YUKLIN ALULI 1428 415-C Uluniu Street Kailua, Hawai'i 96734 Tel. (808) 262-5900 email: yuklin@kailualaw.com

Dexter K. Kaiama 4249 111 Hekili Street, #A1607 Kailua, Hawai'i 96734 Tel. (808) 284-5675 email: cdexk@hotmail.com

Co-Counsel for Petitioner KAHEA: The Hawaiian Environmental Alliance, a domestic non-profit Corporation

BOARD OF LAND AND NATURAL RESOURCES

STATE OF HAWAII

In the Matter of:	Case No. BLNR-CC-16-002	
A Contested Case Hearing Re Conservation District Use Permit (COUP) HA-3568 for the Thirty Meter Telescope at the Mauna Kea Science Reserve, Kaohe Mauka, Hamakua District, Island of Hawai'i, TMK (3) 4-4- 015:009	KAHEA: THE ENVIRONMENTAL ALLIANCE'S MOTION TO PERMIT LIVE TESTIMONY OF REBUTTAL WITNESS BRIAN CRUZ; MEMORANDUM IN SUPPORT OF MOTION; EXHIBITS "1-3" CERTIFICATE OF SERVICE	
	HEARING: Date: February 21, 2017 Time: 9:00 a.m. Hearings Officer: Riki J. Amano	

KAHEA, THE ENVIRONMENTAL ALLIANCE'S MOTION TO PERMIT LIVE TESTIMONY OF REBUTTAL WITNESS BRIAN CRUZ

COMES NOW KAHEA: The Hawaiian Environmental Alliance, a domestic non-profit Corporation (KAHEA), by and through its counsel Yuklin Aluli and Dexter K. Kaiama, and moves to permit the live testimony of Brian Cruz and submission of his written direct testimony and exhibits related to his written and requested live testimony

This motion is brought pursuant to Hawai'i Revised Statutes (HRS) §§91-9(c) and 91-10(3) and Hawaii Administrative Rule (HAR)§§13-1-1, 13-1-11.1, 13-1-32 and 13-1-34, and made for the reason that the requested live testimony, written direct testimony and related exhibits is material and relevant to instant contested case hearing and the issuance of a conditional use permit as sought herein by the University of Hawaii for the proposed TMT project, as well as the environmental review processes mandated under HRS §343 and related rules.

DATED:

Kailua, Hawaii,

Yuklin Aluli

Dexter K. Kaiama

Co-counsel for Petitioner KAHEA:
The Hawaiian Environmental Alliance,
a domestic non-profit Corporation

BOARD OF LAND AND NATURAL RESOURCES

STATE OF HAWAII

In the Matter of:) Case No. BLNR-CC-16-002
A Contested Case Hearing Re Conservation District Use Permit (COUP) HA-3568 for the Thirty Meter Telescope at the Mauna Kea Science Reserve, Kaohe Mauka, Hamakua District, Island of Hawai'i, TMK (3) 4-4- 015:009	MEMORANDUM IN SUPPORT OF MOTION))))))
)

MEMORANDUM IN SUPPORT OF MOTION

I. INTRODUCTION

Mr. Brian Cruz was identified as a rebuttal witness to these proceedings by virtue of the Collective Statement of Petitioners' Designation of Witnesses and Notice of Production of Witnesses for Cross-Examination lodged/logged into these proceedings on October 14, 2016. Also identified as rebuttal witnesses at that time were witnesses Narissa Spies and David Kimo Frankel.

Additionally, Mr. Cruz was identified as a witness to testify, along with exhibits related to his testimony, on January 30, 2017, by virtue of the Mauna Kea Hui (Mauna Kea Anaina Hou and Kealoha Pisciotta, Clarence Kukauakahi Ching, Flore-Case Ohana; Deborah J. Ward, Paul Neves and KAHEA) Notice Confirming Witnesses for January 19, 23-26 and 30-31, 2017 Contested Case Hearings ("MK Hui Notice of Witnesses") filed or lodged into these proceedings on or about January 16, 2017. Said MK Hui Notice of Witnesses was timely filed pursuant to requirement by presiding Hearings Office Amano.

Despite having been timely identified and noticed to appear to testify on January 30, 2017, on or about January 23rd or 24th a determination was made by Hearings Office

Amano that Mr. Brian Cruz's appearance and live testimony, as a designated rebuttal witness, would be postponed until the end of direct witness testimony of (all) the parties, and subject to Hearings Officer Amano's granting of a filed motion permitting the live testimony of Mr. Cruz. As a matter of clarification, Mr. Brian Cruz was never withdrawn as a witness (rebuttal or otherwise) to these proceedings. KAHEA and the MK Hui's postponement of Mr. Cruz's testimony was in response to Hearings Officer Amano's oral ruling/recommendation that, as a rebuttal witness, Mr. Cruz's live testimony would be "taken up" at the conclusion of the parties' direct testimony witnesses.

In accordance with the oral rulings of HO Amano, made on or about January 31, 2017, KAHEA respectfully submits this motion and memorandum in support to permit and schedule the live testimony of Mr. Brian Cruz.

II. STATEMENT OF FACTS

On or about October 31, 2016 counsel for KAHEA cross-examined the University of Hawai'i Hilo's witness Mr. James T. Hayes, President and Principal Environmental Planner at Planning Solutions, Inc. During KAHEA's cross-examination, as well as through his submitted written direct testimony, Mr. Hayes confirmed that he was the Project Manager and had primary responsibility for the preparation and submission of the Draft Environmental Impact Statement ("DEIS") and Final Environmental Impact State ("FEIS") associated with the proposed TMT Observatory Project for the instant contested case proceedings.

In summary (See, Na Leo Video on Demand: TMT Proceedings - Video #56 approx. time period between 2:01:00 - 2:56:00), on cross examination, Mr. Hayes acknowledged:

1. His having previously reviewed Exhibit B.44 - Preliminary Draft Report for Review - Cultural Impact Assessment for the Thirty Meter Telescope (TMT)

Observatory Project and Hale Pohaku Mid-Level Support Facilities Project, Maunakea, Ka'ohe Ahupua'a, Hamakua District, Hawai'i Island - TMK: [3] 4-4-015:001 por., 009 por., 012 por. - Prepared for PB, Inc. - Prepared by Brian Kawaika Cruz, B.A., Mindy Simonson, M.A., and Hallet Hammatt, Ph.D. (Hereinafter referred to as "Preliminary")

Draft-CIA") as the Project Manager for the preparation and submission of the DEIS and FEIS for the proposed TMT Project;

- 2. That Cultural Surveys Hawai'i, Inc. ("CSH") was contracted by Parsons Brinkerhoff to conduct the cultural impact survey and prepare the CIA, including the Preliminary Draft-CIA.
- 3. Exhibit B.45 as Appendix D Initial Draft Cultural Impact Assessment (Hereinafter referred to as "DEIS-CIA") to the DEIS.

Summarizing his testimony on cross, Mr. Hayes further acknowledged that Recommendations included in the Preliminary Draft-CIA (Exhibit B.44 at pages 12-15) were omitted from the DEIS-CIA (Exhibit B.45) (See, Na Leo Video on Demand: TMT Proceedings - Video #56 approx. time period between 2:44:30 - 3:05:00). Mr. Hayes also testified, that the omitted recommendations, might be contained somewhere else in the DEIS.

To further summarize his testimony on cross, Mr. Hayes acknowledged that the following Recommendation, included in the Preliminary Draft-CIA, and omitted from Exhibit B.45 (DEIS-CIA) presented to him on cross-examination, was included in the Final EIS, Volume 3, Appendix D - Cultural Impact Assessment Report:

"Based on the majority view of participants in this current study who have voiced their concerns against proposed actions on Maunakea, it is *recommended* that Project proponents <u>strongly</u> <u>consider no further development</u>, including the TMT Observatory Project and the Mid-Level Support Facilities at Hale Pōhaku take place on Maunakea."

Though the Project Manager, primarily responsible for the preparation and submission of the DEIS and Final EIS, Mr. Hayes was unable to explain why the Recommendations included in the Preliminary Draft-CIA was omitted from the DEIS and later included in the Final EIS (besides offering that the omitted Recommendations might be included somewhere else in the DEIS). In final summary of his cross, Mr. Hayes could not identify who would be the person responsible for making the decision to omit said Recommendations from the DEIS and later include them in the Final EIS.

III. STATEMENT OF LAW

a. Hawai'i Revised Statutes, Related HAR and Case Law Supports Calling Rebuttal Witnesses for this Contested Case Hearing

HRS Sec 91-9(c) provides that in a contested case hearing "opportunities <u>shall</u> <u>be afforded</u> all parties to present evidence and argument on all issues involved." As has been stated in <u>In re Kauai Elec. Div. Of Citizens Util. Co.</u>, 60 Hawaii 166, 182 (1978) such opportunity must be afforded all parties "to obtain and present all their evidence, to present testimony, both written and oral, to cross examine witnesses, and to argue the issues on the merits" (emphasis added).

HRS §91-10(3) provides that "Every party shall have the right to conduct such cross-examination as may be required for a full and true disclosure of the facts, *and* shall have the right to submit rebuttal evidence."

HAR §13-1-32(a) affirms that contested case hearings shall be conducted in accordance with this subchapter, and chapter 91, HRS. Consistent with subpart (a), HAR §13-1-32(g) provides as follows:

HAR §13-1-32 Conduct of hearing.

(g) Each party shall have the right to conduct such cross-examinations of witnesses as may be required for a full and true disclosure of the relevant facts and **shall have the right to submit rebuttal evidence**, subject to limitations by the presiding officer.

Also consistent with the mandate that all parties shall be afforded the opportunity to present evidence and argument on all issues involved, including that each party shall have the right to submit rebuttal evidence, under HRS §91 and related Hawai'i Administrative Rules, HAR §13-1-11.1 provides that "Interested persons shall have an opportunity

§13-1-11.1 <u>Limiting testimony at public hearings and meetings</u>. Interested persons shall have an opportunity to submit written and oral data, views, or arguments ... on the subject matter specified in notices of public hearings. The presiding officer shall confine oral testimony to agenda items in board proceedings. Oral testimony at public hearings shall be confined to the matters for which the hearing has been called.

In order to allow persons to have an equal amount of time to testify, the presiding officer may limit the amount of time for testimony per individual per issue.

In its plain reading, when considered along with the statutes and rules set forth hereinabove, that HAR §13-1-11.1 provides for, and is not intended to exclude the testimony of Mr. Cruz as a rebuttal witness or otherwise.

This contested case hearing is being held on a remand from the Hawaii Supreme Court , <u>Mauna Kea Anaina Hou et al v Board of Land and Natural Resources</u>, 136 Hawaii 376 (2015), which stated at 380

A contested case hearing is similar in many respects to a trial before a judge: the parties have the right to present evidence, testimony is taken under oath, and witnesses are subject to cross examination. It provides a high level of procedural fairness and protections to ensure that decisions are made based a factual record that is developed through a rigorous adversarial process.

Hawaii Admin Rule Sec 13-1-32.3 precludes discovery in a contested case hearing. In this regard it is unlike the Hawaii Rules of Civil Procedure which govern the administration of a civil trial. However, this same rule authorizes the hearing officer to require that parties serve upon other parties exhibits. And HAR Sec. 13-1-33(a)(2) authorizes a hearing officer to subpoena the production of documents or records upon a showing that such record or document is material and relevant to the issues involved.

IV. ARGUMENT

A. The Testimony of Brian Cruz is Relevant and <u>Material to this Contested Case Proceeding</u>

Movant respectfully submits there can be no reasonable dispute that the testimony of Brian is relevant and material to these proceedings. At issue is the approval or denial of the Conservation District Use Application (CDUA) submitted by the University of Hawai'i at Hilo (UHH Exhibit A-001). An essential component of UHH's CDUA submission is the Environmental Impact Statement, also identified as the EIS (UHH Exhibits A-002 - A-005 and MK Hui Exhibits B.31-B.34).

The preparation, submission, notice and public review/comment requirements are governed by HRS §343 and related administrative rules. HRS §343-1 provides in pertinent part:

§343-1 Findings and purpose. The legislature finds that the quality of humanity's environment is critical to humanity's well being, that humanity's activities have broad and profound effects upon the ... environment and that an environmental review process will integrate the review of environmental concerns with existing planning processes ... and alert decision makers to significant environmental effects which may result from the implementation of certain actions. The legislature further finds that the process of reviewing environmental effects is desirable because environmental consciousness is enhanced, cooperation and coordination are encouraged, and public participation during the review process benefits all parties involved and society as a whole. (Emphasis Added).

Significantly, as an integral part of the Legislature's desire to enhance environmental consciousness and public participation during the review process HRS §343-3(a) provides that "All statements, environmental assessments, and other documents prepared under this chapter <u>shall be made available for inspection by the public</u> ..." and that the office "<u>shall inform</u> the public of ... A public comment process or public hearing ..." See, HRS §343-3(c)(1). The language of HRS §343-3 is clear: the right to inspect and review "All statements, environmental assessments and other documents", as well as the right to participate in public comment or public hearing is mandatory.

Mr. Cruz's written direct testimony (Exhibit B.57), Exhibit B.44: the Preliminary Draft - CIA; Exhibit B. 45: Draft Environmental Impact Statement Volume 2 - Thirty Meter Telescope Project - Appendix D - Initial Draft Cultural Impact Assessment ("DEIS") and exhibits related to his testimony (UHH Exhibit A-001 - A-005 and Exhibits B.31-B.34), affirms that Mr. Cruz was the author of the 2009-2010 CIA for the Thirty Meter Telescope and that he was assigned to the TMT CIA project in 2009 while he was working for Cultural Surveys Hawaii (CSH).

The Preliminary Draft CIA, according to its author (Mr. Cruz), included key results and recommendations, that were conducted and completed by CSH and submitted to the planning firm Parsons Brinkerhoff. Included in those key recommendations and results was the following recommendation:

"Based on the majority view of participants in this current study who have voiced their concerns against proposed actions on Maunakea, it is *recommended* that Project proponents <u>strongly</u> <u>consider no further development</u>, including the TMT Observatory Project and the Mid-Level Support Facilities at Hale Pōhaku take place on Maunakea." [Emphasis Added].

By and through his wdt, Mr. Cruz testifies, upon their receipt and review of the Preliminary Draft CIA, Parsons Brinkerhoff contacted and demanded that Mr. Cruz remove his "no further development" recommendation from the PD-CIA Mr. Cruz's wdt affirms his refusal to remove the recommendation, as it resulted from his research and "a tremendous amount of historical data and public input that indicated the extreme sacredness of Maunakea, a place that may be the most sacred place in Hawaii." (See, Exhibit B.57).

Without Mr. Cruz's consent or cooperation, Parsons Brinkerhoff removed his recommendations and published the TMT Draft Environmental Impact Statement ("TMT-DEIS") for the 45-day public commentary period, as mandated under HRS §343 and applicable Office of Environmental Quality Control ("OEQC") rules. The public did not see his recommendation, provided herein above, or any of his recommendations in the Preliminary Draft CIA that were based on the research conducted for this (TMT) project. As a result, the public was deprived of its right to review or make comment(s) during the 45-day public commentary period (See, Exhibit B.57).

Significantly, though omitted from the TMT-DEIS and denied the opportunity for public review and comment, the recommendations stated in the PD-CIA, including Mr. Cruz's "no further development" recommendation, re-appeared in the TMT Final Environmental Impact Statement ("TMT-FEIS"). See and Compare, Exhibits B.34 (Appendix D. Cultural Impact Assessment Report, pgs. 25-41) and B.44 (Preliminary Draft-CIA).

At a minimum, the removal of "Recommendations" in the Preliminary Draft-CIA from the published DEIS, depriving the public's right to review "All" documents under HRS §343-3(a) and participate in public comments under HRS §343-3(c)(1), calls into question the adequacy of the EIS, and as an essential element, the sufficiency of CDUA in this instant contested case hearing. At its worst, it is arguably the type of intentional data manipulation designed to circumvent the laws and rules of the environmental review process.

V. CONCLUSION

For all of the reasons stated above, KAHEA argues that this Hearing Officer should permit and schedule the live testimony of Mr. Brian Cruz as part of this contested case hearing.

If this hearing officer should consider one thing, it should be the remand recently made by the Intermediate Court of Appeals in <u>Lanaians for Sensible Growth v Lanai Resorts</u>, 137 Hawaii 298 (2016) in which a 1996 Land Use Commission proceeding on remand in 2010, was sent back yet again because it failed to afford a full and fair opportunity to have all the evidence adduced upon which it could render its decision.

DATED: Kailua, Hawaii,_

Yuklin Aluli

Dexter K. Kaiama

Co-counsel for Petitioner KAHEA: The Hawaiian Environmental Alliance, a domestic non-profit Corporation YUKLIN ALULI 1428 415-C Uluniu Street Kailua, Hawai'i 96734 Tel. (808) 262-5900 email: yuklin@kailualaw.com

Dexter K. Kaiama 4249 111 Hekili Street, #A1607 Kailua, Hawai'i 96734 Tel. (808) 284-5675 email: cdexk@hotmail.com

Co-Counsel for Petitioner KAHEA: The Hawaiian Environmental Alliance, a domestic non-profit Corporation

BOARD OF LAND AND NATURAL RESOURCES

STATE OF HAWAII

In the Matter of:) Case No. BLNR-CC-16-002
A Contested Case Hearing Re Conservation District Use Permit (COUP) HA-3568 for the Thirty Meter Telescope at the Mauna Kea Science Reserve, Kaohe Mauka, Hamakua District, Island of Hawai'i, TMK (3) 4-4- 015:009)) KAHEA: THE ENVIRONMENTAL) ALLIANCE'S FIRST SUPPLEMENTAL) EXHIBIT DESIGNATION; EXHIBIT) B.44; CERTIFICATE OF SERVICE))) Hearing Officer: Riki J. Amano.
))))

KAHEA: THE HAWAIIAN-ENVIRONMENTAL ALLIANCE FIRST SUPPLEMENTAL EXHIBIT DESIGNATION

COMES NOW KAHEA: THE ENVIRONMENTAL ALLIANCE, by and through its above-named counsel, and hereby submits its First Supplemental Exhibit (Exhibit B.44) Designation.



Exhibit No.	Description	Rec'd Into Evidence
B.44	Preliminary Draft Report for Review - Cultural Impact Assessment for the Thirty Meter Telescope (TMT) Observatory Project and Hale Pohaku Mid-Level Support Facilities Project, Maunakea, Kaohe Ahupua'a, Hamakua District, Hawai'i Island TMK: [3] 4-4-015:001 por., 009 por., 012 por. (May 2009)	

DATED: Kailua, Hawaii,	14-16
------------------------	-------

Yuklin Aluli

Co-counsel for Petitioner KAHEA The Hawaiian Environmental Alliance, a domestic non-profit Corporation

Dexter K. Kaiama

Co-counsel for Petitioner KAHEA
The Hawaiian Environmental Alliance,
a domestic non-profit Corporation

Preliminary Draft Report for Review Cultural Impact Assessment for the Thirty Meter Telescope (TMT) Observatory Project and Hale Pōhaku Mid-Level Support Facilities Project, Maunakea, Ka'ohe Ahupua'a, Hāmākua District, Hawai'i Island

TMK: [3] 4-4-015:001 por., 009 por., 012 por.

Prepared for PB, Inc.

Prepared by
Brian Kawika Cruz, B.A.,
Mindy Simonson, M.A.
and
Hallett H. Hammatt, Ph.D.

Cultural Surveys Hawaiʻi, Inc. Kailua, Hawaiʻi (Job Code: MAUNA KEA 2) May 2009

Oʻahu Office P.O. Box 1114 Kailua, Hawaiʻi 96734

Ph.: (808) 262-9972 Fax: (808) 262-4950 www.culturalsurveys.com

Maui Office 1993 Main St. Wailuku, Hawai'i 96793 Ph: (808) 242-9882 Fax: (808) 244-1994



Management Summary

ъс			
Reference	Cultural Impact Assessment for the Thirty Meter Telescope (TMT)		
	Observatory Project and Hale Põhaku Mid-Level Support Facilities		
	Project, Maunakea, Ka'ohe Ahupua'a, Hāmākua District, Hawai'i		
	Island, TMK: [3] 4-4-015:001 por., 009 por., 012 por.		
Date	May 2009		
Project Number	Cultural Surveys Hawai'i (CSH) Job Code: MAUNA KEA 2		
Project Location	The proposed TMT Observatory Project area is located on the northern plateau of the Maunakea summit area, within Area E of the Astronomy Precinct of the Mauna Kea Science Reserve. Approximately 3.5 miles south of the proposed TMT Observatory Project site, are the Hale Pōhaku Mid-Level Support Facilities, two discreet parcels located in the Hale Pōhaku area, at approximately 2,800 m (9,200 ft.) elevation on the southern slope of Maunakea. The Project areas are depicted on the U.S. Geological Survey 7.5-Minute Series Topographic Map, Mauna Kea Quadrangle (1993) (Figure 1)		
Land Jurisdiction	State of Hawai'i		
Agencies	State of Hawai'i Department of Health, Office of Environmental		
Agencies	Quality Control (DOH/OEQC), and State Historic Preservation Division (SHPD), Department of Land and Natural Resources (DLNR)		
Project Description			
	The proposed Mid-Level Support Facilities include construction staging areas and development of housing for TMT Observatory Project staff and contractors. The proposed Project also involves upgrades to the existing Hawai'i Electric Light Company (HELCO) power substation at Hale Pōhaku. Minimally, land disturbing activities would include grading of the construction staging areas, and excavations associated with construction of residential and associated structures, installation of subsurface utilities, and substation upgrades.		
Project Acreage	The footprint of the proposed TMT Observatory Project ground disturbance measures approximately 5 acres. The footprint of the		

Abbreviated Report Title

2

	proposed Mid-Level Support Facilities measures approximately 6			
	acres (see Figures 1-3).			
Area of Potential				
	The APE for the TMT Observatory Project includes the entire			
Effect (APE)	approximately 36-acre Area E of the Astronomy Precinct, as the			
	precise location of the 5-acre Project area has yet to be determined.			
	The APE for the Mid-Level Support Facilities includes the entire			
	approximately 6 acres. The APE also includes the rest of the island of			
	Hawai'i and other Hawaiian Islands and places in Polynesia (e.g.,			
	Kahiki, or Tahiti), associated with Maunakea in the larger context of			
	Hawaiian beliefs (e.g., mo'olelo or legends, oral histories and wahi			
	pana or storied places), resources and practices.			
Document Purpose	The Project requires compliance with the State of Hawai'i			
_	environmental review process [Hawai'i Revised Statutes (HRS)			
	Chapter 343], which requires consideration of a proposed project's			
	effect on cultural practices and resources. At the request of PB, Inc.,			
	CSH is conducting this preliminary Cultural Impact Assessment			
	(CIA). Through document research and ongoing cultural consultation			
	efforts, this report provides <i>preliminary</i> information pertinent to the			
	assessment of the proposed Projects' impacts to cultural practices and			
	,			
	resources (per the Office of Environmental Quality Control's Guidelines for Assessing Cultural Impacts) as well as consideration of			
	eligibility for inclusion on the State Register of Historic Places			
	including Traditional Cultural Properties (TCPs) of ongoing cultural			
	significance according to Hawai'i State Historic Preservation Statute (Chapter 6E) guidelines for significance criteria (HAR §13-275-6)			
	(Chapter 6E) guidelines for significance criteria (HAR §13-2/5-6) under Criterion E. The document is intended to support the Project's			
	1			
	environmental review and may also serve to support the Project's			
	historic preservation review under HRS Chapter 6E-8 and Hawai'i			
	Administrative Rules (HAR) Chapter 13-275.			
Consultation Effort	Hawaiian organizations, agencies and community members were			
	contacted in order to identify potentially knowledgeable individuals			
	with cultural expertise and/or knowledge of the Project area and the			
	vicinity. The agencies consulted include the State Historic Preservation			
	Division (SHPD), the Office of Hawaiian Affairs (OHA), and the			
	Hawai'i Island Burial Council (HIBC) in addition to community			
	groups such as Mauna Kea Anaina Hou, Royal Order of Kamehameha			
	'E kahi, Mamalahoa, Hilo Chapter and Hale o Lono. This effort is			
	ongoing and is being made by letter, e-mail, telephone, and in person			
	contact. In the majority of cases, letters are mailed along with a map			
	contact. In the majority of cases, fetters are maried along with a map			

Abbreviated Report Title

3

	and an aerial photograph of the Project area.			
Note on Spelling of Maunakea	For this preliminary CIA, both spelling variations of the name Maunakea are used. The two word format—Mauna Kea—is used to address official entities such as the "Mauna Kea Science Reserve" and when quoting content from other sources such as books or past published interviews that include the name of the mountain as two words. All other uses of the mountain will be written as one word, Maunakea. See Section 3.2 on Place Names for further details on the spelling of Maunakea.			
Results of Background Research	Background research conducted for this Project yields the following results: 1. Maunakea is a sacred cultural landscape; symbolic of Wākea (the 'Sky Father' to all Hawaiians), home of Poli'ahu, the goddess of snow and foe of Pele (the fire goddess), and of many other resident deities and supernatural entities (e.g., Līlīnoe, Kūkahau'ula and Mo'oinanea) and the piko (umbilical cord) of the island-child, Hawai'i which connects the land to the heavens (Maly and Maly 2005:v); home of Waiau, the highest permanent lake in the Hawaiian Islands; location of the highest and most extensive basalt quarry in all of Polynesia and perhaps the entire world; and numerous trails, ahu (stone markers), religious shrines and cinder cone pu'u (hills), based on extensive historical and oral-historical documentation.			
	 Maunakea is rich in mo'olelo, mele (chants, songs), and 'ōlelo no'eau (proverbs, poetical sayings) associated with akua (God, male and female deities, spirits) and storied places (wahi pana). Poli'ahu, the snow goddess and Pele, the volcano goddess engaged in legendary battles to control Maunakea. Pele also had legendary battles with the pig demi-god Kamapua'a on the summit of Maunakea. Numerous stories of Wākea and Papa, Poli'ahu, Līlīnoe, Kūkahau'ula and Mo'oinanea, to name a few, are written into the landscape. The TMT Observatory Project area is located on a ridge line north of the summit cone, Pu'u Kūkahau'ula, at approximately 13,700 feet elevation. The Hale Pōhaku Project area is located at approximately 9,160 feet in 			

- elevation. Maunakea, the tallest mountain in the Hawaiian Islands at 13,796 feet elevation, is also the tallest mountain on earth as measured from the ocean floor to the summit, a distance of some 29,500 feet (thus, exceeding by approximately 1,000 feet the non-volcanic Mount Everest).
- 4. Vegetation is almost non-existent in the summit region of Maunakea; the tree-line is located nearly a mile in elevation below the summit (at approximately 9,000 feet elevation); the highest major vegetation zone, known as the Alpine Scrub Zone, generally ends at approximately 11,300 feet elevation. Plants in the so-called Alpine Stone Desert Zone of the summit region are mostly limited to small lichens and mosses. More plant life is present in the Hale Pohaku Project area characterized by scrub vegetation including a number of natives such as māmane (Sophora chrysophylla), pūkiawe (Leptecophylla tameiameiae) and the endangered endemic, ahinahina. also known as Maunakea silversword (Argyroxiphium sandwicense) as well as introduced exotics such as mullein (Verbascum thapsus) and various grasses.
- 5. Maunakea translates literally as white (kea) mountain (mauna), so named for its breathtaking snow-capped summit. However, according to Nā Maka o ka 'Āina (2008) and according to other authorities on Hawaiian culture (e.g., Kepa Maly, Pualani Kanahele), Maunakea has numerous other meanings and translations. It is a short version of Mauna a Wākea, a name that connects it to the sky father, Wākea; this would be one of its kaona (hidden or more subtle meanings).
- 6. Hale Pōhaku literally "stone house," refers to the two stone cabins constructed by the Civilian Conservation Corps in 1936 and 1939 at an elevation of 9,220 feet on the southern slope of Maunakea. L.W. Bryan, who served as the Territorial Forestry Office and oversaw the construction of the "stone houses," also named them Hale Pōhaku.
- 7. Pu'u Poli'ahu is named for Poli'ahu, "the woman who wears the snow mantle of Mauna Kea"; Poli'ahu, which is also the name of a land division on Maunakea, is translated as "garment [for the] bosom (referring to the snow)" by Pukui

- et al. (1974) and as "Snow goddess of Mauna Kea. Lit. Bosom goddess" by Pukui and Elbert (1986). Maly & Maly include a citation by W.D. Alexander regarding the naming of Pu'u Poli'ahu. As the peak was nameless, Alexander called it "Poliahu" since it had "a poetical name, being that of the demigoddess with snow mantle who haunts Mauna Kea" (Maly and Maly 2005:200).
- 8. Waiau, the permanent lake located within Pu'u Waiau near the summit of Maunakea at approximately 13,020 feet elevation, translates as "swirling water," and is associated with the snow goddess Poli'ahu and is guarded by the supernatural water spirit (mo'o) known as Mo'oinanea. Queen Emma went to the top of Maunakea to bathe in the waters of Waiau. The ceremony was to cleanse in Lake Waiau at the piko (navel or center) of the island. The water caught at Lake Waiau is considered pure water of the gods much like the water caught in the piko of the kalo (taro) leaf and is thought of as being pure, therefore it is used medicinally (Nā Maka o ka 'Āina 2008).
- 9. The Mauna Kea Adze Quarry, also known as Ke-ana-kāko'i, "the adze-making cave" (Pukui et al 1974:103), is located on the southern slopes of the mountain, at elevations up to 12,400 feet. The site was listed on the National Register of Historic Places in 1969, and the Hawai'i State Register of Historic Places in 1981.
- 10. The ahupua'a of Ka'ohe was government land on which four native claims were made following the Māhele in 1848. Only one kuleana claim was awarded in the entire ahupua'a. The single awarded claim indicates coffee, arrowroot, banana, and taro were all cultivated in the lands of Ka'ohe. Ka'ohe was also known as a habitat for uwa'u, or 'ua'u (dark-rumped petrel) seabirds that reside in rocky, dry, elevated areas (Foster 1893).
- 11. While historic accounts and *mo'olelo* tell of the presence burials on Maunakea (Maly and Maly 2005), archaeological evidence until recently, was relatively limited concerning confirmed human burials in the summit region. Prior to 2005, archaeological authorities on Maunakea, including Pat

- McCoy, had documented only one confirmed burial site (with multiple burials) and four possible burial sites in the summit region (McCoy 1991). All of these sites are located on Pu'u Mākanaka to the northeast of the subject Project area. In progress work by McCoy and Nees however, has documented 28 sites designated as burials and possible burials (McCoy et al 2008).
- 12. Several extensive cultural studies have been previously carried out for Maunakea (McEldowney 1982; Kanahele and Kanahele 1997; Maly 1998; Langlas et al. 1999; Maly 1999; PHRI 1999; Maly and Maly 2005). The most comprehensive study by Maly and Maly (2005) builds on archival and oral-historical research conducted by the authors beginning in 1996 (to 2005) and presents a wide range of information on natural and cultural beliefs, resources and practices associated with Maunakea. Among the many critical findings of Maly and Maly's (2005) cumulative research is the emphasis on Maunakea as a sacred landscape and native lore associated with traditional knowledge of the heavens—documenting 270 Hawaiian names for stars.
- 13. Past studies identify Traditional Cultural Properties (TCP) on Maunakea. Three places that have been identified by SHPD as TCPs and documented in a study done by PHRI (1999) are: (1) Kūkahau'ula, the summit (Site 21438), (2) Līlīnoe (Site 21439) and (3) Lake Waiau (Site 21440). Other traditional places may also qualify (Figure 6). Maly (1998:29) has suggested the entire Maunakea summit region down to the 6,000 foot elevation contour be designated a Traditional Cultural Property (Figure 16).
- 14. Archival and oral-historical evidence confirms that Maunakea has long been, and continues to be, a place where significant cultural practices are carried out: where, the *piko* of newborn children is taken to Pu'u Kūkahau'ula and Lake Waiau to ensure long life and safety; the remains of individuals with generational ties to Maunakea are taken to pu'u and the summit plateau for interment (Maly and Maly 2005:vi); shrines and stone markers are erected and; ceremonial and other activities related to birth, death,

healing, navigation and more, occur.

Results of Community Consultation

CSH attempted to contact 58 community members (government agency or community organization representatives, or individuals such as residents, cultural and lineal descendants, and cultural practitioners) for the purposes of this preliminary CIA. Thirty people responded and 13 kūpuna (elders) and/or kama 'āina (native born) were interviewed for more in-depth contributions to the preliminary draft CIA. Community consultation with a few respondents is ongoing. The results of preliminary cultural consultations indicate that there are major concerns (and several ancillary ones) regarding potential adverse impacts on cultural and natural resources and associated beliefs and practices as result of the proposed development of the Thirty Meter Telescope, construction of the staging area for the TMT Observatory Project and the HELCO electrical transformer needed to supply electrical power to the TMT Observatory Project:

- 1. All of the community consultants interviewed for this study stress that Maunakea is a sacred landscape and that any future development activities on the mountain proceed with greater awareness of, and the utmost respect for Hawaiian culture, Hawaiians' spiritual connection to the mountain, and the sanctity of Maunakea.
- 2. Nine of the community consultants interviewed, and three of the respondents who provided brief commentary, explicitly stated their opposition to the proposed actions on Maunakea which is traditionally, and continues to be, one of the most sacred locations in all of Polynesia, not to mention Hawai'i Nei. These participants voiced sadness, frustration or negative feelings about the cumulative impacts of past and present developments on Maunakea. In the words of one participant, referring to the telescopes on the summit of Maunakea, "When is enough, enough?" Specific mana'o (thoughts, ideas), concerns and recommendations from those that oppose the proposed TMT Observatory Project and Hale Pōhaku Mid-Level Support Facilities Project are:
 - a. Three participants called for astronomy facilities to be removed and Maunakea be repaired to its original

- condition. Two of these participants recommended that the proponents of the TMT Observatory Project make an effort to better reach out to the community about the findings of the Mauna Kea Science Reserve and scientific intent of the proposed TMT Obervatory Project through public education events.
- b. One participant stated that there should be no further development until issues are rectified with the Hawaiian people.
- c. One participant called for the proposed TMT Observatory Project to be installed in Chile rather than in Hawai'i.
- d. A number of these participants stressed the importance of astronomy to Hawaiians, particularly discussing voyaging traditions.
- e. Several interview participants and respondents expressed concern about the disturbance of burials and associated cultural artifacts, markers and shrines (ahu) and in pu'u as result of construction of the proposed TMT Observatory Project and support facilities.
- f. Five participants discussed environmental concerns, particularly about Lake Waiau and the mountain aquifer, as well as other impacts to environmental services. These participants assert that Maunakea—the principle aquifier and watershed for Hawai'i Island—is being contaminated by human use (i.e., sewage and toxic chemicals leaching from astronomy facilities). Participants also mention the threatened endemic Maunakea Wēkiu Bug (Nysius wekiuicola) and cleaning up trash left by visitors to Maunakea.
- g. One participant notes that the entire Mauna Kea Science Reserve has been identified by SHPD as an historic district; suggesting that a Cultural Reserve be created and that the following landscape features qualify as TCPs: the Mauna Kea Adze Quarry Complex; the cluster of 3 pu'u of Kūkahau'ula that

- make up the summit region of Maunakea; Lake Waiau; and Līlīnoe, referring to the pu'u southeast of the summit and within ther Science Reserve (Section 7.7, Appendix C).
- h. Three participants question legal aspects of the lease agreement between the University of Hawai'i and the state and legitimacy of the Mauna Kea Science Reserve to operate on ceded and/or occupied lands.
- i. Two participants question the benefits to the local economy and education promised by past and proposed telescope projects on Maunakea.
- j. Two interview participants, the SHPD and OHA asked that the current proposed TMT Observatory Project and Hale Pōhaku Mid-Level Support Facilities Projects be viewed in light of the long history of development on Maunakea and cumulative impacts to cultural resources and practices and not on an isoloated basis.
- 3. Three participants interviewed for this preliminary draft CIA, and one respondent who provided brief commentary, are in favor of the development of the TMT Observatory Project and its associated facilities on Maunakea. These participants recommend Project proponents proceed with care and respect to the sacredness of Maunakea and advised mitigation measures and/or alternatives to the current proposed design and location of the TMT Observatory Project and support facilities. In the words of one participant, "The future of Maunakea...can serve as an educational center and a place for man to view the stars and the universe but it has to remain a sacred and holy place. It's like stepping into a sanctuary, a very sacred place of peace, a place that one can learn the things beyond what man knows now." Mana'o, concerns and recommendations from these participants are:
 - a. One participant believes the TMT Observatory Project should be built on a recycled site. He states that if an outdated telescope site on Maunakea is

- identified, the site should be recycled for TMT Observatory Project usage to avoid unnecessary intrusions that detracts from the beauty and majesty of Maunakea.
- b. One participant calls for a process to be put in place that respects community and allows projects such as TMT Observatory Project telescope to continue.
- c. One participant recommends the removal of all other telescopes and that only one telescope be utilized and shared by interested parties.
- d. All three of these participants state that if the TMT Observatory Project proceeds, it should be developed to blend in with the natural setting and not detract from the natural beauty and sacredness of Maunakea.
- 4. Interviewees discussed salient features of the cultural landscape, resources and associated uses of Maunakea including, mo 'olelo about Wākea and Papa, Poli'ahu, Līlīnoe, Kūkahau'ula and Mo'oinanea; the summit as an area where families take the piko of their babies to bury, and where the bones or ashes of deceased family members are placed, burials and burial complexes; shrines and stone markers; navigation traditions and astronomy; the adze quarry, ancient and historic trails; the healing and purifying waters of Lake Waiau and snow and ice collected for medicinal and ceremonial purposes; bird hunting; and other past and present cultural practices (see Sections 7 and 8).
- 5. SHPD, responding in a memo sent on May 4, 2009, states that, "As you may have discerned from the most recent Mauna Kea Comprehensive Management Plan (MCMP) for the UH Management Area (January 2009) and the public hearings for that plan that Mauna Kea is a very sensitive subject that truly needs and deserves more time to consider all the cultural impacts to this iconic symbol of all cultural connections including but not limited to the genealogical connections, and the spiritual connections to all of the deities in the Hawaiian cosmos and to the kanaka maoli world view." Additionally, SHPD recognizes Maunakea's place in

Hawaiian navigation as "the first sighting for voyaging canoes to arrive safely to our islands in the middle of the Pacific [and] a significant part of the Pacific Rim mythological connections to all the Pacific Rim." SHPD recommends:

- a. An assessment of buildings no longer functional be done before building new structures or "perhaps no more development on this sacred mountain";
- b. access for cultural practitioners be clearly addressed and defined;
- c. the entire summit of Maunakea be treated as one traditional cultural landscape and not as a piecemeal analysis of just the Science Reserve and that;
- d. more community outreach occur for all cultural impacts on the summit and the proposed area to properly assessed—see list of contacts in the MCMP.
- 6. OHA, responding in a letter dated January 9, 2009 (Appendix B), acknowledges the different perspectives on Maunakea as a spiritual, sacred place, home to "wao akua" (dwelling, place of the gods) and the place where the presence of numerous ahu and iwi kūpuna provide silent testimony that generations of Hawaiians have worshipped and buried loved ones "at the highest point possible to rest in peace." The "life sustaining waters known Kanekawaiola...contribute to a healthy natural environment, which in turn allow man to thrive." The letter describes the 40-year debate surrounding the development of Maunakea and recommends that the current proposed TMT Observatory Project study be viewed in context of this long history to "consider the overall impacts of development on Mauna Kea." OHA suggests several parties for consultation and is currently reviewing the Hale Pohaku Mid-Level Support Facilities Project area information to determine whether they will provide additional comments.

Recommendations

For several participants in this cultural impact study, as well as the wider community (some of whom opted not to participate in the CIA, see Section 6.1.1), there are *no* mitigation measures that could begin to

Abbreviated Report Title

17

address the variety of cultural concerns and concomitant issues (legal, economic and environmental) raised by the proposed actions; future developments are viewed as further desecration of a sacred mountain (a realm of the gods) and do not honor Maunakea's place in Native Hawaiian contributions to navigation and astronomy. For a few participants in this assessment, careful planning, better attention to community desires and cultural concerns regarding protection of Maunakea, access to cultural and natural resources and other considerations suggest a way forward; the proposed actions are viewed as an extension of Native Hawaiian knowledge of the stars and voyaging traditions.

Recommendations are based on a synthesis of all available findings to date, including background research and community consultation, gathered during preparation of this *preliminary* draft CIA. The following mitigation measures are offered as a way to remediate and address present and future adverse impacts to Hawaiian cultural beliefs, practices and resources as result of developments on Maunakea generally, and specifically for the proposed TMT Observatory Project and Hale Pōhaku Mid-Level Support Facilities Project:

- 1. Based on the majority view of participants in this current study who have voiced their concerns against proposed actions on Maunakea, it is recommended that Project proponents strongly consider no further development, including the TMT Observatory Project and the Mid-Level Support Facilities at Hale Pōhaku, take place on Maunakea. Consequent to this determination of no action, it is further suggested that Project proponents consider alternative proposals and remediation measures suggested by CIA study participants (see Community Consultation Results above).
- 2. Should the Project move forward in Hawai'i, faithful attention to the following measures may help minimize adverse impacts:
 - a. As expressed by one participant in this current study and several participants in past cultural studies (see Maly 1998, 1999; Maly and Maly 2005), it is recommended that the TMT Observatory Project be built on a recycled site of an outdated telescope on the summit instead of Area E of the Northern

Plateau.

- b. An exit plan should be created, including an estimated life span for the TMT Observatory Project and a detailed strategy for the removal of the TMT Observatory Project from the summit of Maunakea, before development begins.
- c. Personnel involved in development activities in the Project area should be informed of the possibility of inadvertent cultural finds, including human remains. Should cultural or burial sites be identified during ground disturbance, all work should immediately cease, and the appropriate agencies notified pursuant to applicable law.
- d. Cultural monitors should be present during ground disturbance and construction phases of the TMT Observatory Project and its Mid-Level Support Facilities Projects.
- e. Access for all cultural practitioners to culturally significant sites on Maunakea should be clearly addressed, defined and allowed before, during and after construction of the TMT Observatory Project and its Mid-Level Support Facilities.
- f. Project proponents consider expansion and further development of education programs, such as the star gazing program at the annual Makahiki festival, that share the findings of the TMT Observatory and astronomy research with schools and the general public. At the same time, project proponents should consider training programs for TMT Observatory staff that incorporates Polynesian perspectives in the study of astronomy.
- g. Based on prior cultural studies (e.g., Maly 1998, PHRI 1999) and the statements of respondents in this CIA—including the SHPD—it is recommended that project proponents explore the possibility of nominating the entire summit region of Maunakea, from the 6,000 foot level to the summit at Pu'u

- Kūkahau'ula as Traditional Cultural Property for the State Register of Historic Places. The SHPD maintains the Hawai'i and National Register of Historic Places and processes all nominations to either register (see, http://www.state.hi.us/dlnr/hpd/hpinvntory.htm).
- h. Generally, it is recommended that Project proponents—to employ a phrase used by OHA in their response letter for this CIA—develop a paradigmatic shift in how they engage with the community in a way that truly recognizes cumulative impacts and addresses interrelated concerns (cultural, legal, environmental and socio-economic) enumerated in this *preliminary* CIA report and voiced by the wider community.

BOARD OF LAND AND NATURAL RESOURCES

STATE OF HAWAI'I

In the Matter of:) Case No. BLNR-CC-16-002
A Contested Case Hearing Re: Conservation District Use Permit (COUP) HA-3568 for the Thirty Meter Telescope at the Mauna Kea Science Reserve, Kaohe Mauka, Hamakua District, Island of Hawai'i, TMK (3) 4-4-015:009	CERTIFICATE OF SERVICE))))))

CERTIFICATE OF SERVICE

We hereby certify that a copy of the foregoing was served on the following via email unless otherwise specified below:

Michael Cain
Office of Conservation & Coastal Lands
1151 Punchbowl, Room 131
Honolulu, HI 96813
michael.cain@hawaii. gov
Custodian of the Records
(original+ digital copy)

Office of Conservation & Coastal Lands dlnr.maunakea@hawaii.gov

Carlsmith Ball LLP isandison@carlsmith.com
Counsel for University of Hawai'i at Hilo

Kealoha Pisciotta, Mauna Kea Anaina Hou keomaivg@gmail.com

Clarence Kükauakahi Ching kahiwaL@cs.com

E. Kalani Flores, *Flores-Case* "Ohana ekflores@hawaiiantel.net

KAHEA: The Environmental Alliance c/o Bianca Isaki (until further notice) bianca@kahea.org

J. Leina'ala Sleightholm leina.ala.s808@gmail.com

Paul K. Neves kealiikea@yahoo.com Deborah J. Ward cordylinecolor@gmail.com

Watanabe Ing LLP rshinyama@wik.com douging@wik.com Counsel for TMT International Observatory, LLC

Harry Fergerstrom P.O. Box 951 Curtistown, HI 96760 hankhawaiian@yahoo.com

Richard L DeLeon kekaukike@msn.com

Mehana Kihoi uhiwai@live.com

C. M. Kaho'okahi Kanuha kahookahi@gmail.com

Joseph Kualii Lindsey Camara kualiic@hotmail.com

Torkildson, Katz, Moore, Hetherington & Harris Isa@torkildson.com njc@torkildson.com Counsel for Perpetuating Unique Educational Opportunities (PUEO) Maelani Lee maelanilee@yahoo.com

Lanny Alan Sinkin lanny.sinkin@gmail.com Representative for The Temple of Lono

Kalikolehua Kanaele akulele@yahoo .com

Stephanie-Malia:Tabbada s.tabbada@hawaiiantel.net

Tiffnie Kakalia tiffniekakalia@gmail.com

Glen Kila makakila@gmail.com

Dwight J. Vicente 2608 Ainaola Drive Hilo, Hawaiian Kingdom

Brannon Kamahana Kealoha brannonk@hawaii.edu

Cindy Freitas hanahanai@hawaii.rr .com

William Freitas pohaku7@yahoo.com

DATED:	Kailua, Hawa	ii, 10-14-16	
D, 11 L.D.	randa, riarra	.,	

Yuklin Aluli

Co-counsel for Petitioner KAHEA
The Hawaiian Environmental Alliance,
a domestic non-profit Corporation

Dexter K. Kaiama

Co-counsel for Petitioner KAHEA
The Hawaiian Environmental Alliance,
a domestic non-profit Corporation

YUKLIN ALULI 1428 415-C Uluniu Street Kailua, Hawai'i 96734 Tel. (808) 262-5900 email: yuklin@kailualaw.com

Dexter K. Kaiama 4249 111 Hekili Street, #A1607 Kailua, Hawai'i 96734 Tel. (808) 284-5675 email: cdexk@hotmail.com

Co-Counsel for Petitioner KAHEA: The Hawaiian Environmental Alliance, a domestic non-profit Corporation

BOARD OF LAND AND NATURAL RESOURCES

STATE OF HAWAII

In the Matter of:)	Case No. BLNR-CC-16-002
A Contested Case Hearing Re Conservation District Use Permit (COUP) HA-3568 for the Thirty Meter Telescope at the Mauna Kea Science Reserve, Kaohe Mauka, Hamakua District, Island of Hawai'i, TMK (3) 4-4- 015:009)	KAHEA: THE ENVIRONMENTAL ALLIANCE'S SECOND SUPPLEMENTAL EXHIBIT DESIGNATION; EXHIBIT B.45; CERTIFICATE OF SERVICE
	١	Hearing Officer: Riki J. Amano.
)	

KAHEA: THE HAWAIIAN-ENVIRONMENTAL ALLIANCE SECOND SUPPLEMENTAL EXHIBIT DESIGNATION

COMES NOW KAHEA: THE ENVIRONMENTAL ALLIANCE, by and through its above-named counsel, and hereby submits its Second Supplemental Exhibit (Exhibit B.45) Designation.



Exhibit No.	Description	Rec'd Into Evidence
B.45	Draft Environmental Impact Statement Vol. 2, Appendix D, Initial Draft Cultural Impact Assessment Report, Summary, for the Thirty Meter Telescope (TMT) Observatory Project and Hale Pohaku Mid-Level Support Facilities Project, Maunakea, Kaohe Ahupua'a, Hamakua District, Hawai'i Island TMK: [3] 4-4-015:001 por., 009 por., 012 por. (May 23, 2009)	

			18	1-06)—11	
DATED:	Kailua,	Hawaii,	<u> </u>	-dc	1-11	Ļ

Yuklin Aluli

Co-counsel for Petitioner KAHEA
The Hawaiian Environmental Alliance,
a domestic non-profit Corporation

Dexter K. Kaiama

Co-coursel for Petitioner KAHEA
The Hawaiian Environmental Alliance,
a domestic non-profit Corporation

DRAFT ENVIRONMENTAL IMPACT STATEMENT

Volume 2

Thirty Meter Telescope Project

Island of Hawai'i

Proposing Agency: University of Hawai'i at Hilo

This Environmental Document was Prepared Pursuant to Hawai'i Revised Statutes, Chapter 343, Environmental Impact Statement Law and Chapter 200 of Title 11, Hawai'i Administrative Rules, Department of Health, Environmental Impact Statement Rules

May 23, 2009

APPENDIX D

INITIAL DRAFT CULTURAL IMPACT ASSESSMENT

Thirty Meter Telescope Project

Mauna Kea Science Reserve and Hale Pōhaku, Ka'ohe Ahupua'a, Hāmākua District, Hawai'i Island

TMK: [3] 4-4-015:001 por.; 009 por., 012 por.

May 2009

Summary

Introduction

The Project requires compliance with the State of Hawai'i environmental review process [Hawai'i Revised Statutes (HRS) Chapter 343], which requires consideration of a proposed project's effect on cultural practices and resources. At the request of Parsons Brinckerhoff, Cultural Surveys Hawai'i (CSH) has conducted research of the existing literature documents and performed initial cultural consultation efforts, as part of the CIA process. The CIA process is intended to support the Project's environmental review and may also serve to support the Project's historic preservation review under HRS Chapter 6E-8 and Hawai'i Administrative Rules (HAR) Chapter 13-275. The CIA process is ongoing, and the following is a summary of the initial findings thus far.

Project Location

The proposed TMT Observatory Project area is located within Area E of the Astronomy Precinct of the Mauna Kea Science Reserve. Approximately 3.5 miles south of the proposed TMT Observatory Project site, are the Hale Pōhaku Mid-Level Support Facilities, two discret parcels located in the Hale Pōhaku area, at approximately 2,800 m (9,200 ft.) elevation on the southern slope of Maunakea. The Project areas are depicted on the U.S. Geological Survey 7.5-Minute Series Topographic Map, Mauna Kea Quadrangle (1993) (Figure 1).

Land Jurisdiction

State of Hawai'i

Agencies

State of Hawai'i Department of Health, Office of Environmental Quality Control (DOH/OEQC), and State Historic Preservation Division (SHPD), Department of Land and Natural Resources (DLNR)

Project Description

The proposed TMT Observatory Project involves the construction of a thirty meter diameter telescope and associated infrastructure on an approximately 5-acre site within Area E of the Astronomy Precinct. Minimally, land disturbing activities would include grading of the TMT Observatory Project site and access road and excavations associated with building construction and installation of subsurface utilities. The proposed Mid-Level Support Facilities include construction staging areas and development of housing for TMT Observatory Project staff and contractors. The proposed Project also involves upgrades to the existing Hawai'i Electric Light Company (HELCO) power substation at Hale Pōhaku. Minimally, land disturbing activities would include grading of the construction staging areas, and excavations associated with

construction of workers dormitories and associated structures, installation of subsurface utilities, and substation upgrades.

Project Acreage

The footprint of the proposed TMT Observatory Project ground disturbance measures approximately 5 acres. The footprint of the proposed Mid-Level Support Facilities measures approximately 3.2 acres.

Area of Potential Effect (APE)

The APE for the TMT Observatory Project considered in the initial research and consultations includes the entire approximately 36-acre Area E of the Astronomy Precinct, even though the TMT Observatory site encompasses 5-acre area. The APE for the TMT Mid-Level Support Facilities includes the entire approximately 3.2 acres. The APE also includes the rest of the island of Hawai'i and other Hawaiian Islands and places in Polynesia (e.g., Kahiki, or Tahiti), associated with Maunakea in the larger context of Hawaiian beliefs (e.g., mo'olelo or legends, oral histories and wahi pana or storied places), resources and practices.

Consultation Effort

Hawaiian organizations, agencies and community members were contacted by CSH to identify potentially knowledgeable individuals with cultural expertise and/or knowledge of the Project area and the vicinity. The agencies consulted include the State Historic Preservation Division (SHPD), the Office of Hawaiian Affairs (OHA), and the Hawai'i Island Burial Council (HIBC), in addition to community groups such as Mauna Kea Anaina Hou, Royal Order of Kamehameha 'E kahi, Mamalahoa, Hilo Chapter and Hale o Lono. This effort is ongoing and is being made by letter, e-mail, telephone, and in person contact. In the majority of cases, letters are mailed along with a map and an aerial photograph of the Project area.

Note on Spelling of Maunakea

For this preliminary CIA, both spelling variations of the name Maunakea are used. The two word format - Mauna Kea - is used to address official entities such as the "Mauna Kea Science Reserve" and when quoting content from other sources such as books or past published interviews that include the name of the mountain as two words. All other uses of the mountain will be written as one word, Maunakea. See Section 3.2 on Place Names for further details on the spelling of Maunakea.

Results of Background Research

Background research conducted for this Project yields the following results:

1. Maunakea is a sacred cultural landscape; symbolic of Wākea (the 'Sky Father' to all Hawaiians), home of Poli'ahu, the goddess of snow and foe of Pele (the fire goddess), and of many other resident deities and supernatural entities (e.g., Līlīnoe, Kūkahau'ula and Mo'oinanea) and the piko (umbilical cord) of the island-child, Hawai'i which

- connects the land to the heavens (Maly and Maly 2005:v); home of Waiau, the highest permanent lake in the Hawaiian Islands; location of the highest and most extensive basalt quarry in all of Polynesia and perhaps the entire world; and numerous trails, ahu (stone markers), religious shrines and cinder cone pu'u (hills), based on extensive historical and oral-historical documentation.
- 2. Maunakea is rich in mo'olelo, mele (chants, songs), and 'ölelo no'eau (proverbs, poetical sayings) associated with akua (God, male and female deities, spirits) and storied places (wahi pana). Poli'ahu, the snow goddess and Pele, the volcano goddess engaged in legendary battles to control Maunakea. Pele also had legendary battles with the pig demigod Kamapua'a on the summit of Maunakea. Numerous stories of Wākea and Papa, Poli'ahu, Līlīnoe, Kūkahau'ula and Mo'oinanea, to name a few, are written into the landscape.
- 3. The TMT Observatory Project area is located below the summit cone, Pu'u Kūkahau'ula, at approximately 13,700 feet elevation. The Hale Põhaku Project area is located at approximately 9,160 feet in elevation. Maunakea, the tallest mountain in the Hawaiian Islands at 13,796 feet elevation, is also the tallest mountain on earth as measured from the ocean floor to the summit, a distance of some 29,500 feet (thus, exceeding by approximately 1,000 feet the non-volcanic Mount Everest).
- 4. Vegetation is almost non-existent in the summit region of Maunakea; the tree-line is located nearly a mile in elevation below the summit (at approximately 9,000 feet elevation); the highest major vegetation zone, known as the Alpine Scrub Zone, generally ends at approximately 11,300 feet elevation. Plants in the so-called Alpine Stone Desert Zone of the summit region are mostly limited to small lichens and mosses. More plant life is present in the Hale Pōhaku Project area characterized by scrub vegetation including a number of natives such as mamane (Sophora chrysophylla), pukiawe (Leptecophylla tameiameiae) and the endangered endemic, ahinahina, also known as Maunakea silversword (Argyroxiphium sandwicense) as well as introduced exotics such as mullein (Verbascum thapsus) and various grasses.
- 5. Maunakea translates literally as white (kea) mountain (mauna), so named for its breathtaking snow-capped summit. However, according to Nā Maka o ka 'Āina (2008) and according to other authorities on Hawaiian culture (e.g., Kepā Maly, Pualani Kanahele), Maunakea has numerous other meanings and translations. It is a short version of Mauna a Wākea, a name that connects it to the sky father, Wākea; this would be one of its kaona (hidden or more subtle meanings).
- 6. Hale Pōhaku literally "stone house," refers to the two stone cabins constructed by the Civilian Conservation Corps in 1936 and 1939 at an elevation of 9,220 feet on the southern slope of Maunakea. L.W. Bryan, who served as the Territorial Forestry Office and oversaw the construction of the "stone houses," also named them Hale Pōhaku.
- 7. Pu'u Poli'ahu is named for Poli'ahu, "the woman who wears the snow mantle of Mauna Kea"; Poli'ahu, which is also the name of a land division on Maunakea, is translated as "garment [for the] bosom (referring to the snow)" by Pukui et al. (1974) and as "Snow goddess of Mauna Kea. Lit. Bosom goddess" by Pukui and Elbert (1986). Maly & Maly include a citation by W.D. Alexander regarding the naming of Pu'u Poli'ahu. As the peak

- was nameless, Alexander called it "Poliahu" since it had "a poetical name, being that of the demigoddess with snow mantle who haunts Mauna Kea" (Maly and Maly 2005:200).
- 8. Waiau, the permanent lake located within Pu'u Waiau near the summit of Maunakea at approximately 13,020 feet elevation, translates as "swirling water," and is associated with the snow goddess Poli'ahu and is guarded by the supernatural water spirit (mo'o) known as Mo'oinanea. Queen Emma went to the top of Maunakea to bathe in the waters of Waiau. The ceremony was to cleanse in Lake Waiau at the piko (navel or center) of the island. The water caught at Lake Waiau is considered pure water of the gods much like the water caught in the piko of the kalo (taro) leaf and is thought of as being pure, therefore it is used medicinally (Nā Maka o ka 'Āina 2008).
- 9. The Mauna Kea Adze Quarry, also known as Ke-ana-kāko'i, "the adze-making cave" (Pukui et al 1974:103), is located on the southern slopes of the mountain, at elevations up to 12,400 feet. The site was listed on the National Register of Historic Places in 1969, and the Hawai'i State Register of Historic Places in 1981.
- 10. The ahupua'a of Ka'ohe was government land on which four native claims were made following the Māhele in 1848. Only one kuleana claim was awarded in the entire ahupua'a. The single awarded claim indicates coffee, arrowroot, banana, and taro were all cultivated in the lands of Ka'ohe. Ka'ohe was also known as a habitat for uwa'u, or 'ua'u (dark-rumped petrel) seabirds that reside in rocky, dry, elevated areas (Foster 1893).
- 11. While historic accounts and mo'olelo tell of the presence of burials on Maunakea (Maly and Maly 2005), archaeological evidence until recently, was relatively limited concerning confirmed human burials in the summit region. Prior to 2005, archaeological authorities on Maunakea, including Pat McCoy, had documented only one confirmed burial site (with multiple burials) and four possible burial sites in the summit region (McCoy 1991). All of these sites are located on Pu'u Mākanaka to the northeast of the subject Project area. In progress work by McCoy and Nees however, has documented 28 sites designated as burials and possible burials (McCoy et al 2008).
- 12. Several extensive cultural studies have been previously carried out for Maunakea (McEldowney 1982; Kanahele and Kanahele 1997; Maly 1998; Langlas et al. 1999; Maly 1999; PHRI 1999; Maly and Maly 2005). The most comprehensive study by Maly and Maly (2005) builds on archival and oral-historical research conducted by the authors beginning in 1996 (to 2005) and presents a wide range of information on natural and cultural beliefs, resources and practices associated with Maunakea. Among the many critical findings of Maly and Maly's (2005) cumulative research is the emphasis on Maunakea as a sacred landscape and native lore associated with traditional knowledge of the heavens documenting 270 Hawaiian names for stars.
- 13. Past studies identify Traditional Cultural Properties (TCP) on Maunakea. Three places that have been identified by SHPD as TCPs and documented in a study done by PHRI (1999) are: (1) Kūkahau'ula, the summit (Site 21438), (2) Līlīnoe (Site 21439) and (3) Lake Waiau (Site 21440). Other traditional places may also qualify (Figure 6). Maly (1998:29) has suggested the entire Maunakea summit region down to the 6,000 foot elevation contour be designated a Traditional Cultural Property (Figure 16).

14. Archival and oral-historical evidence confirms that Maunakea has long been, and continues to be, a place where significant cultural practices are carried out: where, the piko of newborn children is taken to Pu'u Kūkahau'ula and Lake Waiau to ensure long life and safety; the remains of individuals with generational ties to Maunakea are taken to pu'u and the summit plateau for interment (Maly and Maly 2005:vi); shrines and stone markers are erected and; ceremonial and other activities related to birth, death, healing, navigation and more, occur.

Results of Initial Community Consultations

CSH attempted to contact 58 community members (government agency or community organization representatives, or individuals such as residents, cultural and lineal descendants, and cultural practitioners) for the purposes of this preliminary CIA. Out of the contacted community members 30 people responded via written comments or verbally over the phone. Of the 30 persons who responded, 13 kūpuna (elders) and/or kamaʻāina (native born) agreed to be interviewed for more in-depth contributions to the CIA process. Community consultation with a few respondents is ongoing. The results of these initial cultural consultations indicate that there are major concerns (and several ancillary ones) regarding potential adverse impacts on cultural and natural resources and associated beliefs and practices as a result of the proposed development of the Thirty Meter Telescope, construction of the staging area for the TMT Observatory Project and the HELCO electrical transformer needed to supply electrical power to the TMT Observatory Project:

- 1. All of the community consultants interviewed for this study stress that Maunakea is a sacred landscape and that any future development activities on the mountain proceed with greater awareness of, and the utmost respect for Hawaiian culture, Hawaiians' spiritual connection to the mountain, and the sanctity of Maunakea.
- 2. Nine of the community elders interviewed, and three of the respondents who provided brief commentary, explicitly stated their opposition to the proposed actions on Maunakea which is traditionally, and continues to be, one of the most sacred locations in all of Polynesia, not to mention Hawai'i Nei. These participants voiced sadness, frustration or negative feelings about the cumulative impacts of past and present developments on Maunakea. In the words of one participant, referring to the telescopes on the summit of Maunakea, "When is enough, enough?" Specific mana'o (thoughts, ideas), concerns and recommendations from those that oppose the proposed TMT Observatory Project and Hale Pöhaku Mid-Level Support Facilities Project are:
 - a. Three participants called for astronomy facilities to be removed and Maunakea be repaired to its original condition. Two of these participants recommended that the proponents of the TMT Observatory Project make an effort to better reach out to the community about the findings of the Mauna Kea Science Reserve and scientific intent of the proposed TMT Obervatory Project through public education events.
 - b. One participant stated that there should be no further development until issues are rectified with the Hawaiian people.
 - c. One participant called for the proposed TMT Observatory Project to be installed in Chile rather than in Hawai'i.

- d. A number of these participants stressed the importance of astronomy to Hawaiians, particularly discussing voyaging traditions.
- e. Several interview participants and respondents expressed concern about the disturbance of burials and associated cultural artifacts, markers and shrines (ahu) and in pu'u as result of construction of the proposed TMT Observatory Project and support facilities.
- f. Five participants discussed environmental concerns, particularly about Lake Waiau and the mountain aquifer, as well as other impacts to environmental services. These participants assert that Maunakea the principal aquifier and watershed for Hawai'i Island is being contaminated by human use (i.e., sewage and toxic chemicals leaching from astronomy facilities). Participants also mention the threatened endemic Maunakea Wekiu Bug (Nysius wekiuicola) and cleaning up trash left by visitors to Maunakea.
- g. One participant noted that the entire Mauna Kea Science Reserve has been identified by SHPD as an historic district; suggesting that a Cultural Reserve be created and that the following landscape features qualify as TCPs: the Mauna Kea Adze Quarry Complex; the cluster of 3 pu'u of Kūkahau'ula that make up the summit region of Maunakea; Lake Waiau; and Līlīnoe, referring to the pu'u southeast of the summit and within the Science Reserve
- h. Three participants questioned legal aspects of the lease agreement between the University of Hawai'i and the state and legitimacy of the Mauna Kea Science Reserve to operate on ceded and/or occupied lands.
- i. Two participants questioned the benefits to the local economy and education promised by past and proposed telescope projects on Maunakea.
- 3. Three participants interviewed and one respondent who provided brief commentary, are in favor of the development of the TMT Observatory Project and its associated facilities on Maunakea. These participants recommend Project proponents proceed with care and respect to the sacredness of Maunakea and advised mitigation measures and/or alternatives to the current proposed design and location of the TMT Observatory Project and support facilities. In the words of one participant, "The future of Maunakea...can serve as an educational center and a place for man to view the stars and the universe but it has to remain a sacred and holy place. It's like stepping into a sanctuary, a very sacred place of peace, a place that one can learn the things beyond what man knows now."

 Mana'o, concerns and recommendations from these participants are:
 - a. One participant believes the TMT Observatory Project should be built on a recycled site. He states that if an outdated telescope site on Maunakea is identified, the site should be recycled for TMT Observatory Project usage to avoid unnecessary intrusions that detracts from the beauty and majesty of Maunakea.
 - b. One participant calls for a process to be put in place that respects community and allows projects such as TMT Observatory Project telescope to continue.
 - c. One participant recommends the removal of all other telescopes and that only one telescope be utilized and shared by interested parties.

- d. All three of these participants state that if the TMT Observatory Project proceeds, it should be developed to blend in with the natural setting and not detract from the natural beauty and sacredness of Maunakea.
- 4. Interviewees discussed salient features of the cultural landscape, resources and associated uses of Maunakea including, mo'olelo about Wākea and Papa, Poli'ahu, Līlīnoe, Kūkahau'ula and Mo'oinanea; the summit as an area where families take the piko of their babies to bury, and where the bones or ashes of deceased family members are placed, burials and burial complexes; shrines and stone markers; navigation traditions and astronomy; the adze quarry, ancient and historic trails; the healing and purifying waters of Lake Waiau and snow and ice collected for medicinal and ceremonial purposes; bird hunting; and other past and present cultural practices (see Sections 7 and 8).
- 5. SHPD, responding in a memo sent on May 4, 2009, states that, "As you may have discerned from the most recent Mauna Kea Comprehensive Management Plan (MCMP) for the UH Management Area (January 2009) and the public hearings for that plan that Mauna Kea is a very sensitive subject that truly needs and deserves more time to consider all the cultural impacts to this iconic symbol of all cultural connections including but not limited to the genealogical connections, and the spiritual connections to all of the deities in the Hawaiian cosmos and to the kanaka maoli world view." Additionally, SHPD recognizes Maunakea's place in Hawaiian navigation as "the first sighting for voyaging canoes to arrive safely to our islands in the middle of the Pacific [and] a significant part of the Pacific Rim mythological connections to all the Pacific Rim." SHPD recommends:
 - a. An assessment of buildings no longer functional be done before building new structures or "perhaps no more development on this sacred mountain";
 - b. access for cultural practitioners be clearly addressed and defined;
 - c. the entire summit of Maunakea be treated as one traditional cultural landscape and not as a piecemeal analysis of just the Science Reserve; and that
 - d. more community outreach occur for all cultural impacts on the summit and the proposed area to properly assessed see list of contacts in the MCMP.
- 6. OHA, responding in a letter dated January 9, 2009 (Appendix B), acknowledges the different perspectives on Maunakea as a spiritual, sacred place, home to "wao akua" (dwelling, place of the gods) and the place where the presence of numerous ahu and iwi kūpuna provide silent testimony that generations of Hawaiians have worshipped and buried loved ones "at the highest point possible to rest in peace." The "life sustaining waters known as Kanekawaiola...contribute to a healthy natural environment, which in turn allow man to thrive." The letter describes the 40-year debate surrounding the development of Maunakea and recommends that the current proposed TMT Observatory Project study be viewed in context of this long history to "consider the overall impacts of development on Mauna Kea." OHA suggests several parties for consultation and is currently reviewing the Hale Pōhaku Mid-Level Support Facilities Project area information to determine whether they will provide additional comments.

Ongoing Community Consultations

The consultations, including additional interviews with the community members will continue to be on-going in soliciting input representative of the community. The initial consultations resulted in a limited number of only 13 interviews with kūpuna and/or kama'āina. Thus, and also as indicated by some respondents during the initial consultations, outreach to other parties will continue in the on-going consultations and interviews conducted, in order to gather input representative of the community. The results of these consultations and interviews, and recommendations reflecting community input, will be documented in a final CIA report and the Final EIS.

Attachment: Draft Initial CIA report prepared by CSH

BOARD OF LAND AND NATURAL RESOURCES

STATE OF HAWAI'I

In the Matter of:	Case No. BLNR-CC-16-002
A Contested Case Hearing Re: Conservation District Use Permit (COUP) HA-3568 for the Thirty Meter Telescope at the Mauna Kea Science Reserve, Kaohe Mauka, Hamakua District, Island of Hawai'i, TMK (3) 4-4-015:009	CERTIFICATE OF SERVICE)))))

CERTIFICATE OF SERVICE

We hereby certify that a copy of the foregoing was served on the following via email unless otherwise specified below:

Michael Cain
Office of Conservation & Coastal Lands
1151 Punchbowl, Room 131
Honolulu, HI 96813
michael.cain@hawaii. gov
Custodian of the Records
(original+ digital copy)

Office of Conservation & Coastal Lands dlnr.maunakea@hawaii.gov

Carlsmith Ball LLP isandison@carlsmith.com
Counsel for University of Hawai'i at Hilo

Kealoha Pisciotta, Mauna Kea Anaina Hou keomaivg@gmail.com

Clarence Kūkauakahi Ching kahiwaL@cs.com

E. Kalani Flores, *Flores-Case "Ohana* ekflores@hawaiiantel.net

KAHEA: The Environmental Alliance c/o Bianca Isaki (until further notice) bianca@kahea.org

J. Leina'ala Sleightholm leina.ala.s808@gmail.com

Paul K. Neves kealiikea@yahoo.com

Deborah J. Ward cordylinecolor@gmail.com

Watanabe Ing LLP rshinyama@wik.com douging@wik.com Counsel for TMT International Observatory, LLC

Harry Fergerstrom P.O. Box 951 Curtistown, HI 96760 hankhawaiian@yahoo.com

Richard L DeLeon kekaukike@msn.com

Mehana Kihoi uhiwai@live.com

C. M. Kaho'okahi Kanuha kahookahi@gmail.com

Joseph Kualii Lindsey Camara kualiic@hotmail.com

Torkildson, Katz, Moore, Hetherington & Harris Isa@torkildson.com njc@torkildson.com Counsel for Perpetuating Unique Educational Opportunities (PUEO)

Maelani Lee maelanilee@yahoo.com

Lanny Alan Sinkin lanny.sinkin@gmail.com Representative for The Temple of Lono

Kalikolehua Kanaele akulele@yahoo .com

Stephanie-Malia:Tabbada s.tabbada@hawaiiantel.net

Tiffnie Kakalia tiffniekakalia@gmail.com

Glen Kila makakila@gmail.com

Dwight J. Vicente 2608 Ainaola Drive Hilo, Hawaiian Kingdom

Brannon Kamahana Kealoha brannonk@hawaii.edu

Cindy Freitas hanahanai@hawaii.rr .com

William Freitas pohaku7@yahoo.com

DATED:	Kailua, Hawaii,	10-20-16
		,

Yukin Aluli

Co-counsel for Petitioner KAHEA
The Hawaiian Environmental Alliance,
a domestic non-profit Corporation

Dexter K. Kajama

YUKLIN ALULI 1428 415-C Uluniu Street Kailua, Hawai'i 96734 Tel. (808) 262-5900 email: yuklin@kailualaw.com RECEIVED
OFFICE OF CONSERVATION
AND COASTAL LANDS

2017 JAN 17 P 1: 48

Dexter K. Kaiama 4249 111 Hekili Street, #A1607 Kailua, Hawai'i 96734 Tel. (808) 284-5675 DEPT OF LANG & NATURAL RESOURCES STATE OF HAWAII

email: cdexk@hotmail.com

Co-Counsel for Petitioner

KAHEA: The Hawaiian Environmental Alliance,

a domestic non-profit Corporation

BOARD OF LAND AND NATURAL RESOURCES

STATE OF HAWAII

Case No. BLNR-CC-16-002 In the Matter of: KAHEA: THE ENVIRONMENTAL A Contested Case Hearing Re Conservation District Use Permit **ALLIANCE'S NINTH** SUPPLEMENTAL EXHIBIT (COUP) HA-3568 for the Thirty Meter DESIGNATION; EXHIBIT B.57 [Brian Telescope at the Mauna Kea Science Reserve, Kaohe Mauka, Hamakua Cruz Written Direct Testimony]; CERTIFICATE OF SERVICE District, Island of Hawai'i, TMK (3) 4-4-015:009 Hearing Officer: Riki J. Amano.

KAHEA: THE HAWAIIAN-ENVIRONMENTAL ALLIANCE'S NINTH SUPPLEMENTAL EXHIBIT DESIGNATION; EXHIBIT 57 [Brian Cruz Written Direct Testimony]

COMES NOW KAHEA: THE ENVIRONMENTAL ALLIANCE, by and through its above-named counsel, and hereby submits its Ninth Supplemental Exhibit (Exhibit B.57) Designation.

Exhibit No.	Description	Rec'd Into Evidence
B.57	Brian Cruz Written Direct Testimony	

		1/17	117
DATED:	Kailua, Hawaii,		<u> </u>

Yuklin Alyli

Dexter K. Kaiama

Written Direct Testimony

Contested Case Hearing on the Conservation District Use Permit for the Thirty Meter Telescope

Brian Kawika Cruz, author of Thirty Meter Telescope Cultural Impact Assessment

My name is Brian Kawika Cruz, and I am the author of the 2009-2010 cultural impact assessment (CIA) for the Thirty Meter Telescope (TMT) (Exhibit B.44). I was assigned to the TMT CIA project in 2009 while I was working for Cultural Surveys Hawaii (CSH). Prior to working on this project, I completed numerous other CIAs in the State of Hawaii such as the Hawaii SuperFerry project for Nāwiliwili Harbor on the island of Kaua'i and the Makakilo Drive Extension project for the north-south interchange in west O'ahu. I am also a member of the Hui Aloha 'Āina o Ka Lei Maile Ali'i, a non-profit, culturally based organization; and I'm a member of Hui Mālama o Kaniakapūpū, the group that cares for Kamehameha III's summer palace in Nu'uanu.

The purpose of writing this testimony is because I believe that the Environmental Review Process (Hawaii Revised Statute Chapter 343) for the TMT project was not properly conducted by the planning firm Parsons Brinckerhoff, the lead firm responsible for the overall environmental impact statement (EIS) for the TMT (Exhibit B.31-34). Specifically, the CIA component of the TMT Draft EIS (DEIS) (Exhibit B.45) that was published on May 23, 2009 by Parsons Brinckerhoff failed to include key results and recommendations that were included in the original draft CIA that was conducted and completed by CSH, and submitted to Parsons Brinckerhoff. Upon receipt of the completed draft CIA, Parsons Brinckerhoff, having reviewed the draft CIA, demanded that I remove my recommendation for "no further development" on Maunakea. The recommendation in question was presented in the original draft CIA as follows:

"Based on the majority view of participants in this current study who have voiced their concerns against proposed actions on Maunakea, it is recommended that Project proponents strongly consider no further development, including the TMT Observatory Project and the Mid-Level Support Facilities at Hale Pōhaku, take place on Maunakea.

Consequent to this determination of no action, it is further suggested that Project proponents consider alternative proposals and remediation measures suggested by CIA study participants (see Community Consultation Results above)."

I refused to remove the recommendation because that was what the results were of my research. There was a tremendous amount of historical data and public input that indicated the extreme sacredness of Maunakea, a place that may be the most sacred place in Hawaii, a place most sacred to Hawaiian people. A "no further development" on Maunakea recommendation is strictly based on the data collected throughout the six-to-eight-month period that the research was conducted. With no cooperation from me to remove that recommendation from the draft CIA, Parsons Brinckerhoff removed all nine of my recommendations, and published the TMT DEIS (Exhibit B.45) on May 23, 2009 without my recommendations. Parsons Brinckerhoff published the DEIS for a 45-day public commentary period, in which the public did not see any of my recommendations that were based on the research conducted for this project.

During the 45 period, which included public hearings, written testimonies, and community meetings throughout the islands, not one single person could comment on my actual results and recommendations because they were removed by Parsons Brinckerhoff. I believe that if the public had a chance to see the actual results and recommendations, the 45-day public commentary period would have had much different results that would be potentially damaging to the TMT project's construction permit approval. This type of data manipulation designed to circumvent the rules of the environmental review process caused me to save a digital copy of my original CIA because I felt the spirit of the process was invalidated. I did save the original CIA (Exhibit B.44) with the KAHEA Group just in case this project ever ended up in court.

Ironically, on May 8, 2010, Parsons Brinckerhoff submitted the Final EIS (FEIS) (Exhibit B.31-34) with my recommendations included as if it were there all along in both the DEIS (Exhibit B.45) and the FEIS (Exhibit B.31-34). Typically, a draft EIS is the exact same document as the final EIS, the exception is that the FEIS includes data collected from the 45-day public comment period. Viewing the two documents side by side – DEIS (Exhibit B.45) vs. FEIS (Exhibit B.31-34) – they are very different from each other. As I stated earlier, my section on

recommendations were removed from the draft CIA, and re-inserted into the final CIA. This would technically invalidate the overall Chapter 343 review process because the community did not get a chance to question my results and recommendations.

BOARD OF LAND AND NATURAL RESOURCES

STATE OF HAWAI'I

A Contested Case Hearing Re: Conservation District Use Permit (COUP) HA-3568 for the Thirty Meter Telescope at the Mauna Kea Science Reserve, Kaohe Mauka, Hamakua CERTIFICATE OF S CERTIFICATE OF S (COUP) HA-3568 for the Thirty Meter (COUP) HA-3568 for the Thirty Meter (COUP) HA-3568 for the Mauna Kea Science (COUP) HA-3568 for the Thirty Meter (COUP) HA-3568 for the Thirty Meter (COUP) HA-3568 for the Mauna Kea Science (COUP) HA-3568 for the Mauna Kea Science	
District, Island of Hawai'i, TMK (3) 4-4-015:009)	ERVICE

CERTIFICATE OF SERVICE

We hereby certify that a copy of the foregoing was served on the following via email unless otherwise specified below:

Michael Cain dlnr.maunakea@hawaii.gov Custodian of the Records

Carlsmith Ball LLP isandison@carlsmith.com tluikwan@carlsmith.com jpm@carlsmith.com Imcaneeley@carlsmith.com Counsels for Applicant University of Hawai'i at Hilo

C.M. Kaho'okahi Kanuha kahookahi.kukiaimauna@gmail.com

E. Kalani Flores ekflores@hawaiiantel.net

B. Pualani Case puacase@hawaiiantel.net

Deborah J. Ward cordylinecolor@gmail.com

Kealoha Pisciotta and Mauna Kea Anaina Hou keomaivg@gmail.com

J. Leina'ala Sleightholm Leinaala.Mauna@gmail.com

Moses Kealamakia, Jr. mkealama@yahoo.com Witness for the Hearings Officer Watanabe Ing LLP First Haw'n Center, Suite1250 999 Bishop Street Honolulu, HI 96813 rshinyama@wik.com douging@wik.com Counsels for the TMT International Observatory

Mehana Kihoi uhiwai@live.com

Joseph Kualii Lindsey Camara kualii@hotmail.com

Torkildson Katz Moore Hetherington & Harris Isa@torkildson.com njc@torkildson.com Counsels for Perpetuating Unique Educational Opportunities

Harry Fergerstrom P.O. Box 951 Kurtistown, HI 96760

Dwight J. Vincente 2608 Ainaola drive Hilo, Hawaiian Kingdom Kalikolehua Kanaele akulele@yahoo.com

Stephanie-Malia Tabbada s.tabbada@hawaiiantel.net

Tiffnie Kakalia tiffniekakalia@gmail.com

Glen Kila makakila@gmail.com

Brannon Kamahana Kealoha brannonk@hawaii.edu

Clarence Kukauakahi Ching kahiwaL@cs.com

William Freitas pohaku7@yahoo.com

Paul K. Neves Kealiikea@yahoo.com

Lanny Alan Sinkin lanny.sinkin@gmail.com Representative Temple of Lono

Cindy Freitas hanahanai@hawaii.rr.com

Wilma H. Holi P.O. Box 368 Hanapepe, HI 96716 Witness for the Hearings Officer

		1	17	111	
DATED:	Kailua, Hawaii,			' T	

Yuklin Aluli Dexter K. Kaiama

BOARD OF LAND AND NATURAL RESOURCES

STATE OF HAWAI'I

In the Matter of:)	Case No. BLNR-CC-16-002
A Contested Case Hearing Re: Conservation District Use Permit (COUP) HA-3568 for the Thirty Meter Telescope at the Mauna Kea Science Reserve, Kaohe Mauka, Hamakua District, Island of Hawai'i, TMK (3) 4-4-015:009))))	CERTIFICATE OF SERVICE
District, Island of Hawaii, TWK (3) 4-4-013.009)	

CERTIFICATE OF SERVICE

We hereby certify that a copy of the foregoing was served on the following via email unless otherwise specified below:

Michael Cain dlnr.maunakea@hawaii.gov Custodian of the Records

Carlsmith Ball LLP isandison@carlsmith.com tluikwan@carlsmith.com jpm@carlsmith.com Imcaneeley@carlsmith.com Counsels for Applicant University of Hawai'i at Hilo

C.M. Kaho'okahi Kanuha kahookahi.kukiaimauna@gmail.com

E. Kalani Flores ekflores@hawaiiantel.net

B. Pualani Case puacase@hawaiiantel.net

Deborah J. Ward cordylinecolor@gmail.com

Kealoha Pisciotta and Mauna Kea Anaina Hou keomaivg@gmail.com

J. Leina'ala Sleightholm Leinaala.Mauna@gmail.com

Moses Kealamakia, Jr. mkealama@yahoo.com Witness for the Hearings Officer Watanabe Ing LLP First Haw'n Center, Suite1250 999 Bishop Street Honolulu, HI 96813 rshinyama@wik.com douging@wik.com Counsels for the TMT International Observatory

Mehana Kihoi uhiwai@live.com

Joseph Kualii Lindsey Camara kualii@hotmail.com

Torkildson Katz Moore Hetherington & Harris Isa@torkildson.com njc@torkildson.com Counsels for Perpetuating Unique Educational Opportunities

Harry Fergerstrom P.O. Box 951 Kurtistown, HI 96760

Dwight J. Vincente 2608 Ainaola drive Hilo, Hawaiian Kingdom Kalikolehua Kanaele akulele@yahoo.com

Stephanie-Malia Tabbada s.tabbada@hawaiiantel.net

Tiffnie Kakalia tiffniekakalia@gmail.com

Glen Kila makakila@gmail.com

Brannon Kamahana Kealoha brannonk@hawaii.edu

Clarence Kukauakahi Ching kahiwaL@cs.com

William Freitas pohaku7@yahoo.com

Paul K. Neves Kealiikea@yahoo.com

Lanny Alan Sinkin lanny.sinkin@gmail.com Representative Temple of Lono

Cindy Freitas hanahanai@hawaii.rr.com

Wilma H. Holi P.O. Box 368 Hanapepe, HI 96716 Witness for the Hearings Officer

Yuklin Aluli

Dexter K. Kaiama