AFFIDAVIT OF MEHANA KIHOI

Name: Mehana Kihoi

Petitioner.

I, Mehana Kihoi, swear or affirm:

1. That I am a Native Hawaiian cultural and spiritual practitioner of Mauna Kea and other neighboring areas.

2. That I am a Native Hawaiian beneficiary as defined by the Hawaiian Homes Commission Act of 1921.

3. That I am a beneficiary of the Ceded Lands Trust under Section 5(f) of the Admissions Act.

4. That I have a spiritual, cultural, psychological, physical, close and significant relationship to Mauna Kea that is tied to my identity as a Native Hawaiian.

5. That Mauna Kea is my place of spiritual worship where I connect to my ancestors and my creators Papa and Wākea.

6. That Mauna Kea is a sacred place.

7. The health and well-being of Mauna Kea are tied directly to my own health and well-being because my close and significant relationship to the land there.

8. Mauna Kea is where I achieve the highest level of spirituality to connect with my ancestors and creators.

9. That I have direct ancestral lineage to Mauna Kea, which dates back to Pāʻao and Hewa Hewa Nui, and their traditional practices that have transcended thru generations.
10. Pā'ao and Hewa Hewa Nui, and subsequent generations, gathered adze which is used to build voyaging canoes. My ancestors also used Mauna Kea as a place of spiritual worship to pay tribute to our creators Papa and Wākea.

11. That my ancestors and I gather water from Lake Waiau for spiritual and healing purposes as these waters are considered sacred.

12. That my ancestors were stewards of Mauna Kea to ensure that these sacred lands remain untouched because of its importance to the creation of Native Hawaiians.

13. I continue to practice these ancestral gathering rights and spiritual worship on Mauna Kea to carry on the traditions empowered to me by my ancestors.

14. That I empower my own child by teaching her these gathering and spiritual practices at Mauna Kea to carry these traditions to the next generation.

15. That my child and I attend monthly spiritual ceremonies on Mauna Kea paying tribute to our ancestors and our creators.

16. Having a direct ancestral connection to Mauna Kea, I am an active steward of this land to ensure there is no more further desecration of this land because it is tied to my spiritual and cultural identity, health and well-being as a Native Hawaiian.

17. I have built ahu and intend to build more spiritual ahu on Mauna Kea to pay tribute to my ancestors and our creators Papa and Wākea

18. Further desecration of this sacred site will cause irreparable harm not only to myself but to my child who continues the same cultural practices that were passed on to me.

19. That Mauna Kea saved my life and strengthened my identity as a Native Hawaiian because of my spiritual and cultural connection to this sacred place.
20. My imminent injury is connected to the University of Hawaii’s application for a Conservation District Use Permit to request approval to construct a mega telescope that will cause further desecration of Mauna Kea because the proposed construction will forever change the uniqueness and spiritual landscape of this sacred place.

21. If the permit is granted, I will suffer a severe cultural, spiritual, psychological and physical injury that will cause irreparable harm to who I am as a Native Hawaiian, my cultural identity and my spirituality as a Native Hawaiian.

22. The existing telescopes on Mauna Kea and the State of Hawaii and the University of Hawaii’s poor management of Mauna Kea have caused me to have an injury because their failure to honor the customary and traditional practices of this area.

23. Mauna Kea is my church and my place of worship. Further desecration of this land will cause me an imminent injury because of my strong ancestral and cultural ties to these lands.

24. Further affiant saith not.

I SWEAR OR AFFIRM THAT THE ABOVE AND FOREGOING REPRESENTATIONS ARE TRUE AND CORRECT TO THE BEST OF MY INFORMATION, KNOWLEDGE, AND BELIEF.

08/09/14    Mehana Kihoi
Date        Mehana Kihoi
On this 9th day of Aug., in the year 2016, before me, KIANNA M. LEOMITI (Insert name of notary public) appeared MEHANA KIHOI personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to this instrument, and acknowledged that he/she executed it.

(Signature of Notary Public)

My Commission Expires: 03/19/2018
Document Date: 08/09/16, Number of Pages: 3, 4
Name: KIANNA M. LEOMITI, 3rd Circuit
Document Description: Affidavit
Signature: 08/09/16
Notary Certification:

Doc. Date: 08/09/16, # Pages: 4
Notary Name: KIANNA M. LEOMITI, Third Circuit
Doc. Description: Affidavit
Notary Signature: 08/09/16
Cindy Freitas Written Direct Testimony

I Cindy Freitas was raised to be proud of my Hawaiian Heritage and also to respect others as well.

I learned my cultural traditional customary religion practices though my family’s lineage.

I am a Native Hawaiian, descended of the native inhabitants of Hawai‘i prior to 1778 and born and raised in Hawai‘i my entire life.

My grandmother and grandfather is the strongest mentor for me in my growing up and raised me in a traditional cultural way. We would go to the mountain and do prayers (“pule”) for many different things. Also I have witness things beyond my understanding till I got older and mostly my grandparents also made sure that we do not desecrated any things on land, ocean or any were else to be respectful of the land.

My grandparents would speak the manaleo style (old Hawaiian language) which tried to teach the next generation but because of the influence of time we only learn a little of the language and as well as the culture customary traditional religion practices. She would take us to the mountain and learn to plant our food, raise our livestock and take care of the land so that the land would take care of the people in their culture practices. We were thought in the Ahupua’a style (from the ocean to the mountain). While we work mostly in the middle of the Ahupua’a we would also go to the ocean and fish as well. My grandparents would always tell us to pule first before we fish and also give a ho’okupu (is a gift of abounded of mountain food that we bring) and leave it on a rock at the ocean shore line and ask for permission to fish and be safe. Then our catch would be a bounce so that we share with the people that live close to us. We also leave a fish on a rock when we get to the mountain for ho’okupu as well.

As I grew I never forgot my upbringing. Now with a family of my own I teach them also the cultural customary traditional religion practices as well and we as parents learn though our children.

I have enrolled my 2 girls at Kula Kaiaupi O Kona in the early 2000 and we grew with the school with all kinds of chants, pule and protocols. Today the school is name EhunguiKaimalino and located at Konawaena location. Though this school I have learn also so much cultural customary religion practices as well.

As for Mauna Kea and,every were else in the world I have deep respect for the natural resources and the native plants and things that live within the earth. Today because of the fast development we as people need to keep our natural resource in tack and help to save what is there.

[Cindy Freitas Signature]

S-2
Kealoha Pisciotta  
President  
Mauna Kea Ana‘ina Hou  
P.O. Box 5664  
Hilo, Hawai‘i 96720  
Tel: 808.968.7660

During the NASA EIS process, copies of the over 10,000 Material Safety Data Sheets (MSDS) we received by subpoena in the State CCH. The TMT must consider the impacts of these hazardous materials on the TCP and associated Native Hawaiian practices (i.e. collection of snow, ice and snow) and should also consider the watershed conditions after thirty years of sewage and hazardous material release into the ground of Mauna Kea.

According to the Material Safety Data Sheets ("MSDS") received, the following Observatory/Telescope Facilities were found to use "elemental" mercury. The University Of Hawai‘i 88 inch or 2.2 meter Observatory ("UH88") (Exhibit F-64), The Canada-France-Hawaii Telescope ("CFHT") (Exhibit F-62). The William M. Keck Observatory I and II ("WMKO") (Exhibit F-61), The NASA Infrared Telescope Facility ("IRTF") (Exhibit F-60), and The United Kingdom Infrared Telescope ("UKIRT").

There have been 3 Mercury spills reported at the William M. Keck Telescope. August 10, 1995, September 15, 1995, and November 6, 1995. There have been 7 recorded spills from other facilities over the years.

The Hazardous materials listed below were found to be stored and used at the Observatories/Telescope Facilities they include but are not limited to, the following:

Hydrochloric-Acid (Note: not listed in JCMT Exhibit F-66)  
Potassium Hydroxide  
Hydraulic, Motor, and Lubricating Oils  
Pesticides  
Insecticides  
Calcium Carbonate  
Sulfuric Acid  
Diesel, Jet Fuel, and Unleaded Gasoline  
Ethylene Glycol  
Kerosene  
Methyl Ethyl Ketone  
Toluene  
Paints, Thinners and Solvents  
Rush Treatments and Inhibitors  
Carbon Disulfide  
Elemental Mercury
visible in the primary view direction only from the area around Waimea. Of the island’s population, 5.5 percent, or 8,100 people reside within the area around Waimea and may be able to see the TMT Observatory.

Table 7.4: Visibility of the TMT Observatory within the Primary View Direction

<table>
<thead>
<tr>
<th>Location</th>
<th>Hawai‘i’s Population</th>
<th>Primary View Direction?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waimea</td>
<td>5.5%</td>
<td>8,100</td>
</tr>
<tr>
<td>Honoka‘a</td>
<td>2.8%</td>
<td>4,200</td>
</tr>
<tr>
<td>Hāwī</td>
<td>2.6%</td>
<td>3,900</td>
</tr>
<tr>
<td>Waikoloa and Kawaihaha</td>
<td>4.3%</td>
<td>6,400</td>
</tr>
<tr>
<td>Hualālai</td>
<td>0.2%</td>
<td>303</td>
</tr>
</tbody>
</table>

Source: Table 3-9, Final EIS for the Thirty Meter Telescope.

Table 7.5 summarizes the results of the silhouette analysis for 13 representative viewpoints where the TMT Observatory may be visible. The purpose of the analysis was to determine whether the view of the facility will be a full or partial silhouette against the sky, or whether it will be seen against the backdrop of Mauna Kea.

<table>
<thead>
<tr>
<th>Viewpoint</th>
<th>Location</th>
<th>Is the TMT visible?</th>
<th>Visible in primary view?</th>
<th>Visible in silhouette?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Hualālai Resort</td>
<td>Yes</td>
<td>No</td>
<td>164 feet (50 m)</td>
<td></td>
</tr>
<tr>
<td>2  Pu‘u Waawaa</td>
<td>Yes</td>
<td>N/A</td>
<td>58 feet (17 m)</td>
<td></td>
</tr>
<tr>
<td>3  Big Island Country Club</td>
<td>Yes</td>
<td>N/A</td>
<td>82 feet (25 m)</td>
<td></td>
</tr>
<tr>
<td>4  Waikoloa/Mauna Lani</td>
<td>Yes</td>
<td>No</td>
<td>164 feet (50 m)</td>
<td></td>
</tr>
<tr>
<td>5  Hāpuna Beach</td>
<td>No</td>
<td>No</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>6  Puukohola Heiau</td>
<td>Yes</td>
<td>No</td>
<td>164 feet (50 m)</td>
<td></td>
</tr>
<tr>
<td>7  DHHL Kawaihaha at Route 250</td>
<td>Yes</td>
<td>Yes</td>
<td>X</td>
<td>--</td>
</tr>
<tr>
<td>8  Route 250 Pu‘u Overlook</td>
<td>Yes</td>
<td>Yes</td>
<td>X</td>
<td>--</td>
</tr>
<tr>
<td>9  DHHL Lalamilo</td>
<td>Yes</td>
<td>Yes</td>
<td>49 feet (15 m)</td>
<td></td>
</tr>
<tr>
<td>10 Waimea Park</td>
<td>Yes</td>
<td>Yes</td>
<td>89 feet (27 m)</td>
<td></td>
</tr>
<tr>
<td>11 DHHL Pu‘u Kapu</td>
<td>Yes</td>
<td>Yes</td>
<td>98 feet (30 m)</td>
<td></td>
</tr>
<tr>
<td>12 DHHL Waikoloa-Waiakeale</td>
<td>Yes</td>
<td>Yes</td>
<td>164 feet (50 m)</td>
<td></td>
</tr>
<tr>
<td>13 Waipio Valley Lookout</td>
<td>No</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>14 Honoka‘a</td>
<td>Yes</td>
<td>No</td>
<td>82 feet (25 m)</td>
<td></td>
</tr>
<tr>
<td>15 Laupāhoehoe Point</td>
<td>No</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>16 Mauna Kea Summit</td>
<td>No</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>17 Lake Waiau</td>
<td>No</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>18 North ridge of Kūkahau‘ula</td>
<td>Yes</td>
<td>N/A</td>
<td>X</td>
<td>--</td>
</tr>
</tbody>
</table>

¹ The primary view criterion is not applicable because at these viewpoints the panoramic view is important.

Source: Table 3-10, Final EIS for the Thirty Meter Telescope.
Photographs of the 13N Site

1 View looking southwest from a point on the northern side of the proposed Support Building. Pu’u Pohaku is in the background.

2 View looking northeast from a point on the southern side of the proposed Support Building.