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demonstrating that its proposed land use -- the construction of the Thirty Meter Telescope (TMT) and related infrastructure on the summit of Mauna Kea -- satisfies the conservation district rules, including the permit criteria of Haw. Admin. R. § 13-5-30(c)(1995). The Board of Land and Natural Resources (BLNR) cannot grant a conservation district use permit where these requirements have not been met. We submit that UH/TMT<sup>2</sup> has not and cannot meet its burdens as mandated by HAR § 13-5-30(c), §13-5-24, and other related regulatory, statutory and constitutional requirements. Therefore, their CDUA must be denied.

Beyond UH/TMT's burden to demonstrate it has met the regulatory requirements of the conservation district, is the more fundamental issue of whether the BLNR has abandoned, delegated and/or exceeded its authority and fiduciary obligations to oversee, regulate and properly manage the conservation district of Mauna Kea, which is the proposed location for the TMT. The BLNR is mandated to uphold all of the regulatory, statutory and constitutional requirements relating to both the public trust lands and conservation districts of Hawai'i. The legal requirements that fall within the BLNR's responsibility include the public trust doctrine, Hawai'i State Constitution Article XI § 1, § 9, and XII § 4 and §7; section 5(f) of An Act to Provide for the Admission of the State of Hawaii into the Union 1959, Pub. L. No. 86-3, 73 Stat. 4; and Haw. Rev. Stat. Chapters 7, 171, 183C, 205 and 205A. Haw. Rev. Stat. §205 and Haw. Rev. Stat. §183C are the controlling statutes in this case and they clearly identify BLNR's duty to the greater public as trustee of the public lands trust and as the conservation lands manager for the State. Moreover, the Constitution specifically requires the BLNR to preserve and protect the customary and traditional practices of Native Hawaiians.

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<sup>2</sup> UH is the applicant, but TMT is the actual telescope owner, and both are project proponents. Because the two entities act in unison, we refer to them as one entity wherever it is difficult to distinguish their positions.

The whole of Mauna Kea from 8,000 feet to the very summit is comprised of public trust lands, as well as conservation district lands, which are recognized by all parties as culturally significant.<sup>3</sup> Mauna Kea was set aside in 1961 as part of the on-going effort to protect Hawaii's watersheds. HRS §205-2. The upper regions of this area had long been recognized as ecologically significant, culturally sacred, and extremely fragile. Even the University's own CMP acknowledges the importance of Mauna Kea:

Rising 30,000 feet above the sea floor, Mauna Kea is the highest insular volcano in the world. It is home to numerous unique geologic features and a truly awe inspiring natural environment. Revered by Hawaiians for centuries, Mauna Kea still evokes feelings of spirituality from its visitors through majestic views and a landscape that reflect the volcanic history of our planet.

CMP, p. 5-24 (citations omitted).

These precious lands should be among the most protected public lands in the state. And indeed, HRS §§ 205 and 183C specifically direct BLNR to provide that protection. Unfortunately, instead of protecting Mauna Kea's resources from urbanization, BLNR has facilitated it. The single greatest threat to the fragile cultural and natural resources of the Mauna Kea Conservation District has been and continues to be the construction of 18 telescopes<sup>4</sup> plus associated support

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<sup>3</sup> In the 1968 General Lease, the University leased a portion of the conservation district, which was identified in the lease as the "Mauna Kea Science Reserve" (11,288 acres, starting at approximately the 12,000-foot elevation up to 13,796 feet above sea level). The University has drawn arbitrary maps to describe claims to lands leased from the BLNR. (See CDUA p. 75-79 ref. MK MP2000). Areas such as the "Astronomy Precinct" and "UH Management Areas" are University creations within the Mauna Kea conservation district. Per HRS §205-2, the Land Use Commission (LUC) is the state agency tasked with not only establishing conservation districts but that holds the sole power to determine the boundaries of said districts. The Mauna Kea Conservation District was adopted in 1961, but the LUC never created either an "Astronomy Precinct" or "UH Management Areas."

<sup>4</sup> The University has used the terms "telescope" and "observatory" interchangeably to avoid the General Lease language which allows for the development of "an observatory" and the thirteen (13) telescope limit set in the 1983-1985 Mauna Kea Science Reserve Complex Development Plan. UH claims there are 13 telescopes in the Mauna Kea Science Reserve by counting the two telescopes of Keck I and II as one telescope and the six antenna that comprise the Smithsonian Submillimeter Array as one telescope. CMP, p. 6-2. In actuality, there are 9 optical telescopes (UHH-24 inch, UH-88 inch, UKIRT, GEMINI, CFHT, IRTF KECK I & II, and SUBARU) and 9 radio telescopes (CSO, JCMT, SMA (6 antennae) and the VLBA). The CDUA miscounts the telescopes because it fails to

facilities on the summit area. These public trust resources suffer because the BLNR has allowed the Mauna Kea conservation district to be overbuilt.

Today, instead of acknowledging that the Mauna Kea conservation district is overbuilt, BLNR is seriously considering approval of an 18-story, five-acre telescope in one of the last intact viewplanes from the summit. DLNR staff recommend approval of this construction permit on the logic that, “observatories on Mauna Kea ha[ve] had a significant impact on natural and cultural resources . . . [and this impact] will remain significant with or without the TMT” (Staff Recommendations, p. 55). BLNR’s repeated failure to fulfill its legal duty is the reason Petitioners are again litigating a case notably similar to a case decided in our favor in 2007. Exhibit B-18. The TMT CDUA, like the CDUA for the Keck Outrigger telescopes before it, does not satisfy the regulatory requirements for a permit and should be denied.

## **II. TMT CDUA SHOULD BE DENIED**

UH/TMT admits and the BLNR concurs that, if built, the TMT would contribute to the already significant, substantial, adverse impact the existing telescopes have caused to the summit area of Mauna Kea. The laws protecting the conservation district do not allow land uses to have a substantial adverse impact on the natural resources of the area. HAR §13-5-30(c)(4). While UH/TMT tries to characterize TMT’s contribution as “incremental,” the FEIS also admits that the TMT cannot mitigate the substantial adverse impact of existing telescope development to a less than substantial level. FEIS, p. 3-34. This admission means that the TMT cannot legally be built on Mauna Kea.

### **A. UH/TMT fails to satisfy all Eight criteria for a Conservation District Use Permit**

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include the NASA Infrared Telescope (IRTF) and the six individual telescopes currently contained in the Smithsonian Millimeter Array.

**(CDUP)**

As outlined in the conservation district rules, the applicant for a CDUP must demonstrate compliance with all eight permit criteria. HAR §13-5-30(c). UH/TMT has failed to demonstrate how the TMT would even satisfy one criterion, much less all eight.

**1. TMT Not Consistent with Purpose of the Conservation District**

Conservation districts were formed “for the purpose of conserving, protecting and preserving the important natural resources of the State through appropriate management to promote their long-term sustainability and the public health, safety, and welfare.” HAR §13-5-1, see also, HRS §205-2(e). UH/TMT proposes that an 18-story, five-acre industrial structure in an undisturbed natural area is consistent with this purpose. This is an overbroad interpretation of HAR §13-5-30(c)(1) that, if accepted, would ultimately undermine conservation district protections. When interpreting a statute, the “whole act” rule demands that “the court will not look merely at a particular clause in which general words may be used, but will take in connection with it the whole statute . . . and the objects and policy of the law, as indicated by its various provisions, and give to it such a construction as will carry into execution the will of the Legislature.” Azarte v. Ashcroft, 394 F.3d 1287-88 (9th Cir. 2005) quoting Kokoszka v. Belford, 417 U.S. 642, 650 (1974). Against this rule of statutory interpretation, UH/TMT focuses solely on the latter half of the regulation to focus on “appropriate management,” ignoring the context of this general term and therefore the stated purpose of the conservation district. Because the TMT cannot meet this first criterion, this CDUA cannot be approved without abusing BLNR’s discretion.

**2. TMT Not Consistent with Purpose of Subzone**

So heavy is UH/TMT's reliance on "astronomy facility" as an identified use in the Resource subzone that it crushes the foundational purpose of conservation districts - "conserving, protecting, and preserving the important natural resources of the State." HAR §13-5-30(c)(1). Subzones are subset of a conservation district -- not an exception to it. See, HAR §13-5-30(c)(2). Any activity proposed for a subzone must comply with all of the requirements of the conservation district itself.

Identified uses in a resource subzone are hierarchically classified according to their consistency with the mission and purpose of the conservation district. See, Department of Land and Natural Resources, State of Hawaii. "Conservation District Review Project: The Discussion Draft." November 1993. Prepared by Gail W. Atwater, p. 16. While astronomy is an identified use in the conservation district subzone, such use is permitted *if and only if* it will not entail substantial adverse impacts on the conservation district. 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 these resources are actually conserved, not degraded. Mauna Kea's central location in mauka viewsheds, views from the summit itself, wekiu habitat, and its cultural significance are resources would be degraded by the proposed TMT, as UH/TMT readily admits. FEIS Vol. 1, pp. S-12 through S-19. Thus, the TMT project cannot comply with criterion 2 and the CDUA should be denied.

### **3. TMT Not Consistent with the Coastal Zone Management Act**

Most of the Coastal Zone Management (CZM) policies align with those of the

Conservation District. These policies, along with other CZM objectives and guidelines, are binding on agency actions within the coastal zone management area, which includes Mauna Kea. HRS § 205A-4(b). The TMT project fails to demonstrate compliance with CZM policies for many of the same reasons that it would entail adverse, significant and substantial impacts on the natural and cultural resources of the Mauna Kea conservation district.

UH/TMT has failed to show that the TMT can comply with CZM policies for protecting watersheds and aquifers. HRS Chapter 205A(c)(4)(E). The Mauna Kea Science Reserve is located above five State of Hawai‘i delineated aquifers. Mauna Kea Comprehensive Management Plan for UH Management Areas, Jan. 2009 (CMP), p. 5-32. Ground water and aquifer contamination is a “potential side effect of a variety of human activities on the mountain,” and groundwater rates and flows at the summit are “unknown.” CMP 6-14. Moreover, 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[.]” 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. Exhibit B-15. 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 are flows to aquifers. CMP, p. 6-10. The TMT’s three underground storage tanks (USTs), one of which will store hazardous wastes, raise additional concerns. Neither the CDUA nor the FEIS state whether they meet the EPA’s standards for maintaining USTs. UH/TMT does not consider how this percolation impacts aquifers.

In addition, as explained in more detailed below, the proposed TMT would directly interfere with scenic views to and from Mauna Kea's summit region in violation of CZM policies. HRS §205A-2(c)(3)(E). Unincumbered views from the summit are a treasured natural resource. *"To stand on the summit of Mauna Kea at sunset and see only Haleakalā, Mauna Loa and Hualalai with their crests protruding above a solid cloud mass is a pleasure enjoyed by only a few."*<sup>5</sup> If built, the TMT would be an unavoidable blight on the remaining natural viewplanes in the line of sight between Mauna Kea and Haleakalā on Maui. Native traditions, oral histories, and historical accounts of Mauna Kea contain many references to the north-facing viewshed from Mauna Kea. E.g., Maly 2005, pp. 169, 209, 218, 231.

#### **4. TMT Would Cause Substantial Adverse Impacts on Mauna Kea Resources**

HAR §13-5-30(c)(4) requires that "[t]he proposed land use will not cause substantial adverse impact to existing natural resources within the surrounding area, community or region." Id. Compliance with the fourth permit criteria is essential to ensure that the natural and cultural resources of the conservation district are not sacrificed in pursuit of unrelated goals.

##### **a. UH/TMT admits the TMT would have substantial adverse impacts**

UH/TMT asserts that the TMT will not result in any "new significant impact" and thus complies with fourth criterion by misconstruing the requirement of HAR §13-5-30(c)(4). UH/TMT Brief, p. 17. "Cumulative" is defined as "made up of accumulated parts; increasing by successive additions." Webster's Dictionary, 2011. This definition is consistent with HAR §11-200-2, which defines "cumulative impact" as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions."

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<sup>5</sup> "Geologist's Survey of Mauna Kea by Jerome Kilmartin (USGS) in 1925–1926." Kapa Maly and Onaona Maly, eds. Mauna Kea: Ka Piko Kaulana o Ka 'Āina. Office of Mauna Kea Management, Hilo, Hawai'i, 231 (2005).

Id. These definitions directly counter UH/TMT's attempt to limit review of the project solely to the TMT's discrete contribution to cumulative impacts. HAR §13-5-30(c)(4) is concerned with the effects of proposed actions on natural resources and not with tracking individual contributions from different impact sources. UH/TMT's attempt to justify additional incremental impacts to a district already overburdened defies logic, for cumulative impacts necessarily *result from incremental impacts*.<sup>6</sup>

UH/TMT's conclusion that the impact of the proposed TMT would only be "incremental" is based on sophistries that unnecessarily complicate findings in the FEIS and by the DLNR itself. The record is undeniable: the TMT will have a substantial, significant, adverse impact. What UH/TMT admits, we need not prove. The TMT FEIS states:

"From a cumulative perspective, the impact of past and present actions on cultural, archaeological, and historic resources is substantial, significant, and adverse: these impacts would continue to be substantial, significant, and adverse with the consideration of the [TMT] Project and other reasonably foreseeable future actions." (TMT FEIS, S-8).

In comments to the TMT-DEIS, the DLNR Chairperson states:

"[i]t 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 TMT can bring new resources into play that may mitigate certain cultural impacts and even benefit native Hawaiians, we believe that the project will increase the level of impact on cultural resources, which remains to be significant and adverse." FEIS Vol.2, p.17.

The record demonstrates that, if built, the TMT would contribute significant harm to conservation resources on Mauna Kea. The TMT would introduce an 18-story industrial structure to a pristine plateau, increase astronomy-related personnel at the summit by fifty percent, and destroy over 12 acres total. DLNR Comment on the Draft EIS, FEIS Vol.2, p. 21.

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<sup>6</sup> DLNR commented on the Draft EIS on July 7, 2009; UH/TMT's use of the "incremental" concept lacks meaning because it is not accompanied by a measured quantity or value for each increment. TMT-FEIS Vol.2, p.17.

In light of these substantial, adverse impacts on natural resources, UH/TMT's argument that the project will only have an "incremental impact" is disingenuous.

The DLNR staff's elaboration of "incremental" unhelpfully stretches credulity to arrive at a finding of no-significance in regard to HAR §13-5-30(c)(4). In response to the FEIS finding that "impacts that are significant will remain significant with or without the TMT," DLNR staff conclude, "the proposal is not significant in of itself, but will add incremental impacts to an area that has already undergone significant effects." Staff Recommendations, p. 59. For a resource that is already sustaining more adversity than is permitted in the conservation district, *any* "increment" additional harm is unacceptable. Thus, not only is the proposed TMT improper, but existing development must also be mitigated to bring Mauna Kea conservation district management into compliance with the law.

#### **b. Substantial, adverse impacts on biological resources**

Among the reasons that UH/TMT had to press beyond an EA to an EIS in the environmental review process were that the project possibly 1) "[i]nvolves an irrevocable commitment or loss or destruction of any natural or cultural resource" and 2) "[s]ubstantially affects a rare, threatened or endangered species, or its habitat." UH Environmental Impact Statement Preparation Notice, September 23, 2008, p. iii, quoting HAR § 11-200-12. The FEIS addresses adverse impacts on Wēkiu bugs in a combined six acres area of the Northern Plateau and the TMT Access Way. FEIS Vol. 1, p. 3-71. Of particular concern is the substantial adverse impact of the TMT access road, which passes between two areas of Wēkiu bug habitat, Pu'u Hau'oki and Pu'u Poli'ahu, and will kill Wēkiu bugs. The conclusion that this impact is less than significant by comparison with impacts on Wēkiu bugs elsewhere in the Mauna Kea

Science Reserve is misleading. UH/TMT Exhibit A-12, p.4 (Eiben reports that twelve times more Wēkiu bugs were trapped near the Submillimeter Array road than near the TMT access road). Considering the restricted range of Wēkiu bug habitat, much of which has already been destroyed by BLNR mismanagement, the loss of any additional habitat area cannot be anything but significant.

HAR 13-5-30(c)(4) considers substantial adverse impacts on the area, community, or region – not just the immediate area of the Project. The TMT project would increase land use in surrounding summit areas that are home to a candidate for the Federal protection under the Endangered Species Act and several species of concern (including snails, bees, moths, and true bugs) in areas that would be more heavily utilized as a consequence of the TMT: the Hale Pōhaku area, roads, the utilities maintenance corridor, and in the Batch Plant staging area. Increased usage of facilities will threaten biological resources in these areas as well, such as māmane subalpine woodland (*palila* habitat), endemic arthropods and snails, na‘ena‘e, silverswords, Hawaiian catchfly and their pollinators, ‘io, and other species. FEIS Vol.1, p. 3-66. Māmane subalpine forest habitat are also anticipated to be disturbed by activities at the Hale Pōhaku and a potential TMT Mid-Level facility. FEIS Vol.1, p. 3-73.

### **c. Significant interference with important viewplanes**

The proposed TMT’s failures to comply with CZM policies on scenic open space resources are also evidence of its substantial adverse impacts on viewplanes in the Mauna Kea conservation district. This project will mar the impressive natural viewscape of the summit with even more industrial structures. For over 15% of Hawai‘i Island’s population, the TMT would be an added eyesore on the mountain. For all who visit the summit, the TMT would be an unavoidable intrusion into the view from Mauna Kea to Haleakalā.

The context for the TMT's proposal to intrude onto these last few intact viewplanes is the existing interference with natural views of Mauna Kea caused by prior telescope development. "[A]t least one observatory is visible from roughly 43 percent of the island's area." CDUA, p. 7-2. In this context, the TMT's added percentage of visibility is a substantial adverse impact on viewshed resources. This is particularly true for views *from* the summit. The addition of a 18-story, five-acre structure will crowd one of the last remaining, pristine views towards the northern and western portions of Hawai'i Island.

**d. Water resources, wastewater, solid waste, and hazardous waste**

Adding to the concerns for water resources raised by the UH/TMT's failure to satisfy criterion 3 is the fact that the project would introduce other undesirable substances into the Mauna Kea conservation district. 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. FEIS Vol. 1, p. 3-129. TMT project managers anticipate the generation of approximately 120 cubic feet of trash per week. FEIS Vol.1, p. 3-129. UH/TMT's promises to "comply with regulations" for leaks or spills further begs the question of whether these substances should be permitted in a conservation district in the first place. FEIS Vol.1, p. 3-125.

**e. TMT mitigation inadequate, indirect, and inappropriate**

UH/TMT admits, *even with the proposed mitigation measures*, the cumulative impacts on Mauna Kea's conservation district are and will continue to be substantial and adverse. The TMT FEIS states that:

“[T]he cumulative impact of all actions at and near the summit of Maunakea, including the future TMT Observatory [and its proposed mitigation], on cultural resources will continue to be substantial, significant, and adverse[.]” 3-34.

This findings is true in relation to cultural, archaeological, and historic resources (p. 3-214), ecosystems (p. 3-217), visual and aesthetic resources (p. 3-101), and geological qualities (p. 3-219). FEIS Vol.1. This means that *none* of the mitigation measures proposed for the TMT project would be enough to reduce the cumulative impact of telescope activity on Mauna Kea to a less than substantial level. At minimum, the EPA requires that mitigation measures address project-specific impacts, but finds appropriate mitigation efforts that “address cumulative impacts that are caused by activities other than the proposed project.” U.S. Environmental Protection Agency, Office of Federal Activities (2252A). EPA 315-R-99-002, Consideration Of Cumulative Impacts In EPA Review of NEPA Documents (May 1999), Exhibit B-17.

The mitigation measures proposed by UH/TMT are too indirect and insufficient to meet the Supreme Court standard established in Morimoto. In Morimoto v. Bd. of Land & Natural Res., 107 Haw. 296 (2005), the Court found that mitigation measures imposed through HAR § 13-5-42(a)(9) gives the BLNR authority to consider mitigation in assessing a CDUA under HAR § 13-5-30(c)(4). While Morimoto does not explicitly develop standards for mitigation, the mitigation actions considered in that case overcame the HAR 15-3-30(c)(4) requirement because they *directly* ameliorated harmful impacts of road construction on endangered *palila* habitat and those actions were specifically implemented by the appropriate agency. In that case, the U.S. Fish and Wildlife Services had issued a Biological Opinion (BO) in which the agency agreed that redesigning the highway project to provide for more habitat and reintroduction of endangered species would mitigate project-related disturbances to *palila* and *Silene hawaiiensis*.<sup>7</sup>

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<sup>7</sup> Appropriate mitigation actions were 1) “the acquisition and management of approximately 10,000 acres for Palila habitat restoration and an attempt to reintroduce the Palila to areas within their historic range where they had not

By contrast, the TMT project has not designed mitigation actions in accord with guiding documents. For example, 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” and to “develop a paradigmatic shift in how they [“Project proponents”] engage with the community in a way that truly recognizes cumulative impacts[.]” FEIS Appendix D - CIA for the TMT Observatory and TMT Mid-Level Facility Project, p. 204-5. The range of mitigation measures offered by UH/TMT (furnishing items with a sense of place, ride-sharing, repaving roads, funding education programs, 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 “primary mitigation” for TMT impacts on visual and scenic resources offered by UH/TMT is their decision to locate the project outside of the summit ridge. CDUA, p. 4-30. UH/TMT says they now finally recognize that Kūkahau‘ula is an important traditional cultural property. CDUA, p. A-8. They claim it is because Kūkahau‘ula is so important that they chose to locate the TMT on the plateau. We are not convinced.

UH/TMT has not shown that locating the TMT on the ridge would have been desirable or even possible. It is unlikely that the five-acre TMT could have been located on the summit ridge, so the fact that it is not proposed to be located there cannot be claimed as a mitigation measure for its unsightliness. The decision to locate the TMT on the northern plateau more reasonably proceeds from UH’s finding that locating the TMT in the summit region is “not deemed feasible.” TMT FEIS, Vol. 1, p. 3-32. The fact is, the UH/TMT siting process considered four

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resided”, 2) “With respect to the *Silene hawaiiensis*, the proposed alignment path was moved south to avoid a population of seventy plants”, and 3) “lighting restrictions to avoid potential downing of the Dark-rumped Petrels; ... a plan for minimizing fire hazards; and ... with respect to the Hawaiian Hawk, “nest searches” by a qualified ornithologist prior to the onset of construction and, in the event an “active nest” is detected, the halting of the project within one kilometer of the nest and the initiation of consultation with FWS.” Morimoto, 107 Haw. at 306.

sites for the TMT project – only two seriously -- all of which were within “Area E” on the northern plateau. TMT FEIS, p. 4-5. UH/TMT cannot claim their proposed location, their “primary mitigation”, therefore the TMT’s substantial, adverse impacts are not mitigation and the CDUA should be denied. TMT Management Plan, p. 4-30.

The few mitigation measures proposed for the TMT project do not directly address the anticipated harms caused by the proposal. In fact, UH/TMT admits that even with proposed mitigation measures for the TMT, significant impacts on the Mauna Kea conservation district will persist. UH/TMT Brief, p. 17. Because the substantial harms of the telescopes on Mauna Kea cannot be mitigated to a level that is less than substantial, the BLNR cannot approve this CDUA without abusing its discretion.

#### **5. TMT not compatible with surrounding areas of the Conservation District**

The proposed TMT would not be compatible with the wide open and natural space that is the northern plateau of Mauna Kea. It is important to remember that it is the conservation district that is the locality to be considered, not the existing telescopes (many of which were retroactively permitted after construction). UH/TMT contends that the TMT project - comprised of more than 12.5 acres (4.9.ac. for the observatory, 3.6 ac. for the access way, 4 ac. for the batch plant staging area, and a utilities corridor (that intrudes into the Natural Area Reserve) - and 400 foot corridor along Mauna Kea access road) must be assessed in the context of existing buildings (i.e. other observatories), otherwise the HAR §13-5-30(c)(5) criterion would be senseless because nothing could ever be built in a Conservation District. CDUA, p. 18.

UH/TMT’s interpretation ignores HAR §13-5-30(b), which establishes at the outset that generally, “[I]and uses shall not be undertaken in the conservation district” and further, if they

are to occur, land uses must be evaluated to ensure that no adverse and significant impacts occur. Id.

Problematically, the UH/TMT limits its consideration of the TMT's potential impacts to the Mauna Kea summit region only.<sup>8</sup> This is a very limited area and does not allow for consideration of run-off down into other areas or possible pollution seepage into the land below the summit. Nor is the compatibility of the TMT Utilities Corridor with the existing, adjacent Natural Area Reserve adequately assessed.

The proposed HELCO substation requires an easement corridor across NARS lands in order to service the TMT. In their comment on the TMT-CDUA, DOFAW drew attention to the disturbances of the NARS that will result from maintenance of utility conduits. DOFAW noted that after twenty years of neglect, "erosion and settling" have occurred in utilities corridor and that "[a]ccess to the pill (sic) boxes will require improvements that might not fall within the 20-foot access corridor, and movement of heavy equipment over unstable terrain." DOFAW comment letter in Staff Recommendations, p. 23. UH/TMT's assurances that TMT-related disturbances of NARS lands that abut the construction corridor do not withstand the fact that a CDUP cannot authorize UH/TMT activity in the NAR. The NAR is not leased to the University, nor does the CMP address disturbance mitigation in the NAR. To assume that disturbance outside the easement can be mitigated to the extent possible is an inappropriate and illegal encroachment on lands outside the boundaries of the lease to UH and the anticipated sublease to TMT. The TMT's incompatibility with the existing uses of the conservation district makes approval of the CDUA improper.

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<sup>8</sup> Final EIS, *supra* note 10, at § 3.1.3, 3-4 (stating that the "[p]roject impacts will occur within the context of the current conditions in the summit region and are evaluated as occurring in such context.")

## 6. TMT Destroys Natural Beauty and Open Space

The TMT is a man-made structure and while it maybe beautiful to some in a human engineering way, it neither preserves nor improves upon Mauna Kea's natural beauty, which is what the law requires. UH/TMT has not and cannot meet the requirement under the sixth criterion. First, because the TMT is a very large (18 stories) building that is proposed to be sited on the North Plateau, which, significantly, is one of the last un-hindered open space areas with views down to the sea, along the coasts, and across the island chain. The TMT would intrude upon the currently unobstructed view of Haleakala Mountain as well as the primary view of the setting sun from the mountain. It will also obstruct viewplanes used for traditional and cultural spiritual and religious Native Hawaiian practice.

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.  
Written testimony of Paul Neves, Exhibit F-1.

Contrary to UH/TMT's misstatement of our position, we do not actually contend that nothing can be built in the conservation district, but rather that appropriate development in the conservation district must *preserve or improve upon* the natural characteristics of the district -- that is the only way this criterion "makes sense." UH/TMT Brief, p. 18. The TMT proposal far exceeds the scope and degree of what could reasonably be deemed appropriate development on the pristine northern plateau of Mauna Kea.

The proposed TMT would adversely impact viewplanes towards and away from the summit, increase noise levels and material pollutant levels, and permanently disrupt critical habitat for species that are candidates for Federal listing pursuant to the Endangered Species Act. FEIS Vol. 1, p. S-12 through S-19. The DLNR staff's evaluation of the project under HAR §13-

5-30(c)(6) criterion thus erroneously “concluded that the TMT will not have a significant impact on the environmental or cultural characteristics of the land.” Staff Recommendations, p. 59.

Erroneously, DLNR staff recommends supporting the TMT as a “a series of trade-offs” in which development in new areas would be accompanied by the migration of observatories away from the Kūkahau‘ula summit. Staff Recommendations, p. 59. The physical and environmental aspects of the land are neither preserved nor improved upon by the proposed new development and therefore the Agency’s “suppor[t] for the concept of moving observatories” is irrelevant to whether or not the proposed TMT meets this sixth criterion.

The DLNR staff further erred by considering a pay-to-degrade rationale. Staff Recommendations, p. 59 (“It should be noted that TMT is committed to paying a ‘substantial’ amount of sublease rent in exchange for the site”). BLNR cannot accept a payment of cash in exchange for permission to destroy the very resources it is mandated to protect. If applicants were allowed to meet the conservation district permit criteria through payment, then these criteria would be meaningless in evaluating any project that promised to generate capital. No matter how much TMT promises to pay, it cannot satisfy criterion 6 and the UH/TMT CDUA should be denied.

#### **7. TMT would intensify land use by subdividing conservation lands**

The TMT CDUA erroneously concluded that the “proposed TMT project does not involve the subdivision of land.” CDUA, 2-28. Subdivision disposes of control over a land parcel so that more and different entities can make separate uses of the land and thus creates a greater capacity for land use that specifically cuts against conservation purposes. The Mauna Kea conservation district has been repeatedly subdivided through subleases between BLNR, UH, and telescope operators in order to facilitate increased telescope activity there. Exhibits B-3

through B-12. The TMT sublease would further parcel the original lot leased to UH in 1968 (Lease No. S-4191). Agreements like this dispose of the original parcel in ways that intensify land use in violation of HAR §13-5-30(c)(7) (“subdivision of land will not be utilized to increase the intensity of land uses in the conservation district”). Because the proposed TMT CDUA is premised on a subdivision of land that will intensify land use, the BLNR cannot approve it without abusing its discretion.

**a. UH subleases fit the definition of subdivision**

A “subdivision” is an enumerated form of land use in the conservation district rules, along with permanently placing materials, grading, and erecting or demolishing structures, all of which have been consequences of development on Mauna Kea. HAR §13-5-2(1994). A “subdivision” is the division of a parcel of land into more than one parcel. HAR §15-3-2. Under “Uniform Land Sales Practices” HRS §484-1 (2011), “subdivision” of lands are those enacted for the purpose of disposition (“includ[ing] sale, *lease*, *assignment*, award by lottery, or any other transaction concerning a subdivision, if undertaken for gain or profit) into two or more lots, parcels, units, or interests[.]” Id. UH has undertaken sublease agreements to gain telescope resources, viewing time, and other benefits and thus disposed of Mauna Kea conservation district land parcels to other telescope vendors.

HAR §13-5-30(c)(7) specifically guards against the intensification of land use that is usually, but not exclusively, associated with the subdivision of land. UH subleases intensified land use by increasing the burden of vehicles, visitors, and long-term personnel that will use access roads, sewage, electricity, utilities, and base-level and mid-level facilities. Land use in the Mauna Kea Science Reserve has the hallmarks of a subdivision: facilities and improvements cost sharing, planned development, and defined, independent property interests. Parcels under UH Management are materially subdivided through an extensive fencing network, metes and

bounds descriptions, and maps that demarcate parcels and allocate building lots. Exhibits B-3 through B-9. These facilitate coordinated, simultaneous activities on different regions of land in ways that intensify land use.

**8. The TMT would be materially detrimental to public health, safety and welfare**

**a. Watershed, viewplanes, and hazardous waste exposure**

The TMT proposal would increase the storage of hazardous wastes in the conservation district and poses unknown threats to aquifers; it therefore threatens public health and safety. The TMT will also increase the visibility of observatory construction on and from the mountain, which is already substantially adverse. Despite these examples of material detriment, UH/TMT asserts “the Project will be an enormous benefit to the public welfare” because it will entail employment opportunities and generally “bring significant funds to Hawai‘i.” UH/TMT Brief, p.11. Although “public welfare” is one purpose of maintaining the conservation district, UH/TMT erroneously interprets this term to mean financial benefit, in order to fit their proposal.

“Public welfare” does not mean job-creation or money generation. “The concept of *welfare* was added [to the conservation district mission] to include the notion of aesthetics -- preserving Hawaii’s unique natural beauty.” Department of Land and Natural Resources, State of Hawaii. “Conservation District Review Project: The Discussion Draft.” November 1993. Prepared by Gail W. Atwater, consultant, p. 16. Thus, the Rule intends that the public welfare will be served by conserving natural beauty in the conservation district, as opposed to using conservation lands for economic development.

**b. Material detriment to the health of Native Hawaiians**

HAR §15-3-30(c)(8) is concerned with public health, which includes that of Native Hawaiians. “Native Hawaiians are members of the general public and in addition have traditional and customary rights that are legally protected.”<sup>9</sup> Telescope construction on Mauna Kea’s upper regions is materially detrimental to the health of the Hawaiian people. “Native Hawaiians have watched the University repeatedly erect telescopes on Mauna Kea over and against their protests and patient explanations of this site’s sacred importance. This ongoing violation of Hawaiians’ religious and cultural attachments to Mauna Kea is linked to a colonial, systemic deprivation of self-determination that is materially detrimental to Native Hawaiian health[.]” Statement of Dr. Liu, Exhibit F-3.

The federal government recognizes, “the health and well-being of the Native Hawaiian people is intrinsically tied to their deep feelings and attachment to the land[.]” “Apology Bill”, Pub. L. 203-150 (1993). This attachment is not merely sentimental or romantic; and it links Mauna Kea and the physical, mental, and collective health of Native Hawaiians, individually and as a people. Maly reports from his interview with Pua Kanaka‘ole Kanahela, “[E]ach time she looks at Mauna Kea with the observatories built upon it she feels pain[.]” Exhibit C-2, p. A-367.

**c. Material detriment to the health and safety of the general public of Hawai‘i**

Observatory development on Mauna Kea’s upper regions is materially detrimental to the health, safety, and welfare of the general public of Hawaii. In the Native Hawaiian worldview, people are to live in harmony with the natural and sacred environment. When that harmony is tipped out of balance, nature strives to restore it. This can result in actual physical harm to the health, safety and welfare of people of Hawaii, such as earthquakes. Exhibit G-1.

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<sup>9</sup> University of Hawai‘i, Mauna Kea Public Access Subplan, p. 1-3 < [http://hawaii.gov/dlnr/occl/mauna-kea-management-plan/MaunaKea%20PublicAccessPlan\\_Jan10.pdf](http://hawaii.gov/dlnr/occl/mauna-kea-management-plan/MaunaKea%20PublicAccessPlan_Jan10.pdf) >, Accessed June 10, 2011.

The mountain of Wakea is one of those sacred natural environments that commands great respect. As UH/TMT has admitted, the construction of telescopes on this mountain is undermining the balance between humanity and nature. Construction of the TMT would further this state of disharmony. It will also further interfere with and obstruct the natural electromagnetic fields on the mountain. This is a direct and substantial adverse impact to the life forces that flow into these islands through the *piko* (portal) on the summit. Exhibit G-1. As a result, nature will respond in an effort to restore the proper balance in the sacred relationship between humanity and the mountain. Such a natural disaster would be extremely detrimental to the health and safety of the people of Hawaii.

**d. Ethnocentric methods for assessing materially detrimental impacts on sites of historic significance are inappropriate**

*For the economy, we have given up all of our sacred places.* Pua Kanaka‘ole Kanahele.<sup>10</sup>

UH/TMT purports to have evaluated TCP's against adverse impacts, but has failed to apply the correct standard of evaluation. Instead the UH/TMT's inability to allow for Native Hawaiian views of the sacred significance of Mauna Kea cause them to apply ethnocentric approaches to evaluations of the TMT's impacts on Native Hawaiians. "Ethnocentrism means viewing the world and the people in it only from the point of view of one's own culture and being unable to sympathize with the feelings, attitudes, and beliefs of someone who is a member of a different culture. It is particularly important to understand, and seek to avoid, ethnocentrism in the evaluation of traditional cultural properties." Patricia Parker and Thomas King, "Guidelines for Evaluating and Documenting Traditional Cultural Properties," U.S. Department of the Interior,

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<sup>10</sup> Mauna Kea Oral History Study Interview with Kepā Maly, December 11, 1998. Mauna Kea Science Reserve and Hale Pōhaku Development Update: Oral History and Consultation Study, and Archival Literature Research, Kumu Pono Associates (1999), Exhibit B-2, p. A-379.

National Park Service. National Register Bulletin 38, 10 (Revised 1998), p. 4. Native Hawaiian assertions that the telescopes desecrate a sacred cultural resource are not, as UH/TMT insists, matters of “opinion” that are counterbalanced by other Native Hawaiians who view the TMT project as a much needed economic development project or otherwise benign. CDUA, p. 3-13.

UH/TMT flouts guidelines for approaching conflicting claims over sites of cultural significance for Native groups. “Where one individual or group asserts that a property has traditional cultural significance, and another asserts that it does not or where there is disagreement about the nature or extent of a property's significance, the motives and values of the parties, and the cultural constraints operating on each, must be carefully analyzed.”<sup>11</sup> In the instant case, the motives and values of TMT supporters are explicitly linked to a need to increase employment opportunities and funding for research and education. The motives and values of Native Hawaiian cultural practitioners who testify in opposition to Mauna Kea are equally plain: they are motivated to preserve Mauna Kea’s natural resources and cultural significance. For the purposes of evaluating a proposed conservation district land use, testimony motivated by conservation agendas should given more weight than those explicitly motivated by economic concerns.

### **B. CMP fatally flawed**

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), Exhibit B-18. In its CDUA, UH/TMT relies

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<sup>11</sup> Patricia Parker and Thomas King, “Guidelines for Evaluating and Documenting Traditional Cultural Properties,” U.S. Department of the Interior, National Park Service. National Register Bulletin 38, 10 (Revised 1998), p. 9.

heavily on UH's 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 not 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 concerns 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 UH/TMT 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,"<sup>12</sup>

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)

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<sup>12</sup> UH has drawn arbitrary maps to describe claims to lands leased from the BLNR. See, CDUA p. 75-79 ref. MK MP2000. Areas such as the "Astronomy Precinct" and the "UH Management Area" are within the Mauna Kea Conservation District. Per HRS §205-2, the Land Use Commission (LUC) is the state agency tasked with not only establishing conservation districts but that holds the sole power to determine the boundaries of said districts. The Mauna Kea Conservation District was adopted in 1961, but the LUC never created either an "Astronomy Precinct" or a "UH Management Area."

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 land developer.

UH/TMT incorrectly asserts that the opportunity to challenge the CMP has passed. 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. UH/TMT rely 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 Concerns 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, Exhibit B-18. The CMP, however, is not all-encompassing of the Mauna Kea conservation district for it only concerns the areas that UH 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

8,000-foot elevation level) up to the summit itself. The 2009 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 UH for the Keck Outrigger telescopes. 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, Exhibit B-18. 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 UH-centric decision-making tree from the 2000 Master Plan. Exhibit A-25. 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. 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. UH Serves Conflicting Roles**

In transactions over Mauna Kea, the University attempts to sit on both sides of the table. On one side, UH -- 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. CMP, P-7 ("[d]evelop and implement protocol of oversight and compliance with CDUPs") and CMP P-8 ("enforce conditions contained in Special Use permits"). Exhibit A-1, p. 2.<sup>13</sup> 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 UH establishes. The awkward relationship between UH and TMT in this application is only the most recent example of this deeply seeded conflict of interest.<sup>14</sup>

The insidiousness of the University's conflicted role 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. TMT FEIS, p. S-8. The destruction on Mauna Kea is directly facilitated by the University, in pursuit of

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<sup>13</sup> The LUC only created a conservation district, therefore UH area designations areas are not legal boundaries. See fn. 11 for a discussion of problems with UH designations of land areas within the conservation district.

<sup>14</sup> TMT is the real applicant in the CDUA. The sublease to be signed with UH and BLNR is subject to approval first by the TMT Board of Directors. How can there be arm's length negotiations on the sublease, if UH is TMT for the purposes of the construction permit? The DLNR staff recommendations are directed at TMT as the applicant -- how will the conditions and expectations of the CDUA be upheld in the future when it is not TMT, but UH-Hilo on the permit? The TMT should be named as the applicant and this CDUA process should begin anew.

academic prestige in the astronomy field. The success of UH's Institute for Astronomy is based in large part on the fact that Mauna Kea is exploited as a premier location for telescopes. The University cannot achieve this academic goal while at the same time truly protecting the conservation resources that are destroyed in the pursuit of that goal. That is why, despite its own admissions, the University simply cannot bring itself to conclude what is readily apparent: Mauna Kea is overbuilt.

### **III. BLNR Fails To Uphold Legal Obligations**

The fundamental policy issue underlying the improper development of the Mauna Kea conservation district is BLNR's wholesale abdication of its responsibility for managing these precious lands. BLNR has allowed telescope construction to desecrate an area they recognize as a Native Hawaiian traditional cultural property, destroy significant Wēkiu habitat, and potentially contaminate five aquifers on Hawai'i Island. Demonstrating that history repeats itself, the BLNR is considering the TMT construction permit, even though it admits:

“[i]t 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 TMT can bring new resources into play that may mitigate certain cultural impacts and even benefit native Hawaiians, we believe that the project will increase the level of impact on cultural resources, which remains to be significant and adverse.” FEIS Vol.2, p.17.

Instead of regulating (that is, limiting) these astronomically destructive projects, the BLNR entertains the fundraising opportunities provided by this destruction and weighs the mitigative value of native art on the walls of an industrial structure in the middle of a natural temple. BLNR has repeatedly abandoned, delegated, and/or exceeded its authority and fiduciary obligations to oversee, regulate and properly manage the conservation district of Mauna Kea by

authorizing the over-development of the district and allowing the University to assert their claims of jurisdiction over it. This is unacceptable.

**A. CDUA Approval Would Be Abuse of Discretion**

While UH/TMT has the burden to prove their proposed land use is consistent with all eight CDUP criteria, the BLNR's role is to evaluate whether the applicant has actually met the requirements or not, with particular consideration of the proposed project's impacts on Native Hawaiian traditional, cultural, and religious practices (see Public Access Shoreline Hawai'i v. Hawai'i County Planning Commission, 79 Hawai'i 425 (1995) [hereinafter, PASH] and Kapa`akai O Ka `Āina v. Land Use Commission, 94 Hawai'i 1,7 P. 3d 1068 (2000)).

UH/TMT's admissions that the TMT will have a significant, adverse impact on cultural and natural resources should lead the BLNR to deny the TMT-CDUA.

The BLNR cannot approve the TMT-CDUA without abusing its authority because the law prohibits approval of permit applications that fail to meet the eight criteria for conservation district use permits. The TMT cannot even satisfy one, much less all eight of the criteria. The DLNR staff surmised that, “[i]t appears likely that the construction of this very large observatory will have a significant and adverse impact on this important cultural landscape” (FEIS Vol.2, p. 17) and “impacts that are significant will remain significant with or without the TMT” (Staff Recommendations, p. 59). Despite this, the staff recommends approval. This is because the staff recommendation to approve the CDUA is based on an inappropriate interpretation of HAR §13-5-30(c). If approved, the staff recommendation would allow UH/TMT to pay to degrade the natural resources BLNR is mandated to protect, to “balance” destruction of those resources with promises of more accountable management, and to cynically assert that the summit regions of

Mauna Kea have suffered such adversity already that any additional adverse impacts will not be 'significant.'

The DLNR staff recommendations to approve the TMT CDUA is one example in the agency's failures to follow the laws and regulations that protect the Mauna Kea conservation district. Where "an agency [has] exceeded its legal authority, acted unconstitutionally, or failed to follow its own regulations," the courts have held the agency responsible for "abuse of discretion." United States v. Carpenter, 5256 F.3d 1237, 1241 (9th Cir. 2008) quoting, Guadamuz v. Bowen, 859 F.2d 762, 767 (9th Cir. 1988); see also Ness Inv. Corp. v. U.S. Dep't of Agric., 512 F.2d 706, 714 (9th Cir. 1975) (holding that discretionary agency actions are reviewable where the claim alleges "that an agency . . . abused its discretion by exceeding its legal authority or by failing to comply with its own regulations"). An Agency's actions demonstrate an abuse of discretion where they "clearly exceeded the bounds of reason or disregarded rules or principles of law or practice to the substantial detriment of a party litigant." Sierra Club v. D.O.T., 115 Haw. 299, 317 (Haw. 2007) quoting State v. Sacoco, 45 Haw. 288, 292 (1961). Agency actions deemed "[a]rbitrary, or capricious, or characterized by abuse of discretion or clearly unwarranted exercise of discretion" are overturned by courts as illegal. HRS §91-14(g)(6)(2011).

The criteria for conservation district permits should not be so broadly interpreted to allow the *dedication* of proceeds to be a means of making resource destruction into an appropriate use of conservation lands. The DLNR staff thus erred by concluding that the TMT's "strong management framework" and its potential role in Hawai'i's economic development as support for their decision to approve the CDUA. Staff Recommendations, p. 45. Approving the TMT-CDUA on these terms would be an abuse of BLNR's discretion.

## **B. BLNR Improperly Delegated Authority in CMP**

The BLNR may not abdicate nor delegate their fiduciary duty to oversee and manage the public lands trust nor the conservation lands of Hawai'i. Yet, the 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.<sup>15</sup>

### **1. Kapa`akai Standard Protects Against Improper Delegation**

The Supreme Court has ruled that 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 Supreme 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. The Supreme Court rejected the LUC's claim that it had delegated the authority to prepare a management to the developer:

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.

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<sup>15</sup> OMKM is delegated the task of "implement[ing] the CMP and subplans." CDUA, p. 3-13. DLNR staff recommended that OMKM "conduct twice-annual inspections of the TMT Project just for evidence of CDUP and TMT Management Plan violations." Staff Recommendations, p. 63.

The Kapa`akai case concerned the LUC's approval of a developer's (Kaupulehu Development (KD)) petition to reclassify conservation lands as urban lands to built a luxury resort on the shores of Hualalai District in the County of Hawai'i. The construction would have interfered with well-established traditional and customary practices on and around the project site, including the gathering of salt (pa`akai), which were detailed in public testimony. Nonetheless, the LUC approved the project, partly basing their decision on the developer's assurances that its "Resources Management Plan" would:

- "reasonably preserve and perpetuate cultural resources such as archaeological sites, the coastal trails, areas of fishing, opihi, and limu gathering, salt gathering, and general recreation in the proposed areas."
- "provide for resource management,"
- "ensure public access to the coastal areas," "perpetuate [fishing, limu, opihi, and salt gathering] on and makai of the property,"

Kapa`akai, 94 Haw. at 37.

The Supreme 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. The Court held,

"[a]llowing 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.

We submit that the BLNR would commit the LUC's same fatal error by seeking to delegate broad authority over Hawaiian cultural resources to UH, the primary developer of the Mauna Kea conservation district.

## **2. BLNR has sole legal obligation to manage conservation lands**

In this case, 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 the Board of Land and Natural Resources. These articles, statutes, and regulations do not grant BLNR the authority to delegate its responsibilities to an entity outside of the Department. Without specific authorization to delegate its legal mandates, the BLNR remains the sole entity responsible for the management of multiple land uses for the protection of the natural and cultural resources in a conservation district.

The University contends that it has a right to manage its own areas because it holds a long-term lease to the Mauna Kea Science Reserve. This is true, but only in terms of the areas within the telescope facilities. The University has yet to demonstrate any areas in the Mauna Kea conservation district that they can call their own, aside from those within the observatories themselves. The fact that the University has a long-term lease does not grant them private property interest or any expectation of exclusivity. Mauna Kea lands are public lands and conservation lands and the laws assign BLNR the sole obligation to oversee and manage 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. 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.

The University also contends there is no unlawful delegation here because the University is a state agency. This argument fails. The fact that the developer in this situation also happens to be another state agency is irrelevant. Under the Court's ruling in Ka Pa'akai, the responsible agency cannot delegate authority to any entity that does not share its same statutory and

constitutional obligations. The BLNR is the only agency with the legal obligation to management conservation districts and ceded lands.

By comparison, nothing in the Constitution, Haw. Rev. Stat. §§205 or 183C identify natural resource conservation as one of the purposes of the University of Hawaii 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, Exhibit B-16. 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.

Moreover, in this situation, as we outlined above in section II(B)(3), the University's actual interests in the mountain are more aligned with Kaupulehu Development, 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.<sup>16</sup>

### 3. BLNR Failed to Satisfy the Three-Part Kapa`akai Standard

The Supreme Court's ruling in Kapa`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

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<sup>16</sup> This is what gives right to Petitioners' independent cause of action, see section IV(B) below.

unanimously to approve the TMT CDUA, subject to the outcome of this contested case hearing. See, Exhibit B-36.

This is exactly the same mistake made by the LUC in the Kapa`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.

### **C. BLNR Must Enforce Lease Provisions**

The Mauna Kea Science Reserve was established in 1968 by general lease S-4191, which was signed between the Department of Land and Natural Resources and the University. This lease governs the scope of activities -- consistent with conservation district rules -- that UH may engage in on this property. The terms of this lease, however, have not been fully enforced.

**An observatory.** The 1968 lease authorizes the University to erect “an observatory.” The remainder of the land to serve as “a buffer zone.” This lease has never been modified. Yet, today, UH admits there are at least 13 telescopes in the Mauna Kea Science Reserve. If the actual number of telescope structures is counted (optical and radio telescopes) there are actually 18 telescopes, in addition to the many support structures on the mountain. “Observatory” is defined as “a place or building equipped and used making observations..., especially a place equipped with a powerful telescope... .” “Telescope is defined as “an optical instrument for making distant objects appear larger and therefore nearer.”

Given these definitions, it is likely that the authors of the General Lease used the term “an observatory” to mean a single observing building containing a single telescope device. This

interpretation is more consistent with other terms of the lease that call for a “buffer zone” between the observatory and other activities on the summit.

**Lake Waiau.** The lease terms provide that “no activity shall be permitted which will result in the pollution of the waters of Lake Waiau.” We are concerned that the numerous cesspools and accidental spills of hydraulic fluid, aluminizing fluid, diesel fuel, and more, over time may have polluted Lake Waiau. BLNR should test the lake to ensure compliance with the laws protecting Hawaii’s waters and the terms of this lease.

**Good order and condition.** The lease requires UH to return the Mauna Kea Science Reserve to BLNR in good order and condition. Our concern is that the extensive construction activity on the mountain will cause irreparable harm. Indeed, the summit is now 38 feet shorter due to telescope construction.

**Abide by all laws.** The lease requires UH to “observe and comply” with all laws, ordinances, rules and regulations governing the Mauna Kea Science Reserve. Yet, UH has facilitated the construction of telescopes without CDUA permits, destroyed historic sites, and interfered in traditional and customary practices of Native Hawaiians.

**Objects of Antiquity.** The lease states UH shall not “damage, remove, excavate, disfigure, deface or destroy any object of antiquity.” Yet, UH has assisted telescope owners in destroying the traditional cultural property of Kukahau`ula.

**Lease ends in 2033.** The lease ends in 22 years on December 31, 2033. All telescopes are to be decommissioned and removed by this date. Yet, UH is advocating for and BLNR is considering approval of a CDUA for a telescope with an anticipated operational lifespan of 50 years. UH/TMT has not committed to decommissioning the telescope before the close of the lease.

#### **D. BLNR Fails to Collect Rent; Violates HRS §171-17**

The BLNR goes further turning a blind eye to the needs of the taxpayers of Hawai'i by failing to charge the telescope owners fair-market rent for the use of public lands. While UH may use public lands for free as provide for under 5(f) of the Admissions Act, foreign entities do not enjoy such an entitlement. The majority of the telescopes on Mauna Kea are owned and operated by entities foreign to the State of Hawaii. CMP, p. 6-2. Where the qualifications for 5(f) purposes have not been met, BLNR must assess the fair market value of the land and charge for its use. HRS §171-17 and -18. Instead of collecting rent, however, the BLNR has allowed these foreign entities to pay one dollar or less in rent. Exhibits B3-B12.

At the same time, BLNR claims to lack the funds to pay for proper management of conservation districts. DLNR staff avers: "Environmental protection costs money. Protecting historic and cultural resources costs money. Education costs money. Maintaining public access and ensuring the public safety costs money." Staff Recommendations, p. 62. We agree! Unfortunately, BLNR's failure to collect rent over the last 40 years has resulted in an agency unable to meet it is most basic legal obligations. This self-inflicted poverty is being used to justify an unauthorized pay-to-degrade regime for conservation district use permits. Instead, the BLNR should independently assess the fair market value of telescopes at the preeminent location of astronomy and charge rent.

The University contends that the TMT will pay a substantial (as-yet-unknown) amount of rent to the OMKM, but this "rent" does not comport with the requirements under HRS §171-17, because it is not based on an independent assessment of the market value of the land. Rather, this "substantial amount" whatever it might be is solely what the TMT is willing to pay for use of

our public land. Moreover, this rent is also not being deposited into the general fund as the law requires, but will instead be paid to the OMKM. CDUA, p. 2-2; HRS §171-18.

The BLNR has a duty to the general public (and Native Hawaiians) to collect this rent on their behalf under section 5(f) of the Admissions Act and other related legal provisions. BLNR's failure to collect this rent means people of Hawai'i are subsidizing the astronomy programs of foreign entities on their own lands.

#### **IV. Clarifications on UH's Misinterpretations**

##### **A. Petitioners' Position: Mauna Kea is Overbuilt**

While we agree with UH/TMT that the way telescope facilities have been constructed is unacceptable, UH/TMT misstates and misunderstands our actual position. UH/TMT asserts that:

“Petitioners argue that astronomy has reached its end point on Mauna Kea, that no new telescopes should be built, and that the only permissible course for the future is to dismantle and remove everything that is already there... that radical conclusion is not good policy, and it is not, and cannot be, the law.”

and;

“Petitioners are wrong, legally and factually. There is a place on the mountain for astronomy to continue and to flourish – but in balanced coexistence with cultural practices, environmental concerns, and recreational uses...” UH/TMT Brief, p. 1-2.

The Petitioners have never advocated for the complete removal of existing telescopes. Exhibit F-2. Our position is that the Mauna Kea conservation district is overbuilt and has been poorly managed. Construction in the conservation district can be allowed, where it is consistent with all legal requirements for permits. The admissions of UH/TMT and DLNR staff demonstrate that further construction in the Mauna Kea conservation district is not appropriate.

UH/TMT's assertion that science (astronomy) and culture *can* “coexist” is a false argument. Indeed science and culture do coexist. The problem on Mauna Kea, however, is one

exists at the expense of the other. The simple fact is, the policies and laws of the state do not support degradation or destruction of public trust cultural and natural resources, especially in conservation districts, for whatever purpose.

### **B. Public Trust Doctrine is the Law of the Land**

The principles of the public trust inform every decision made about shared resources in Hawai‘i, such as the public lands of Mauna Kea. UH/TMT argues that while the Public Trust Doctrine exists, it cannot actually be enforced - it is not real law. This argument could not be farther from the truth. The Public Trust Doctrine is at the foundation of law in Hawai‘i. That would be why UH/TMT can find reference to it in so many different statutes, regulations, and court opinions. The fact that these laws are consistent with these principles does not erase the Public Trust Doctrine from the books, nor our right to its enforcement.

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.

As explained above in Section III(B), 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 against 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 citizen 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 public trust lands.

### **C. All Relevant Witness Testimony Should Be Accepted**

In response to UH/TMT's concern that Petitioners have failed to adhere to Hawai'i Rules of Evidence §702 (1993) standards for qualifying expert witnesses, we refer to HRS § 91-10(1)(2011). "[A]ny oral or documentary evidence may be received, but every agency shall as a matter of policy provide for the exclusion of irrelevant, immaterial, or unduly repetitious evidence[.]" HRS § 91-10(1). This statute has been construed to "direc[t] an administrative agency to admit "any and all evidence limited only by considerations of relevancy, materiality and repetition." In re Wai'ola O Moloka'i, Inc., 103 Haw. 401, 442-3 (2004) citing Cazimero v. Kohala Sugar Co., 54 Haw. 479, 483 (1973). Understanding Haw. R. Evid. 401 further affirms the difference; "[t]he rules of evidence governing administrative hearings are much less formal than those governing judicial proceedings[.]" Loui v. Board of Medical Exmrs., 78 Haw. 21, 31 (1995). Standards for admitting witness testimony, expert or lay, in a contested case hearing demand that testimony be relevant, material, and not repetitious. Therefore, against UH/TMT's claims to the contrary, we are not required to qualify expert witnesses according to other standards and their anxieties about "enormous duplication" and "unmanageable" hearings are already addressed in HRS § 91-10(1).

In contested case hearings the decision-makers determine whether a witness qualifies as an expert, usually based on qualifications presented in a resume or experience as an expert witness in prior hearings. See, M. Casey Jarman, "Making Your Voice Count: A Citizen's Guide to Contested Case Hearings," Univ. of Hawai'i Env. L. Program, (2002) p. 31.

Petitioner's Exhibits include resumes for conventionally credentialed professional experts and written testimony cites to the qualifications of other witnesses in their respective areas of expertise. Exhibits B-1, B-24, B-26, C-1, D-2, E-1, F-1, G-1 through G-6.

## **V. CONCLUSION**

As UH/TMT and DLNR staff admit, the TMT proposal would contribute to the substantial adverse impact that telescope construction is inflicting on Mauna Kea. Because the TMT proposal would have substantial adverse impacts, UH/TMT's request CDUA cannot satisfy any of the eight criteria. Thus, approval of TMT CDUA would be a violation of conservation district regulations, the Public Trust Doctrine, and an abuse of BLNR's agency discretion. Moreover, because the CMP, relied upon by UH/TMT to justify construction of the TMT project, fails 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.



<b>Name/Organization/Position</b>	<b>Subject Matter</b>	<b>Exhibits to be introduced by witness</b>
Deborah J. Ward	Ecological significance of Mauna Kea, Substantial Impact of Proposed TMT Project	D-1 thru D-14
Clarence Kukauakahi Ching	Cultural significance of Mauna Kea, Substantial Impact of Proposed TMT Project	E-1 thru E-3
Dr. D. Kawika Liu	Public health impacts of telescope development on Native Hawaiians	B-22 thru B-24
Dr. Kehaulani Kauanui	Insufficient of mitigation measures, negative effects of colonization on Native Hawaiians	B-20 thru B-21
E. Kalani Flores	Cultural significance of Mauna Kea, Substantial Impact of Proposed TMT Project	G-1, G-7 thru G-14
B. Pualani Case	Cultural significance of Mauna Kea, Substantial Impact of Proposed TMT Project	G-2, G-10, G-15 thru G-18
Kapulei Flores	Cultural significance of Mauna Kea, Substantial Impact of Proposed TMT Project	G-3
Hawane Rios	Cultural significance of Mauna Kea, Substantial Impact of Proposed TMT Project	G
Diana LaRose	Cultural significance of Mauna Kea, Substantial Impact of Proposed TMT Project	G-5, G-18
Mo`oinanea	Cultural significance of Mauna Kea, Substantial Impact of Proposed TMT Project	





Ex. No.	Description	References	Rec'd Into Evidence
B-6	Sublease: JCMT James Clerk Maxwell Telescope 15m UK/Canada/Netherlands 1987		
B-7	Sublease: Keck I W. M. Keck Observatory 10m Caltech/University of California 1992		
B-8	Sublease: VLBA Very Long Baseline Array 25m NRAO/AUI/NSF 1992		
B-9	Sublease: Subaru Telescope 8.3m Japan 1999		
B-10	Sublease: Gemini North Telescope 8.1m USA/UK/Canada/Argentina/Australia/Brazil/Chile 1999		
B-11	Sublease: SMA Submillimeter Array 8x6m Smithsonian Astrophysical Observatory/Taiwan 2002		
B-12	Letter from Sam Lemmo, OCCL to Richard Chamberlain, CSO, re: hydraulic fuel spill, October 13, 2009		
B-13	Act 132, SLH 2009 (H.B. 1174)		
B-14	"Consideration of Cumulative Impacts in EPA Review of NEPA Documents," U.S. EPA, Office of Federal Activities, EPA 315-R-99-002/May 1999.		
B-15	<u>Mauna Kea Anaina Hou v. BLNR</u> , Civ. No. 4-1-397 ( 3rd Cir. Haw. Jan, 19, 2007)		
B-16	Mauna Kea Anaina Hou, et al v. BLNR, et al, Civ. No. 09-1-336 (3 <sup>rd</sup> Cir. Haw. Dec. 29, 2009)		
B-17	<u>Office of Hawaiian Affairs v. Sean O'Keefe</u> , Civ. No. 02-00227 (Haw. Fed. Dist. Ct., July 15, 2003).		
B-18	"Biggest Telescope Has Big Price Tag," West Hawaii Today, June 4, 2011.		
B-19	"Legal Fees Spike at UH," Honolulu Star-Advertiser, June 12, 2011		

<b>Ex. No.</b>	<b>Description</b>	<b>References</b>	<b>Rec'd Into Evidence</b>
B-20	Written Statement of J. Kehaulani Kauanui		
B-21	J. Kehaulani Kauanui curriculum vitae		
B-22	Written Statement of D. Kawika Liu		
B-23	D. Kawika Liu curriculum vitae		
B-24	Presentation by D. Kawika Liu		
B-25	Image: Trash collected at Batch Plant 1		
B-26	Image: Trash collected at Batch Plant 2		
B-27	Image: Trash collected at Batch Plant 3		
B-28	Image: Trash collected at Batch Plant 4 (actual trash collected available upon request)		
B-29	Image: Spools of Cable at Batch Plant		
B-30	Image: Bulldozer at Batch Plant		
B-31	Image: Cinder piles at Batch Plant		
B-32	Image: HELCO "pull box" on Mauna Kea		
B-33	Board of Land and Natural Resources, Meeting Minutes, February 25, 2011		

**PARTY: MAUNA KEA ANAINA HOU**

<b>Ex. No.</b>	<b>Description</b>	<b>References</b>	<b>Rec'd Into Evidence</b>
C-1	Written Statement of Kealoha Pisciotta		
C-2	Traditional and customary viewplanes from Mauna Kea		
C-3	Image: Southern Cross constellation obstructed by the Gemini		
C-4	Image: Kealoha Pisciotta pictured with her family ahu stone		
C-5	Letter to Kealoha Pisciotta from Bob McLaren, apologizing for the desecration of Ms. Pisciotta's family ahu, December 8, 1997		
C-6	Letter to Kealoha Pisciotta from Marc Smith, SHPD apologizing for the desecration of Ms. Pisciotta's family ahu, November 4, 1997.		
C-7	Image: traditional lele at the summit of Mauna Kea		
C-8	Image: destruction of the lele at the summit of Mauna Kea		
C-9	Image: destruction of the lele at the summit of Mauna Kea, personal affects of fallen soliders desecrated		
C-10	Image: Visitor Center Sign "Leave Landscape as You Found it"		
C-11	1999 Oral History by Kumu Pono, excerpts (full copy on disc)		
C-12	2005 Cultural Study by Kumu Pono, excerpts (full copy on disc)		
C-13	National Register Bulletin #38, Guidelines for Evaluating and Documenting Traditional Cultural Properties, U.S. Dept. of Interior.		

**PARTY: DEBORAH J. WARD**

<b>Ex. No.</b>	<b>Description</b>	<b>References</b>	<b>Rec'd Into Evidence</b>
D-1	Written Statement of Deborah J. Ward		
D-2	C.V. Deborah J. Ward		
D-3	1977 Management Plan		
D-4	1987 Management Plan excerpts		
D-5	Letter from Dr. Fred Stone to Mike Wilson, DLNR, re: unauthorized destruction of wekiu habitat, May 11, 1996		
D-6	Investigation of wekiu habitat destruction, by Fred Stone, Ph.D., May 26, 1996		
D-7	Letter from Dr. Fred Stone to DLNR staff re: 1996 wekiu habitat destruction, May 29, 1996		
D-8	Image: wekiu habitat destruction, Spring 1996		
D-9	Letter from Mike Wilson, DLNR, to Dr. Fred Stone, re: DLNR response to wekiu habitat destruction incident, September 25, 1996		
D-10	1995 Management Plan		
D-11	Report to 2006 Legislature, UH's Institute for Astronomy, Rolf-Peter Kudritski		
D-12	Letter from Sen. Inouye to Pres. McClain re: TMT proposal, May 13, 2008		
D-13	Assessment of the Risks for Siting the Thirty Meter Telescope on Mauna Kea, Keystone Report to the Gordon Moore Foundation, October 26, 2007		
D-14	1983 Mauna Kea SRCDP Wekiu Recommendations		

**PARTY: KUKAUAKAHI (CLARENCE CHING)**

<b>Ex. No.</b>	<b>Description</b>	<b>References</b>	<b>Rec'd Into Evidence</b>
E-1	Written Statement of Clarence Kukauakahi Ching		
E-2	Huakai`i Map - from Berkeley Planners		
E-3	"Yale Pays \$12M to use Mauna Kea telescopes," Honolulu Advertiser, March 14, 2009		

**PARTY: PAUL K. NEVES**

<b>Ex. No.</b>	<b>Description</b>	<b>References</b>	<b>Rec'd Into Evidence</b>
F-1	Written Statement of Paul K. Neves		
F-2	"Mauna Kea - The Temple, Protecting the Sacred Resource," by Royal Order of Kamehameha I and Mauna Kea Anaina Hou, 2001.		

**PARTY: FLORES-CASE `OHANA**

<b>Ex. No.</b>	<b>Description</b>	<b>References</b>	<b>Rec'd Into Evidence</b>
G-1	Written Statement of E. Kalani Flores		
G-2	Written Statement of B. Pualani Case		
G-3	Written Statement of Kapulei Flores		
G-4	Written Statement of Hāwane Rios		
G-5	Written Statement of Diana LaRose		
G-6	Written Statement of Mo'oinanea		
G-7	Excerpts from CMP -- already in the record		
G-8	Excerpts from TMT FEIS -- already in the record		
G-9	Images of Sacred Mountains		
G-10	Image: Portal Opening overhead of Mauna a Wakea		
G-11	Sketch: Vortex Energies at Mauna a Wakea Sketch of Triple Piko Perspective		
G-12	Image: Existing Observatories on Mauna Kea		
G-13	Excerpt from "Sacred Sites: Places of Peace and Power,"		
G-14	Excerpt from "Sacred Sites: Places of Peace and Power,"		
G-15	"Waimea water spirit's legend grows"		
G-16	Image: Cultural Ceremonies on Mauna Kea		
G-17	Chant, " <i>E Ho'olokahi e</i> "		
G-18	Portrait of Mo'oinanea		