

**Kamehameha Schools Motion for Modification, Time Extension, and Release and  
Modification of Conditions, LUC Docket No. A87-610**

**Written Direct Testimony of Jason A. Jeremiah, February 25, 2022**

1. **Please state your name and business address for the record.**

Jason Alapaki Jeremiah  
567 South King Street, Ste. 200  
Honolulu, HI 96813

2. **What is your current occupation?**

I am the Director of Natural and Cultural Ecosystems for Kamehameha Schools (“KS”).

3. **How long have you worked in that position at KS?**

I have been with KS for about 12 years. Before KS I worked at the Office of Hawaiian Affairs for about 2 and-a-half years as a policy advocate in historic preservation.

4. **Did you provide a copy of your resume for these proceedings?**

Yes, my resume was provided as Exhibit 18.

5. **Please briefly describe your educational background.**

I hold a Bachelor of Arts in Hawaiian Studies from the University of Hawai‘i at Mānoa. I also have a Master’s in Urban and Regional Planning from the University of Hawai‘i at Mānoa.

I am also qualified in GIS mapping. And I am qualified in kuleana land research.

6. **To what professional organizations or Boards do you belong?**

I serve on the board of the Ka‘ūpūlehu Foundation, a non-profit organization that seeks to manage the natural, cultural and historical resources in the ahupua‘a of Ka‘ūpūlehu.

7. **What does your work at KS entail?**

I am in charge of the natural and cultural ecosystem division at Kamehameha Schools and manage a team of resources managers that work on natural, cultural and water resource management and sustainability projects across all of KS’ landholdings, statewide on five islands. We work on projects across KS’ conservation, agricultural and commercial lands including regulatory projects to identify, assess, manage, protect and enhance native ecosystems and cultural landscapes.

8. **Have you even been qualified as an expert witness in traditional and cultural resource management?**

Yes. I was qualified as an expert witness in cultural matters before the Land Use Commission for the solar farm proposed in this Docket in 2014. I was again recognized by this Commission as an expert witness in the solar farm proceedings in this Docket in 2019.

I have also been an expert witness before the Commission on Water Resource

Management in the contested case hearing on the Na Wai ‘Eha matter.

9. **Are you familiar with the term “Petition Area”?**

Yes. That term refers to the 1,395-acre land area owned by KS that was put into the State Urban District by the State Land Use Commission under this Docket A87-610. Sometimes I refer to the Petition Area, and sometimes I use the term “KS Property” but those terms refer to the same thing - the 1,395-acres of Urban District lands owned by KS.

10. **Are you familiar with the currently proposed solar farm and the Petition Area?**

Yes. Under the Motion for Modification, Time Extension, and Release and Modification of Conditions, that KS filed with the Commission on December 10, 2021, the solar farm is to be located within an approximately 387-acre area in the northwestern portion of the Petition Area. We are calling this the “Phase 1 Site”.

The Phase 1 Site is the same property that the Commission approved for solar farm development in 2014.

The current solar farm is pretty similar to the project that the Commission approved for this location in 2014. It is a 30 megawatt (“MW”) alternating current (AC)/60 MW direct current (DC) solar farm with a 240 MW-hour battery energy storage system, which allows for the energy produced during the day to be stored and dispatched to the grid at times of higher electricity demand. The project includes a substation and other electrical generation infrastructure. Two 46 kV overhead lines will deliver power from the substation to the existing Waiau-Mililani and Wahiawa-Waimano 46 kV sub-transmission lines. The entire project area will be enclosed by fencing that will be about seven feet high. A portion of the solar farm will be in place until the end of 2044 and the remainder of the project would be removed by the end of 2054.

11. **What is your role for this solar farm?**

I am responsible for consulting on any archaeological, historic, and cultural resources that may be located in the Petition Area, so that includes the Phase 1 Site.

12. **Are you familiar with the archaeological, historic, and cultural resources within and around the proposed Project area and the overall Petition Area?**

Yes. TCP Hawai‘i, LLC (“TCP”) was retained to prepare certain studies related to the historic and archaeological resources within the Petition Area, including the Phase 1 Site solar farm area. I have reviewed and am familiar with those studies.

13. **Please identify the TCP Hawai‘i studies.**

TCP prepared an Archaeological Inventory Survey, called Archaeological Inventory Survey of 1,395 Acres of Kamehameha Schools’ Land in Waiawa and Waipi‘o Ahupua‘a, ‘Ewa District, O‘ahu Island, Hawai‘i, dated March 2015 (Revised) (“AIS”). A copy of this AIS was filed as Exhibit 14. The State Historic Preservation Division

(“SHPD”) accepted that AIS in April 2015, and a copy of that acceptance letter was filed with this present Motion as Exhibit 8.

TCP also prepared an Archaeological Preservation Plan, called Archaeological Preservation Plan State Site No. 50-80-09-2273 Features 14 (Portion), 19, 22 & 23 (Portion) Kamehameha Schools’ Land in Waiawa and Waipi’o Ahupua’a, ‘Ewa District, O’ahu Island, Hawai’i, dated May 2015 (“APP”). A copy of the APP, and of SHPD’s acceptance letter for that APP, is part of the record in this Docket. It can be found on the Commission’s website at: <https://luc.hawaii.gov/wp-content/uploads/2019/10/Exhibit-19-SHPD-Ltr-re-Archaeological-Preservation-Plan.pdf> It was filed as Exhibit 19 to the Motion for Modification and Time Extension that KS filed with the Commission on July 24, 2019 and a copy of SHPD’s acceptance letter for the APP was filed with the present Motion as Exhibit 9.

14. **Please discuss the process for the preparation of the AIS.**

The AIS covers the entire 1,395-acre Petition Area. Initially TCP did a survey of the solar farm sites (the two sites that were approved by the Commission in 2014). However, in consultation with SHPD, TCP expanded its work to cover the entire 1,395 acre Petition Area. Fieldwork consumed a total of 50 person days.

15. **What are the findings of the AIS?**

The property has been significantly altered from plantation agriculture. TCP reports that the plantation agriculture work even took place within three gulches that are within the Petition Area. TCP determined that the property had been really cleared out. The entire Petition Area has been completely altered by plantation-era activities and construction. The Petition Area was in commercial agricultural operations for approximately 100 years. There was evidence of extensive bulldozing and road construction in all three gulches, whose drainage bottoms have also experienced major flooding damage. No Hawaiian sites, Hawaiian skeletal remains, heiau, habitation sites, or agricultural sites were located.

The AIS documented three historic properties, all plantation-era sites dating from the early-to-middle 20th century. While these properties are probably not viewed as historically important to most people, under Hawaii Revised Statutes Section 6E-2, the definition of “historic property” is “any building, structure, object, district, area, or site, including heiau and underwater site, which is over fifty years old.”

16. **Please describe the sites and the treatment of those sites ordered by SHPD.**

SHPD determined that only one of those three sites warranted preservation. A portion of that preservation site is in the vicinity of the Phase 1 Site solar farm.

The three sites were:

(1) SIHP # 50-80-09-2270, a network of roads and railroad rights-of-way used by the plantations, and then by the military during World War II, and then back to use by the plantation. SHPD determined that site 2270 had already yielded its informational and research value, and no further work was needed.

(2) SIHP # 50-80-09-2271, the remains of a plantation camp/pineapple cannery. Similar to Site 2270, this site had been extensively documented in the past. SHPD determined that site 2271 had already yielded its informational and research value, and no further work was needed.

(3) SIHP # 50-80-09-2273, a plantation irrigation system of consisting of ditches, flumes, siphons, reservoirs, pumping stations and a well initially built in the early 1900s by the Oahu Sugar Company. SHPD determined site 2273 to be significant under criteria C and D for its intrinsic informational value to research on Hawaiian history. It provides data on the geospatial location, extent, and character of the plantation irrigation infrastructure that was used into the 1970s (with an interruption during World War II). SHPD directed preservation of four features of this site.

17. **What are the four features of site 2273 SHPD recommend for preservation?**

The four features identified for preservation are:

(i) Feature 14, a very long irrigation ditch built with cut basalt and mortar. As explained in the APP, a 100-foot representative section of feature 14 will be preserved. Feature 14 is in the vicinity of the Phase 1 Site solar farm. That can be seen on Exhibit 13.

(ii) Feature 19, a large dam-like retention structure in the west end of Gulch B. Under the APP, this is to be preserved in its entirety. This feature is in the vicinity of the Phase 1 Site solar farm. For clarification, the location of the gulches can be seen on pages 2-3 of the AIS (see Exhibit 14).

The other two features are not within the vicinity of the Phase 1 Site solar farm. They are on the other side of the Petition Area, north of the Phase 2 Site solar farm. Those are:

(iii) Feature 22, a large water distribution and retention basin east of Gulch A, is inscribed with the date 1925. Under the APP, this feature is to be preserved in its entirety.

(iv) Feature 23, a cut basalt and mortar irrigation ditch. Under the APP, a 75-foot representative section of feature 23 will be preserved.

18. **Please describe the preservation measures required under the APP.**

Approved preservation measures are in the form of “avoidance and protection” through fenced buffers.

Permanent buffers of at least 10-feet from the structural edge of the features are recommended, with the exception a small portion of feature 22 where there is no room for a 10-foot buffer. That is because an important fire break access road is within a few feet of a small portion on the east side of this feature and that road cannot be moved further east because it is along the top of the edge of a plateau.

The preservation measures will be employed in two stages. First, the interim, short-term protective measures. Second, the permanent protective measures.

Although none of the preservation sites are within the footprint of the Phase 1 Site solar farm current under consideration by the Commission (or within the footprint of the Phase 2 Site solar farm that the Commission approved most recently in 2020), these preservation measures are nevertheless implemented in connection with the development of the Phase 1 Site (and the Phase 2 Site, accordingly).

19. **What are the interim or short-term preservation measures?**

Prior to and during initial construction in the vicinity of any of the preservation sties, buffer areas are to be delineated by orange construction fencing or other temporary barriers.

Additionally, avoidance instructions must be added to construction plans and specifications, and the developer must conduct a pre-construction briefing of the hired construction firms to make them aware of the preservation buffer.

20. **Have those interim measures been implemented for features 14 and 19?**

Yes. Waiawa Phase 2 Solar, LLC has installed the interim construction buffer. Exhibit 35 is a memorandum from TCP dated November 15, 2021, documenting implementation of the interim preservation measures for Features 14 and 19. In accordance with the APP, before the start of construction, avoidance instructions shall be placed on construction plans with specifications of the site preservation sites and buffers. A pre-construction briefing shall be conducted by the hired construction firms to make them aware of the preservation buffer.

21. **For the purposes of completeness, what is the status of the preservation measures for features 22 and 23, which are located north of the Phase 2 Site.**

The solar developer for the Phase 2 Site, Waiawa Solar Power LLC, notified SHPD by letter dated March 12, 2019, that it would install and maintain preservation buffer fencing at features 22 and 23 in accordance with the APP. Evidence of that was provided to the Commission in the most recent proceedings for the Phase 2 Site in the form of a letter from TCP Hawaii dated April 16, 2019 (provided as KS Exhibit 20 in those proceedings).

22. **What is the status of the permanent preservation measures?**  
Permanent preservation measures do not get put into place until after all construction for the solar farm is complete. Once that is done, and this applies to both the Phase 1 Site and the Phase 2 Site, under the APP the construction fencing should be replaced with permanent fencing that is consistent in appearance with the early 20<sup>th</sup> century features it surrounds. For example, chain link fencing should not be used. Appropriate fencing would consist of t-post or wood post with barbed wire or hog wire.

No other preservation measures are appropriate. There is no cultural practice associated with these features. No signage is needed because public access to these sites is not appropriate. The landowner or its designee is required to periodically inspect the fencing marking the permanent buffers. If any damage or impacts to the preservation features are noted, that will be reported to SHPD and, in consultation with SHPD, corrective measures may be taken.

23. **Does KS require any user of its lands, such as Waiawa Phase 2 Solar, LLC, to comply with the AIS and APP?**

Yes.

24. **Are the TCP Hawaii studies the only relevant studies done on the Petition Area?**

No. Other studies have been done. A Cultural Impact Assessment (“CIA”) for 3,600 acres of land in the Waiawa area, which included the entire Petition Area, was prepared by Cultural Surveys Hawai‘i, Inc. in 2003 in anticipation of the Waiawa Ridge Project. The CIA is part of the record in this matter. It was filed as KS Exhibit 20 in KS’ 2014 Motion to Amend in this Docket and can be found on the Commission’s website at <https://luc.hawaii.gov/wp-content/uploads/2014/05/2014-06-20-Successor-Petitioners-First-List-of-Exhibits-Rebuttal-Witnesses-filed.pdf> pdf pages 12-20.

The CIA included interviews with 66 individuals, including kupuna and kama‘aina of the area, and gathered information from them and assessed the potential impacts of the Waiawa Ridge Project to cultural resources, traditions, and practices within the Petition Area and the remainder of the 3,600 acres. In preparing this CIA, feedback and information was gathered from various people, including people that were associated with the plantation, and people that grew up specifically in Waiawa, and also included consultation with Waiawa Hawaiian Civic Club also.

A Cultural Resources Preservation Plan (“CRPP”) was prepared in 2005 by Aki Sinoto Consulting. The sites identified in this plan for preservation are not within the Petition Area. The CRPP was filed as KS Exhibit 21 in KS’ 2014 Motion to Amend in this Docket and can be found at the Commission’s website at <https://luc.hawaii.gov/wp-content/uploads/2014/05/2014-06-20-Successor-Petitioners-First-List-of-Exhibits-Rebuttal-Witnesses-filed.pdf> at pdf pages 122-134. SHPD approved the CRPP in 2007, and that approval letter can also be found at that link to the Commission’s website, at pdf

page 135. The CRPP did not identify any cultural sites or practices within the Petition Area. It identified a large concentration of petroglyphs down in a gulch well outside of the Petition Area, but nothing within the Petition Area.

Also, as noted in the AIS prepared by TCP, several archaeological studies for this area had been prepared in the past.

25. **Has KS prepared any more recent cultural studies of the Petition Area? If so, please describe those studies.**

Yes. KS retained Cultural Surveys Hawai'i, Inc. to prepare an Ethnohistoric Study of the KS' 'Ewa region lands. That was done in 2010. We did this as a proactive measure. KS wanted to talk to community members and people knowledgeable about the KS 'Ewa lands to determine what sort of traditional and customary resources or practices were within our lands. The study covered not only the Petition Area, but a much larger area of KS property. It covered approximately 3,600 acres of KS land.

We conducted about 6 to 8 interviews with kupuna of the area. However, many of the people contacted for this study were less interested in discussing the Waiawa area, i.e. the Petition Area. A lot of the specific information was focused in the makai areas, near the old historic waterways, the lo'i, the fishpond, and the rice paddies down makai of Leeward Community College. People did not have too much to say about the Petition Area.

Nobody indicated that there were any traditional or customary practices taking place, or that used to take place, within the Petition Area.

26. **Is KS aware of any cultural resources within the Petition Area?**

There are no identified ongoing traditional cultural resources or practices being exercised at the Petition Area. The Petition Area was used for commercial agricultural operations for approximately one hundred years through 1983 and has not been used for traditional cultural purposes within recent times.

27. **Are you familiar with the requirements imposed by the Hawai'i Supreme Court in *Ka Pa'akai O Ka 'Aina v. Land Use Commission*?**

Yes. In that case, the Court ruled that an agency must make specific findings and conclusions related to cultural, historical, and natural resources and the associated traditional and customary practices of a site prior to taking an action that may adversely impact cultural, historical, and natural resources.

Specifically, the agency must make specific findings of fact on (1) the identity and scope of "valued, cultural, historical, or natural resources" in the Petition Area, including the extent to which traditional and customary native Hawaiian rights are exercised in the Petition Area; (2) the extent to which those resources, including traditional and

customary native Hawaiian rights, will be affected or impaired by the proposed action; and (3) the feasible action, if any, to be taken by the agency to reasonably protect native Hawaiian rights if they are found to exist.

28. **In light of *Ka Pa‘akai*, do you feel that the studies done for the Petition Area were sufficiently detailed to identify the cultural, historical and archaeological resources in the Petition Area?**

Yes. There has been a thorough and good faith effort to identify and inventory any such resources.

29. **Are you aware of any kuleana land claims for the KS Property?**

No. My review of the reports done for the Petition Area did not identify any such claims. The Petition Area is part of a large ahupua‘a awarded to Victoria Kamamalu. The land was subsequently passed to Ruth Ke‘elikolani, who then passed the land to Princess Bernice Pauahi Bishop. The lands ultimately became a part of the Bishop Estate.

30. **In your professional opinion, will the solar farm adversely impact any archaeological, historical, or cultural resources?**

No. The solar farm will not have significant adverse effects on any significant archaeological, historical, or cultural resources or practices. Because no cultural resources or practices have been identified within the Petition Area, development of the solar farm will not have any adverse effect upon Native Hawaiian traditional and customary rights or practices.

DATED: Honolulu, Hawai‘i, February 25, 2022.

Respectfully submitted,

  
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JASON ALAPAKI JEREMIAH