

Written Direct Testimony

Ms. K. Kealoha Pisciotta

28 June 2011 and also as amended for the CCH under Honorable HO R.M. Amano

My name is Kimberly “Kealoha” Pisciotta, I am a practitioner of traditional and customary cultural and religious practices relating to Mauna Kea. My other cultural practices include those relating to la`au lapa`au (medicinal practices) with ocean and some land plants and also Palaoa (Marine Mammals).

I resubmit my June 2011 testimony with some small amendments in order to update things since our last Contested Case Hearing (CCH) on the same subject matter, that being, whether the Board of Land and Natural Resources (BLNR) should grant the Thirty Meter Telescope (TMT) Conservation District Use Application (CDUP) for use and construction the of the TMT in the Mauna Kea Conservation District (MKCD), on the summit of Mauna Kea (MK) on the island of Hawai`i.

My history with Mauna Kea is three fold. I have a history of cultural and religious practice, I worked for the observatories for more than 12 years and I have been advocating for greater protections of Mauna Kea for more than a decade.

Cultural Ties to Mauna Kea

I descend from the Kamahukilani line. My family originally comes from Kaua`i, where many of the keepers of Mauna Kea in ancient days traveled, too. Many of those ancestors became a part of the northern migration of our people to Aotearoa (New Zealand) too. In my family mo`olelo (stories/histories) we are taught that when the Chief Pa`ao came to Hawai`i from Kahiki and when many things began to change, many of the people who practiced on Mauna Kea set forth to journey to the many lands of Polynesia. It is said they called forth the rainbow (or ala hele— pathway) and walked across it, or traversed the path to many lands and then returned to Hawai`i. I descend from some of those people and those that are buried there (Mauna Kea). I am also related to modern burials as well, such as my Auntie Kamahukilani, named after our earlier ancestors of the same name. This name means the eyes that pull or bring the stars/heavens to them, which is a reference to the star peoples (kilo hoku) practice of bringing/breathing in stars within like when we honi—breathe in/out when greeting a person. That is also to brings in the knowledge from the stars.

I am President of Mauna Kea Anaina Hou (MKAH). It is not a formal organization, in that it is not a non-profit organization. We are more of a spiritual organization, for people that have relationships to Mauna Kea and/ or knowledge of the histories and traditions of Mauna Kea. One of my Kupuna suggested that we make such an organization to help protect those traditions, and to call it Mauna Kea Anaina Hou. Anaina in more historical times is translated to mean “congregation”. In our case we use it mean those congregating (gathering) to pray anew on Mauna Kea. We are a Native Hawaiian Organization (NHO) as defined by the National Historic Preservation Act. We participated as a NHO in the National Historic Preservation Act, Section 106 Consultations with NASA for the NASA-KECK Outrigger Telescopes Project. Many people

participate with MKAH to pray and do ceremonies and they come from all walks of life, young and old and from Hawai`i and sometimes for different parts of the United States and the world.

And So We Must Acknowledge The Sacred Natural Significance Of Mauna Kea

The summit of Mauna Kea represents many things to the Hawaiian People. The upper regions reside in the Wao Akua, the realm of the Akua-Creator. It is also considered the Temple of the Supreme Being and is acknowledged as such in many oral histories throughout Polynesia, which pre-date modern astronomy by millennia.

It is home of Na Akua (Divine Deities), Na `Aumakua (Divine Deities) and the meeting place of Papa (earth Mother) and Wakea (Earth Father) who are considered the progenitor's to the Hawaiian People. Mauna Kea it is said is where the Sky and Earth separated to form the Great-Expanse-of-Space and the Heavenly Realms. Mauna Kea in every respect represents the zenith of the Native Hawaiian people's ancestral ties to Creation itself.

When we look to Mauna Kea, we look from Mauna Kea and we look within ourselves to find our responsibility to Mauna Kea and hence our place in the world. We move through time and space back to our beginning, to the time when the Po (darkness of creation) gave birth to the Ao (light of creation). We return to the time when the akua walked the earth with man, and taught him the ways (laws) of aloha and of peace.

When we hear the famous Hawaiian proverb; "Mauna Kea, kuahiwi ku ha`o i ka malie" (Mauna [is the] astonishing mountain that stands in the calm), we are reminded of the great Mauna that sits in the calm—the infinite calm, the infinite peace. We are reminded that the purpose of Mauna Kea is peace. It is Akua's Aloha alone that can bring such peace. Often people ask us what is the protocol for Mauna Kea, we say it is, Shhhhhh! That is to be silent, as one is overwhelmed by the great calm. It is silence because when you walk you are walking in Akua's house, walking before the supreme ones, and really there is nothing we could or should be saying, instead we should be listening and feeling. Listening for what they may tell us, the earth and the celestial bodies of the heavens. We are feeling the love, the peace and experiencing the joyousness of the great love and compassion that is Akua. We feel honored that we are allowed to be there, humbled by the majesty and greatness of Mauna Kea.

To ascend Mauna Kea, is to ascend through the lewa lani (the levels of the heavens). As you ascend, it is as if you are peeling away layers of yourself, so that when you reach the high levels, you approach in humility as your heart lays open before the Akua, and they see you. Their eyes upon you, their lessons learned, their requests fulfilled, their blessing given.

But, when the land, the waters, the life forms suffer, we feel this suffering, the process of creation begins to un-ravel and de-creation begins. The law, the kanawai is broken. We lose our place in time and space and then we are lost. This is why we stand for Mauna Kea. It is our kuleana to stand, our collective kuleana, it is our honor to stand, our collective honor, it is our blessing to stand, our collective blessings...today however, there is sorrow, collective sorrow because we know not how else to live, not in destruction, not in the absence of its nature, the

sacred nature. In Aloha all are blessed and that is all we know.
Aloha Ke Akua, Na Akua, Na `Aumakua.

Working For Astronomy

I both lived and worked on Mauna Kea for more than 12 years. I began working around 1987 for the Caltech Sub-millimeter Observatory (CSO) as a technician. My work entailed anything from laying cables and interconnecting all of the cable connections to working with the engineers on the sub-millimeter receivers (the instruments that collect and process the radio signals collected by the 10m radio antenna). Later I worked for the British government on the James Clerk Maxwell Sub-Millimetre Telescope (JCMT) that sits next to the CSO in the “millimeter valley” below Pu`u Poliahu. The JCMT is apart of the Joint Astronomy Centre that is jointly owned and operated by the United Kingdom, Canada and the Netherlands. At JCMT I worked as a Telescope System Specialist, which is just a big name for those of us that ran the night time observing (i.e. operating the telescope, tuning the instruments for the frequencies of the observing and collecting data).

Decades of Advocacy for Mauna Kea

About ten years ago my organization Mauna Kea Anaina Hou and I individually, Deborah Ward, Ku Ching and Paul K.Neves participated in a hearing like this one—a contested case hearing (CCH). We participate in the CCH as practitioners and entered pro se. In that case, the issues were almost identical. We were opposing the NASA/KECK Outrigger Telescopes project, which sought to construct four (4) to six (6) smaller “outrigger” telescopes placed around the existing two (2) KECK observatories that sit on Kukahau`ula (the summit).

We had two hearings on the Conservation District Use Application (CDUA) and one on a management plan. The Hearing Officer (HO) first agreed the NASA/KECK Project lacked the needed Management Plan but he was remanded by BLNR to re-review it and changed his position so in both CCH's we ultimately lost, however we prevailed on appeal with the court finding in our favor and voiding the NASA/KECK CDUP.

We were also witness in the federal Environmental Impact Statement (EIS) case, where OHA sued NASA on our behalf for failing to complete a full EIS for the Outrigger Telescopes Project. The Federal Court had ordered NASA to redo their Environmental Assessment (EA) and NASA did a full EIS in lieu of redoing their EA. After the Third Circuit Court vacated the NASA/KECK Outrigger Telescopes Project CDUA, NASA eventually pulled their funding for the project.

The NASA FEIS Executive Summary acknowledged that the cumulative impact of thirty (30) years of astronomy development has resulted in adverse, significant and adverse impact to both the cultural and natural resources of Mauna Kea. And it is because of this no more development would or should occur, since the BLNR rules such as the eight (8) Criteria specifically bar projects that have such adverse impacts to the cultural and natural resources of the Mauna Kea Conservation District (MKCD). However, the UH and TMT pursued this project despite the federal findings and conclusion.

A few years ago the UH and TMT announced their intention to apply for a Conservation District Use Permit (CDUP) for the Thirty Meter Telescope (TMT). So we again had to engage in another CCH to defend our Environmental rights, our Native Hawaiian rights such as rights to continue our traditional and customary cultural and religious practices. Affirming that our rights would be negatively impacted by Board approval of the TMT Project proposed for Mauna Kea.

We completed the contested case again as pro se Petitioners and the HO after about a year ruled against us. Our case was brought before the third circuit and then our Lawyer Naiwi Wurderman asked that the Supreme Court to review it which they did. On December 2, 2016, the Hawai'i Supreme Court found the BLNR have violated our due process rights and remanded us back down to the BLNR to re-hear our case without due process failures.

Now I cannot say that this current hearing is fulfilling the court's orders because we have had to file many motions regarding, among other things, that our due process rights are being violated yet again. This is a matter of BLNR repeating the same errors the court just found BLNR guilty of. It is outrageous that BLNR is causing us even more stress, confusion and much much hardship. They are supposed to be representing the interest of the Native Hawaiians and the Public and especially when the case involves public lands such as in the case of Mauna Kea lands. Instead BLNR without even the appearance of being impartial is working or and supporting the TMT.

I completely and adamantly do object. I further object not only to BNLR's treatment of us as as the previous Petitioners and prevailing parties of the Supreme Court case, but I am also appalled at the treatment and or mistreatment of those who have recently come into this case as pro se Petitioners also. I must strenuously object to this hearing and how we are all being treated.

I can only reiterate something Kumu Paul has said to me recently:

"You know the system is broken when a simple rule, one even written in plain English, can take nearly 20 years to be decided in an Pono way."

Paul's the question remains true, how is it possible that it should take us so long to have the basic rules which are meant to protect the MKCD from negative impact and degradation to simply be upheld first by BLNR and that failing at least by court of law? How long should that take...how long?

Because it has taken decades, I submit, is why the Protect Mauna Kea movement erupted last year. People claim it was so sudden but It was not sudden it took years to find its perfect time and place ...a perfect storm so to speak, where there have been legal challenges after legal challenge where we have actually prevailed, repeated political actions and endless public hearings, were people repeatedly poured out their heartfelt testimonies over and over again... then the Internet...social media that brought the necessary consciousness and broad understanding so that the people across Ko Pae Aina (the archipelago) could rise up for the true

protection of Mauna Kea -and the Akua called it to the attention of not only Hawai'i Nei but even to the world.

We give our prayer of grace and gratitude for Akua's great Aloha and peace that kept the people and the police/DOCARE Officers safe and also so that made certain that Aloha and truth could prevailed again in Hawai'i. The people rose up to defend Mauna Kea, our Temple and to reclaim our rights and the Aloha Spirit--and so that is why We Are Mauna Kea and We Are Papahānaumokuākea (Mother Earth)!

Basic Respect, Civility and Decorum Needed

Astronomy Is Interesting But What Are Its Real Benefits?

University has accused us (the Petitioners) of being "backward-looking extremists" while simultaneously staking out large claims on how astronomy and in particular the TMT Project will be "benefiting all the people of the state."(The University's Opening Brief and Pre Hearing Conference Statement at p. 1 and 2, and p. 1 respectively).

There are a number of problems with such assertions and they are as follows:

These assertions attempt to debase Hawaiian values and practices and also let the University claim more than the science allows them to claim. One of the key values of Hawaiian culture is humility. We are not encouraged to speak in haughty ways or to put others down for our own selfish purposes. But I am going to speak a little outside my values in this case, because I must challenge the University's overarching assertions on the value of astronomy as well as their unfounded and accusations made against us (Petitioners) and by extension against other Hawaiian cultural and religious practitioners.

I have always supported astronomy because I believe it is a noble endeavor that should be supported. However, I do not believe it is of so much importance that it should be allowed to overtake and destroy everything else in its wake. I am for protecting the cultural and natural resources of Mauna Kea, which unlike astronomy facilities, are actually threatened. Large scale astronomy is being conducted at over 93 sites around the world, but here on Mauna Kea many of the plant and animal species can only be found on Mauna Kea and nowhere else on earth; and many of any of the cultural traditions can only be conducted on Mauna Kea and no where else on earth.

Data collected about the far and distant universe is contributing to the knowledge base of mankind in one sense but what the University is not discussing is the quality of that knowledge. For example, when you see on the front page of the news paper KECK Observatory discovers a new black hole so many light years away? The question is what does information mean for people, what does it do for the people really? From a science perspective it means we discovered something we believe is a black hole event that may have existed millions of years ago and may not exist today. I would say this information is important in an academic kind of way but it does nothing immediate to help mankind. So I would have to say it's a bit much to claim all of the

people of Hawai`i will somehow benefit directly from these kinds of discoveries.

The knowledge gained, although interesting, does nothing to change the lives of anyone. Astronomy in context reveals that it is not changing or helping solve the problems mankind is facing on earth right now. It is not solving the cure for hunger, cancer or HIV, protecting our biodiversity by protecting rare, threatened or endangered species, providing people with clean water, reducing our energy consumption or inventing new forms of energy. Some astronomers have accused me of not being fair because I know astronomers aren't seeking to do those things, they are just doing astronomy. But this is my point, science (all science) should be honest about their real contributions to mankind and not let their lawyers or press people keep hyping it up by making astronomy seem bigger than it is.

The fact that scientific data is interesting does not necessarily mean that it is changing lives or benefiting people. The irony is, backward looking is a part of the astronomy paradox, in that the farther out into space we look the further back in time we are looking, so making bigger telescopes to see farther in time, means we are moving farther and farther away from modern relevancy, actually. So I submit their accusations are not fair and the University is taking unto itself more credit than it should or that it deserves.

Debasing Hawaiian Practices Is Offensive

When the University makes accusations against us as Petitioners, by referring to us as backward thinking, the messages they are also conveying is that what the Hawaiians are doing, including our traditional practices, are antiquated and hence irrelevant. These comments combined with their assertions that modern astronomers are just doing what our people did in the past are offensive as well, and add further insult to the injury. These assertions insult both modern astronomy and traditional astronomy all in the same breath. The two disciplines in no way can be reasonably compared because they are like apples and oranges.

For example, thousands of years ago our navigators and star people developed a system that allowed our ancient people to circumnavigate the globe and to people the tiniest islands scattered across the largest ocean on earth, the Pacific Ocean. We did this before the birth of Christ and at a time when no one on earth was doing a similar method of ocean voyaging. These feats are still to be considered one of the greatest feats of mankind. Modern science on the other hand would come about thousands of years later; and while it's true our people did not do what Pythagoras did, or what modern astronomers do today with technology - they did develop a system of advanced mathematics that allowed them to understand and determine that the earth was round and to a concept of a celestial equator. If this were not the case they could not have found the tiny little islands across a vast ocean with any accuracy at all. If your measurements are off by only a few degrees you will get lost at sea, because even tiny discrepancies in measurement on the sky translate to hundreds of miles on the ocean.

I had an astronomer friend query me on this very thing, asking how the Hawaiian people knew the earth was round before the Europeans did? I at first did not think it was a genuine question so I responded that we sailed the ocean and didn't fall off. He persisted and his curiosity was

genuine and in no way dismissive. I finally explained how we did understand these principles (i.e. celestial equator), but that they were contained for example in our stories of Creation and Papa (Earth Mother) and Wakea (Sky Father). His response was surprising to me, in that he was resistant to the idea that any science could flow from mythical stories. It surprised me because I had never considered our stories myths before that day. In response, I further explained that these stories are not myths but rather teaching tools. Our teachings are storied but they also meet the criteria of science, in that they are based on observation and are measurable and repeatable. Our modern Navigators and their many accomplishments are evidence of this. Our oral traditions are not mere mythical stories, and they are dependent on the landscape and that is why the landscape of Mauna Kea needs to be protected and preserved.

Hawaiian Cultural and Traditional Practices Not Protected View Sheds and View Planes

The University has not used traditional methods to assess the viewshed impacts. The University claims the view planes or viewsheds will not be affected. This is not true. Most of our practices rely on some kind of view plane, because they are about the relationship between Papa and Wakea (our relationship with and to the earth and the celestial bodies and heavens). For example, we have repeatedly included concerns for the impacts on various ceremonies exercised on Mauna Kea, such as the solstice and equinox ceremonies that we along with many other Hawaiian groups (i.e. Royal Order of Kamehameha I and others) collectively participate in throughout the year on Mauna Kea and other sacred sites around the islands. Mauna Kea is actually the fulcrum of such ceremonies, because the Mauna sets the ultimate relationship to all other sacred sites for such ceremonies, as Mauna Kea is the highest point and from there you can see all else.

These ceremonies are about tracking the motion of the sun across the sky throughout the year and were used by our people and most of the ancient people around the world to keep track of the year. The po`e kahiko (ancient Hawaiian people) are not alone in these ceremonies for keeping track of the motions of the celestial bodies and their relationship to the observers on earth. The Celtic Shaman, Egyptian Priests, Mayan Priests, Chinese, Arab and Middle Eastern astronomers and holy people all performed the ceremonies similar to those we perform on Mauna Kea.

Tracking the sun is for growing and harvesting. But more important is the need to track the annual time in the context of a much greater time frame known as the precession, which is the 26,000 year cycle (although some used slightly different time frames). This cycle is the measure of the wobble of the earth's axis, and the time it takes for the wobble to make a complete cycle. The wobble was important to keep track of because relative to earth the pole stars appear to change over time. If the pole stars change it drastically impacts navigation. If the poles are changing then over time our knowledge must change to reflect these changes or we will get lost, and for us especially that means getting lost at sea.

The idea that so many ancient people understood this concept is amazing in and of itself. It

would take about 70 years for a single person to realize that such a motion was actually happening and another great leap of consciousness to understand it would take about 26,000 years for the precession cycle to be completed. How the ancient peoples of the world came to this understanding is amazing. I learned about this from my Kupuna first, and then did some of my own research.

The ceremonies I just described are specifically dependent upon our ability to observe and track the motion of the sun and other celestial bodies in order to find our way and to determine when and how to perform certain things for the care of the land and sea. Our traditional resource management models are dependent on these ceremonies. Our ancient knowledge relating to our relationship to our other Pacific people are also a part of this knowledge. And lastly our sacred prophecies are based in this knowledge.

We refer to the summer solstice ceremonies as "Ke Ala Polohiwa a Kane", Winter as "Ke Ala Polohiwa a Kanaloa, spring equinox as "Ke Ala`ula a Kane", and autumnal equinox as "Ke Ala Ma`awe`ula a Kanaloa".

1. Winter Solstice = "Ke Ala Polohiwa a Kanaloa" -- The Black Glistening Path of Kanaloa--is when the sun hits its farthest point south in the sky, occurring in December.
2. The Sumer Solstice is "Ke Ala Polohiwa a Kane" --The Black Glistening Path of Kane-- when the sun reaches its most northern point in the sky, occurring in June.

Whereas, the equinoxes (where the sun crosses the equator ("Ka Piko o Wakea" from my family tradition) to the far winter and summer points are called:

3. "Ke Ala`ula a Kane " (The Spring Equinox--The Dawning of the Path of Kane") occurring in March and;
4. "Ke Ala Ma'awe`ula a Kanaloa" (The Autumnal Equinox--"The Red Track or Tentacle") of Kanaloa) occurring in September.

We have provided a map that describes some of the traditional view planes used by cultural practitioners. (See Exhibit C-5).

About Exhibit C-5, this is a map that describes traditional cultural view planes. It was created by Community By Design, a planning group from University of California at Berkeley. KAHEA got a small grant to hire them, and they and their graduate students came out to Hawai`i to interview many different people in the community to learn about Mauna Kea. They created this map out of the University documents and also testimony on the view sheds. This map incorporates our testimony as well as others. It is not a complete map but it does help provide a visual representation of some of the view planes including some of the solstice and equinox view planes and those in relation to other the sites and also to the other islands.

On this view plan map, you can see that the TMT will be in direct line of sight of Maui and the NW plane which is used for ke ala ao (solstice and equinox) ceremonies. There are also lines that

represent the relationship between Mauna Kea and Poli`ahu Heiau on Kaua`i, Ahu a Umi Heiau situated between the three great mountains (Hualalai, Mauna Loa and Mauna Kea) on Hawai`i Island, the Pu`u Kohola Heiau in Kawaihae, Hawai`i Island, and Motu Manamana (Necker Island) of the North Western Hawaiian Island which marks the great turn around of the sun during the ke ala polohiwa time. The shrines on this tiny island are related to this relationship too.

This map also describes some of the nighttime view planes used by cultural practitioners. For example, the map shows the views of the rising and setting of important stars and constellations. It records views of the Pleiades (related to Makahiki Ceremonies), The Southern Cross (Pe`a), and the North Star (Hoku Pa`a). We already have to move around the observatories to get unobstructed views of the sun setting (NE-NW) direction, the great shadow of Mauna Kea and other night time view planes. For example, the constellation known as the Southern Cross which is an important navigational constellation and used for time keeping on the sea, is obstructed from the summit region by the existing telescopes, so the TMT view plane impacts will add to the existing cumulative impacts to the traditional and cultural view planes. (See Exhibit E-2).

About EXHIBIT C-6. This is a picture of the Southern Sky from Mauna Kea. At the left is the glow of the lava from Kilauea volcano. In the sky at the center is the Southern Cross. The Snow covered peak in the center is the true summit of Mauna Kea, the highest point in the Pacific. At the right, the dome of the 8-meter Gemini North Telescope is under construction - found in the Atlas of Hawai`i, 3rd Ed. Edited by Juvik and Juvik, Chief Cartographer Thomas R. Paradise, at Photograph by Mr. R.J. Wainscoat, copyright 1997, p. 98

When people come to view the sunset, including those of us doing ceremonies, the TMT will be a dominant feature in that view plane, including ours as we honor the sun as it sets. The TMT will be visible anywhere from that side of the Kukahau`ula and from below the summit. You will be able to see it from Pu`u Poliahu as well. This pu`u is very important. Yet, based on the University's documents there is this idea that if the TMT is not completely obstructing your eye it is not obstructing a particular view plane—but this is not correct. A view plane is the open plane and what is in it or not. The TMT is very big and there is no question it will be the most dominant feature in the open space and view planes from Mauna Kea.

The TMT will impact us and many other people that seek to observe the sunset from Mauna Kea. The TMT will be in direct line of site of many traditional spiritual and religious view planes, including those towards Haleakala, the sunset and other sacred sites. The TMT will add to the already obstructed day and night view planes used by cultural practitioners. This is an adverse, significant and substantial impact on the cultural practices and uses of Mauna Kea. Therefore the TMT does not preserve or improve upon the open space and natural beauty characteristics of Mauna Kea, nor does it demonstrate it will not have an adverse or significant impact on the cultural resources of Mauna Kea.

The Hydrology Of Mauna Kea, Including Lake Waiau Not Considered

Lake Waiau

The lake is a very important cultural and religious site on Mauna Kea. The lake represents many things to the Hawaiian People and to many others as a beautiful, unique and special place. Lake Waiau is considered among other things to be a door way into the Po (the Heavenly Realms of the Ancestors). It is said this is the water of the sea and the water of the sky meet. The Lake is like a navigational gourd to view the heavens in, as the stars are reflected on its surface. The lake is also home to our akua (deities), such as Mo`oinanea, who is recorded in our genealogies and who is assigned to care for the kupua children. The snow, ice and waters of lake Waiau (or other pooling water areas, like those that occur on Pu`u Pohaku) are very valued because they are gathered for medicinal and other ceremonial uses and purposes. The snow, water and ice, are divine manifestations of the different deities. We believe it is very important that the deities not be negatively impacted.

The University's assertions that there will be no impact are not sustained by actual data. There have been no comprehensive studies of the complex hydrology of Mauna Kea. We have long had concerns for the protection of all of the waters of Mauna Kea, including concern over any possible contamination of our drinking water, as Mauna Kea feeds as many as five aquifers around the island. We have concerns also because the batch plant areas have water features (run-off channels) that flow in the direction of the lake. We cannot harvest water, ice or snow for medicine if these properties are contaminated. There is uncertainty and that immediately affects our ability to continue some practices now.

Traditional Hawaiian Water Uses are part of how watershed lands that now are called Conservation Districts are originally established. Our traditions tell us the waters we swim in at Hilo Bay are from Mauna Kea. The water of Mauna Kea even feed our fish ponds below. The Public Trust Doctrine does not allow for the excessive taking of any of the commons (i.e. land, water, air etc.). The Public Trust Doctrine and the Constitution provide for the protection of Native Hawaiian Traditional and Customary cultural and religious practices and ensure that all people have a clean and healthful environment. The courts have affirmed that BLNR has an affirmative duty to protect these things and that in the absence of conclusive evidence to the contrary they must apply the precautionary principle, which is to err on the side of caution and for the protection of the resources. In this case there is no conclusive evidence that the complex hydrology of Mauna Kea, the islands drinking water sources and the important water sources of Mauna Kea will not be affected. **Therefore the TMT does not preserve or improve upon the open space and natural beauty characteristics of Mauna Kea, nor does it demonstrate it will not have an adverse or significant impact on the cultural resources of Mauna Kea.**

Conflict Arises From the Destruction of the Landscape

For most of my tenure working in the astronomy industry I was not conflicted. Where conflict began set in was when the KECK 1 & 2, SMA and Subaru projects were being proposed. I felt troubled because I realized the landscape was being taken over; really taken over. It was one thing to have some of the telescopes up there scattered here and there, because the landscape was still the dominant feature and all of the beauty surrounding you still swept you up even with the telescopes on some of the tops of the pu`u. When they started proposing to carve up the pu`u's

where KECK and Subaru are, that is when I really began to feel things were getting out of control, but I didn't understand the process for bringing those concerns up, at least not back then. Today the cumulative impact of all of the observatories is overwhelming and is an adverse, significant and substantial impact to open space and natural beauty characteristics. The TMT project and associated infrastructure will without question increase this impact-and this is unacceptable.

University Has Created a Hostile Environment for Contemporary Cultural Practices

To be clear, many people, including myself have been practicing traditional and customary cultural and religious practices since the eighties and long before the University even created the Office of Mauna Kea Management in their 2000 Master Plan. It can be said that we are some of the most obvious practitioners, as we have been very outspoken and have worked hard to actually help the University and BLNR to consider how to better protect the sacred nature and properties of Mauna Kea. Many of our ceremonial things such as our ahu (shrines) and lele (ceremonial platforms) - areas used by many other practitioners and people that come to offer prayers and give offerings - have been desecrated and destroyed by the University's own personnel. The University maintains that they have right to determine what of modern practice is appropriate or not. What the University is not addressing is the "reasonable exercise" of our traditional cultural practices. Affirming the continuation of traditional and cultural practice is useless if there are no actual protections provided for practitioners to continue their practices. University obstructs our practice regularly, and the BLNR has taken no affirmative stand to correct this problem.

Historically Treatment Of Family ahu

For example, in the case of my family ahu it was one thing to have it destroyed once, but since that time it has continued to be desecrated and destroyed on at least seven separate occasions and I can prove at least three of the incidents directly involved University personnel. In fact, the last ahu we made (that is Ms. Keomailani Von Gogh, Mr. Paul K. Neves and I made together) was not to be found on June 18, 2011. My Auntie's burial remains were desecrated at this site also, as she requested that she be brought there after her passing. (See Exhibit C-7, a picture of my family stone, with me in the picture for context)

My family area is located on the Natural Area Reserve (NARS) which is under the BLNR, and sits on an outcrop not far from the road that faces south-it is beautiful there. I should note that while I did personally place my family stone there because I needed a place to ask for permission to ascend higher, many people have used the area for prayers and offerings. I considered it a place for all who may wish to worship there.

When I discovered it (my family stone) missing, I never suspected any University people would be involved, let alone suspected that it would be disposed of at the Hilo Dump. I found it at the dump by accident, as I had to go to the back area of the dump because it was crowded that day. I found it at the security guard shack. One of the Security guards did rescue it from being thrown in the dumpster, and reported that the person that brought it there drove a red state truck. But in fact the person that took my family stone to the dump was a University employee who worked in

housekeeping and later as a star tour guide at the Visitor Center at Hale Pohaku (HP).

After I found it, I replaced it to its original spot. But a couple of days later, the same persons, took it again, but this time I found him with it in his car at HP, as I realized that University's Mauna Kea Support Services had a red state truck. When I went to work that evening, I found it gone again, so I called down to HP and asked the cook (Walter Poha) to look in his (Mr. Hugh Grossman, the UH employee) car, he told me it was in the car. I actually called the police for help, and was told by them that if he didn't return it they would come and help me get it back. He did finally give it back, and I returned it again. This same stone was taken a third time and it has never been recovered.

Of course this stone had sat there for years and no one had ever touched it until Mr. Grossman of the University took it the first time. After hearing of my missing stone, another Kupuna gave me the stone that belonged to Aunty Iolani Luahine (the Hula Master). They gave it to me to keep the prayer going, until I found mine again. This pohaku, too, was taken by another University tour guide and that stone has never been recovered either. Since that time we have erected numerous other smaller ahu, these were made of numerous stones not a single stones. These ahu have been desecrated about five more times, which means the desecration and destruction of this site is on-going!

I want to note that Dr. McLaren did write an apology letter to me on behalf of the University which was very genuine, but after my ahu stone was taken the first time it was taken two more times and has never been recovered. It is clear that University policies were not consistent with Dr. McLaren's personal feelings. The State Historic Preservation Archeologists, Ms. Holly McEldowney and Mr. Marc Smith, had to write a letter on my behalf to the NARS and DOCARE Office (State Enforcement Office) to assure them that my ahu was not disturbing anything historic. In my discussions with Holly she told me that I had a right to continue my practice and that is why they would write a letter on my behalf. How ironic it is that I was investigated for my practice, rather than University personnel for desecration—there is a law prohibiting it in our state (HRS §711-1107). (See Exhibits C-8 and C-9, Dr. McLaren's letter regarding the ahu incident and Mr. Marc Smith's letter regarding my ahu).

Summit Lele Destroyed

The same problem exists for the summit lele (ceremonial platform) erected many years ago. The members of the Royal Order of Kamehameha I (ROOK I) Mr. Paul K. Neves, Mr. Kaliko Kanaele and Mr. Kahu o Te Rani, asked me to help them set the lele up on pu`u wekiu, in alignment with the ke ala ao (solstice and equinox and star alignments). We had to adjust the alignments because the telescopes on the summit ridge were where it was most appropriate to conduct solstice and equinox ceremonies from originally. I agreed to help. The lele is a place for all people to place offerings, not only us. The Chiefs of the ROOK I, were making space for sacred things to occur for our people—that is what was traditionally done.

It has been destroyed and all the offerings scattered all over the place many times (including the time the legs of the platform were hacked down with an axe). I think five times now. In one

incident the rock platform that was created below the lele was completely destroyed with all of the rocks being literally thrown down the back face of the pu`u. What was desecrated also, where the personal effects of some Hawaiian soldiers that died in the Iraq war had been placed inside the rock platform by their fathers. Uncle Ku (Clarence Kukauakahi Ching) had been asked by their fathers to help them do this to honor their sons. (See Exhibits C-10 and C-11, examples of lele destruction).

The University claims the lele is problematic because it attracts tourists, which further impacts Wekiu bug habitat. Their explanation is problematic for a few reasons, first it is the University that is attracting tourists to Mauna Kea, and if the Wekiu bug habitat is being impacted by tourists (not to mention building telescopes), why are practitioners to blame? The University should be addressing development activities and tourism as their problem not ours. What we are doing is for all intensive purposes a innocuous, reasonable, and a protected activity.

From a cultural perspective, in a temple like Mauna Kea, you don't regulate people unless they are doing something really outlandish or destructive. Mauna Kea belongs to the Akua, the land, and the people. The destructive impacts are not being caused by people going to the summit to lay offerings and give prayers, the impacts without question are the result of the astronomy industries' large land altering activities, as the University admits in their CDUA.

Leave The Landscape As You Found It

The University has placed large signs all over the summit and HP areas, that read, "Leave the Landscape as you found it..." Now what does that message convey to Hawaiian people and others that build small ahu when they go and take snow or to do prayers and ceremonies. They are telling us, that building small stone (i.e. stacking three rocks or so) is somehow more damaging to the landscape than ripping 45 cubic feet off the tops or the pu`u to build the KECKs and Subaru. The argument is **traditional and customary practice is not good, but building giant telescopes out in the middle of the ring of shrines that surround Kukahau`ula, as the TMT is proposing is good.**

What these signs are conveying is that science and even highly destructive science is okay but what Hawaiians and some of the public do is not good and forbidden. These are the kinds of inconsistent and illogical arguments that are so shocking to us and are offensive, as it places us outside of our own practice in our own temple. We have a right to practice in the environment of our belief, and the landscape of Mauna Kea is the environment of our belief. (See Exhibit C-10, Picture of the landscape sign).

History Is Protected For The Future

The University may attempt to argue that they put up these signs in order to protect the historic shrines, from being confused with the modern ones. This is reflected in their arguments contained in their CMP that they have a right to determine the cultural appropriateness of new shrines. Whether those shrines are to be dismantled depends on "protocols, the conditions imposed by guidance provided by Kahu Kū Mauna, MKMB, and/or the MKMB Hawaiian

Cultural Committee or administrative rules, if/or when adopted” (CMP, p. 7-9).

There are a number of problems with this argument:

1. The University has no authority over the conservation district, the historic preservation district or the NAR of Mauna Kea. The state carries the legal authority over these areas.
2. If the historic mapping of the shrines had been done years ago, as it should have been there would be less confusion as to what is historic and what is new.
3. The Historic District of Mauna Kea is designated as a historic district because of the interconnected relationships that exist between the shrines (including those that ring the summit) and pu`u and historical uses and practices of Mauna Kea, which includes building shrines.
4. The construction of observatories negatively impacts the historic district by literally destroying the landscape and henceforth the continuity and interconnectedness that makes the area eligible for listing on the State and National Historic Register. The development of the TMT will negatively impact the very landscape that is of historic value.
5. If the University is so worried about historic preservation of the area, why are they proposing to build the TMT in the middle of the historic district (on the plateau where the ring of shrines are located)?
6. While we support protecting our historic sites, we must point out that, that history belongs to living. What I mean by this is that building shrines is a traditional and customary practice and therefore modern shrines are an extension of the practices of the past. And even if the modern practices were being conducted in the historic areas (which is usually not the case) as long as those practices were not negatively impacting the historic properties. For example, the adz quarry is an amazing area that reflects the amazing history of our people’s quarrying and craving skills. Is it impossible to imagine that modern people could work out a plan with historic preservation to be able to continue to quarry and restore the knowledge and methodology of the ancient adz makers without negatively impacting historic quarry’s value? No, it is not impossible to imagine this, since there are virtually miles of veins of good quality blue stone that could be used to make adz, that do not sit directly in the most important historic areas.
7. It makes little sense to say, we must save these historic sites, for future generations but never to allow the living to continue their traditional practice or to restore the very practices preservation is meant to preserve. Furthermore, it does not comport with what the Supreme Court has affirmed as the states obligation to protect the reasonable exercise of traditional and customary practice.
8. How can this be achieved if Hawaiians are not in fact allowed to really continue their traditional and customary practice?
9. Here in this instant case, it is clear building shrines was an ancient practice, and therefore the current practice of building shrines is a continuation of that. It is also clear that the University believes it has right to decide what of these practices are allowed or not allowed. But again the University has no jurisdiction over the conservation district or the NAR, and their claims simply do not comport with PASH and or Kapa`akai insofar as our practice is “reasonable” and it is not impacting anything (including historic areas).

By allowing the University to destroy our cultural and ceremonial things, the BLNR is not affirmatively protecting our rights. BLNR not taking a hard look to identify, assess and to reasonably protect our traditional and customary practices means BLNR is violating the Supreme Court directives provided under PASH and Kapa`akai.

Enforcement Against Violators

There may be times when residents (including Hawaiians) do things that may negatively impact resources. However, there are laws in place to address such violations. The case of the University closing the road to Pu`u Poliahu is an example of how this idea gets turned on its head. The University had a problem with tour companies bringing tourist up to view the sunset from the pu`u. Obviously tour companies using the road everyday in large numbers, would have an impact, here again is why there are laws in place to protect against abuse. The University instead of taking up the issue with the tour companies choose to close the road altogether, which caused a disruption to many residents and practitioners access to the area for practice and use.

We are advocating for protection of access for all people not just Native Hawaiians, because it is pono (righteous) to do so. It is correct from a spiritual perspective, as Mauna Kea is a temple that is open to all. There could conceivably be conflicts that arise, but that is why **BLNR has a duty to prepare and adopt management plans that address multiple land uses. This is also why the University's claims that they are taking care of these multiple land use considerations simply cannot be sustained. They are in a conflict and are regulating to support their interests and against the public and Hawaiians interests. That is what the evidence demonstrates.**

The Mitigation Measures The TMT And University Propose Do Not Reduce The Actual Impacts To Less Than Significant.

The concerns many Hawaiian people have over more and more development of Mauna Kea is not hard to understand when you place Mauna Kea in the context of other religious places. Even if other sacred sites around the world were good sites for astronomy it is not likely that astronomy proponents would consider proposing what they are for Mauna Kea. For example, observatories are not being proposed or built on top of Mount Fuji, because it is a place of national importance and because it is held in spiritual reverence by the people of Japan. No one has proposed to level Mecca or Mount Sinai either. Would not the worshippers of Islam be upset if the dome of the rock was being leveled to observatories on it? Or would not the Catholic people be upset if the Vatican was going to be taken down so a McDonalds or a bunch of unrelated developments could sit there instead? I believe the respective worshipper of those various religions would be very upset at the proposition of destruction of their holy sites. It is no different for Hawaiians.

Digging into the sacred landscape not only impacts us directly by changing the landscape that our practices rely on but it impacts us indirectly as well, because our house of prayer and

worship is being destroyed for a purpose not related to our practice. The burial ground of our most sacred ancestors is being destroyed and desecrated.

BLNR Instead Accepts Mitigation Measures That Are Nothing Short Of Nonsensical And Insulting

For example, the University and the TMT are proposing to place “furnishings” in the observatories that are meant to instill a “sense of place.” I am not sure what kind of furnishings those would be. In the final analysis such measures are not mitigation measures because they do nothing to change any impact the TMT project will have on the cultural and natural resources or landscape Mauna Kea. Attachment to land (landscape) or what is often referred to as a sense of place is an important part of the Hawaiian people relationship with the land (landscape). The very suggestion that furnishings some how will preserve that sense of place while the Project construction is destroying the very same place (the land) is not only nonsensical, it is insulting.

Another mitigation measure proposed by the TMT is to paint the dome silver. Painting does not remove the large structure obstructing the view planes, not does it preserve or improve upon the natural beauty and open space characteristics of Mauna Kea. The big TMT dome no matter what the color it is will be the dominate feature in the view plane of the setting sun and it will impact the views of the sunset and other important cultural views. Painting a building does nothing to stop the destruction to the temple, or the obstruction and loss of our view planes.

The impacts the TMT will cause will last for 50 years, and actually beyond the terms of the master lease. This means the future generations will be losing their right to enjoy these cultural and natural resources.

The University claims the TMT is not being built on the summit ridge (on Kukahau`ula) as a mitigation measure, because Native Hawaiians consider the Kukahau`ula sacred. This is a false argument, first because we consider the whole summit area sacred, including the plateau. This is evidenced by the presence of the many ahu’s built that ring Kukahau`ula. Secondly, the truth of the matter is the TMT can’t fit any were on the summit because it is simply too big. The whole summit area including the summit and plateau are eligible for listing on the State and National Historic Register. A Historic District is created when there is strong evidence that there are cultural and historical ties, interconnectedness and continuity over a large area. The summit and plateau are culturally connected and therefore all contained within the Historic District boundaries.

The University’s assertions that placing the TMT on the plateau is a mitigation measure is contrary to the purpose of the Historic Preservation protections and does not mitigate any impacts from a cultural stand point. The University also fails to analyze the viewsheds from the ahu’s on the plateau. The TMT will be the most dominate feature on the plateau, and it will impact most view planes from the ahu themselves situated on the plateau.

The University and the TMT Corporations claims that giving money to the OMKM and an educational or workforce pipeline project some how offset the adverse and significant impacts to the cultural and natural resources to less than significant. This is simply not true. I and other

practitioners, are impacted by the infringements of our ability to practice and our attachment to the land (a landscape un-destroyed and un-desecrated) not by the lack money. Money is not able to offset damage to the water or to species if they are damaged (or pushed to a point of no return). For the record, we are not opposed to them giving money to needy communities and for educational purposes but they should do that because it is the right thing to do and not as a way of claiming to offset impacts to the spiritual nature of Mauna Kea and its importance to the people of Hawai`i. The TMT funding what projects they are interested in funding will not reduce any actual impacts to the cultural and natural resources of the Mauna Kea Conservation District. Money does not and never will offset the impact to the cultural and natural resources of Mauna Kea. Therefore, **money is not a valid mitigation measure.**

Lastly, the TMT has also suggested that they will pay some kind of “rent” (although they have yet to come up with an actual figure for that “rent”), but that it will be given to the some organization called THINK. This violates the law because the rent is required by law (HRS 171) to be based on 1) a “fair-market value” standard and 2) deposited in to the State’s General Fund and not into some special organizational fund the University and others have created.

Laws Are Meant To Be Followed

The University has suggested that our religious uses should not be used to deny them the CDUA permit. However, it is not our religious practices alone that would be stopping anything. Specifically our rights are tied to our relationship to the land both culturally and legally which is provided under the Admissions Act and the State Constitution. The State of Hawai`i must hold the lands in trust for the betterment of the Native Hawaiians and the general public and that was a condition of Statehood.

The state’s therefore has a responsibility to protect Hawaiian rights along with many other rights that the people of the State of Hawai`i via their representative government, have decided are important to protect and preserve; such as open space characteristics, natural beauty, protection of cultural and natural resources and conservation. The people have decided that these resources are important to our state and its economic welfare (i.e. tourist come to see and enjoy these things and clean water is a lifeline for all people etc.) Residents also want to enjoy these important resources, including Native Hawaiians who wish to continue the reasonable practice of their traditional cultural spirituality.

Mauna Kea is a vast community resource and many people use it for various purposes (i.e. hunting, hiking, exploring the natural landscape and geological features, observing wildlife, being in the natural beauty and open spaces etc.). That is why it is designated a conservation district, and why the laws of our state say to protect these things. The foreign/international observatories have been allowed to use these resources and to actually take them away from the people by making it hard for the rest of the public to fully enjoy the other important aspects of Mauna Kea. The astronomy community is actually a small community (few people actually practice astronomy on this scale), whereas the residents of the Hawai`i are many. The Observatories are taking away the residents’ resources. People can no longer enjoy a 360 degree view from the summit, and they will lose their unobstructed views of the sunset if the TMT is

built. The law requires those very aspects to be protected and requires that they not be so heavily infringed upon that the people lose their right to fully enjoy them.

Regulatory agencies such as BLNR are supposed to act on behalf of the greater public to protect their rights. That means that they may say “no” to projects that do not protect these things the laws require protected. If this were not the case then there would be no need for a permitting process. The BLNR should have said no to the TMT CDUA, because neither the University nor the TMT Corporation can show these important resources will be preserved or protected. **BLNR failed to protect our rights (Native Hawaiian rights) and those of the general public.**

Repeating The Same Errors The Court Just Found Unlawful

The University does not meet the requirement under HAR 13-5, because they have presented no comprehensive plan as the law requires. They have put up three plans, 1) a project specific plan called the TMT Management Plan (TMT MP), 2) the University’s 2000 Master Plan (UH MP2000), and 3) the UH CMP. Stephanie Nagata, Interim Director of the Office of Mauna Kea Management, in her Written Direct Testimony (WDT, p. 1) claims that land use in the Mauna Kea Conservation District is also controlled by the UH MP2000. Her assertions and all of the University’s proposed management measures, and therefore its management plans, contravene Judge Hara’s decisions and ruling in our previous case. (See Exhibit B-18, Civ. No. 4-1-397, Mauna Kea Anaina Hou et al. v. Board of Land and Natural Resources et al, (2006)).

1. The UH MP2000 has no force or effect of law and cannot be used to control land uses in the Mauna Kea Conservation District. Judge Hara held, the following:

1. Since the Use “R-3 Astronomy Facilities” begin with the letter D, and since the use indicates that a Management plans is required, UHIFA’s application for a CDUP is subject to a requirement that the proposed use, (i.e. the Project) be under an approved management plan. (*Id.*, p.3)
2. The University of Hawai`i did adopt a management plan for Mauna Kea in the year 2000. The Regents’ management plan was not however, adopted by the BLNR. It is clear from the context of the terms of HAR chapter 13-5 that the “management plan” as defined therein as required in order to permit an R-3 use is one that is adopted by the BLNR. (*Id.*, p. 4)

The UH MP2000 was never approved by BLNR and therefore may not be used to regulate any land use in the conservation district of Mauna Kea.

II. The University’s “Comprehensive Management Plan”, does not include the TMT project therefore is it is not comprehensive. Judge Hara held the following:

1. As used in HAR Chapter 13-5, “management plan means” a comprehensive plan for carrying out multiple land uses,” The plain meaning of the term “comprehensive” suggests a scope that is” “all-covering, all embracing, all inclusive, all pervasive...” (*Id.*, p. 5)

2. The plain meaning of the term “comprehensive management plan” and the agency’s apparent past interpretation of the that term supports the conclusion that as a matter of law, HAR 13-5-24 R3 requires a management plan which covers the multiple land uses...(*Id.*, p.6)

III. The TMT MP does not fulfill the management plan requirements under HAR 13-5-24 R3. Judge Hara held the following:

1. The resource that needs to be conserved, protected and preserved is the summit area of Mauna Kea, not just the area of the Project. (*Id.*, p. 7)
2. As used in HAR Chapter 13-5, “management plan means” a comprehensive plan for carrying out multiple land uses,” The plain meaning of the term “comprehensive” suggests a scope that is” “all-covering, all embracing, all inclusive, all pervasive...” (*Id.*, p. 5)
3. The UHIFA did eventually submit a management plan which covered the Project area which is within about a 5 acre site of the William M. Keck Observatory. The BLNR did adopt the management plan for the project. ...(*Id.*, p. 4)
4. [H]owever, it is indicative that the management plan it approved in conjunction with the granting of the CDUP covers a single project, which is less than the “multiple land uses” stated in the definition of chapter 13-5’s definition of “management plan. (*id.*, p. 6)
5. Allowing management plans on a project by project basis would result in foreseeable contradictory management conditions for each project within a management area that did not conform to a comprehensive management plan, and would not be consistent with the purpose of the appropriate management and promoting long term sustainability of the protected resources espoused by HRS §183C-2. (*Id.*, p. 7)

The TMT MP, is not comprehensive, it does not address multiple land uses, and therefore it does not meet the criteria under HAR chapter 13-5.

In summary, the three plans offered by the University to justify its request to build yet another telescope on Mauna Kea do not address cumulative adverse impact to the sacred, historic, and traditional cultural property, they do not propose effective, appropriate or sufficient management or mitigation of the significant and substantial impact, and they do not meet the criteria for protection of natural and cultural resources of the Conservation District as required by statute and by the Constitution of the State of Hawaii. For this reason, it is the duty and responsibility of the Board of Land and Natural Resources to deny this proposal.

I’ve presented the preceding information contained in my written statement to this court in pursuit of justice and in furtherance of the protection, preservation and conservation of the sacred mountain, known as Mauna Kea. While I, in no way would take claim for the brilliance of my Kupuna and/or my Kumu's (ancestors and/or teachers or masters) the information shared herein is information that has been adapted to reflect my own personal knowledge and information (as is traditionally done in Hawaiian practice, when composing new songs, chants,

dances etc.with traditional origins) and therefore is to be considered my intellectual property and may not be used outside of the legal system without my express written consent. I and others feel the need to include such a disclaimer because in the past our personal knowledge and information has been used without our consent.

The Hawai'i Supreme Court, remanded us back to re-try our previous CCH, hopefully without the due process failures they denounced. Because we are not able, due to the short turn around time to get all of our previous physical files sent to O'ahu so KAHEA can incorporate them in the folders the HO requested. Therefore we would like to incorporate by reference our previous CCH Exhibits files, and for convenience we will ask KAHEA to include these files in addition to our new exhibits, in a thumb drive to DLNR in as a single exhibit for this case that anyone who may wish to reference the previous record they may do so. They will be listed as 2011 files for this case. In our previous 2011 record each party had a letter assigned to them so for this hearing we can reference our new Letter/numbers and then cross reference 2011 file. (MKAH) EX _____ at p._____. We will also add a 2011 Exhibit list with numbers for our quick reference. We hope this helps.