea Anaina Hou* (Concurring Court/opinion) has held that "the public trust doctrine, under the Hawai'i Constitution, and the principles that it embodies, **applies to the conservation land - the summit of Mauna Kea - involved in this case**. This conclusion is supported by the plain language of Article XI, Section 1, the **historical context** under which this provision was ratified, **and this court's precedents**." *Mauna Kea Anaina Hou* at 407, 363 P.3d at 255.

In its analysis of construction of constitutional provisions, the Concurring Court cited its decisions in *Hanabusa v. Lingle*, 105 Hawai'i 28, 31, 93 P.3d 670,673 (2004) (quoting *Blair v. Harris*, 98 Hawai'i 176, 178-79, 45 P.3d 798, 800-01 (2002)) that the Court has "long recognized that the Hawai'i Constitution must be construed with due regard to the intent of the framers and the people adopting it, and the fundamental principle in

interpreting a constitutional provision is to give effect to that intent." *Id.* at 407, 363 P.3d at 255.

In its analysis to "divine intent" the Concurring Court held "***if the words used in a constitutional provision are clear and unambiguous, they are to be construed as they are written.***" *Id.* at 407, 363 P.3d at 255 (quoting *Blair*, 98 Hawai'i at 179, 45 P.3d at 801) (emphasis added) and that "the words are presumed to be used in their natural sense unless the context furnishes some ground to control, qualify or enlarge them." *Id.* at 407, 363 P.3d at 255 (citing *Hanabusa* at 31-31, 93 P3d at 673-674) and (quoting *Blair*, 98 Hawai'i at 179, 45 P.3d at 801).

Continuing its analysis, the Concurring Court held that as the constitutional provisions of the Article XI, Section 1 exist under one instrument, "construction of one provision must be in harmony 'with other provisions of the instrument.'" *Id.* at 407, 363 P.3d at 255 (citing *Hanabusa* at 31-31, 93 P3d at 673-674) (quoting *Blair*, 98 Hawai'i at 179, 45 P.3d at 801) and that "the circumstances under which the provision was adopted and the 'history which preceded it' inform judicial construction of the Hawai'i Constitution." *Id.* at 407, 363 P.3d at 255 (quoting *Blair*, 98 Hawai'i at 179, 45 P.3d at 801).

In holding that "land" is included in the protections afforded under Article XI, Section 1, the Concurring Court affirmed that "it was the express intent of the legislature that the protections afforded by the public trust doctrine extend to one of our most precious natural resources -- land." *Id.* at 407, 363 P.3d at 255 "***A conclusion that would exclude public lands from the scope of the public trust doctrine would be contrary to express statements that all public natural resources are held in trust and natural resources include land.***" *Id.* at 407, 363 P.3d at 255 (emphasis added).

The Concurring Court further affirms that its holding of the plain language interpretation is "amply supported" by the history and development of the public trust doctrine in Hawai'i, acknowledging that "lands in the public domain have always been held, from the time of the Hawaiian Kingdom ... for the benefit of the people of Hawai'i ... and this arrangement has always required the sovereign, as a public trustee, to protect and maintain those lands." *Id.* at 407, 363 P.3d at 255. "Concluding that the framers of the 1978 Constitution intended to exclude public lands from the protections of the public trust

is not reconcilable with the deep roots of the public trust doctrine in this State, the fact that the doctrine has been repeatedly reaffirmed throughout the State's history, and this court's unwavering adherence to the values that the doctrine encompasses. Such a conclusion would overlook "the circumstances under which [Article XI, Section 1] was adopted and the history which preceded it." *Id.* at 407-408, 363 P.3d at 255-256 (citing *Hanabusa*, 105 Hawai'i at 32, 93 P.3d at 674)(quoting *Blair*, 98 Hawai'i at 179, 45 P.3d at 801)(emphasis added).

The Concurring Court cites its own legal precedents to complete its analysis and affirming its holding that the public trust doctrine under Article XI, Section 1 applies to lands in the public domain. *Id.* at 407-408, 363 P.3d at 255-256 (citing *State v. Zimring*, 58 Hawai'i 106, 121, 566 P.2d at 735 (1977) and *Morimoto v. Board of Land and Natural Resources*, 107 Hawai'i 296, 113 P.3d 172(2005)).

Significantly, HO's COL 304 and 305 ignores, or at a minimum disregards, that the Board (BLNR) had previously acknowledged the applicability of the public trust doctrine in the consideration of the TMT Project on Mauna Kea. "In assessing the Project and determining whether the criteria of [the Department of Land and Natural Resources rules] have been satisfied, the State must protect the public trust and the customary and traditional rights and practices of native Hawaiians." (Emphasis added). *Id.* at 407-408, 363 P.3d at 255-256 (David Callies Tr. 12/16/16, Vol 17. 93 at 18-15; 94 at 1-8).

In light of the "Plain Language" of Article XI, Section 1, the deep roots and rich history affirming the public trust doctrine in Hawai'i *and this court's unwavering adherence to the values that the doctrine encompasses*, as well as the Board's prior acknowledgment that it must protect the public trust and the customary and traditional rights and practices of native Hawaiians, in its consideration of the TMT Project on Mauna Kea, this Board must reject HO's COL 301-328 and FOFs 1034-1046 as being clearly erroneous, wrong and against the reliable, probative and substantial evidence.

3. The Public Trust Doctrine, and its Affirmative Legal Obligations are Imposed upon the Board in its Consideration of the TMT Project

Given that HO's COL 304-305 are clearly erroneous to applicable Hawai'i case law, wrong and against the reliable, probative and substantial evidence, HO's COL 306-319, 327-328 erroneously cites *Waiāhole* and misrepresents the affirmative duties and

obligations that the public trust doctrine imposes upon the Board in its consideration of the TMT Project on Mauna Kea. The HO's failure to underline the affirmative duties to protect not only the conservation lands on Mauna Kea for the proposed TMT Project, but also its affirmative duties to protect traditional and customary practices of native Hawaiians.

Mauna Kea Anaina Hou at 406, 363 P.3d at 254.

In *Waiāhole*, the Supreme Court discussed the "balancing process" between the constitutional requirements of protection and conservation of public trust resources and the development and utilization of those resources and held that this "balancing process, however, exists in a framework demanding that 'any balancing between public and private purposes [must] begin with a presumption in favor of public use, access, and enjoyment.'" *Waiāhole* at 142, 9 P.3d at 145 (also see, *Mauna Kea Anaina Hou* at 405, 363 P.3d at 253), and that the "burden of showing that the requisite balance has been properly evaluated 'in light of the purposes protected by the trust' rests on "those seeking or approving such uses." *Waiāhole* at 142, 9 P.3d at 145 (also see, *Mauna Kea Anaina Hou* at 405, 363 P.3d at 253).

Additionally, the Court in *Waiāhole* described the standard by which the State's (Board's) actions concerning public trust resources would be reviewed on appeal and held:

"The duties imposed upon the state are *the duties of a trustee* and not simply the duties of a good business manager." Just as private trustees are judicially accountable to their beneficiaries for dispositions of the res, so *the legislative and executive branches are judicially accountable for the dispositions of the public trust*. The beneficiaries of the public trust are not just present generations but those to come..." *Waiāhole* at 142, 9 P.3d at 145 (cited in *Mauna Kea Anaina Hou* at 405, 363 P.3d at 253) (Emphasis Added).

There is a "*compelling duty of the State*" (Board) "*to consider the cumulative impact of existing and proposed diversions on trust purposes[,] to mitigate this impact, including the use of alternative sources,*" and to plan and make decisions "*from a global, long-term perspective.*" *Waiāhole* at 142, 9 P.3d at 145 (cited in *Mauna Kea Anaina Hou* at 405, 363 P.3d at 253)(Emphasis added).

Pursuant to this obligatory legal scrutiny, HO's COL 306-311, 312-318, 328 cannot be sustained and must be rejected by the Board.

4. The University Improperly Allows Non-State Agencies to Piggy-Back

HO COL 235 correctly notes that BLNR may lease state land to governments and government agencies at such rent and on such other terms and conditions as it may decide under Haw. Rev. Stat § 171-95. However, at issue is *UHH's* “patterns of practice” of subleasing Mauna Kea public trust lands to telescope observatory operators for rental amounts grossly below fair market value, in direct violation of HRS §§ 171-17 and -18 and the public trust. Exhibit D-13 at 8; *id.* at 6 (“Dollar-a-year leases of land zoned for conservation are a sensitive issue in Hawaii, especially so for the Mauna Kea Science Reserve, which involves long-standing cultural conflicts.”).

UHH holds thirteen subleases with third parties. Parties to the subleases are the telescope operator, UHH, and DLNR. Ex. B.03e-m; Ex. B.01ac-af. UHH has established a practice of applying for land use permits in the Mauna Kea conservation district on behalf of third parties (i.e. non-state or government entities) and passing the permit benefits onto those third party beneficiaries. *See* Petitioners’ FOF/COL 373-376 at 54. For example, in 2009, Yale University paid the California Institute of Technology \$12 million for fifteen nights of observing time at the W. M. Keck Observatory. Exhibit E-03 at 1-2. UH subleased Mauna Kea lands to Keck Observatory for \$1 per year. Exhibit B-07. While UHH may reasonably claim beneficiary rights to use public lands for educational purposes (and allowed to pay only \$1.00 per year in lease rent for that use), this right is not transferrable. UHH may not extend its beneficiary rights to other entities. Unlike UHH, the TMT Observatory Corporation is not a state entity nor a public trust beneficiary. The TMT Observatory Corporation therefore does not fulfill a public trust purpose nor can it claim any protected rights under the Admissions Act or the state constitution. *See* Hawai‘i Admission Act of 1959, Pub. L. No. 86-3, 73 Stat. 4 (1959); Hawai‘i Const. article XII § 4.

5. Conservation District Rules Do Not Satisfy Requirements of the Public Trust Doctrine

HO COL 319- 327 erroneously concludes that Public trust principles have already been incorporated into the Conservation District statute. Further, HO asserts that Petitioners have not identified any public trust obligation that is not already reflected in the

8 criteria and therefore the conclusion that those criteria are satisfied is a compelling indication that the public trust obligations of both UHH and the BLNR are satisfied as well.

The TMT CDUA must independently satisfy both the conservation district rules and the Public Trust Doctrine because it is a land use proposed for public trust lands designated for conservation. Conservation district rules regulate land uses on conservation land, regardless if it is private or public land. Haw. Rev. Stat. § 205. By contrast, the public trust doctrine governs the use of public lands, regardless of its land use designation, to ensure that the public's interests are protected where private use of public land is proposed.

6. Public Trust Doctrine Prohibits Approval of the TMT CDUA

The Hawai'i Supreme Court has repeatedly held that an agency's discretionary authority is "circumscribed" by the Public Trust Doctrine. *Kelly v. 1250 Oceanside Ptnrs*, 111 Hawai'i 205, 230, 140 P.3d 985, 1010 (2006). See also, *In re Water Permits*, 94 Hawai'i 97, 133, 9 P.3d 409, 445 (2000), *In re Contested Case Hearing on the Water Use Permit Application Filed by Kukui*, 116 Hawai'i 481, 508, 174 P.3d 320, 347 (2007). An entity seeking to use public trust resources for other than their intended use must demonstrate that the proposed use does not harm that public resource or the public's interest in that resource, especially for Native Hawaiians. *In re Water Permits*, 94 Hawai'i at 136-7, 9 P.3d at 448-49 (emphasis added). This means the BLNR has a duty to prevent the irrevocable transfer of public trust lands and resources to private entities. *Id.* at 139, 9 P. 3d 451.

In this case, the University is seeking a variance – a conservation district use permit – to allow a private, California-based corporation to engage in land uses that are otherwise not allowed in the conservation district. HAR 13-5-30(a), If granted, this variance would allow the University to destroy natural and cultural resources and undermine traditional and customary practices by authorizing the construction of an 18-story industrial structure that will persist on currently undeveloped land for nearly 50 years.

HO's COL 311-315 attempts to suggest that the TMT Project does not involve the irrevocable transfer of public trust land and resources to private parties, and the "protection" element of the public trust doctrine is satisfied." HO's COL 311-315 are clearly erroneous, wrong and against the reliable, probative and substantial evidence.

The record is clear, the TMT project will not only have a significant and adverse impact on the natural resources of Mauna Kea, it will involve an irrevocable transfer of the public trust lands and resources to private parties. The Applicant's witness, Dr. Smith, testified that it would be at least 100 years before any flora would regenerate to its natural state after the disturbance of the environment resulting from the TMT Project. . The TMT Project is an extremely massive development and it would involve many years of construction disturbance and noise thus rendering the land area unusable for any other purposes for decades.

The fact that the TMT may be decommissioned does not make the transfer of public land any less irrevocable. The proposed TMT would be operational until 2050—many years beyond the end date of the University's own lease which ends in the year 2033. The hoped-for, eventual decommissioning of the would-be TMT does not mean the project does not constitute an irrevocable transfer of public lands. As the Applicant's witnesses confirmed, "...depending on the type of substrate foundation material used in the construction of an observatory, removal may be impractical to merely impossible." Decommissioning is not the same as restoring a former telescope site to its natural condition. This is to say, once a site on Mauna Kea is "developed" for a telescope facility, it will never be the same again.

From a cumulative perspective, the impact of past and present actions on the traditional and customary practices of Native Hawaiians has been substantial, significant and adverse; **the impacts would continue to be substantial, significant, and adverse with the consideration of the Project.** (emphasis added) Project specific impacts would have a significant effect on the natural, cultural, archaeological, and historic resources. Ex. B.03ap

In addition to these existing cumulative impacts, the proposed TMT is anticipated to result in additional impacts to cultural practices and beliefs. Cultural practices would be precluded in the 6.2 acres occupied by the TMT Observatory and Access Way. In addition, the introduction of new elements associated with the project in the area of the northern plateau would adversely affect the setting in which such practices could take place as well as a decrease the suitability of the northern plateau area for spiritual observances and offerings. Project specific impacts would have a significant effect on the continued practice of traditional and customary Native Hawaiian practices.

The proposed TMT would degrade and destroy the natural geologic features in the proposed TMT Project area, which is considered by the NPS as significant, thus potentially

causing the National Park Service to consider removing the Mauna Kea Conservation District from the U.S. National Natural Landmark or at least removing the entire UH designated “520 acre Astronomy Precinct.”

For these many reasons, the “protection” element of the public trust doctrine is not satisfied.

7. Violation of the Public Trust Doctrine Gives Rise to Independent Cause of Action

The Court holds agencies responsible for implementing the Public Trust Doctrine. BLNR has a legal duty to preserve the public’s right to ensure the public trust is not degraded. *In re Water Permit Applications*, 94 Hawai‘i at 141, 9 P.3d at 453. Where an agency fails to uphold its obligation to protect the Public Trust Doctrine, citizens, as beneficiaries of that public trust, have an independent cause of action to uphold their rights. This case involves §5(f) of the Admissions Act, a federal law that addresses public trust lands. Under basic trust law principles, beneficiaries have the right to "maintain a suit (a) to compel the trustee to perform his duties as trustee; (b) to enjoin the trustee from committing a breach of trust; [and] (c) to compel the trustee to redress a breach of trust." *Price v. Akaka*, 3 F.3d 1220, 1224 (9th Cir. 1993), citing Restatement 2d of the Law of Trusts, §199. The Ninth Circuit later clarified that Native Hawaiians can bring suit as §5(f) beneficiaries under federal law. *Day v. Apoliona*, 496 F.3d 1027, 1032 (9th Cir. 2007) (“[W]e twice explicitly held that because it creates a trust, §5(f) also creates a right enforceable under 42 U.S.C.S. § 1983 (LEXIS Pub. L. 112-18 through 2011) by the trust’s beneficiaries.”) The Supreme Court of Hawai‘i further clarified that “a private implied right of action . . . to enforce the terms of the §5(f) trust under Hawai‘i law” exists under State Constitutional Protections in Haw. Const. Art. XII, § 4.” *Pele Defense Fund v. Paty*, 73 Haw. 578; 837 P.2d 1247 (1992). In *Pele*, the Court reviewed a number of cases in which Hawai‘i citizen beneficiaries sued to enforce their rights as beneficiaries of public trust lands. *Id.* at 604-07; citing, *Kapiolani Park Preservation Society v. City & County of Honolulu*, 69 Haw. 569, 751 P.2d 1022 (1988) (public trust beneficiaries were held to be able to bring suit to prevent a government agency from disposing of trust lands) and *Natatorium Preservation Committee v. Edelstein*, 55 Haw. 55, 515 P.2d 621 (1973), (“citizens can bring suit for an injunction against the government agencies charged with the management of public lands when those agencies seek

to dispose of the public lands in violation of the statutes governing their management and disposition.) As Hawai‘i citizens and Native Hawaiian beneficiaries of §5(f) public trust lands, Petitioners assert a private right of action to compel the BLNR to enforce compliance with statutory provisions that ensure the protection of the public trust lands on Mauna Kea.

C. TMT CDUA FAILS TO SATISFY THE REQUIREMENTS OF HAR 13-5-24

The University, as applicant for the TMT CDUA, did not prove by a preponderance of the evidence that it met all of the requirements of Haw. Admin. R. 13-5-24 for the granting of the CDUP for the TMT Project. To be granted a conservation district use permit, the Applicant must demonstrate compliance with each and all of the permit pre-requisites detailed in Haw. Admin. R. 13-5. An approved management plan is required for proposals to use resource conservation lands for an astronomy facility. HAR §13-5-24, see also, Mauna Kea Anaina Hou v. BLNR, Civ. No. 4-1-397, 7 (3rd Cir. Haw. Jan, 19, 2007). In its CDUA, the Applicant relies heavily on the CMP and its four subplans, as well as UH’s 2000 Master Plan, and the TMT Management Plan, to justify approving the project. This is a mistake.

In 2007, the Third Circuit Court overturned the BLNR’s decision to approve the Keck Outrigger telescope CDUA because the management plan offered did meet the standards of HAR §13-5-24. In making this decision, the court concluded that a truly comprehensive management has the following attributes:

- it is concerned with conservation of the natural and cultural resources of the district
- it is “all-covering, all-embracing, all-inclusive...” of the conservation district
- it provides a numerical limit on construction in the conservation district
- it is approved by the BLNR.

Despite their combined girth, the many plans cited by the Applicant do not meet these standards and therefore cannot be used to justify approval of a CDUA. The TMT Management Plan is incomplete because it is specific only to the project area, thus not “all-inclusive.” UH’s 2000 Master Plan is irrelevant because it was not approved by the BLNR. The CMP, together with its subplans, is incomplete because

- 1) it fails to manage the entire Mauna Kea conservation district, it concerns only “UH Management Areas,”

2), it fails to provide any measurable limitation on the extent of construction in the Mauna Kea Science Reserve and indeed, specifically identified the TMT as outside its scope (CMP, p. 2-3).

In addition, the CMP should also be discredited because it identifies the wrong land manager responsible for protecting conservation district resources. The document attempts to legitimize UH's long-standing effort to serve the conflicting roles of both land developer and land manager for part of the Mauna Kea conservation district. BLNR is the only agency authorized to manage conservation district resources; that responsibility cannot be delegated to the applicant and the primary advocate for development on Mauna Kea.

Lastly, the Third Circuit Court ruled in 2009 that the CMP was not yet ripe for review because "the CMP did not determine the rights, duties, or privileges" of the Petitioners. The court did note, however, "it may be that a future implementation of the CMP might trigger a requirement for a contested case" to assess the quality of the CMP. BLNR's consideration of the TMT CDUA is that "future implementation" of the CMP. The University relies heavily on the CMP, in order to downplay the substantial adverse impact this proposal would have on the conservation district. The CMP, however, lacks the basic elements of a management to justify that reliance. See, Third Circuit 2009 decision, Exhibit B-16.

1. CMP Encompassed Only a Limited Subset of the Conservation District

To be comprehensive, management plans for the conservation district must be "all encompassing" and manage for protection of the natural and cultural resources of the district. Mauna Kea Anaina Hou, Civ. No. 4-1-397 at 14. The UH CMP, however, is not all-encompassing of the Mauna Kea conservation district for it only concerns the areas that the University deems important for astronomy (sometimes referred to as "UH Management Areas," which includes the Science Reserve, access roads, and mid-level facilities at Hale Pohaku). The conservation district encompasses the entire mountain from the Saddle Room (approximately the 6,000-foot elevation) up to the summit itself. The 2009 UH CMP does not encompass the basic scope of the Mauna Kea conservation district and thus cannot serve as a basis for approving construction of any astronomy facilities.

2. CMP Lacks Numerical Limits on Telescope Construction

In its 2007 ruling, the Third Circuit Court considered the 1995 management plan for the mountain presented by the University for the Keck Outrigger telescopes project. The court found that unlike previous management plans, the 1995 plan did not provide adequate scope and coverage for the Outrigger telescope and that was in fact “virtually silent” on the question of future development. Mauna Kea Anaina Hou, Civ. No. 4-1-397 at 7. The management plan offered by the University for the proposed Keck Outrigger telescopes was not comprehensive, in part, because it did not have a carrying capacity or numerical limit on telescope construction in the conservation district. See, Id. at 9. The court was concerned that the plan’s failure to impose a limit on observatory development would facilitate piecemeal construction in the district that would ultimately undermine the protections that the conservation district is supposed to afford for natural resources. Id. at 24-27.

Likewise, without any upward limit on the size and number telescopes, it is possible under this CMP for telescopes to consume every area large and flat enough to bare a structure. Like the 1995 management plan, the current CMP does not place any meaningful limitation on the number and size of future telescopes construction. Instead of providing these limits, the CMP relies on a complicated and University-centric decision-making tree from the 2000 Master Plan. Exhibit A-48. This decision-making structure facilitates piecemeal development by deeming UH responsible for some decisions and BLNR responsible for others. Nor does the CMP include specific telescopes within its scope. The TMT proposal, which is specifically identified as outside of the CMP’s scope, was well underway when the CMP was adopted. Ex. A-9, UH CMP, p. 2-3. This is not comprehensive management of the Mauna Kea conservation district, thus this document cannot be used as a basis for approving the TMT CDUA.

3. The University Serves Conflicting Roles

In transactions over Mauna Kea, the University attempts to sit on both sides of the table. On one side, the University -- in one form or another -- facilitates telescope construction on Mauna Kea, going so far as to take on the interests of telescope owners as their own. While, at the same time on the other side, claiming to serve as “land manager” of “UH’s Mauna Kea Lands,” enforcing laws and protecting the resources destroyed by telescope construction. Ex. A-301, UH CMP, P-7 (“[d]evelop and implement protocol of oversight and compliance with CDUPs”) and Ex. A-301, UH CMP P-8 (“enforce conditions contained in Special Use permits”). Exhibit A-1, p. 2.[7] The purpose and function of these two sides of the table are mutually exclusive and cannot be fulfilled by one entity -- no matter how many aliases the University establishes. The awkward relationship between the University and TMT in this application is only the most recent example of this deeply seeded conflict of interest.

The fundamental problem with the University serving conflicted roles is demonstrated in the current dismal state of the Mauna Kea conservation district. The University concedes that telescope construction has substantially undermined the long-term sustainability of the natural resources on Mauna Kea, and yet the University is again proposing to build another telescope. Ex. A-309 at S-8. The destruction on Mauna Kea is directly facilitated by the University at the expense of the natural and cultural resources of the conservation district. The success of the University’s Institute for Astronomy is based in large part on the fact that Mauna Kea is exploited and promoted as a premier location for telescopes. That is why, despite its own admissions, the University simply cannot bring itself to conclude what is readily apparent: **Mauna Kea is overbuilt.**

Given the University’s conflicting roles on Mauna Kea, it is an improper delegation of authority for the BLNR to empower the University to make “management” decisions about the mountain’s resources and the practices that rely on them. *Ka Pa`akai O Ka `Aina v. Land Use Commission*, 94 Haw. 1, 21-23 (2000). The BLNR’s relationship to the University in this situation is notably similar to the illegal “wholesale delegation” of authority from the Land Use Commission to Kapulehu Development in *Kapa`akai O Ka Aina v. LUC*. Like Kapulehu Development, the University is the primary developer of the land, promising to implement protections for constitutionally protected practices after the proposed project is approved. It is an abuse of BLNR’s discretion to trust the Applicant will protect traditional and customary practices once the project is approved.

D. TMT CDUA IS SUBJECT TO STANDARD CONDITIONS OF HAR 13-5-42

The Report was in error for not providing a thorough examination of the materials submitted as evidence, including but not limited to exhibits and testimonies, for this contested case. Furthermore, the Petitioners presented evidence demonstrating that significant information and data included in the conservation district use application for issuing of the CDUP HA-3658 for the Thirty Meter Telescope project was false, incomplete, and/or inaccurate. However, the Hearing Officer systematically omitted such evidence and discussion in the Report. It is for this reason that the Petitioners object to this Report on the ground of such omissions and lack of adequate examination of such evidence. State of Hawai'i laws are explicit in that any land use allowed within the conservation district is subject to the standard conditions as outlined in HAR § 13-5-42.

Amongst the list of standard conditions is the following that was included in Conservation District Use Permit [CDUP] HA-3658 for the Thirty Meter Telescope project as condition No. 16.

§13-5-42 Standard conditions. (a) Any land use allowed within the conservation district is subject to the following standard conditions:

(11) In issuing the permit, the department and board have relied on the information and data which the applicant has provided in connection with the permit application. If, subsequent to the issuance of the permit such information and data prove to be false, incomplete, or inaccurate, this permit may be modified, suspended, or revoked, in whole or in part, and the department may, in addition, institute appropriate legal proceedings;

In issuing the CDUP HA-3568, the Board and Department of Land and Natural Resources relied on the information and data that the Applicant provided in connection with this permit application. All information and data included and referenced within the CDUA are subject to further review, examination, and scrutiny through this permitting process for land use in the conservation district. Subsequent to the issuance of this permit and through the contested case, substantial evidence was discovered to demonstrate that the TMT CDUA included false, incomplete, and inaccurate information and data. Ultimately, the Board and Department of Land and Natural Resources have the legal responsibility to investigate these findings further.

Be it resolved, there are significant findings of false, incomplete, and inaccurate information and data submitted as part of CDUA HA-3568 that would warrant the BLNR to thoroughly examine and investigate these findings further. In addition, the Petitioners urge the State of Hawai'i Board of Land and Natural Resources to revoke the CDUP HA-3568 and to institute appropriate legal proceeding against the Applicant based upon HAR § 13-5-42 (a) (11), also noted in the CDUP HA-3568 as condition No. 16.

E. TMT PROJECT VIOLATES THOSE RIGHTS CUSTOMARILY AND TRADITIONALLY EXERCISED FOR SUBSISTENCE, CULTURAL AND RELIGIOUS PURPOSES BY NATIVE HAWAIIANS IN AND ABOUT THE SUMMIT OF MAUNA KEA

The Petitioners object to HO COLs 191, 194, 196-203 in the Report on the ground they are inaccurate, incomplete, irrelevant, and/or misleading as it pertains to: (1) contemporary versus traditional and customary practice relating to Mauna Kea; and (2) Petitioners satisfying all three of the *Hanapi* factors.

1. Contemporary versus Traditional and Customary Practices

Native Hawaiian Petitioners offered sufficient evidence to establish that their cultural and religious practices connected to Mauna Kea are traditional and customary practices and are afforded constitutional protection. Attempts to classify these practices as contemporary in order to argue they are not Native Hawaiian traditional and customary practices and not protected by constitutional rights is disingenuous at best.

The Report misconstrues the standards and evidence of Native Hawaiian traditional and customary practices associated with Mauna Kea. As elaborated below, over the course of the CCH proceedings, the HO and the University agreed to recognize Hawaiian Petitioners as cultural experts, stipulated to their standing to bring the CCH, and introduced professional reports that rely on several of the Hawaiian Petitioners as expert consultants in the traditional and cultural practices of Mauna Kea. In addition, the Applicant failed to provide any evidence or

witnesses to refute or challenge any of their Native Hawaiian traditional and customary practices as presented in the written direct testimonies that were submitted in the record as exhibits. Also, the Applicant elected to waive their right to cross-examine the Hawaiian Petitioners as it pertains to these practices. The most explicit evidence of Petitioners' cultural practices is contained in the CIA for the Mauna Kea Science Reserve (Exhibit A-21), which asserts that identified practices and beliefs, many of which Hawaiian Petitioners testify to practicing and believing, "would seem to qualify as traditional and customary cultural practices within the meaning of the Hawai'i State Constitution[.]" Exhibit A-21, Appx. N at 4.

The Petitioners have practices are entitled to constitutional protection. The University has been aware of the time, depth, continuity and history of the various cultural and religious practices exercised by Petitioners (including those practices listed in our petitions) for more than a decade and has acknowledge as much in many of its own documents (i.e. UHH Ex. A-21, "University of Hawai'i Mauna Kea Master Plan 2000," Appendixes N and I). What can be said of "contemporary cultural and religious practices" exercised by Petitioners on the lands of Mauna Kea are that they are contemporary insofar as Hawaiian culture is a living culture, and the Petitioners as descendants of that culture continue to exercise cultural practices in this modern time. The record demonstrates Petitioners' practices are entitled to constitutional protection. The Petitioners direct the Hearing Officer to the following FOF/COLs to support these arguments:

For the purposes of evaluating the significance of Native Hawaiian cultural practices, features and beliefs identified in association with the Science Reserve Master Plan Project Area, it would be useful to consider them in terms of the three types of informant claims that were defined earlier ... information obtained by Maly in his oral history and consultation study (1999) suggests that several of the identified practices and beliefs would appear to fall within the category of traditional and customary practices claims. Ex. A-21, App. N, p. 43; Pet. FOF/COL 363, p. 52

These would be claims that would lie within the purview of Article XII, Section 7, of the Hawai'i State Constitution ("Traditional and Customary Rights") particularly as reaffirmed in 1995 by the Hawai'i State Supreme Court in the decision commonly referred to as the "PASH decision", and further clarified in the 1998 decision in "State v. Hanapi." Which would include various cultural practices and beliefs associated with the general geographical area of the summit region rather than a clearly definable property or site. Ex. A-21, App. N, p. 43; Pet. FOF/COL 364, p. 52

While certain other practices, such as prayer and ritual services involving the new construction of new *kuahu* (altars), or the releasing of cremated human remains rather

than internment on *pu`u*, might seem to be contemporary cultural practices they may as well be considered reasonable cultural development evolving from earlier traditional practices. *Id.*; Pet. FOF/COL 365, p. 52

Based on the evaluation of the findings of the present cultural impact assessment study made in reference to (a) the known content of the traditional Hawaiian culture and (b) the National Register Criteria as clarified by the National Register Bulletin No. 38, it is believed that with the exceptions noted above, most of the Native Hawaiian cultural practices, features and beliefs as identified as being currently associated with the Mauna Kea Science Reserve Master Plan Project area can be considered to be culturally and historically significant. **Most if not all of the identified practices and beliefs would seem to qualify as traditional and customary practices within the meaning of the Hawai`i State Constitution, while the principle *pu`u* and the shallow lake with adjacent *pu`u* would seem to satisfy the criteria for being regarded as a legitimate traditional and cultural property. Finally, none of the identified practice and beliefs would seem to represent strictly contemporary cultural practice or beliefs lacking some measure of traditional connection.** (Emphasis added) *Id.* p. 45; Pet. FOF/COL 366, p. 52

2. Petitioners Satisfying all Three of the *Hanapi* Factors

The Petitioners **have met all the *Hanapi* standards** by establishing an ample foundation through testimonies, exhibits, and through references to expert treatises as well as through the University's own consultants and documents submitted as evidence.

a. The First *Hanapi* Factor

The Petitioner KAHEA concurs that Petitioners Ching, Neves, Pisciotta, and members of the Flores-Case 'Ohana are Native Hawaiian as submitted in the record through their testimony. In addition, the Applicant did not challenge them on this issue or present any evidence indicating that they were not Native Hawaiian. Therefore, these Petitioners have satisfied the first factor of the *Hanapi* analysis.

b. The Second *Hanapi* Factor

The Petitioner KAHEA objects to HO COL 331-359 on the grounds that they are inaccurate, wrong, clearly erroneous and against the reliable, probative and substantial evidence. . In contradiction to these COLs , Petitioners Flores Case Ohana, Ching, Neves, and Pisciotta have established a record through their own testimonies and documentation to establish that their

Hawaiian traditional and customary practices and customary usage with respect to Mauna Kea are entitled to constitutional protection. KAHEA relies and joins in the exceptions and argument presented by these Petitioners.

*2) Evidence of Native Hawaiian Traditional and Customary Rights
Exercised on Mauna Kea*

In addition to the University recognizing the Native Hawaiian Petitioners as experts in their cultural practices relating to Mauna Kea, these facts are acknowledged in reports and documents prepared by University consultants that concluded the religious and cultural practices of Native Hawaiian Petitioners are traditionally and customarily exercised on Mauna Kea. Exhibit A-309b, Appx. E; Ex. A-21, Appx. N & I.

In the TMT FEIS, the University identified the following practices on Mauna Kea as Native Hawaiian “traditional and customary cultural practices”:

- Performance of prayer and ritual observances important for the reinforcement of an individual’s Hawaiian spirituality, including the erection of ahu or shrines.
- Collection of water from Lake Waiau for a variety of healing and other ritual uses.
- Deposition of piko (umbilical cords) at Lake Waiau and the summit peaks of Maunakea.
- Use of the summit region as a repository for human burial remains, by means of interment, particularly on various pu‘u, during early times, and more recently by means of releasing ashes from cremations.
- Burial blessings to honor ancestors
- Belief that the upper mountain region of Maunakea, from the Saddle area up to the summit, is a sacred landscape – as a personification of the spiritual and physical connection between one’s ancestors, history, and the heavens.
- Association of unspecified traditional navigation practices and customs with the summit area.
- Annual solstice and equinox observations that take place at the summit of Kūkahauūla

Exhibit A-3 at 3-21.

A similar list of Native Hawaiian traditional and customary practices on Mauna Kea was also outlined in the Cultural Impact Assessment Study (1999) prepared by PHRI for the UH IfA Ex. A-67, Appx. N at 33-39; Ex. A-3, Appx. E at 33-39.

The FEIS also recognizes pilgrimages to the upper regions of Mauna Kea (huaka‘i) for

purposes of prayer, offerings, and spiritual resonance, are Hawaiian customary ceremonial practices, established by Hawaiian royalty in the late pre-contact and early post-contact period. TMT-FEIS at 3-17.

Native Hawaiian Petitioners provided written direct testimony that substantiated they conducted these afore-mentioned traditional and customary practices on Mauna Kea.

The Report claims that Petitioners failed to establish that they conduct any practices at all in the location of the TMT Project or that their practices will be affected by the Project. On the contrary, the record confirms that the largest concentration of historic properties and cultural resources are found on the northern slope of Mauna Kea below the summit cones (in the Project area), and that 54% of those sites were shrines of a religious nature and placed in prominent locations with commanding views of the landscape. Ex. A-21, App. N, at 21.

The evidence confirms that the TMT Project will adversely impact the Mauna Kea Summit Region Historic District and Petitioners cultural and religious practices (including those that utilized the open spaces and view planes) exercised from the hundreds of historic and cultural shrines situated on the northern plateau (in and around the proposed TMT Project site) as well as those from the various pu`u including the cluster of summit cinder cones will be adversely impacted. Likewise, the evidence confirms that the TMT Project will adversely impact Petitioners cultural and religious practices from other sacred sites around the island looking towards Mauna Kea from sea level.

Petitioners testified that their viewplanes towards Haleakalā during ceremonies, as confirmed during the site visit, would be adversely impacted by the TMT Observatory. They testified their views from other important sacred sites around the island will be adversely impacted (i.e. Pu`ukohola Heiau, Pu`u in Waimea). They affirmed their practices from Pu`u Poliahu, the north facing side of the summit ridge of Kukahau`ula, and from other cultural sites on the northern plateau, will be adversely impacted, because the TMT Observatory would cause direct interference with various star paths.

c. The Third *Hanapi* Factor

Petitioners have satisfied the third factor of the *Hanapi* analysis.

F. BLNR IMPROPERLY DELEGATED AUTHORITY

BLNR may not abdicate nor delegate its duty to oversee and manage the public lands trust nor the conservation lands of Hawai'i. Yet, BLNR has and continues to improperly delegate its oversight and management responsibilities for the Mauna Kea conservation district to the University, its lessee and the primary advocate for telescope construction. *See* Exhibit A-1, TMT CDUA at 3-13 (“OMKM is delegated the task of “implement[ing] the CMP and subplans”); Exhibit A-313, Staff Recommendations at 63 (DLNR staff recommended that OMKM “conduct twice-annual inspections of the TMT Project just for evidence of CDUP and TMT Management Plan violations.”).

1. *Ka Pa`akai* Standard Protects Against Improper Delegation

State agencies cannot delegate their authority and responsibility to third parties. *See, Ka Pa'akai O Ka `Aina v. Land Use Commission*, 94 Haw. 31 (2000). In *Ka Pa'akai*, the court found that the Land Use Commission (LUC) had violated its statutory and constitutional obligations when it approved a request to reclassify land without completing its own independent assessment of the impact to traditional cultural and natural resources and feasible actions to reasonably protect those resources. *Id.* Rejecting the LUC's claim that it had delegated the authority to prepare a management to the developer, the Hawai'i Supreme Court stated:

The power and responsibility to determine the effects on customary and traditional Native Hawaiian practices and the means to protect such practices may not validly be delegated by the LUC to a private petitioner who, unlike a public body, is not subject to public accountability... . [I]nsofar as the LUC allowed [the private developer] to direct the manner in which customary and traditional Native Hawaiian practices would be preserved and protected by the proposed development -- prior to any specific findings and conclusions by the LUC as the effect of the proposed reclassification on such practices -- the LUC failed to satisfy its statutory and constitutional obligations. In delegating its duty to protect Native Hawaiian rights, the LUC delegated a non-delegable duty and thereby acted in excess of its authority. *Ka Pa'akai*, 94 Haw. at 22-23.

The Court overruled the LUC's decision because the LUC had illegally granted KD broad authority to “preserve and protect any gathering and access rights of Native Hawaiians.” *Id.* at 39. “Allowing a petitioner to make such after-the-fact determinations may leave practitioners of customary and traditional uses unprotected from possible arbitrary and self- serving actions on the petitioners' part. After all, once a project begins, the pre-project cultural resources and practices become a thing of the past.” *Id.* at 52. BLNR would commit the LUC's same fatal error by seeking

to delegate broad authority over Hawaiian cultural resources to UHH, the primary developer of the Mauna Kea conservation district.

In transactions over Mauna Kea, UHH attempts to sit on both sides of the table. On one side, the University facilitates telescope construction on Mauna Kea, going so far as to take on the interests of telescope owners as their own. At the same time on the other side, UHH claims to serve as “land manager” of “UH’s Mauna Kea Lands,” enforcing laws and protecting the resources destroyed by telescope construction. Exhibit A-9, UH CM at, P-7 (UHH will “[d]evelop and implement protocol of oversight and compliance with CDUPs”) and Exhibit A-9, UH CMP P-8 (UHH will “enforce conditions contained in Special Use permits”); Exhibit A-01 at 2. The purpose and function of these two sides of the table are mutually exclusive and cannot be fulfilled by one entity -- no matter how many aliases the University establishes. The awkward relationship between the University and TMT in the CDUA is only the most recent example of this deeply seeded conflict of interest.

HO’s FOFs 357-358 assume that BLNR may delegate its authority to UHH to regulate the reasonable exercise of Native Hawaiian cultural practice. UHH and/or its agents are not qualified to determine what is culturally appropriate or not, nor is the Board able to delegate its authority to the OMKM, the OCCL staff, or this Hearings Officer. COL 110 and 353 are specifically objected to by KAHEA as an improper delegation..

2. BLNR has Sole Legal Obligation to Manage Conservation Lands

There is no dispute that the Mauna Kea summit area is designated a conservation district. Per Haw. Const. Art. XI, §2, HRS. §§205-2(e), 183C-2, 183C-3, and 171-3 (2010), and HAR §13-5, the sole entity authorized to manage conservation districts is BLNR. HO COL 236 mischaracterizes UHH’s authority over conservation district lands.

Act 132 (2009) does not remove BLNR’s responsibilities to the conservation district and therefore Petitioners’ concerns with BLNR’s performance in ensuring that fair market values are received for subleases under HRS §§ 171-17 and -18 remain. Neither Article X, section 5 of the Hawai‘i State Constitution (which created the University of Hawai‘i) nor Act 132, SLH 2009, permitting UH to make rules and regulation that apply to the “UH Managed Lands,” amended the prevailing public land trust or conservation laws of the State. Haw. Rev. Stat. § 205, establishing conservation districts, directs BLNR to maintain jurisdiction and oversight over all conservation districts and makes clear that “except as specifically provided by this chapter and the rules adopted

thereto, neither the authority for the administration of chapter 183C nor the authority vested in the counties under section 46-4 shall be affected.” HRS § 205-15 (reference omitted). Section 205, was not amended by Act 132, SLH 2009. Likewise, HRS § 183C, which identifies the purpose of conservation districts, and HRS §§171-17, -18, which require fair market lease rent to be charged for the use of public trust lands, were also not amended by Act 132, SLH 2009.

Neither Act 32 (2009) nor HRS § 304A-2170 changes BLNR’s statutory *and* constitutional obligations to the conservation district and public trust lands more generally. Article XII, section 4 of the Hawai‘i state constitution installs lands granted to the state by section 5(b) of the Admission Act (1959) – including Mauna Kea public trust lands – “shall be held by the State as a public trust for native Hawaiians and the general public.” Mauna Kea lands are public lands and conservation lands and the laws assigns BLNR the sole obligation to oversee and management them on behalf of the general public and Native Hawaiians. If this were not the case, the University would not need to apply for a conservation district use permit. Nothing in the State constitution, Haw. Rev. Stat. §§205 or 183C identify natural resource conservation as one of the purposes of the University of Hawai‘i System. The University’s constitutional mandate is public education. *See* Haw. Const. Art. X, §5, HRS §304A. Even with the recent amendments to Haw. Rev. Stat. §304A(2009), the University is not empowered to manage conservation resources. *See*, Act 132, SLH 2009,. The University seeks to overcome this limitation by forming multiple intermediary entities between the BLNR and UH Board of Regents (e.g. Office of Mauna Kea Management, Mauna Kea Management Advisory Board, Kahu Kū Mauna), but this is nothing more than puppetry, for all of these entities ultimately answer to the UH Board of Regents. None of these entities have any authority greater than that bestowed by that board. Thus, the BLNR is the only entity with jurisdiction over the Mauna Kea conservation district. For the BLNR to delegate any authority to the University is improper.

Moreover, in this situation, as we outlined above, the University’s actual interests in the mountain are more aligned with the developer in the *Ka Pa'akai* case, than with any state agency fulfilling statutory and constitutional obligations to protect public trust lands and manage conservation areas. The University profits from the exploitation of the Mauna Kea conservation district. Its pursuit of excellence in astronomy is in direct conflict with the purpose of the conservation district. Thus, the BLNR should heed the Court’s concern that “self-serving” implementation of a developer-controlled management plan could destroy important natural and cultural resources because “once a project begins, the pre-project cultural resources and practices

become a thing of the past.” *Kapa`akai*, 94 Haw. at 52, 7 P.3d at 1089. If BLNR does not act to protect the cultural and natural resources of the Mauna Kea conservation district, they will be lost.

3. BLNR Failed to Satisfy the Three-Part *Ka Pa`akai* Standard

The Supreme Court’s ruling in *Ka Pa`akai* specifically directs agencies confronted with a decision that might affect the traditional and customary practices of Native Hawaiians to assess:

- “(1) the identity and scope of "valued cultural, historical, or natural resources" in the petition area, including the extent to which traditional and customary native Hawaiian rights are exercised in the petition area;
- (2) the extent to which those resources --including traditional and customary native Hawaiian rights -- will be affected or impaired by the proposed action; and
- (3) the feasible action, if any, to be taken by the LUC to reasonably protect native Hawaiian rights if they are found to exist.”

Id. at 47, 1084.

The record in this case is replete with examples of how the BLNR has failed to conduct this type of detailed assessment, opting instead to rely on promises from the developer that the traditional and customary practices of Native Hawaiians will be protected through “after-the-fact” decisions by the developer through the developer-controlled management plan(s). The most obvious example is found in the minutes of the February 25, 2011 BLNR hearing where the TMT CDUA was considered. Chairperson `Ailā asked Ms. Nagata, Acting Director of UH’s OMKM, by what process would the concerns of 32 cultural practitioners, who submitted testimony in opposition to the TMT proposal, be addressed. Ms. Nagata replied that she did not yet know, but that a process was being developed with the University’s Native Hawaiian advisory body, Kahu Ku Mauna, in compliance with the CMP. Shortly following this exchange, the BLNR voted unanimously to approve the TMT CDUA, subject to the outcome of this contested case hearing. See, Exhibit XXXX.

This is exactly the same mistake made by the LUC in the *Ka Pa`akai* case. Without specifically identifying the valued resources and related rights, the extent to which they may be harmed, and feasible actions necessary to protect them, the LUC relied on promises from the developer that its management plan would protect all traditional and customary practices of Native Hawaiians will be protected.

G. TMT VIOLATES THE RELIGIOUS FREEDOMS OF PETITIONERS

HO COL 360 alleges, “[b]elief in an area’s religious sacredness does not make development of that area an unconstitutional infringement of religion, and does not give the believer a legal right to stop the development. Constitutional rights protect against unreasonable interference with religious practices; those rights do not protect against offenses to religious beliefs.” (citations omitted). HO COL 362 further asserts, “To determine if there is an unconstitutional infringement of religious rights, the inquiry focuses on practices rather than beliefs: ‘[I]t is necessary to examine whether or not the *activity* interfered with by the state was motivated by and rooted in a legitimate and sincerely held religious belief, whether or not the parties’ free *exercise* of religion had been burdened by the regulation, the extent or impact of the regulation on the parties’ religious *practices*, and whether or not the state had a compelling interest in the regulation which justified such a burden.’”

HO COLs 360 and 362 are irrelevant to this contested case. The basis for this proceeding is UHH’s inability to demonstrate that the proposed TMT Project meets the eight criteria required for a CDUP. Petitioners introduced evidence of the Projects’ substantial and adverse impacts on Native Hawaiian religious and cultural practices because such impacts are evidence that HAR § 13-5-30(c)(4), amongst other criteria, cannot be satisfied. Further, Petitioners’ have introduced evidence of such substantial and adverse impacts on Native Hawaiian religious and cultural practices. *See* Petitioners’ FOF/COL .

The court holdings cited by HO/ UHH support rather than defeat the Petitioner positions. It is not that the TMT interferes with Hawaiians religious *beliefs*, it is that permitting the TMT will infringe on the free exercise of the Petitioner’s religious practice. The TMT Project if built will hinder, obstruct, and even prevent religious practices performed from the traditional cultural properties, such as cultural sites located on the northern plateau, as well as those performed from the surrounding Pu`u (including from the northern facing pu`u of Kukahau`ula), and about the Mauna Kea summit region.

The present proceedings are distinguished from *Dedman*. In *Dedman*, the Court ruled that the petitioners “failed to show sufficient burden on their religious practices[.]” *Dedman v. Bd. of Land & Natural Res.*, 69 Haw. 255, 266, 740 P.2d 28, 35 (1987). In the instant case,

Petitioners have made the requisite showing. *See* Petitioners' FOF/ COL 468. UHH's CMP states that the following must be maintained in order to avoid burdening Native Hawaiian religious and cultural practices:

- Access for gathering of cultural resources
- Access for families to visit iwi kupuna
- Access to scatter ashes
- Access through trails for hunting and gathering
- Access to deposit piko
- Access for traditional . . . religious and spiritual observances
- Access for pilgrimage, offerings, and prayers
- Access to Lake Waiau to gather water for religious and spiritual purposes.

Exhibit A-313 at 11.

These recommendations show the kinds of substantial burdens on Native Hawaiian religious and cultural practices consequent to increased construction on the Mauna Kea summit area. However, these substantial burdens support Petitioners' argument that the proposed TMT does not comply with HAR § 13-5-30(c)'s prohibition against conservation district land uses that have substantial, adverse impacts on natural resources, which includes cultural resources. *See* HAR § 13-5-2 (definition of "natural resources" includes "cultural, historic, . . . and archeological sites"). Proper foundation has been laid through testimonies, exhibits, and through references to expert treatises as well as through the University's own consultant documents demonstrating that Hawaiian Petitioner's cultural and religious practices are (1) constitutionally protected and (2) that Native Hawaiian traditional and customary cultural and religious practices have been harmed (by over industrialization of the summit area, that has resulted in significant, adverse and substantial impacts) but they will be further harmed if the TMT project is allowed to be built.

HO COL 365 also mischaracterizes Petitioners' religious practices: "Petitioners concede that, in essence, their beliefs should give them veto power over any proposed land use on Mauna Kea. *See* Tr. 8/25/11 at 77 ("And you can ask, but we can also say, no, and we have a right to have that upheld."). The law does not support that view. The constitutional right to free exercise of religion "must apply to all citizens alike, and it can give to none of them a veto over public programs that do not prohibit the free exercise of religion." *Id.* at 452. "[G]overnment simply

could not operate if it were required to satisfy every citizen's religious needs and desires." *Id.* Giving any objector the power to stop a project based upon his or her personal beliefs would violate the establishment clauses of both the federal and state Constitutions. *See* U.S. Const. amend. 1; Haw. Const. art. I, sec. 4."

COL 365 misrepresents Petitioners' statements in order to find that they fail to comply with constitutional law.

Plainly read in context, Petitioners assert that Native Hawaiians and the general public have rights as citizens and beneficiaries of Hawai'i's public trust to expect agencies, such as BLNR to protect those rights and public trust resources from harm. In no way does this assertion convey the proposition that Petitioners have "veto" power over development in Mauna Kea conservation district. This is further apparent in Pisciotta's other testimony:

- "In the rules you cannot have projects that have an adverse impact. You must preserve open space, viewplanes for the public to have a right to see without interference, our rights that belong to the public." Tr. K. Pisciotta, 8/25/11 at 77: 21-25.
- "We're here because of these rules, but we're here also because of the constitution of this state which holds the protection of the right of Native Hawaiians to practice their religion and culture, and because the public has rights." Tr. K. Pisciotta, 8/25/11 at 76: 15-19.
- "Now, these rights do not belong to residents of Pasadena, California. They do not belong to residents or citizens of other countries such as Japan, France, China, the United Kingdom who I used to work for before for 12 years. These rights belong to the public." Tr. K. Pisciotta, 8/25/11 at 76: 20-25.

HO COL 368 is unsubstantiated by the voluminous evidence in the record concerning Native Hawaiian rights traditionally and customarily exercised for religious and cultural on and about the Mauna Kea summit area, which includes the TMT Project area. UHH conceded that the proposed TMT Project would impose a substantial adverse impact on the spiritual and sacred quality of Mauna Kea by:

- (a) degrading the integrity of the cinder cone;
- (b) adding a man-made structure to the northern plateau that would create a substantial visual disturbance;


- (c) placing employees in the northern plateau;
- (d) increasing the potential for accidental release of wastewater into the environment;
- (e) increasing the potential for accidental release of hazardous substances into the environment; and
- (f) generating dust and noise. Any one of these anticipated results of the TMT project being built would undermine the spiritual setting and sacred quality of Mauna Kea.

III. CONCLUSION

As the Applicant and DLNR staff admit, the TMT Project would contribute to the substantial, significant, and adverse impact that astronomy development is inflicting on Mauna Kea. The TMT Project would increase and contribute to adverse cumulative impacts and cannot satisfy the permit requirements. Thus, approval of the TMT CDUA would be a violation of conservation district regulations, the Public Trust Doctrine, and an abuse of BLNR's discretion. Moreover, because the CMP, relied upon by the Applicant to justify construction of the TMT Project, failed to meet the basic requirements for a comprehensive management plan under HAR §13-5-24, it cannot serve as a basis for any further development in the Mauna Kea conservation district. For the reasons and arguments presented, the Petitioners respectfully urge the Board of Land and Natural Resources to deny the TMT CDUA HA-3568.

Mauna a Wākea remains sacred.

Dated: Kailua, Hawa'i, August 21, 2017



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BOARD OF LAND AND NATURAL RESOURCES

STATE OF HAWAII

Contested Case Hearing Re Conservation
District Use Application (CDUA) HA-3568
for the Thirty Meter Telescope at the Mauna
Kea Science Reserve, Ka'ohē Mauka,
Hāmakua, Hawai'i, TMK (3) 4-4-015:009

BLNR Contested Case HA-16-02

CERTIFICATE OF SERVICE

The undersigned hereby certifies that the attached document was served upon the following parties by the means indicated:

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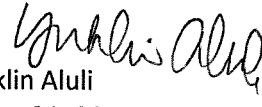
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