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BOARD OF LAND AND NATURAL RESOURCES
STATE OF HAWAI`I

A Contested Case Hearing Re Conservation District Use Application HA-3568 for the Thirty Meter Telescope on the Northern Plateau in the Mauna Kea Conservation District, Ka`ohe, Hamakua District, Island of Hawai`i TMK (3) 4-4-015:009	DLNR File No. HA-CC 16-002 (CDUA HA-3568) **PETITIONER DEBORAH J WARD, NARRATIVE EXCEPTIONS TO HEARING OFFICER'S PROPOSED FINDINGS OF FACT, CONCLUSIONS OF LAW, DECISION AND ORDER, COS**

PETITIONER DEBORAH J WARD'S NARRATIVE EXCEPTIONS TO THE HEARING OFFICER'S FINDING OF FACT, CONCLUSIONS OF LAW, AND DECISION AND ORDER

The University of Hawaii at Hilo, an entity of the state University of Hawaii (hereinafter referred to as "The University" or "Applicant"), filed an application for a Conservation District Use Permit (hereinafter referred to as "CDUA") on September 2, 2009, pursuant to chapter 183C of the Hawaii Revised Statutes (hereinafter "HRS") and chapter 13-5 of the Hawaii Administrative Rules (hereinafter "HAR") for the construction of a Thirty Meter Telescope (hereinafter referred to as "TMT" or "project") on the northern plateau of the conservation district on Mauna Kea in the Mauna Kea Science Reserve, Ka`ohe Mauka, Hamakua, Hawai`i, TMK (3) 4-4-015:009.

The Hearing Officer has filed a Report with her Finding of Fact, Conclusions of Law, and proposed Decision and Order. Petitioner Deborah J Ward (Ward) files the following Exceptions.

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I. INTRODUCTION

Pursuant to Minute Order No.103, dated July 28, 2017. Petitioner Deborah J Ward files exceptions to the Hearing Officer's report and Proposed Findings of Fact, Conclusions of Law, Decision and Order (Report).

Petitioner Ward respectfully submits that the Report submitted by the Hearing Officer (HO) contains substantial factual and legal errors and omissions that the Board of Land and Natural Resources (BLNR/Board) must consider before making its final decision on the Thirty Meter Telescope (TMT) Corporation's' conservation district use application (CDUA) submitted by the Applicant (App), the University of Hawaii at Hilo (University/UHH).

Hearing Officer's Report (Report) did not provide a balanced perspective of this contested case because it omits relevant, persuasive, and substantiated information and includes irrelevant, inaccurate, incomplete, and misleading information. Petitioners highlighted relevant and persuasive evidence that is contrary to many of the Reports' FOFs, COLs, and D&Os in Petitioners' Combined Response to UHH's Proposed FOFs, COLs, & D&Os. Because the Report fails to include substantive address to Petitioners' Responses, it appears that the vast majority of the Petitioners' responses were not properly considered in compiling this Report.

The Report is unreliable. The Report identically reproduces inaccurate, misleading, and unverified claims and information from UHH's Proposed Findings of Fact, Conclusions of Law and Decision and Order, with only slight changes in formatting. Responses made by Petitioners attempted to inform the HO of errors the Applicant's submission of FOF/Col/D&O, but the errors persist. The Report's many errors and global failure to properly consider the entire record and argumentation from both sides means that BLNR should not rely upon it in making their final decision.

The Applicant/TIO filed 1,014 separate findings of fact and 482 separate conclusions of law. The Hearing Officer provided two weeks in which to file responses. The Hearing Officer issued her Findings of Fact , Conclusions of Law and proposed Decision and Order on July 26th, 2017, and issued Minute Order 103 (Order setting post-hearing deadlines) on July 28, 2017.

Petitioner Ward's Motion to join a Request for Extension of Time to respond to the Hearing Officer's Report was denied, and is highly time -constrained due to family medical care. For this reason responses cannot be complete, given the time available, and an attempt has been made to respond by focusing on the failure to consider the recreational use of Mauna Kea, and the

unmitigated impacts the TMT project would have on recreational users.

I, Deborah J Ward, incorporate by reference and join on to Mauna Kea Anaina Hou and Ms Kealoha Pisciotta's Exceptions, and herein provide Additional Exceptions. I also join and incorporate by reference the responses of all other Pro Se Petitioners/Parties, including Temple of Lono, Clarence Kukauakahi Ching, Tiffnie Kakalia, and KAHEA.

I incorporate by reference all witness exhibits and testimony and motions from the first and remanded contested case hearings in response to UHH/TIO pleadings and exceptions relating to any and all other issues addressed or contained in the UH/TIO's Collective FOF COL D&O.

!!. EXCEPTIONS

Hawaii Administrative Rule 13-5-30 (c):

This case was remanded by the Hawaii Supreme Court to BLNR as a result of failures in due process. However due process failures were not remedied, and in fact, were exacerbated by the conduct of this second contested case hearing. As cited by the HO in FOF 427, the CDUA was submitted in 2010, a full seven years ago. Contrary to witness White's assertion, numerous studies have been conducted since the document's preparation, new facts have emerged, new technologies and economic drivers have changed the course of astronomy, and public awareness of the importance of Mauna Kea has galvanized thousands of people around the world to protect the mountain from expanded development. New facts were presented by numerous witnesses in this case, and documents and legislative audits were put into evidence that were not available to the planners in 2010. For this reason, the BLNR erred in not reviewing the 2010 CDUA for sufficiency, and in not requiring a new or amended CDUA, public hearing, and orderly conduct of a contested case in concurrence with the Rule.

A. TMT CDUA FAILS TO SATISFY THE EIGHT CRITERIA OF HAR13-5-30(C)

To be granted a conservation district use permit, the Applicant must demonstrate compliance with each and all of the permit pre-requisites detailed in Haw. Admin. R. 13-5. Relevant to this application, there are at least nine permit requirements that must be met: the eight requirements of HAR 13-5-30(c) and the permit requirements of HAR 13-5-24.

Haw. Admin. R. 13-5-30(c) lists eight inclusive requirements:

1) The proposed land use is consistent with the purpose of the conservation district;[SEP]2) The

proposed land use is consistent with the objectives of the subzone of the land on which the use will occur;3) The proposed land use complies with provisions and guidelines contained in chapter 205A, HRS, entitled "Coastal Zone Management" where applicable;4) The proposed land use will not cause substantial adverse impact to existing natural resources within the surrounding area, community or region;5) The proposed land use, including buildings, structures and facilities, shall be compatible with the locality and surrounding areas, appropriate to the physical conditions and capabilities of the specific parcel or parcels, 6) The existing physical, and environmental aspects of the land, such as natural beauty, and open space characteristics, will be preserved or improved upon, whichever is applicable;7) subdivision of land will not be utilized to increase the intensity of land uses in the conservation district, **and** 8) The proposed land use will not be materially detrimental to the public health, safety, and welfare. HAR sec. 13-5-30(c) (emphasis added to the word "and")

The University, as applicant for the TMT CDUA, did not prove by a preponderance of the evidence that it met all of the eight requirements of Haw. Admin. R. 13-5-30(c) for the granting of the CDUP for the TMT Project. The HO, in FOF 427, COL 125 relied on Mr White, a planner with no demonstrable education or expertise in science, botany, biology, hydrology, entomology, geology, astronomy or law, who said he had not read the application in years, to assert that he knew of no new fact that would change his assessment of the CDUA, and his assertion that the TMT met the eight criteria..

The Petitioners and opposing intervenors (Pet.) have provided substantial, relevant, reliable, and probative evidence and arguments in the contested case and record to substantiate and support this conclusion. It is for this reason that Petitioner Ward objects to the preponderance of HO FOFs 426-1003 and COLs 125-390 on the grounds that they are inaccurate, irrelevant, incomplete, and/or misleading.

It is for this reason that the Petitioner Ward objects to the following HO COLs as it pertains to the following 1st Criterion) 128-141; 2nd Criterion) 142-165; 3rd Criterion) 166-177; 4th Criterion) 178-221; 5th Criterion) 222-230; 6th Criterion) 231-260; 7th Criterion) 261-276; and 8th Criterion) 277-298 on the grounds that they are inaccurate, irrelevant, incomplete, unsupported, mischaracterized, and/or misleading.

Petitioner Ward notes that the Applicant FOF 749 and the HO FOF 809 both opine that a witness without eight specific advanced degrees cannot provide credible opinions regarding whether the CDUA does or does not meet the eight criteria. Ward suggests that the Applicant's

witness Mr White, on whose opinion the HO relies, provided no evidence that he had expertise in legal, hydrological, entomological, cultural, archaeological, biological, botanical or medical areas, yet his testimony is cited in HO FOFs 443, 445, 446, 449, 451, 454, 455, 462, 497, 542, 899, 940, and 958 to support the CDUA's compliance with the eight criteria. In fact, The Applicant's witnesses, including planners White and Hayes, and project manager Sanders (who have limited, if any, educational background in law, medicine, entomology, botany, biology, archaeology, or Hawaiian culture) and witnesses Nees, Nance, Rechtman , (whose specific knowledge and testimony regarding the TMT site were extremely limited) and could not provide probative, reliable, substantial, and credible evidence and relevant exhibits to demonstrate that the TMT project would not, in fact, cause and expand the substantial cumulative impact to existing plants, cultural, historic, recreational sites, geologic sites, scenic areas, watersheds and ecologically significant areas.

1. TMT Not Consistent with Purpose of Conservation District

A plain reading of the entire relevant statute and regulation makes clear that conservation of natural resources is the purpose of conservation districts. It is for this reason that the Petitioners object to HO FOFs 426-427, 430, 432-447, 449-459, 462 and 464, and COLs 133-141 on the ground they are inaccurate, irrelevant, and/or misleading.

The Conservation District is the most restrictive of the four land use classifications authorized under Hawai`i's Land Use Law, Chapter 205. The Conservation District is defined to include: areas necessary for protecting watersheds and water sources; preserving scenic and historic areas; providing park lands, wilderness, and beach reserves; conserving indigenous or endemic plants, fish, and wildlife, including those which are threatened or endangered; preventing floods and soil erosion; forestry; open space areas whose existing openness, natural condition, or present state of use, if retained, would enhance the present or potential value of abutting or surrounding communities, or would maintain or enhance the conservation of natural or scenic resources; areas of value for recreational purposes; other related activities; and other permitted uses not detrimental to a multiple use conservation concept.

Haw. Rev. Stat. § 205-2(e).

The law provides for distinct districts, such as urban, agriculture, and conservation, because these land areas have characteristics suited to each district designation; the activities allowed in each district are consistent with characteristics of those land areas. Conservation districts are designated to provide for public uses and purposes (i.e. protecting watershed zones,

conservation, public parks, open spaces, protection of endangered indigenous and endemic species, and protection of historic resources etc.). Haw. Rev. Stat. § 205-2(e),(f). No land use is allowed in the Conservation District without a permit. Indeed, the conservation district rules specifically state that "land uses shall not be undertaken in the conservation district." HAR 13-5-30(b). The rules allow only those land uses that comply with all eight criteria – that is to say, land uses that do not have a "substantial adverse impact" -- to be undertaken in the conservation district. HAR 13-5-30(c)(4).

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

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

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

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

Moreover, the HO's report relies heavily on the University's multiple management plans to justify compliance with this first criterion, while ignoring the inadequacy of these plans. This finding is supported by the Intermediate Court of Appeals ruling on the "Comprehensive Management Plan." The ICA held in January 2012 that the University's Comprehensive Management Plan is essentially a plan to plan that does not in and of itself accomplish anything of consequence. Mauna Kea Anaina Hou v. Bd. of Land & Natural Resources, 126 Hawaii 265, 272 (2012, unpublished).

The Legislative Auditor's reports 1998-2017 clearly provide a summary of failures to comply even with the Board approved plans that are in place. Exhibits B.17e, B.17j, B.17k.

For these reasons, HO FOF 426-7, 430-464 and HO COLs 128-141 must be rejected on the grounds that in sum, they are inaccurate, irrelevant, and/or misleading.

2. TMT Not Consistent with Objectives of Resource Subzone

The proper interpretation of HAR 13-5-30(c)(2) provides that where a proposed land use is not consistent with the subzone of the conservation district in which it is proposed, then it cannot be granted a permit. Contrary to the HO's findings and conclusions, identifying astronomy facilities as one of many possible land uses does not exempt the Applicant from demonstrating it complies with all eight criteria. It is for this reason that the Petitioners object to HO FOFs 466, 470, 472-473, 476, 478, 481-489, 492 and COLs 143-144, 146-150, 153-154, 156, 159-165 on the grounds that they are inaccurate, irrelevant, and/or misleading.

According to HAR § 13-5-13(a), "[t]he objective of this [Resource] subzone is to develop, with proper management, areas to ensure sustainable use of the natural resources of those areas." Id. (emphasis added). Ensuring sustainable use of Mauna Kea's natural resources necessarily means ensuring that the "plants, aquatic life and wildlife, cultural, historic, recreational, geologic and archeological sites, scenic areas, ecologically significant areas, watersheds and minerals" are actually conserved, maintained, or enhanced; not degraded. HAR § 13-5-2, (definition of "natural resources"). Note that the definition does not include "altitude, stable atmospheric clarity and absence of light pollution" as impugned in HO COL 139. For this reason, HO COL 139 is inaccurate, irrelevant, and/or misleading. Likewise, HO FOF 180 incorrectly states that the amended definition includes "sociologically significant areas".

When the original version of the conservation district rules was adopted in 1993, DLNR published a report entitled "Conservation District Review Project: The Discussion Draft" to explain the purpose and function of the hierarchical permitting requirements in these rules (in descending order of appropriateness to the conservation district: Allowable Uses, Administrative Permits, BLNR Permits). Atwater Report, Exhibit B-34 at 16. DLNR's Report stated that astronomy facilities as an identified use in the Resource Subzone requiring a BLNR Permit, meaning they must meet BLNR criteria for a CDUP (or apply for a variance). Id. at 19, 26. Astronomy facilities may be constructed in the conservation district only if it meets, amongst other criteria, the requirement that it will not entail substantial adverse impacts on conservation district natural resources. See HAR 13-5-2(c)(4). Because the TMT Project cannot mitigate the substantial adverse impact of existing telescope development to a less than substantial level, TMT project-specific adverse impacts will thus be "substantial" and in violation of another CDUP criterion. TMT- EIS, Exhibit A-3 at 3-34. Thus, the TMT does not

comply with criterion two and the CDUA must be denied. HAR §13-5-30(c)(2).

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

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

Moreover, the statute states that:

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

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

(2) Historic resources: Protect, preserve, and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture

(3) Scenic and open space resources: Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.

(6) Coastal hazards: Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution. HRS §205A-2(a).

The TMT would undermine important scenic viewplanes, destroy areas of historic importance, and increase the risk of water pollution. The issues of important viewplanes, scenic and open space resources, historic sites and risks to water quality are addressed in the analysis of criterion four, six, and eight respectively. The fact that the Applicant's proposal would have a substantial adverse impact on these important resources under those criteria, is grounds for also denying the request under this criterion. It is for this reason that the Petitioners object to

HO FOFs 497-504, 506-507 and COLs 167, 170, 172-173, 175-177 on the grounds they are inaccurate, irrelevant, and/or misleading.

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

From a recreational perspective, Criterions Four, Six and Eight are most material to the recreational use and enjoyment of the public land.

Contrary to HO FOF 509, the TMT Project would cause substantial adverse impacts to existing natural resources on Mauna Kea. The additional increment of impact would be additive to the cumulative total, which has already had significant, adverse and substantial impact on natural and cultural resources due to astronomy development on the summit region. While the cumulative impacts of astronomical development to the summit area (App FOF#439) are undisputed, the cumulative impacts to the alpine ecosystem have yet to be determined (Ex.A-3 p. 3-219). The proposed mitigation does not address the physical impacts to existing natural resources, does not provide for lesser overall impacts than existing uses, and HO FOFs 940-941 decommissioning promises made or "envisioned" by the applicant are not part of the CDUA.

It is for this reason that the Petitioner Ward objects to HO FOFs 509, 511-515, 518-524, COLs 179-192, 194-206, 208-210, 212-221 on the grounds that they are inaccurate, irrelevant, and/or misleading.

The HO FOF 900-901, and HO COLs 181-186 do not relate to Criterion Four, but to Criterion Seven; the Applicant and HO perpetuate a legal fiction that the designation of an "Astronomy Precinct", with no defined boundaries, never reviewed by the BLNR or approved by the Land Use commission, somehow justifies the increased intensity of land use in the "designated" area. While the summit ridge cinder cones and the saddle between Pu'u Hauoki and Puu'Poliahu have been impacted by a roads and facilities, there are no "existing uses" in the Northern Plateau, dubbed Area E, where the project is proposed. The geologic landscape, botanical and faunal habitat, the unique unobstructed view plane, the proximity of cultural and historic sites in the Historic District, and the high level groundwater are unaltered by development. By asserting that the development "must be assessed within the context of what is already there", ***when there is nothing built there***, does not justify HO FOF 897 and HO COLs 179, 220 that the TMT will not cause substantial impact to the existing natural resources in the area or region.

a. Substantial Adverse Impacts to Biological Resources

Botanical Resources

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

The summit of Mauna Kea supports an interesting variety of species, many of which are found nowhere else in the world. Of the 25 different lichens found in a 1982 botany survey, half of the species were endemic to Hawaii, with two occurring only on Mauna Kea. Of the twelve mosses found in the summit area, less than a quarter were endemic. The fern Cystopteris douglasii was one of six vascular plants found at the summit, and the Mauna Kea Silversword, a sub-species unique to the mountain, was once reported in the summit region. Pet. Ward FOF 153, 154 p. 24.

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

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

This fact alone would be considered a substantial adverse impact to the biological resources resulting from the proposed TMT Project. Even though this FOF is considered relevant to this

contested case and was previously submitted as evidence by the Petitioners, it is one of numerous Petitioners' FOFs including Pet. Ward FOF 151-159 p. 24 that were omitted from the Report without any apparent justification. According to HO FOF 534, potential impacts will be "mitigated by measures described herein", but no such measures are described in the document.

Faunal Resources

Development of astronomy facilities, utility corridors, and roadways has caused substantial adverse impacts to the fragile faunal ecosystems on Mauna Kea Moreover, mitigation actions proposed by the Applicant do not appropriately address the adverse impact to the habitat of the wekiu bug or other arthropods in the area of the proposed Project nor do they restore arthropod habitat damaged by the Applicant's actions. It is for this reason, the Petitioners object to HO FOFs 543, 550,552, 555- 557, 559,561,562 on the grounds that these statements are misleading by attempting to downplay the actual adverse impacts to the Wekiu bug habitat.

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

Contrary to HO FOF 543, copied identically from the Applicant's erroneous citation (including an error in the witness's name) which stated that restoration is currently being implemented, the proposal recommended by the Applicant's experts to restore Wekiu bug habitat were withdrawn from the TMT FEIS, and no restoration is underway. Exhibit A-309, Vol II; Exhibit A-313.

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

b. Substantial Adverse Impacts to Geological Resources

Petitioner Ward objects to the omission of references in the Report to the impacts of the TMT Project upon the geological resources. HO COL 196 intimates that existing astronomy facilities have been constructed on pahoehoe foundation, when in fact, they have been constructed on the summit ridge cinder cones, a substrate entirely unlike the pahaoehoe substrate of Area E. The development of the existing observatories significantly modified the preexisting terrain. The tops of certain pu'u or cinder cones were flattened to accommodate the foundations for observatory facilities. Consequently, the existing level of cumulative impact on geology, soils, and slope stability is considered to be substantial, significant, and adverse, according to the Applicant's EIS. The TMT project would cause additional impact to the geological resources of the particular lava flow morphology and glacial features on the northern plateau, which is separate, distinct, and different from the geology of the summit ridge. Moreover, there will be substantial grading and excavation involved with the construction of the TMT Project. Over 100,000 cubic yards of landscape would be excavated and over 8.7 acres would be disturbed during construction. In addition, Applicant's witness and TMT Project Manager, Mr. Sanders, has testified that even if the TMT was decommissioned, "the restoration of the site is unlikely to be perfect and back to a pristine state."

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

c. Substantial Adverse Impacts to Visual Resources

HO FOFs 834, 838, 839, 841, 842, 844-851, 854 and HO COL 205, 208 are inaccurate by downplaying the substantial adverse impacts to visual resources and by asserting in the CDUA review process that the TMT Project's visual impact will be "less than significant". It is obvious that the TMT Project's visual impact would have a significant effect on the natural and visual resources both if assessed individually or cumulatively per HAR § 11-200-12. It is for this reason that the Petitioner Ward objects to HO FOFs 834, 838, 839, 841, 842, 844-851, 854 and HO

COLs 205 and 208 on the grounds that they are inaccurate, irrelevant, and/or misleading. Several critical errors in the Report as well as the CDUA regarding the assessment of the TMT Project's visual impacts are discussed further in detail in Criteria 5.

5. TMT Not Compatible with the Locality & Surrounding Areas

Proposing the TMT Project to be constructed in the Astronomy Precinct along with other existing observatories does not automatically make this new development appropriate and compatible with the locality and surrounding areas of Mauna Kea. It is important to remember that that the locality and surrounding areas being considered for this new observatory development are within the conservation district of the Mauna Kea Science Reserve that is also encompassed by the Mauna Kea Summit Region Historic District. It is for this reason that the Petitioners object to HO FOFs 898-920 and HO COLs 223-230 on the grounds they are inaccurate, irrelevant, and/or misleading.

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

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

Contrary to HO FOF 903 and 920 locating the TMT Project in Area E does not result in its impacts being less than significant upon culturally sensitive areas, historic properties, cultural

resources, and customary and traditional cultural practices, as well as on viewplanes, species habitat, and existing facilities. The University conceded that the past construction of these observatories had cumulative impacts on the cultural, archaeological, and historic resources that are substantial, significant, and adverse. The TMT FEIS also affirms that, "From a cumulative perspective, the impact of past and present actions on cultural, archaeological, and historic resources is substantial, significant, and adverse; the impacts would continue to be substantial, significant and adverse with the consideration of the Project and other reasonably foreseeable future actions." (emphasis in bold). The TMT Project would not reduce or diminish these impacts. Instead, it would contribute further to these cumulative impacts that will be substantial, significant, and adverse. If the existing observatory development on Mauna Kea (at least three of which were retroactively permitted after construction) resulted in such cumulative impacts, then these projects were never in fact appropriate and compatible for this conservation district. The proposed TMT Project cannot be considered appropriate and compatible at this time.

Contrary to HO FOF 902, the intrusion of a giant new facility into a viewplane that is currently natural and intact would seriously impact the recreational experience for residents and visitors now able to see an unobstructed view of Pu'u Makanaka in the east all the way to Haleakala on Maui. The view from the northern ridge of Kukahau'ula towards Haleakala is one of the last intact natural viewplanes from the summit region. There are currently no telescope structures visible on the northern plateau, and when standing on the northeastern side of Kukahauula, one can avoid seeing the other facilities. Exhibit A-3 at 3-100. The northern plateau of Mauna Kea is relatively untouched by modern astronomy. Therefore, building the TMT on the northern plateau would not be compatible with the surrounding locality of that area. Indeed, the Cultural Impact Assessment (CIA) to the TMT EIS recommended that the TMT be built on a recycled telescope site, instead of breaking new ground and allowing the industrialization of the mountain to spread to a wider area, and obstructing an otherwise intact viewplane. Exhibit A-4, TMT EIS Vol. 2, CIA. The TMT observatory would be situated amongst the 'ring of shrines' consisting of several hundred historic properties and cultural resources that contribute to the significance of the Mauna Kea Summit Region Historic District. In addition, the northern plateau is not a built environment, it is still in a natural state with an open vista, notable for its breathtaking views, and one of the last open space areas with unhindered views from the summit region down to the sea, along the coasts, and across the island chain.

When residents and visitors go to the summit region, there are very few areas where one can stand and peer into the horizon without having the existing man-made observatories,

associated facilities, and infrastructure obstructing one's view plane. There are no unobstructed 360-degree views on the summit region. Open view planes are limited to where and however one can get around the existing observatories to find an open space. Also, one is restricted to positioning oneself on the summit roadway looking east or at the northern edge of the observatories looking north in order to avoid the existing adverse visual impacts. Should the TMT Observatory be built on the northern plateau, the only unobstructed view plane from the summit region remaining would be on the eastern side of Kukahau'ula. Therefore, eliminating one of last two unobstructed views from the summit region is a prime example of why the TMT Project's visual impacts would be substantial, significant, and adverse and not compatible with this particular locality.

Consequently, the proposed land use with the construction of the TMT observatory, structures, paved access way, and associated development are incompatible and inappropriate for this cultural and recreational landscape of the northern plateau and the surrounding sacred areas within the conservation district that encompasses the Mauna Kea Summit Region Historic District.

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

The TMT Project, as proposed, neither preserves nor improves upon Mauna Kea's existing physical and environmental aspects, such as its natural beauty and open space. The Applicant has not and cannot meet the requirement under the sixth criterion. Likewise, the information inserted by the Applicant into the CDUA (2.6 Preservation of Environment) Exhibit A-1 at 2-27 – 2-28 is inaccurate and exceedingly irrelevant to this criterion. It is for this same reason that the Petitioners object to HO FOFs 429-446 and HO COLs 232-260 on the grounds that they are just as inaccurate, irrelevant, and/or misleading. The vast majority of these particular FOFs are irrelevant to this criterion.

The TMT Observatory is an industrial massive man-made structure that unequivocally impacts the existing physical and environmental aspects of Mauna Kea. As such, no evidence was presented to demonstrate the TMT Project would preserve or improve upon the existing physical and environmental aspects as required in the sixth criterion of the CDUA. This project would intrude upon the open space and degrade the natural beauty cherished by residents, visitors, and recreational users.

HO FOF 840 acknowledges that "The TMT Observatory will add a substantial new visual element in the landscape that will be visible from viewpoints along the northern ridge of Kukahau'ula and by people as they travel within the portion of the summit region." HO FOF 854 claims that "the incremental increase in cumulative visual impact due to the TMT project will be less than significant." The TMT as proposed would be among the world's largest astronomy facilities, dwarfing all the others in the MKSR, and would be constructed in an undeveloped landscape ¾ mile from other roads and infrastructure. To claim that the 18 story facility covering 5 acres would be a less than significant incremental increase is absurd on its face.

The presence of the Project in the currently undeveloped northern plateau would introduce new elements, including the observatory, a new road, vehicle traffic, noise, dust, and an increased number of visitors, 24 TMT employees on average, UH management personnel, and tourists, in addition to cultural practitioners. The TMT employees and visitors would be accessing a portion of the Historic District that is not usually visited. The increase of employee and visitor traffic in the vicinity of the north plateau may result in some potential impacts to individual historic properties. It may also result in the alteration of existing historic properties by non-TMT employees. Exhibit A-4 Vol 1 at 3-28, 3-45, 3-50, 3-51.

The natural beauty of Mauna Kea embraces the vast pristine landscape, the scenic views and visual resources, the geologic terrain, the circle of shrines, the silent interaction of light and shadow, the interplay of mist and snow on the plateau -- a conservation resource treasured by the world. The loss of this resource would be irrevocable, is unacceptable, and is counter to the laws that protect the conservation district.

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

7. TMT Would Further Subdivide Conservation District

The HO COLs 181-186 relate to Criterion Seven; the Applicant and HO perpetuate a legal fiction that the designation of an "Astronomy Precinct", with no defined boundaries, never reviewed by the BLNR or approved by the Land Use commission, somehow justifies the increased intensity of land use in the area. There are no "existing uses" in the Northern Plateau, dubbed Area E, where the project is proposed. For this reason the HO COL 262, 265, 267-9 are inaccurate. HO COL 272 claims that BLNR has the authority to subdivide the land, and further

HO COL 273 and 274 infers that the Applicant has the authority to make this designation to increase land use intensity with or without BLNR delegation.

The Applicant claims there is no subdivision at issue in the TMT CDUA because a formal subdivision was not requested (App. FOF #929-936, p. 145). This is a misstatement of the requirement of HAR 13-5-30(c)(7).

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

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

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

BLACK'S makes clear that a subdivision of land can occur regardless if the applicant properly applies for permission or not. Land use in the summit region of the Mauna Kea conservation district has the hallmarks of a de facto subdivision: facilities and improvements cost sharing,

planned development, and defined, independent property interests. As the site visit and the record indicate, the telescope subleases intensified land use by increasing the burden of vehicles, visitors, and long-term personnel that use access roads, sewage, electricity, utilities, and base-level and mid-level facilities. HAR §13-5-30(c)(7) specifically guards against the intensification of land use like that found on Mauna Kea that is usually associated with the subdivision of land.

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

However, if even there were an exception, the University is not entitled to "government" status in this situation because the University is more akin to a developer than a government agency when it comes to development in the Mauna Kea conservation district. The University has undertaken sublease agreements to gain telescope resources, viewing time, and other benefits and thus demised Mauna Kea conservation district land parcels to other telescope vendors. The University continues to be the primary advocate for construction in the Mauna Kea conservation district. See, Ex. B-3 thru B-13. Indeed, the University is the ONLY applicant listed on the CDUA.

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

Unfortunately, that is exactly what has happened on Mauna Kea in both regards. The University has "subdivided" the lands under its general lease to ensure more land use in the astronomy precinct AND it has facilitated subleases with individual telescope owners and operators as a basis for construction of many industrial structures in the Mauna Kea conservation district.

Indeed, by the University's own requirement, the TMT could not be built without a sublease.

It is for this reason that Petitioner Ward objects to HO FOFs 447-449, 450-458 and HO COLs 262, 265, 267-270, 272-276 on the grounds that they are inaccurate, irrelevant, and/or misleading.

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

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

The TMT Project would exacerbate risks to water quality, contribute to the multi- generational trauma of desecration on Mauna Kea, and ruin a wilderness important for reprieve and rejuvenation. For this reason, Petitioner Ward finds HO FOFs 457, 966, 981, 982, 997, 999, 1016 inaccurate and/or misleading.

The HO FOFs 458, 1008, 1009, 1010, 1011, 1014 are irrelevant to the CDUA and this criterion. In the context of BLNR's rules and responsibility, it is tasked with protecting the conservation district for the benefit of the public. BLNR's rules do not authorize the BLNR to degrade or destroy conservation district resources in exchange for economic benefits. The offers of money for educational services and workforce development are completely irrelevant to the BLNR's consideration of whether this CDUA complies with the eight requirements for a permit. No matter how many scholarships, jobs or classes the Applicant promises to provide in exchange for permission to build in the conservation district, the BLNR cannot based its decision on such factors for they are outside the confines of the eight criteria for a permit and the BLNR's jurisdiction over the conservation district.

a. Water Quality

The Report, including HO FOF 856,857,862,863,865,871,874,881,882 and HO COLs 277-8, 281-2, 296-7 is incomplete because it fails to take into account the potential detrimental impacts upon the water aquifers located associated with Mauna Kea.

The HO FOF 871 repeated the Applicants' assertion that Petitioner Ward did not provide any

credible evidence to support her concerns, referring to a lack of advanced degrees is six specific subjects. Having served since 2000 on the OMKM Environment Committee, with a Master's in a science field, Ward has carefully reviewed each planning, analysis, and management document the University cites since 2000. Ward also provided exhibits to support her concerns.

B.17v	Hawaii County Water Use and Development Plan - WEST MAUNA KEA AQUIFER SECTOR AREA
B.17 w	USGS Ground Water in Hawaii
B.17x	Analysis of hydrologic structures within Mauna Kea volcano using diamond wireline core drilling
B.17y	Hawaii volcanic rock aquifer study
B.17z	Ground Water Atlas of the United States, Alaska, Hawaii, Puerto Rico and the U. S. Virgin Islands
B.17aa	Mauna Kea aquifers shallower than expected - West Hawaii Today article by Erin Miller

This record indicates that groundwater resources could be impacted from telescope activities on Mauna Kea. The Applicant failed to present evidence to the contrary and moreover failed demonstrate the increased telescope activities from the TMT would not further jeopardize underground water resources on Mauna Kea.

The Mauna Kea Science Reserve is located above five State of Hawai'i delineated aquifers. Exhibit A-9 at 5-32. The TMT project would increase telescope activities at the proposed project site Area E, as well as the Batch Plant, Access Way, the roadway, Hale Pohaku, and the electrical substation, thus potentially affecting more than just the one aquifer near Area E.

It is undisputed that beneath the summit is a "high level" aquifer comprised solely of fresh water. Four components of the hydrology of the Mauna Kea summit region remain unknown: 1) watershed calculations of snow-water distribution, 2) outcomes of leachate and liquid waste from septic and cesspool systems, 3) distribution and impacts of permafrost, and 4) groundwater maps of water levels, flow paths, and recharge rates. The Applicant's evidence

also indicates that surface runoff at the summit does not extend below an elevation of 6,000 feet, which means that "the majority of the water ultimately ends up percolating and **becoming groundwater recharge** with only a small amount lost to evaporation. Pet FOF 159. p.21. Exhibit A071, page 8 Summary of TMT Mitigation Measures says that the project will use storm-water dry wells and grading to maximize groundwater recharge.

"The main activities that have potential to result in a release of contaminants include vehicle travel (on and off road) and accidents; release of hazardous material and petroleum product use by observatories and support operations; sewage generation; and transport of hazardous materials and sewage off-site," citing Ex A-9 CMP, p. 6-14. Pet FOF 534. p.72.

While the HO FOF 861 states the TMT Observatory facilities would have a zero- discharge wastewater system, the Applicant cannot claim to have a zero-accident spill system. As observatory operators have demonstrated, spills and run-off from telescopes, the Access Way, and a potential Mid-Level Facility have been allowed to "percolate into the ground[.]" Ex. A- 3, FEIS Vol.1, p. 3-120. In May 2009, as much as twelve gallons of spilled hydraulic fluid at Caltech Submillimeter Observatory flowed down a drain pipe that opened directly into a cinder cone of the summit, where evidence of a previous spills was unearthed as well. 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 also flows to aquifers. Ex. A-1, CMP, p. 6-10. The CMP further acknowledges the high probability of impact to natural resources from vehicle accidents, petroleum products, and human waste.

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

Operation of the TMT would increase the use and storage of chemicals on Mauna Kea. The chemicals will be stored underground and transported by truck -- although the number of trucks and frequency of trips was not known by the Applicant's witnesses. The TMT project would require the use, handling and storage of hazardous materials at Mauna Kea including: propylene glycol, acetone, methyl ethyl ketone, at least 2,000 gallons of diesel fuel, ethylene glycol, hydraulic fluid, liquid adhesives, coating metals, acids, paints, solvents, and other cleaning chemicals. Ex A-308 CMP FEIS Vol. 1, p. 3-129.

The Applicant's witness, Mr Nance, stated that he had read the EIS as the basis for his

testimony. Mr Nance could provide no data to substantiate his testimony, and he could not cite studies conducted on Mauna Kea or in Area E. Mr Nance stated that the runoff would percolate downward, but he didn't know if it would be confined. Nance Tr.12.13.16 V16 p. 145. Runoff would move downward through the unsaturated lava, traversing vertically downward to underlying groundwater. Mr Nance stated that we don't know the distance because we don't know exactly where the groundwater is. Nance Tr.12.13.16 V16 p.99-100. The runoff from the TMT site will go downslope to the North, following topography, on the northern flank of Mauna Kea. Nance Tr.12.13.16 V16 p. 110. Mr Nance provided no evidence that spills and leaks would not percolate into high level groundwater. Mr Nance did admit that three potable wells are tapped into high level dike-confined groundwater. Nance Tr.12.13.16 V16 at 113:7-8. (See Pet responses to App FOFs)

b. Noise Levels

The impact of noise on the esthetic wilderness experience for the recreational user has been discounted and dismissed by HO FOF 994-1002 in the Report. The conclusions are misleading and do not reflect the evidence in the record. The noise and dust generated by Project activities will adversely affect the spiritual and sacred quality of Maunakea and the Historic District. (Ex. A-5, TMT FEIS, p. G-61) As a recreational user Ward and others, including witnesses Townsend and Fujikane, has experienced the noise of observatory air conditioning, blowers, generators, associated vehicles and industrial activity and has found it disturbing to other recreational users. Noise level in the vicinities of the existing observatories varied from 38 dBA to 77dBA Leq, and 40-78 dBA L10, with noise levels at or below 60 dBA Leq beyond a distance of 50 feet from HVAC exhausts. The loudest noise levels of 68 and 77 dBA Leq and 69 and 78 dBA L10, were measured at locations within 15 feet of HVAC exhaust outputs. (Ex A-3 FEIS Section 3.13 Noise p 3-175, 176) The Applicant does not define "noise sensitive areas." (Ex A-3 FEIS Section 3.13 Noise p 3-179). Applicant does not analyze the cultural impacts of noise levels and offers no analysis of noise from culturally significant places like Pu`u Poliahu. (Ex A-3 FEIS Section 3.13 Noise p 3-179). The Applicant concedes that significant noise would result from construction activities such as excavation, trenching, grading, pouring of foundations, and erection of structures. (Ex A- 3, FEIS, p 3-202) Construction of the proposed project would violate noise regulations, such that a noise variance would be required under HAR 11-46-8 for construction of the TMT Observatory. (Ex A-3 FEIS, p 3-202). The Applicant acknowledges the proposed project would generate construction-related noise in the 80-100 dBA range at 50 feet for front-end loaders, backhoes, tractors, scrapers, graders, pavers, trucks, concrete mixers, concrete pumps, cranes, compressors, pneumatic wrenches, jack hammers, and rock drills. Short periods

of blasting may also be necessary to dig foundations for the TMT Observatory. (Ex A-3 FEIS, p 3-202).

c. Rest and Rejuvenation Lost

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

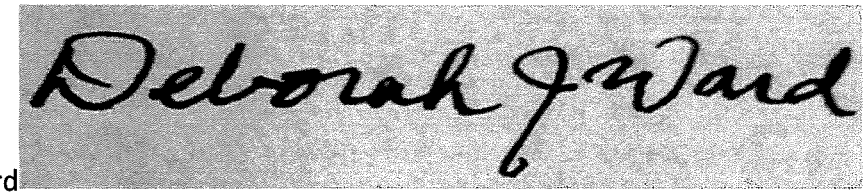
Construction of the TMT on Mauna Kea would pollute the conservation district with dust, fumes, and noise – all of which are categorically inapposite to the tranquility and purity that one can still find on the northern plateau of Mauna Kea. The Applicant concedes that air quality and noise levels are directly related to human activity on the mountain – the more human activity the greater the air pollution and louder the ambient noise.. Construction of the TMT would not only increase the basic level of human activity on Mauna Kea, but would specifically generate "vehicle exhaust, chemical fumes from construction and maintenance activities, and fugitive dust". Construction activities, such as excavation, trenching, grading, pouring of foundations, and erection of structures, would generate significant noise levels in excess of 80-100 dBA, which violates noise restrictions.

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

Because construction of the TMT would undermine the one of the last remaining wilderness area on Mauna Kea where people go for rest and rejuvenation, the TMT CDUA does not satisfy criterion 8 and must be denied. It is for these reasons that the Petitioners object to HO COLs 277-282, 296, 297 on the ground they are inaccurate. Without evidence proving otherwise, the Applicant cannot demonstrate compliance with criterion eight and the CDUA must be denied.

III. Conclusion

Petitioner Ward takes Exception to the Hearing Officer's exclusion of pertinent and significant facts, and the wholesale selection of the Applicant's Findings of Fact, Conclusion of Law, proposed Decision and Order and recommended Conditions. The HO excluded reliable, substantial, probative and credible evidence and therefore fails to give pertinent facts the proper weight and consideration to make an informed fair decision. We ask the Board to take a de novo review of the case, and to recommend denial of the CDUP.

Signed, Deborah J Ward 

Dated August 21, 2017

BOARD OF LAND AND NATURAL RESOURCES

STATE OF HAWAI'I

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

BLNR Contested Case HA-16-02
DEBORAH J WARD'S
EXCEPTIONS TO HEARING OFFICER'S FINDING OF FACT, CONCLUSIONS OF LAW AND DECISION AND ORDER

CERTIFICATE OF SERVICE

The undersigned hereby certifies that the above referenced documents were served upon the following parties by the means indicated on the date noted below:

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