

**SUCCESSOR PETITIONER KAMEHAMEHA SCHOOLS – MOTION FOR  
MODIFICATION AND TIME EXTENSION LUC DOCKET NO. A87-610**

**WRITTEN DIRECT TESTIMONY OF CHRISTOPHER M. MONAHAN, PH.D.**

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

Chris Monahan, Ph.D.  
150 Hamakua Drive, # 810  
Kailua, HI 96734

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

I am the president and founder of TCP Hawai'i, LLC ("TCP Hawai'i"). TCP Hawai'i is an archaeology and cultural resource firm.

3. **How long have you worked in the field of archaeology?**

I have been actively engaged in the field of archaeology and historic preservation for over 30 years, 18 of which have been in Hawai'i. In 2006 I was the Lead Archaeologist and Acting Branch Chief on O'ahu for the State Historic Preservation Division ("SHPD"). I have also been a lecturer at U.H Manoa in the Department of Anthropology.

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

Yes, my resume was provided as Successor Petitioner Kamehameha Schools ("KS") Exhibit 38.

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

I have a Bachelor of Arts in Anthropology from St. Lawrence University (with a concentration in archaeology) and a Master's degree and Ph.D. in Anthropology from the University of Wisconsin-Madison.

6. **Do you specialize in any particular areas?**

I specialize in conducting archaeological and cultural resource surveys and historic preservation studies, including work on Hawaiian archaeology, cultural studies, archaeological assessments, reconnaissance, inventories, site testing, recovery, preservation planning, burial treatment plans, and monitoring. TCP Hawai'i is on SHPD's list of approved archaeological consultants. (Our 2019 Permit # 19-08).

7. **What does a Hawaii archaeologist do?**

Study the past and address historic preservation laws through the investigation of properties for the presence/absence of archaeological site-features, and if site-features are found, assess the significance of the items found, describe possible effects on such historic properties based upon the particular development proposal being considered, and provide mitigation commitments for each historic property that may be affected by the proposed development. We also prepare plans to address the particular mitigation

commitments presented, such as data recovery plans, preservation plans, burial treatment plans, and archaeological monitoring plans. We also provide verification for completed mitigation plans. Our work also includes assessment of Native Hawaiian cultural resources, and may include consultation with Native Hawaiian organizations and others.

8. **Have you even been qualified as an expert witness in archaeology, cultural resources, and historical resources before the Land Use Commission?**

Yes. I was qualified as an expert witness in archaeology before the Land Use Commission for the solar farm proposed in this Docket in 2014.

9. **Are you familiar with the solar farm project currently proposed within a portion of the Petition Area?**

Yes. The solar farm project consists of a 36 megawatt/144 megawatt-hour battery energy storage solar farm with related electrical improvements and overhead utility tie-ins ("**Project**"). The Project is proposed to be installed within an approximately 200-acre area in the eastern-central portion of the 1,395-acre KS property that is within the State Urban District Property at Waiawa, Ewa, O'ahu ("**KS Property**" or "**Petition Area**"), with the utility tie-in, or gen-tie, route running from the Project site west and within the Petition Area, across the gulch near the Ka Uka Boulevard exit of the H-2 Freeway, to reach the point of interconnection on the existing HECO 46kV Waiau-Mililani line.

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

Yes. TCP Hawai'i prepared an Archaeological Inventory Survey ("**AIS**") and an Archaeological Preservation Plan ("**APP**") for the Petition Area.

The AIS covers the entire 1,395-acre KS Property. The draft AIS was submitted to SHPD on September 16, 2014, it was revised in response to SHPD feedback, and SHPD accepted the final AIS in April 2015. Documentation of SHPD's acceptance is provided as KS Exhibit 18.

In May 2015 we submitted the APP to SHPD. The APP identified preservation measures for four features of Site # 50-80-09-2273 (Features 14 [portion], 19, 22, and 23). The APP was accepted by the SHPD on September 14, 2015. Documentation of SHPD's acceptance is provided as KS Exhibit 19.

On July 19, 2019, I requested a concurrence determination from SHPD regarding the effect of the current Project on archaeological, historical, and cultural resources on the KS Property. *See* KS Exhibit 20. To date, SHPD has not yet responded to that request, however, the AIS and APP for the KS Property are current and the recommendations contained therein remain applicable.

11. **Please describe your findings in the AIS.**

The AIS included review of three previous archaeological surveys that covered portions of the KS Property, as follows: Barrera 1987 (Waiawa Ridge, Oahu: Archaeological



Survey of Proposed Golf Course); Goodman and Nees 1991 (Archaeological Reconnaissance and Inventory Surveys of 3,600 Acres in Waiawa Ahupua'a, 'Ewa, O'ahu, manuscript 022892. Public Archaeology Section, Applied Research Group, Bishop Museum, Honolulu); and Thurman et al. 2012 (Archaeological Reconnaissance Survey of 1,680 Acres of Kamehameha School Lands in Waiawa Ahupua'a, 'Ewa District, Island of O'ahu, TMK [1] 9-4-006:034, 036, 037, 9-6-004:024 & 025. Cultural Surveys Hawai'i, Kailua, Hawai'i). TCP Hawai'i also consulted with KS, SHPD, and the Office of Hawaiian Affairs.

TCP Hawai'i determined that the entire KS Property had been completely altered by plantation-era activities and construction. The KS Property 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. TCP Hawai'i did not identify any sites that qualified under significance criterion E. No Hawaiian sites or artifacts, human skeletal remains, heiau, or habitation sites were found on the KS Property.

The TCP Hawai'i AIS documented three historic properties, all plantation-era sites dating from the early to middle 20th century, consisting of 55 component features: (a) SIHP # 50-80-09-2270, a network of roads and railroad rights-of-way consisting of 28 features; (b) SIHP # 50-80-09-2271, the remains of workers' camps consisting of two features; and (c) SIHP # 50-80-09-2273, an irrigation system consisting of 25 features.

We evaluated SIHP # 50-80-09-2270 as significant under criterion D for its intrinsic informational value to research on Hawaiian history. In general, site 2270 informs us about the earliest efforts to develop Waiawa Uka as a commercial plantation growing first pineapple then sugarcane. It includes a network of roads that were used by the military during World War II.

SIHP # 50-80-09-2271 consists of two features. Feature 1 is the structural remains of a pineapple cannery, and TCP Hawai'i evaluated feature 1 as significant under criterion D. Feature 2 is camp debris, which TCP Hawai'i evaluated as not a significant historical property.

We evaluated SIHP # 50-80-09-2273 as significant under criteria C and D for its intrinsic informational value to research on Hawaiian history. In particular, it provides important data on the geospatial location, extent and character of the plantation irrigation infrastructure in Waiawa Uka built around or shortly after 1916 by the O'ahu Sugar Company; and, excluding the interruption of World War II, continued to be used into the 1970s.

## 12. **What were the final recommendations of the AIS?**

As expressed in the SHPD AIS acceptance letter (KS Exhibit 18), the effect determination was "effect, with agreed upon mitigation commitments" for four features of site 2273 (the plantation irrigation infrastructure system), with the specific mitigation being preservation. The preservation measures are described with specificity in the APP. site 2273.

SHPD agreed that sites 2270 and 2271 had already yielded their informational and research value, and no additional relevant information would be gained by either further research or preservation of these sites, no further archaeological or historic preservation work was needed.

13. **Is an additional SHPD effects determination required prior to development of any other areas of the KS Property, or does the 2015 AIS effects determination cover that entire property?**

No, an additional effects determination should not be required, provided that development takes place in the relative near future. SHPD may request a new opportunity to provide an effects determination for an AIS that is over 10 years in age.

14. **What are the preservation measures for the four features of Site 2273?**

The four features identified for preservation are (i) feature 22, a large water distribution and retention basin east of Gulch A, to be preserved in its entirety; (ii) feature 23, a cut basalt and mortar irrigation ditch leading into Feature 22, a 75-foot representative section of feature 23 will be preserved; (iii) feature 19, a large dam-like retention structure in the west end of Gulch B, to be preserved in its entirety; and (iv) feature 14, a cut basalt and mortar irrigation ditch, a 100-foot representative section of feature 14 will be preserved. 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. Temporary orange fencing delineating the buffer areas is proposed during construction in the vicinity of any of these features.

15. **Are any of the identified features of Site 2273 within the proposed Project footprint?**

Yes. Feature 22 and a portion of feature 23 are within the Project area. Features 14 and 19 are not within the Project area.

16. **Has fencing been installed around feature 22 and portion of feature 23 as required under the APP.**

Yes. Included in my correspondence to SHPD dated July 19, 2019, a copy of which was filed as KS Exhibit 20, is a March 12, 2019, letter to SHPD from Waiawa Solar Power, LLC and Clearway Energy Group LLC, formalizing their commitment to install and maintain preservation buffer fencing at features 22 and 23 in accordance with the APP.

Documentation of the installation of the orange construction fencing was provided to SHPD (and others) by letter from me dated April 16, 2019 (a copy of which is included in KS Exhibit 20).

17. **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 Hawaii Supreme Court ruled that an agency must make specific findings and conclusions related to cultural, historical, and natural resources and any associated traditional and customary practices prior to making a decision that may impact those resources.

Specifically, the agency must make specific findings on (1) the identity and scope of "valued, cultural, historical, or natural resources" in the area under consideration, 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.

18. **In light of *Ka Pa'akai*, do you feel that the AIS and APP are sufficiently detailed to identify the cultural and historical resources in the Petition Area and in the Project area specifically?**

Yes. Furthermore, following the preservation measures set forth in the APP will protect the relevant historic resources.

19. **Have you prepared any data recovery or burial treatment plans for the Petition Area? If not, why?**

No because no burial sites were identified within the Petition Area, and the SHPD approved mitigation commitments require preservation, not data recovery. However, I note that data recovery work for certain other sites was completed in 1994 and 1995. See 1994 Archaeological Data Recovery at Sites 50-80-09-2262 and 2271, Phase 1 Development Area, Waiawa Gentry, Waiawa, 'Ewa, O'ahu. Aki Sinoto Consulting, Honolulu; and see 1995 Archaeological Data Recovery at Sites 50-80-09-2262 and 2271, Phase 1 Development Area, Waiawa Gentry, Waiawa, 'Ewa, O'ahu. Supplemental Data for Site 2271, Feature 3. Aki Sinoto Consulting, Honolulu.

20. **In your professional opinion, will the Project adversely impact any archaeological, historic, or cultural resources?**

No. The proposed Project will not have any adverse effects on any archaeological, historic, or cultural resources within the Petition Area.

DATED: Honolulu, Hawai'i, October 30, 2019.

Respectfully submitted,



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CHRISTOPHER M. MONAHAN, PH.D.