

**Outrigger Telescopes Project
EIS Public Scoping Meeting**

January 7, 2004
Nanihoa Hotel, Hilo, Hawaii

Facilitator Notes

Introduction

- Participant would like to make videotape footage available for NASA use/purchase.
- Scoping comments can be provided up through 2/16/04.

Speaker #1

- Too much of what Mauna Kea offers is used by observatories.
- There are species dependent on this habitat.
- Hawaiian culture and religion are also impacted.
- View planes are compromised by telescopes.
- There are no University of Hawaii plans to support protection.
- The University of Hawaii applications and sublease processes are not timely.
- The intent stated as part of the permit process is misrepresented.
- Currently there is no monitoring of construction and the associated debris/trash.
- The terms of the 1982 EIS have not been adhered to.
- There have been six mercury spills along with other toxic events.
- Up until two-three years ago there were open drains.
- There have been sewage and effluent issues.
- Record keeping at Keck is inadequate.
- Subaru has a better reputation than Keck.
- Native Hawaiian access to the mountain is hindered.
- The telescopes site is in a conservation sub-zone, in crown lands designated as a national landmark.
- Mauna Kea offers a rare ice-age reserve.
- It's commendable that a full EIS is being done, yet it is a travesty that it comes after 30 years of neglect.
- The two processes – the permit process and the EIS process are creating difficulties for the community; some believe this is an intentional strategy.
- Cumulative impacts must be addressed in the EIS.
- The EIS must be completed before the BLNR contested case hearing process.
- The EIS must justify the need for this project, at the expense of the site (further deterioration and misuse).

Speaker #2

- There is concern about pollution.
- Need to preserve cultural access.
- Need to protect water resources for the whole island.
- Mauna Kea is one of the most sacred sites in the Pacific.
- A small, single telescope might be okay, especially if public access could be maintained.

Speaker #3

- Prefer no large telescopes on Mauna Kea and insist on no further development on the mountain – This sentiment was shared three years ago at a meeting between the Royal Order and NASA; nothing has changed.
- Don't the existing facilities meet NASA's interests adequately?
- The entire mountain – not just the summit – is culturally sacred.
- Plans to deploy the Stryker Force are further signs of development on the mountain.

Speaker #4

- It's already been said – No more development.
- Become better stewards and follow protective measures before you ask for and receive more.
- Hawaiians cannot be "bought out" – it's insulting to be asked to place a value on our culture.
- To take care of sacred sites is to take care of our people and culture.
- The "battle" has been going on for so long; some have become resigned and insensitive to the issues.
- It's difficult to explain the value and purpose of one's culture to those who hold different beliefs and values.

Speaker #5

- Mauna Kea: Sacred Temple was referenced as a document that conveys the sentiments of the Hawaiian people – no more development.
- Create a neutral body with management and oversight responsibilities.
- Establish fair rent fees.
- Many of the same people are participating in the contested case and the EIS process; it's difficult for people who are volunteering to do both; the parallel processes are problematic.
- Ideally, the EIS would be completed first, and then the permit process would proceed.
- Information in the EIS would add value to the permitting process.
- If the permit process moves ahead now, there is little chance that mitigation measures in the EIS would be enforceable.
- [NASA] Help the community and show your good faith by helping to stay or pull the permit so that a better-informed decision can be made (post EIS).
- By pulling or deferring the permit, it will take approximately one-year to resume the process.
- If issues are not adequately addressed, the only choice for the community is to pursue further legal action.

Speaker #6

- This EIS represents the first of five previous telescope projects that should have prepared full EISs in accordance with NEPA.
- The Mauna Kea observatories, following the lead of the UH's IfA, have made it their habit over years to do the minimum in order to get what they need, asserting in virtually every case that their observatories would have "no significant impact" on the mountain.
- Until recently, our state and federal officials have let these practices stand – to the discouragement of the people they represent.
- Today, NASA must carry the burden that others, over the last 30 years, have created.
- Other telescopes have failed to do the necessary studies and mitigation.
- NASA's Infrared Telescope leveled a pristine portion of the summit, changing the mountain's profile and destroying important Wekiu habitat.
- Building of the several facilities encroached on and destroyed spiritual sites.
- Alien species have been introduced to the summit.
- Don't cut corners on this EIS.
- The community is tired of having to compromise so that NASA can achieve its scientific ambitions; NASA should not expect a change in the communities' attitudes based on the patterns and history of misuse.

Speaker #7

- Kahu Ku Mauna Council, advisor to the Mauna Kea Management Board, opposes any more new construction on Mauna Kea.
- Astronomy has already taken more than its share of the mountain.
- While astronomy claims it "only has access to 525 acres" of the 11,000-acre Astronomy Precinct, that 525 acres encompasses nearly the entire summit, leaving very little for cultural practices.
- Every facility creates a negative impact on the fragile cultural and spiritual ambiance of Mauna Kea.
- Include in the EIS, information stressing the importance of cultural, spiritual and environmental aspects of the mountain and analyze all the information with feeling and compassion to focus on the true significance of Mauna Kea to the community.

Speaker #8

- Some members of the Mauna Kea Management Committee are disappointed that their work has not been taken seriously.
- The EA was found to be inadequate, yet UH is proceeding with its CDUA application based on the EA findings.
- The University agreed 20 years ago that it would build no more than 11 major and 2 minor telescopes – this is all that is permissible under the management plan.
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Speaker #9

- What happened to John Lee's work, where are his records?
- NASA must heal the wound before moving forward.
- Native Hawaiians cannot support the development of such an enormous structure; the entire mountain is considered a place of God and is steeped in ancestral history.
- Development is not *pono* with the Hawaiian people.
- NASA, being a publicly funded agency, has a responsibility to listen to and respond to the wishes of the people.
- The cultural, spiritual and human impacts need to be addressed in the EIS.
- The sacrifices that will be required of the Hawaiian people, should the project proceed, may be traumatic.
- No one is listening.
- The advent of the Stryker Brigade compounds the issue.
- What part of "no" does NASA not understand?
- Native Hawaiians are committed to protecting what's here.
- Mauna Kea is considered the origin of all mankind, like Mount Sinai.
- It takes a lot of energy for Native Hawaiians to publicly speak out on issues that are historically private and personal.
- NASA needs to seek connectivity with the area, to become *pono*.
- There is concern over the safety of Hawaiians if the area is used for military purposes; it makes it/us a target.

Speaker #10

- In addressing the cumulative effects in the EIS, go beyond what's merely required.
- In these processes, respect for the Hawaiian culture and its people have been missing; it feels like Hawaiians are being railroaded (again).
- There have been many promises, but few have been kept.
- Is there any way to minimize the visual impact of the telescopes?

Speaker # 11

- While OHA is pleased with NASA's decision to pursue a full EIS, it does not agree with the judge's decision about cumulative impacts. Instead, OHA recommends that the impacts of the existing facilities along with foreseeable projects be included in the EIS.
- NASA should consult with Native Hawaiian groups, agencies and individuals to assess the use of and beliefs of Mauna Kea as a sacred place.
- The EIS should include plans to address impacts upon cultural practices.
- Sight lines and view planes must be assessed for the Outriggers, two Kecks and any other planned facilities.
- Mauna Kea is a known burial ground. However the exact location of any burials is impossible to point out as they were done in secrecy.
- NASA should prepare a burial plan, approved by the Hawaii Burial Council, to ensure proper treatment of any found *iwi*.
- NASA must evaluate the effects of its project, including cumulative effects, on the hydrology of Mauna Kea.
- NASA must evaluate the environmental and cultural impacts of disposing wastewater on Pu`u Hau Oki. Because Pu`u Hau `Oki is known to be a sacred burial site, NASA should evaluate alternative solutions to wastewater disposal, including transporting all waste off the mountain.
- The EIS must address the impacts that construction may have on the Wekiu bug; proposed mitigation might include moving the Outriggers to ensure the bug's habitat is not destroyed.

Speaker #12

- Historically, Mauna Kea was not casually accessed; access was limited to a few privileged individuals with status among the community.
- There is a cultural and communication divide between Westerners and Native Hawaiians – the language and values differ greatly.
- Development harms everyone.
- Native Hawaiians do have a respect for astronomy as the stars have been used as a navigational tool for hundreds of years.
- First amendment rights or having one's own religion and to not be inundated by others are affected by this project.
- The Hawaiian people cannot allow continued invasions and disregard of their land and people; this is just one of many invasions and attempts to degrade and control the Hawaiian people's religious rights.
- Hawaii was illegally taken.
- There is plenty of talk but no results.
- How is it that the rights of science can override the rights of the Hawaiian people?
- There is concern that NASA will focus on just a portion of the mountain in the EIS; this is not proof of a good faith partnership.
- Hawaiians are people of *aloha*; we are not respected by NASA.

Speaker #13

- The previous EIS was not authentic and was used to avoid further EIS activity.
- Mitigation measures from previous plans have not been adhered to and all measures have escape clauses.
- Promises are made to fulfill legal obligations and don't lead to action.
- It's important that IfA be fully involved in this process.
- Establish an "interactive management" process.
- Form a community authority with diverse stakeholders.
- Take input from this authority.
- Allow them to be actively involved in management.
- A summit-wide management plan could include the establishment of a community authority that is responsible for adherence to mitigation measures.
- Proposed mitigation measures that focus on a small area for a limited time will not be effective at preventing long-term mountain-wide damage/risk.
- The EIS should include a detailed management budget – one that is not dependent on available funds.
- Develop revenue generating activities that pay for management (e.g., "selling" unused time).
- Wekiu bug study methods could be improved.
- The data is such that it cannot be effectively used to track the population nor assess the cause of changes in the population.

Speaker #14

- Address how much electricity is used/needed to run the telescopes, including cumulative studies.
- The generation of electricity is a leading cause of pollution.
- Plans to reduce use of electricity would be positive.
- Recommends all project staff establish a first-hand knowledge and connection with the mountain by taking an ocean to peak hike.
- Seeking the origin of the universe does not speak to all people and to assume it should is offensive.
- The process is flawed – NASA could choose to walk away because of it.
- It appears that the cumulative impacts on the Hawaiian people are being disregarded.
- Is NASA going to consider the "no build" option?

Speaker #15

- Can NASA ensure that mitigation measures are implemented and maintained?
- The necessary skill to do it right exists in this room tonight.
- Learn from the successes of others (Mauna Loa and Haleakala).
- NASA could use its influence to encourage others to come along.
- Consider returning to the original name of the mountain.
- NASA's efforts in the last 24-48 hours have been impressive.
- Work to preserve resources for future generations.

Speaker #16

- The view of Mauna Kea is hurtful, compared to when it was once pristine, without observatories.
- Opposes any further development.
- Referenced a similar situation between NASA and an Apache tribe in Charlottesville, VA.
- Process is similar.
- Pits science over culture.
- Advisory board proved ineffective.
- University involvement was problematic.
- The physical and spiritual damage done to the tribe is immeasurable.
- What power would a local advisory committee have to prevent further damage or development?
- Continuous improvement to existing facilities may be key to the observatories (vs expansion and growth beyond current sites).
- Do 13 different observatories mean 13 different processes? (Concern about the community's stamina).
- Seems ironic that an area known as a Natural Area Reserve System could house 13 man-made facilities – these facilities are unnatural and do not belong on the mountain
- No further development.
- Hawaiians would not destroy Western cultural sites.
- Withdraw the project to prove your respect and love for this place and its people.
- Observatories are trash on the mountain that needs to be removed.
- Rights of local indigenous people have less value than those of foreigners.
- Feelings and emotional views have less value and impact than facts and data.

Speaker #17

- Sentiments heard at the last two meetings seem consistent – no further development wanted.
- NASA is not the problem; the community must hold its elected officials accountable.
- This is another example of our history filled with broken promises.

Speaker #18

- Can an EIS adequately address what is sacred?
- To use Mauna Kea to destroy and kill people would be a most profane act.
- Is NASA providing information and support to the military to support global dominance?

Speaker #19

- Not interested in a disingenuous process, like the Stryker Brigade process.
- Use the 10,000+ documents obtained in the contested case process detailing chemical and environmental issues.
- Currently there are no records on waste removal, sewage and septic monitoring.
- EIS should be mountain-wide, not piecemeal.
- Employ people to seriously evaluate the project, not to say what you want.
- Environmental impacts are measurable; not so for cultural impacts.
- Focus on the things that are repeated.
- Damage to a culture impacts its people and manifests itself into illness and death – the only way to mitigate this level of impact is to stop all activity.
- Ceasing development shows respect for the cultural significance of the area.
- Scientific greed and selfishness seems to take precedence over culture.

Speaker #20

- The concerns heard tonight do not necessarily reflect those of the entire community.
- There are those who support and respect the field of astronomy.
- Resources should be shared with others.
- Hubble is at the end of its life span; observatories and telescope serve a need.
- Pollution is all over the island, not just on the mountain.
- Better shielding would be beneficial.
- This project is paying for other mistakes.
- If the project does not go forward, will Hawaii lose its reputation as a leading scientific site and with that revenue?
- The project can proceed in a manner that respects culture.
- Seek a better management option.
- Consider island-wide issues/impacts.

Speaker #21

- It's important to assess the impact this project has on real, individual people – a race of people is being hurt; how will future generations be impacted by the losses incurred today?
- People working on the project are paid to do so, the community does it from the heart – they have no choice, it's their duty to work to preserve their culture.
- [Our] Personal health has been sacrificed to participate in the Contested Case (and other fights); how will this affect our *keiki*?
- Do the right thing.
- Help to slow down the permit process.
- Listen to and take action on what's been said tonight.

Speaker #22

- Do unto others, as you would have them do unto you.
- Consider how it would feel if your national sites were desecrated.
- Listen as individuals, not as the entity of NASA.

Speaker #23

- Congratulations on pursuing the EIS.
- Consider the entire mountain.
- Mauna Kea is unique on many levels
 - o as a natural environment
 - o Because of its astronomical potential
 - o Because of its geological landscape (best record of lava and ice interaction).
- Go beyond just Keck.

Speaker #24

- Outriggers aren't needed.
- Use existing facilities and emerging technology.
- Consider other sites, including Mauna Loa and Hualalai.
- Be aware of the risk to all of Hawaii if Mauna Kea is used for military purposes.
- Examine the economics of it all – what is the value of astronomy weighed against the social and cultural costs?

Speaker #25

- There has been a history of lies; originally one site was requested and within five years, five sites were constructed.
- How can a community have trust when this is the history?
- There is a basis to prevent further development based on social, economic, cultural/historical and environmental perspectives.
- The Native Hawaiian people experience the lowest levels of socio-economic status (according to a report produced by the State Civil Rights Commission); this project takes advantage of their poor status and further adds to their plight.
- There is conflict in the community between wanting to support but having no faith or trust.
- Acknowledgment and recognition of the issues would help to build trust.

Written Comments #1

- An interactive community-based management model (used in many parts of the U.S.) could be used for Mauna Kea. It should be independent from the University to avoid potential conflicts with IfA.
- IfA should withdraw its CDUA for the Keck Outrigger project until after the EIS is complete, then resubmit to include mitigation measures, budget and enforcement measures.
- To receive the permit now, based on the EA findings, would be legally binding, however, by moving ahead the University is sending the message that it is not seriously considering the EIS as an integral part of its mitigation for the Keck Outrigger project.
- Based on the current management plan, no further development or building should occur.
- A new management plan should be developed to provide the basis for development of mitigation measures for individual telescope development.
- Development of a comprehensive management plan should occur with the full interaction of all stakeholder parties through a public planning process.
- Developing mitigation measures independent from the Keck Outrigger project is a continuation of the piecemeal development of the summit with typifies the period covered by the previous management plan.
- The new master plan was supposed to prevent the lack of implementation procedures in the previous plan; however, the draft EA fails to explain how the proposed mitigation and monitoring measures will be consistent with the master plan policies, plans and regulations. Without addressing this, Keck should not proceed with its own set of mitigation measures.
- The EIS should deal comprehensively with the procedures in the master plan, including a clear outline of the decision making process between the Mauna Kea Management Board, the UH Hilo Chancellor, the UH Institute of Astronomy, the UH Manoa Chancellor, the UH President and Board of Regents, DLNR and BLNR.
- Standards for monitoring and mitigation should follow consistent guidelines outlined in a comprehensive summit management plan.
- Guidelines for management should include goals and objectives, benchmarks, clearly delineated responsibilities for inspection, enforcement and reporting, protocols and consequences for dealing with violations, and a community authority made up of Hawaiian practitioners, biologists, archeologists and other scientists and representatives of other group using the mountain.
- A detailed budget, including sources of funding and legally binding agreement obligating the funding, for the lifetime of the project should be included in the EIS.
- Monitoring and mitigation of the species found in the area needs to be broad to include all native species and potentially harmful alien species.
- Habitat restoration on Pu'u Hau Oki should be completed to restore the Wekiu population.
- The Wekiu study process and methodology needs to be amended to improve quality of data.
- A cumulative impacts study of all past, present and future impacts to the area is needed in the EIS. Activities to include are impacts to the summit as a result of constructing the Keck and Subaru telescopes, dumping of excavated materials, grading of slopes, filling and compacting of the create bottom, infrastructure (water, sewage, fiber and other

lines, electric, roads, etc.), chemical disposal and spills and introduction of alien species.

- A Mauna Kea Environmental Center should be established (independent of the University) to conduct research of climate, hydrology, geology, biology and other environmental aspects. The Center could also incorporate Hawaiian cultural issues and educational programs.

Written Comments #2

- The draft EIS must include:
 - o An inventory of cultural resources on Mauna Kea
 - o Cumulative impacts on cultural and environmental/biological resources of all telescopes
 - o Assessment of the amount of pollution that will be generated to build and operate the telescopes
 - o The visual impact of further development.

Written Comments #3

- It's wrong to build a whole bunch of huge telescopes; it wouldn't feel right to have a city of telescopes on the mountain.
- Mauna Kea has many things that other places don't; it's one of the most sacred sites in the Pacific.
- Cultural practitioners need the mountain.
- The water from the mountain goes to many people.
- I love astronomy but it's wrong to build telescopes on Mauna Kea.