

**OFFICE OF PLANNING**

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LAND USE COMMISSION  
STATE OF HAWAII

2014 JUN 16 P 4: 36

**BEFORE THE LAND USE COMMISSION  
OF THE STATE OF HAWAII**

In the Matter of the Petition of	)	DOCKET NO. A87-610
	)	
TOM GENTRY AND GENTRY-PACIFIC,	)	OFFICE OF PLANNING LIST OF
LTD.	)	WITNESSES; OFFICE OF PLANNING
	)	RESPONSE TO TRUSTEES OF THE
To Amend the Agricultural Land Use	)	ESTATE OF BERNICE PAUAAHI
District Boundary into the Urban Land Use	)	BISHOP, DBA KAMEHAMEHA
District of Approximately 1,395 Acres of	)	SCHOOLS, MOTION FOR ORDER
Land at Waiawa, Ewa, Island of Oahu,	)	AMENDING FINDINGS OF FACT,
Hawaii, Tax Map Key Nos: (1) 9-4-006:	)	CONCLUSIONS OF LAW, AND
por. of 026; 9-6-004: por. of 001 and 016;	)	DECISION AND ORDER DATED
and 9-6-005: por. of 001, 007 and 014	)	MAY 17, 1988; EXHIBITS 1-6; AND
	)	CERTIFICATE OF SERVICE

**OFFICE OF PLANNING LIST OF WITNESSES,**

**OFFICE OF PLANNING'S RESPONSE TO  
TRUSTEES OF THE ESTATE OF BERNICE PAUAAHI BISHOP, DBA KAMEHAMEHA  
SCHOOLS, MOTION FOR ORDER AMENDING THE FINDINGS OF FACT,  
CONCLUSIONS OF LAW, AND DECISION AND ORDER DATED MAY 17, 1988,**

**EXHIBITS 1-6,**

**AND CERTIFICATE OF SERVICE**

# LAND USE COMMISSION

Page 1 of 1

**DOCKET NO./PETITIONER:** A87-610 TRUSTEES OF THE ESTATE OF BERNICE PAUAHI BISHOP  
**PARTY:** OFFICE OF PLANNING (OP)

## LIST OF WITNESSES

NAME/ORGANIZATION/POSITION (List in Order of Appearance)	TO BE QUALIFIED AS AN EXPERT IN:	SUBJECT MATTER	WRITTEN TESTIMONY (Yes or No)	EXHIBIT NUMBER(S)	LENGTH OF DIRECT
ALAN DOWNER or REPRESENTATIVE State Historic Preservation Division State Department of Land and Natural Resources	Historic Preservation	Archaeological, historic, and cultural resources, cultural impact assessment	Yes	4	10 min.
FORD FUCHIGAMI or REPRESENTATIVE Director Department of Transportation	Transportation Planning	Airport and/or Highways Transportation impacts	Yes	7	10 min.
LEO R. ASUNCION or REPRESENTATIVE Acting Director Office of Planning	Land Use and Environmental Planning	Land Use/ Environmental Planning; State position	Yes	1-6	20 min.

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In the Matter of the Petition of	)	DOCKET NO. A87-610
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TOM GENTRY AND GENTRY-PACIFIC,	)	OFFICE OF PLANNING RESPONSE TO
LTD.	)	TRUSTEES OF THE ESTATE OF
	)	BERNICE PAUAHI BISHOP, DBA
To Amend the Agricultural Land Use	)	KAMEHAMEHA SCHOOLS, MOTION
District Boundary into the Urban Land Use	)	FOR ORDER AMENDING FINDINGS
District of Approximately 1,395 Acres of	)	OF FACT, CONCLUSIONS OF LAW,
Land at Waiawa, Ewa, Island of Oahu,	)	AND DECISION AND ORDER DATED
Hawaii, Tax Map Key Nos: (1) 9-4-006:	)	MAY 17, 1988
por. of 026; 9-6-004: por. of 001 and 016;	)	
and 9-6-005: por. of 001, 007 and 014	)	
	)	

OFFICE OF PLANNING'S RESPONSE TO  
TRUSTEES OF THE ESTATE OF BERNICE PAUAHI BISHOP, DBA KAMEHAMEHA  
SCHOOLS, MOTION FOR ORDER AMENDING THE FINDINGS OF FACT,  
CONCLUSIONS OF LAW, AND DECISION AND ORDER DATED MAY 17, 1988

The Office of Planning ("OP") recommends approval, subject to conditions, of successor Petitioner Kamehameha Schools' ("Petitioner" or "KS") Motion for Order Amending the Findings of Fact, Conclusions of Law, and Decision and Order dated May 17, 1988 ("Motion").

The Motion requests that the Land Use Commission ("Commission or LUC"):

(1) recognize KS as the successor Petitioner with standing to seek and obtain the relief requested; and (2) modify the Commission's Finding of Facts, Conclusion of Law and Decision and Order dated May 17, 1988 ("Decision and Order"), under Docket No. A87-610



to expressly authorize the use of portions of the KS property for solar farm development for an interim period not to exceed 35 years.

The first request is procedural in nature for which OP has no objections. The second request proposing an interim solar farm development is affected by existing conditions of approval from the 1988 Decision and Order and also introduces new impacts for which OP has specific comments and recommendations.

OP distributed the Motion to the following agencies for their review and comments: Department of Land and Natural Resources ("DLNR"), State Historic Preservation Division ("SHPD") and Division of Forestry and Wildlife ("DOFAW"); Department of Agriculture ("DOA"); Department of Transportation ("DOT"); Department of Health ("DOH"); Commission on Water Resource Management ("CWRM"); Department of Public Safety ("PSD"); Hawaii State Energy Office; and the U.S. Department of the Navy. OP's response is based on the representations and documents filed by the Petitioner, including comments received by various State agencies on potential impacts to their facilities, programs, statutes and regulations applicable to these proceedings.

## **DISCUSSION AND ISSUES OF STATE CONCERN**

### **Background**

On May 17, 1988, the Commission approved the reclassification of the 1,395 acres from the State Agricultural District into the Urban District. The Waiawa development as originally proposed by Gentry Pacific consisted of a mix of 7,906 residential dwellings, parks, open space, two golf courses, commercial and light industrial uses. In 1988, a majority of the site was rezoned by the City and County of Honolulu. In 2003, the remaining 175 acres of the Petition Area was rezoned. In 2006, Gentry and A&B Waiawa formed a joint venture, the Waiawa Ridge Development, LLC. In its 2008 Annual Report, Petitioner then stated that construction was set to begin in 2009. In 2008, the Lehman Brothers filed for bankruptcy, followed by the financial market collapse, after which control of the Petition Area was returned to KS. According to the Petitioner, the property has been vacant and without agricultural activities since 1983.

### **Proposed Change in Use**

The Petitioner has entered into an agreement with Sun Edison to develop a utility scale solar energy facility for an interim period of up to 35 years. The proposed solar farm would be developed in two phases in separate areas. The initial Phase I is designed to produce 50 megawatts ("MW") of power on approximately 300 acres on the northwest side of the property near the Interstate H-2 Freeway. We are informed that Petitioner will propose an expanded area in which Phase I might be located. (See OP Exhibit 1-B) Phase II, if pursued, is designed to produce up to 65 MW of power within approximately 277 acres on the southeastern portion of the property (see KS Exhibit 8). The operation will include a 46-kilovolt project substation and battery storage facility which is not shown on the map in KS Exhibit 8, but is stated to be located close to the western side of the KS Property about 1,000 feet from the H-2 Freeway. The solar farm is expected to be in operation for 20-25 years, with the interim 35-year period also including time for permitting, construction, and decommissioning. The construction phase is anticipated to take 12 months, including 3 months of grading and 9 months of panel installation.

### **Conditions of Approval Relevant to the Proposed Use**

The Decision and Order of 1988 included ten (10) conditions of approval, with relevancy to the proposed use summarized here and discussed further in subsequent sections:

- Condition 1: required a study of potential groundwater contamination prompted by concerns of the U.S. Department of the Navy and the DOH. The study was completed which delineated a Hydrologic Zone of Contribution ("HZOC") within which the U.S. Department of the Navy strongly recommended that no development be permitted. Phase II of the proposed solar farm is within the HZOC (KS Exhibit 15, December 17, 1990 Letter from the U.S. Department of the Navy).
- Condition 2: required that any urban development within the Property be reviewed and approved by the DOH and be subject to mitigative measures.
- Condition 3: required affordable housing in conjunction with residential development – not applicable to the proposed use.
- Condition 4: required affordable housing subject to approval of County and State housing agencies – not applicable to the proposed use.
- Condition 5: required mitigation of transportation impacts as determined by the DOT.



- Condition 6: required a transportation manager to maximize transportation alternatives – not applicable to the proposed use.
- Condition 7: required an air quality monitoring program – not applicable to the proposed use.
- Condition 8: required stoppage of work upon discovery of archaeological resources during construction.
- Condition 9: required public access to the Conservation District mauka of the property.
- Condition 10: required the submittal of annual reports. Annual reports have been continually submitted by Gentry Pacific and its successor.

### **Future Use of the Project**

The Petition states that KS is reevaluating the Waiawa Ridge development that was planned by Gentry and is reexamining the most appropriate mix of housing, commercial, industrial, open space and other land uses for the KS Property. Given that the southern corner of the Petition Area is situated within one mile of two planned rail transit stations, the Petitioner expressed the probability that the Project will need to be re-evaluated, possibly locating more development along the southern rather than the northern boundaries of the Petition Area. No timeframe was provided for undertaking this reassessment and revision of the project's master plan, although Petitioner has represented that it would return to the LUC before initiating any development that is not in substantial conformance with the original proposal as amended by this Motion.

In the adjacent Koa Ridge development, (Docket No. A11-793 Castle and Cooke Homes Hawaii), the Commission approved the reclassification of 576.435 acres into the State Urban District for Koa Ridge Makai, and granted incremental Urban District reclassification for 191.214 acres of land for Castle & Cooke Waiawa, which lies adjacent and north of the proposed Phase I solar farm development. The granting of the Incremental Districting approval is contingent on: 1) an application for incremental approval within 20 years of the Decision and Order (by year 2032), 2) an executed cost-sharing agreement with the developer of Waiawa Ridge (now KS) for all shared infrastructure, and 3) the commencement of roadway construction for access to Waiawa Ridge.

The proposed interim use and probable re-evaluation of the Project create a substantial question as to whether KS is likely to reach a cost-sharing agreement with Castle & Cooke

Waiawa. In consideration of the potential impacts upon Castle & Cooke Waiawa and the lengthy period of inactivity on the Project, a more definitive schedule should be provided by the Petitioner for the planning and development of the overall Waiawa Ridge planned community. OP notes that no development has occurred on the Petition Area since its reclassification to the Urban District over 25 years ago.

***Recommended mitigation:*** OP recommends that the Petitioner provide a schedule for revision of the master plan and development of the KS Waiawa property. OP also recommends the imposition of a condition with completion dates for the construction of the Phase I and Phase II solar farm developments.

#### **Consistency with Urban District Standards and State and County Plans**

The proposed use for solar farm development is consistent with the Urban District classification and Commission rules for Urban District standards and permissible uses, Hawaii Administrative Rules §§ 15-15-18 and 15-15-24. Unlike other proposals for utility scale solar energy facilities on Agricultural District lands, this use is fully permissible in the Urban District. Solar energy production is a clean renewable energy resource strongly supported by the State to promote energy self-sufficiency and reduce our reliance on imported fossil fuels.

The proposed solar farm is defined as a “utility installation” in Chapter 21-10.1 of the Revised Ordinances of Honolulu and is permitted within any zoning designation of the County with a Conditional Use Permit-Minor Type A or Type B.

#### **Key Issues of Concern to the State**

The following summarizes the concerns identified by various State agencies, and includes recommendations for proposed conditions to mitigate potential impacts from the proposed Project.

##### **Groundwater and surface water resources**

In the 1988 Decision and Order, concerns were raised by the U.S. Department of the Navy regarding the potential groundwater contamination of the Waiawa water supply. The Waiawa shaft has been identified as the primary source of potable water for general users and the military communities in the Pearl Harbor Navy and Hickam Air Force Bases. Due to the entrance of the Waiawa shaft in close proximity to the subject property along the Waiawa Stream, two conditions



were imposed by the Commission in order to identify mitigation measures. Condition 1 was met, in which a 1990 research study was funded by the U.S. Department of the Navy and prepared by the University of Hawaii to identify the Hydrologic Zone of Contribution.

Condition 2 requires that any development of the property be subject to a review by the DOH. According to a May 16, 2014 letter from DOH to Petitioner, minimal or no impacts on groundwater by the proposed solar farm are anticipated based on a meeting initiated by the Petitioner (See OP Exhibit 2). It should be clarified by the Petitioner whether the extent of the Phase II solar farm location within the HZOC was shown to DOH.

It does not appear that solar panels are likely to produce groundwater contaminants and the Petitioner stated that no solvent cleansers will be used on the solar panels. However, during grading activities for site preparation, erosion sediments during drainage may carry a general risk for potential groundwater contamination. Electrical substations and batteries could pose a contamination risk. But Petitioner has represented that the location of the substation and batteries would be outside the HZOC.

***Recommended mitigation:*** The DOH will be reviewing and approving the required National Pollutant Discharge Elimination System permit application for stormwater associated with the site grading activities that should include the implementation of best management practices during construction. OP recommends that the Petitioner clarify the stormwater management, monitoring and best management practices expected to be employed. The Petitioner should also clarify the location of the substation and battery storage facilities for both phases.

**Access.** The KS property is accessible from either the northern portion of the site from the Mililani Cemetery Road that connects to Ka Uka Boulevard, or at the southern portion of the site from Waihona Street that connects to Kamehameha Highway.

The PSD expressed concerns regarding access for its Waiawa Correctional Facility located mauka of the KS Property. The project during construction has the potential to impede access to Ka Uka Boulevard. The Mililani Memorial Park Road is in deteriorating condition and could be further damaged by heavy equipment traffic. PSD requested that the Petitioner provide advance notice of planned activities that may impact access for the Waiawa Correctional Facility (See OP Exhibit 3).



***Recommended mitigation:*** OP recommends a condition to ensure road accessibility for the Waiawa Correctional Facility is available at all times during the construction of the solar farm.

***Historical or Archaeological Assessment.*** In its letter dated June 12, 2014, the SHPD reviewed previous archaeological surveys and studies relative to the Phase I and II areas of solar farm development as well as cataloging surveys and studies undertaken from 1987 of the entire Petition Area (See OP Exhibit 4). SHPD found there are historic properties present within and/or in immediate proximity to the Phase I and Phase II solar farm areas, including possibly the Puoiki Heiau located just outside the southeast boundary of the Phase II project area. Since it has been more than 20 years since the last archaeological inventory survey (AIS) was conducted, SHPD concluded there is insufficient information for determining that no historic properties will be affected by the proposed installation of solar facilities in the Phase I and II areas.

***Recommended mitigation:*** SHPD recommends that a supplemental archaeological inventory survey be conducted for the entire 1,395-acre Petition Area by a qualified archaeologist to determine potential impacts and to ensure that appropriate mitigation is implemented if needed.

### ***Transportation***

The State DOT provided preliminary comments relating to State highways and airport facilities based on telephone communications with Staff. An agency comment letter will not be included in the exhibits; however, it will be filed as an additional exhibit to the Commission at a later date.

***1. State Airports.*** The Property is identified as being subject to overflights from aircraft in the project vicinity. The DOT cautions that the possible glare reflections from the photovoltaic arrays can create hazardous conditions for the visibility of the pilots. The Petitioner is asked to refer to the Sandia National Laboratories' website ([www.sandia.gov/glare](http://www.sandia.gov/glare)) that contains tools to help evaluate solar glare and receiver irradiance based on a glint and glare analysis.

***Recommended mitigation:*** The DOT recommends that if glint or glare from the PV array creates a hazardous condition for pilots, the facility operator must be prepared to

immediately mitigate the hazard upon notification by the Department of Transportation, Airports Division (DOT-A) or the Federal Aviation Administration (FAA).

2. **State Highways.** The State DOT finds that the proposed solar farm will not adversely impact State highway facilities. However, the access road connecting to the Mililani Cemetery Road should be located as far as possible from the connection to Ka Uka Boulevard to avoid queuing onto the Boulevard.

**Recommended mitigation:** OP recommends that Petitioner prepare and submit a Traffic Assessment for review and acceptance by the DOT.

**Sustainability; Energy and Resource Use.** The Hawaii State Energy Office within the Department of Business, Economic Development, and Tourism, expressed appreciation for the efforts made by Kamehameha Schools and Sun Edison to help achieve Hawaii's clean energy goals (See OP Exhibit 5). The Hawaii Clean Energy Initiative has adopted a goal of using efficiency and renewable energy resources to meet 70 percent of Hawaii's energy demand by 2030, with 30 percent from efficiency measures and 40 percent from locally-generated renewable sources. Taking a holistic view of the impacts a proposed project may have on Oahu's electrical system and the surrounding community, the State Energy Office noted Petitioners' statement that "Putting a solar farm on the KS property will not inhibit or restrict Hawaiian Electric Company's ("HECO") ability to accept [photovoltaic] ("PV") power from individual homes and businesses that also wish to use solar energy."

**Recommended mitigation:** OP recommends that the Petitioner represent, substantiate, and explain that the proposed project will not adversely impact HECO's acceptance of distributed PV power systems (i.e. individual home and business PV systems).

**Agricultural Resources.** The State DOA had no objection to the Petitioner's proposed interim use for solar energy facilities. The DOA recommended, however, that the Petitioner consider the use of livestock or other compatible agricultural use for vegetation control within the area of solar facilities as has been proposed by other utility scale solar projects on Oahu (See OP Exhibit 6).

**Forestry and Wildlife.** Condition No. 9 requires that the Petitioner provide public access to the Conservation District lands mauka of the Property. In its June 21, 2000 letter (KS Exhibit 18), DLNR's Division of Forestry and Wildlife indicated that there are no public



hiking trails or hunting areas that require the provision of public access across its Waiawa lands. It further notes that the provision of public access to these lands should be reviewed in the future as the project's mauka roadways are developed. DOFAW staff indicated no objections to the proposed solar farm use and no changes to their position expressed in the June 2000 letter (personal communication with DLNR Staff Forester, June 3, 2014).

## CONCLUSION AND RECOMMENDATIONS

With the understanding that the original conditions remain valid, OP recommends that approval of the proposed interim solar farm use be subject to the following additional conditions:

1. Revised Master Plan. Petitioner shall submit a revised master plan and schedule for the development of the overall KS Waiawa property within five (5) years from the date of this Decision and Order.
2. Access to the Waiawa Correctional Facility. Petitioner shall ensure that the Waiawa Correctional Facility is accessible to road traffic at all times during the construction and installation of the solar farm.
3. Archaeological and Historic Resources. A supplemental archaeological inventory survey shall be conducted for the entire 1,395-acre Petition Area by a qualified archaeologist to determine potential impacts and to ensure that appropriate mitigation is implemented as needed. The survey shall be submitted to the State Historic Preservation Division and accepted prior to the start of construction.
4. Aircraft Hazard. If glint or glare from the photovoltaic array creates a hazardous condition for pilots, the facility operator shall be prepared to immediately mitigate the hazard, upon notification by the Department of Transportation Airports Division or the Federal Aviation Administration.
5. Traffic Impacts. Petitioner shall submit a Traffic Assessment for review and acceptance by the Department of Transportation prior to the start of construction.
6. Development Schedule. Phase I shall be substantially completed within five (5) years from the approval date of the Decision and Order. Phase II shall be substantially completed within ten (10) years from the approval date of the Decision and Order.



7. Compliance with Representations. Petitioner shall develop Phase I and Phase II in substantial compliance with its representations reflected in the Decision and Order.

Failure to so develop the Petition Area may result in reversion of the Petition Area to its former classification, or change to a more appropriate classification.

Based on the foregoing information and analysis, OP recommends approval of the Motion for Order Amending Findings of Facts, Conclusions of Law and Decision and Order dated May 17, 1988, subject to the conditions recommended above.

DATED: Honolulu, Hawaii, this 16th day of June 2014.

OFFICE OF PLANNING  
STATE OF HAWAII

A handwritten signature in black ink, appearing to read 'Leo R. Asuncion Jr.', is written over a horizontal line.

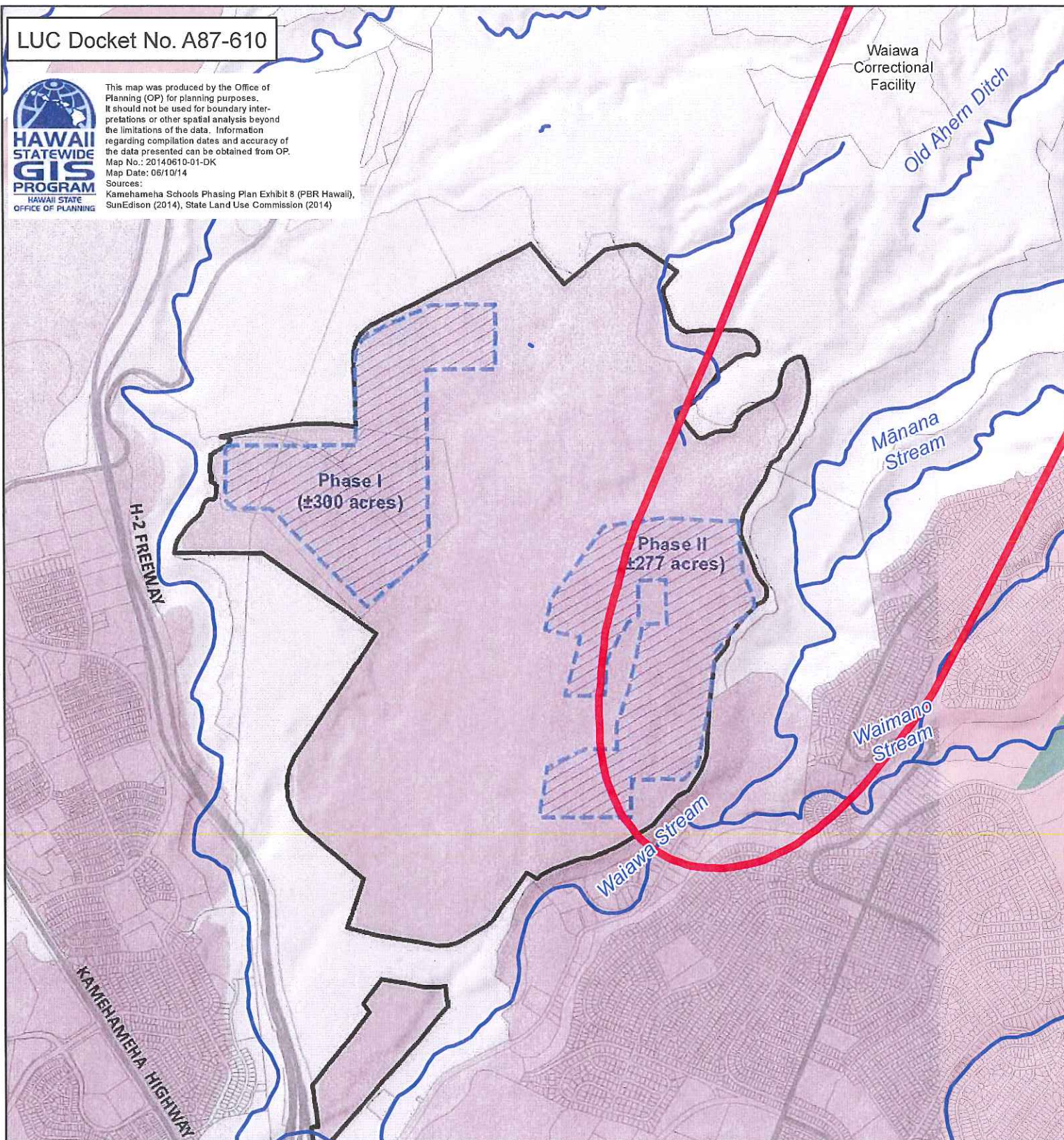
LEO R. ASUNCION JR.  
Acting Director



LUC Docket No. A87-610



This map was produced by the Office of Planning (OP) for planning purposes. It should not be used for boundary interpretations or other spatial analysis beyond the limitations of the data. Information regarding compilation dates and accuracy of the data presented can be obtained from OP.  
Map No.: 20140610-01-DK  
Map Date: 06/10/14  
Sources:  
Kamehameha Schools Phasing Plan Exhibit 8 (PBR Hawaii),  
SunEdison (2014), State Land Use Commission (2014)



### Legend

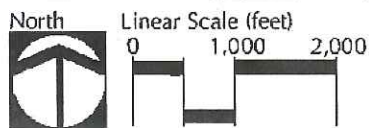
- Hydrologic Zone Of Contribution
- KS Waiawa Property (SLU Urban, Docket A87-610)
- Photovoltaic Locations
- Agricultural District
- Rural District
- Conservation District
- Urban District

Source: SunEdison (2014), State Land Use Commission (2014)  
Disclaimer: This Graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.

OP Exhibit 1-A

### Phasing Plan

### KAMEHAMEHA SCHOOLS WAIAWA MOTION TO AMEND



DATE: 5/7/2014

Island of O'ahu

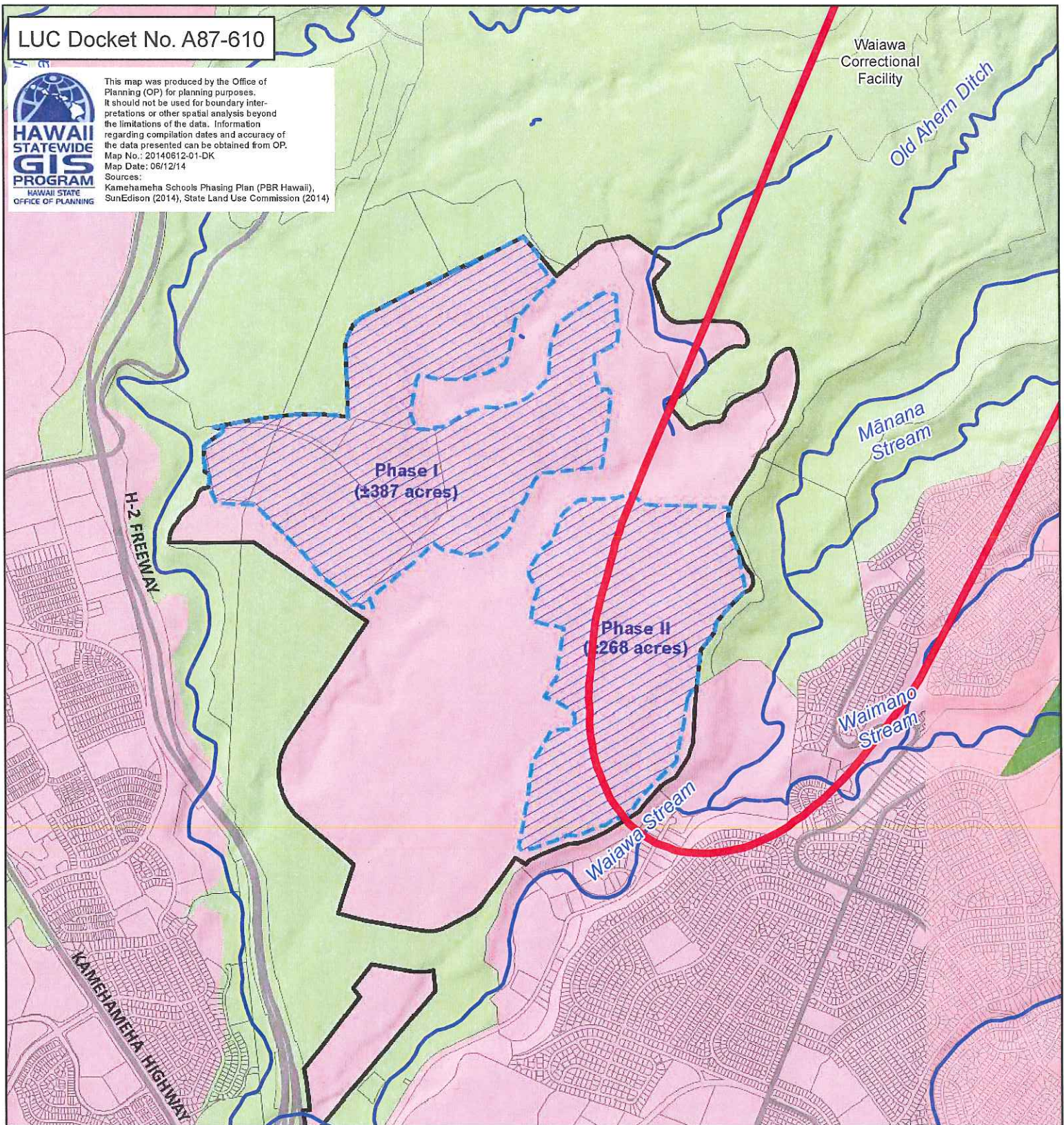




LUC Docket No. A87-610



This map was produced by the Office of Planning (OP) for planning purposes. It should not be used for boundary interpretations or other spatial analysis beyond the limitations of the data. Information regarding compilation dates and accuracy of the data presented can be obtained from OP.  
Map No.: 20140812-01-DK  
Map Date: 06/12/14  
Sources: Kamehameha Schools Phasing Plan (PBR Hawaii), SunEdison (2014), State Land Use Commission (2014)



### Legend

- Hydrologic Zone Of Contribution
- KS Waiawa Property (SLU Urban, Docket A87-610)
- Photovoltaic Locations
- Agricultural District
- Rural District
- Conservation District
- Urban District

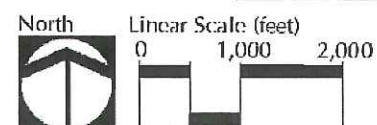
Source: SunEdison (2014), State Land Use Commission (2014)

Disclaimer: This Graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.

OP Exhibit 1-B

### Phasing Plan

### KAMEHAMEHA SCHOOLS WAIAWA MOTION TO AMEND



DATE: 6/10/2014

Island of O'ahu





NEIL ABERCROMBIE  
GOVERNOR OF HAWAII



LINDA ROSEN, M.D., M.P.H.  
DIRECTOR OF HEALTH

STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P.O. BOX 3378  
HONOLULU, HI 96801-3378

In reply, please refer to:  
File: SDWB  
KamehamehaWaiawa1.docx

May 16, 2014

Mr. Keith K.A. Chang  
Land Asset Manager  
Endowment Group – Land Assets Division  
Kamehameha Schools  
567 South King Street, Suite 200  
Honolulu, Hawaii 96813

Dear Mr. Chang:

SUBJECT: KAMEHAMEHA SCHOOLS WAIAWA PROPERTY  
LAND USE COMMISSION DOCKET A87-610  
TMK: (1) 9-4-006:034, 035, 036, 037; 9-6-004:024, 025, 026; 9-6-005:001  
WAIAWA, EWA, OAHU

The Department of Health (DOH) Safe Drinking Water Branch (SDWB), Clean Water Branch (CWB), and Solid and Hazardous Waste Branch (SHWB) have reviewed the April 9, 2014 letter which further described the subject project and restated the discussion at the March 24, 2014 meeting.

Based on the information provided, the proposed solar farm should have minimal or no impact on groundwater and is acceptable to the DOH-SDWB, CWB, and SHWB.

If there are any questions, please call Ms. Joanna L. Seto, P.E., SDWB Chief, at 586-4258.

Sincerely,

A handwritten signature in cursive script, likely of Stuart Yamada, is written in dark ink.

STUART YAMADA, P.E., CHIEF  
Environmental Management Division

JS:cb

c: Mr. Alec Wong, P.E., CWB Chief [via email only]  
Ms. Gracelda Simmons, SHWB Hazardous Waste Section Supervisor [via email only]

OP EXHIBIT 2

DOCKET NO. A87-610

NEIL ABERCROMBIE  
GOVERNOR



STATE OF HAWAII  
**DEPARTMENT OF PUBLIC SAFETY**  
919 Ala Moana Boulevard, 4th Floor  
Honolulu, Hawaii 96814

**TED SAKAI**  
DIRECTOR

Martha Torney  
Deputy Director  
Administration

Max Otani  
Deputy Director  
Corrections

Shawn Tsuha  
Deputy Director  
Law Enforcement

No. 2014-951

June 2, 2014

TO: Leo R. Asuncion, Acting Director  
Office of Planning

FROM: Ted Sakai, Director *Ted Sakai*

SUBJECT: Motion to Amend Decision and Order:  
Land Use Commission Docket No. A87-610, Kamehameha Schools

The Department of Public Safety reviewed the Motion for Order as it relates to the Waiawa Correctional Facility (WCF) that is under our jurisdiction and could be affected by the use of the Petition Area for solar farm development.

Based on our review and input from the Department of Accounting and General Services the proposed solar farm development will have little impact on the operations of WCF but has the potential to impede access to Ka Uka Boulevard during the construction period. The Motion indicates that access to the site will be through Mililani Memorial Park Road, off of which is the WCF access road. We ask that the developer keep us informed of any planned activity that could potentially impact access so that we may respond accordingly. Also, the road is not in the best of condition at this time and could be further damaged by heavy equipment traffic.

Should you need further information in regard to the comment we have provided, please contact Martha Torney, Deputy Director for Administration at 587-1251 or email at [Martha.T.Torney@hawaii.gov](mailto:Martha.T.Torney@hawaii.gov).

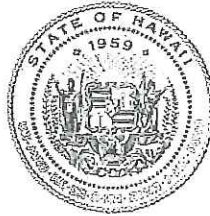
Attn: Jenny Lee - - - - -

**OP EXHIBIT 3**

**DOCKET NO. A87-610**



NEIL ABERCROMBIE  
GOVERNOR OF HAWAII



**STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES**

STATE HISTORIC PRESERVATION DIVISION  
KAKUHIHEWA BUILDING  
601 KAMOKILA BLVD, STE 555  
KAPOLEI, HAWAII 96707

WILLIAM J. AILA, JR.  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

JESSE K. SOUKI  
FIRST DEPUTY

WILLIAM M. TAM  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

June 12, 2014

Mr. Leo R. Asuncion, Acting Director  
Office of Planning, State of Hawaii  
P.O. Box 2359  
Honolulu, HI 96804

LOG NO: 2014.02357  
DOC NO: 1405GC14  
Archaeology

Dear Mr. Asuncion:

**SUBJECT: Chapter 6E-42 Historic Preservation Review -  
Motion to Amend Decision and Order – Ref. No. P-14388  
Land Use Commission Docket No. A87-610, Kamehameha Schools  
Waiawa Ahupua'a, 'Ewa District, Island of O'ahu  
TMK: (1) 9-4-006:034 por., 035 por., 036, 037 por.; 9-6-004:024 por., 025, 026;  
9-6-005:001 por. [formerly (1) 9-4-006:026 por.; 9-6-004:001 por. and 016 por.; 9-6-005:001  
por., 007 por. and 014 por.]**

Thank you for the opportunity to respond to your request for comments on the subject Motion to Amend Decision and Order for Land Use Commission Docket No. A87-610 as it relates to the State Historic Preservation Division (SHPD), Department of Land and Natural Resources (DLNR) jurisdiction on this Motion. The fee owner, Kamehameha Schools (KS), seeks to expressly authorize the use of portions of their property for solar farm development for a period not to exceed 35 years. The proposed Motion to Amend Decision Order applies to the entire 1,395-acre KS property, while the proposed solar farm development applies to only about 577 acres. We received this submittal on May 22, 2014.

**Description of Proposed Solar Farm Project**

The motion involves a proposal to establish solar farm systems within one or more utility easements with the 1,395-acre KS property and for the systems to be installed in two phases (Phases I and II) or areas. The Phase I area totals about 300 acres in the northwestern portion of the KS property and involves installation of a pier-mounted 50-MW photovoltaic modular system. The Phase II area totals about 277 acres in the eastern portion of the KS property and involves installation of a pier-mounted 65-MW photovoltaic modular system. in 300 acres in NW portion. Grading will include approximately 400,000 cubic yards and installation of the support piers involves "pile driving" and the construction of retention basins and drainages. The project description also indicates that visual impacts from the solar farm arrays will be minimal.

**Applicant Statement Concerning Historic Resources within the Phase I and II Areas**

The Land Use Commission Docket indicates that based on "the annual reports" the following previous archaeological studies have been conducted within the subject project area:

an archaeological reconnaissance and inventory survey of the KS Property was approved by SHPD as an acceptable inventory survey report on July 7, 1992. A Cultural Impact Assessment was prepared by Cultural Surveys Hawaii, Inc. in 2003 in anticipation of the Gentry development. A Cultural Resources Preservation Plan was prepared in 2005 by Aki Sinoto Consulting. The plan identified four sites proposed for in situ preservation. This plan was approved by SHPD by letter dated October 25, 2007. In addition,

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**DOCKET NO. A87-610**



prior to commencing ground disturbing activities within the proposed easement areas on the KS Property, SunEdison will conduct a [sic] further archaeological inventory survey of the proposed easement areas.

#### **SHPD Review**

Our records indicate that historic properties are present within subject KS property, including within and/or in immediate proximity to the proposed *Phase I and Phase 2 solar farm areas*. These records indicate that two archaeological surveys (1987, 1991) and five mitigation plans or reports (3 in 1994, 1 in 1995, and 1 in 2007) have been completed within the KS property. Our records also indicate that historic properties may be present *outside the Phase I and Phase II areas* within or in immediate proximity to the remaining 818-acre portion of the subject KS property that were not identified in the studies conducted by Barrera (1987) and by Goodman and Nees (1991) and that it remains unclear whether the entire acreage within the current subject KS property was included in these two studies. Both Barrera and Goodman reported the presence of historic properties outside their immediate survey areas. Barrera (1987) indicated "exposures of partially-buried terrace retaining walls were found in the bottoms of three of the gulches...one of the retaining wall locations is included in this report as Site 1469; the remaining sites were outside of the present survey area." Goodman and Nees (1991:5) indicated that Puoiki Heiau (Site 121), initially recorded by McAllister (1933), was located just outside the southeast boundary of the Phase II project area in Waiawa Gulch at the junction of Waiawa and Manana Streams.

Based on the above description of Puoiki Heiau (Site 121) it remains unconfirmed whether this site is immediately inside or outside of the subject 1,395-acre KS property. It also is unclear whether other historic properties reported in proximity to Site 121 occur within the subject KS property. These historic properties were identified by Goodman during a one-day field reconnaissance within the Waiawa Gulch area of TMK: (1) 9-06-005 undertaken to investigate Site 121 (Goodman 1991). Goodman indicated that the possible *heiau* is located at the base of the ridge that separates Waiawa and Manana Ahupua'a and gulches, and lies between the end of this ridge and the juncture of Waiawa and Manana Streams. She also indicated other historic properties in the area include a large rockshelter with a terraced entrance, a petroglyph in the cliff face behind the shelter, a second petroglyph about 10 m away, a small cupboard formed by stacked boulders, a stacked cobble and boulder wall that may be an *'ili* or *ahupua'a* boundary wall, and on the flatlands near the "suspected heiau" are two formal platforms, some terracing, and a formal pit. Goodman (1991) also noted traditional Hawaiian artifacts in association with various structures and that time constraints precluded further exploration of the area.

#### **SHPD Recommendation**

Based on the above and the passage of more than 20 years since Goodman and Nees (1991) conducted their archaeological inventory survey (AIS), we have insufficient information for making a determination that no historic properties will be affected by the proposed Motion to Amend Decision and Order for the 1,395 acre KS property or by the proposed installation of solar farm systems in the Phase I and Phase II areas. Pursuant to Hawaii Administrative Rules (HAR) §13-275, we recommend that a **supplemental archaeological inventory survey (AIS)** be conducted for the entire 1,395-acre KS property by a qualified archaeologist in order to adequately determine the potential impacts of the Motion to Amend and the proposed Phase I and Phase II projects on archaeological historic properties, and to ensure that appropriate mitigation is implemented, if needed. We also recommend that the AIS include consultation with Native Hawaiian Organizations and other interested parties due to the presence of historic properties significant pursuant to HAR §13-284-6 under Criterion "e" as having important value to a particular ethnic group (e.g., Site 2271 (cemetery and grave site) and Site 121 (Puoiki Heiau)).

We look forward to reviewing the archaeological inventory survey report pursuant to HAR §13-276, as well as any subsequent mitigation plans as appropriate, based on findings of the survey. Please contact me at (808) 692-8019 or at [Susan.A.Lebo@hawaii.gov](mailto:Susan.A.Lebo@hawaii.gov) for any questions or concerns regarding this letter.

Aloha,



Susan A. Lebo, PhD  
Oahu Lead Archaeologist

#### Attachment – Prior Studies

- 1987 – Archaeological Inventory Survey for Waiawa Ridge Golf Course (Barrera, February 1987); He surveyed about 1,242 acres which included some of the southern portion of the subject KS 1,395-acre KS property. His reconnaissance resulted in the identification of the following four sites: 50-80-09-1469 (road remnants), 1470 (historic dump), 1471 (cannery remnants), and 1472 (plantation remnants and terracing). They were assessed as being related to the Oahu Sugar Company and as being “of no archaeological value.” Barrera also indicated that terrace retaining walls occurred in the bottom on three gulches outside his project area.
- 1991 – Archaeological Inventory Survey (Goodman and Nees 1991); They surveyed 3,600 acres and identified 17 historic properties, 3 traditional Hawaiian and 14 historic (Table 1). Of the 17 sites, two sites (2263 and 2264) were recommended for preservation, four sites (2262, 2265, 2266, and 2271) were recommended for data recovery, and three sites (1471, 2264, and 2271) were recommend for archival research and detailed mapping. Four sites (1469, 1470, 1471, and 1472) were previously-identified by Barrera (1986).

Table 1. Historic Properties (50-80-09- ) within 3,600-acre survey area (Goodman and Nees 1991).

Site	Site Description	Significance	Recommendation
1469	road-related alignments, walls, terraces, road bed, paved and unpaved surfaces	Not significant	No further work
1470	historic dump	Not significant	No further work
1471	cannery remnants	Not significant	No further work
1472	plantation Camp # remnants and terracing	Not significant	No further work
2261	rock alignment	Not significant	No further work
2262	surface lithic scatter	Criterion D	Data Recovery
2263	rockshelter complex with petroglyphs	Criterion D	Preservation
2264	Hawaiian trail	Criterion D	Preservation, Archival Research, Detailed Mapping
2265	rock mound complex with terraces, fire pit, stream retaining wall	Criterion D	Data Recovery
2266	terrace with depression, rock alignments, additional depressions	Criterion D	Data Recovery
2267	terrace	Not significant	No further work
2268	Waiahole Ditch	Not significant	No further work
2269	Ahren's Ditch	Not significant	No further work
2270	road/railroad system with alignments and retaining walls	Not significant	No further work
2271	irrigator-ditchman, cannery camps, structural remnants, historic cemetery and grave site	Criteria A, D, and E	Data Recovery, Archival Research, Detailed Mapping
2272	military areas, correction building remnants, tunnel complex	Not significant	No further work
2273	irrigation complex including reservoirs, pumping stations, structural remnants, ditches and tunnels	Not significant	No further work

- 1994 – Archaeological Data Recovery for Site 2262 and Site 2271 Feature 3 in Phase I Area (Sinoto and Pantaleo, January 1994); They recommended preservation of the following historic properties within the Phase I project area: Sites 2263 (rockshelter and petroglyphs), portions of 2264 (Hawaiian trail), as well as 2265 and 2266 (adjoining agricultural complexes).
- 1994 – “After the Fact” Archaeological Data Recovery Plan for Sites 2262 and 2271 Feature 3 in Phase I Area (Sinoto and Pantaleo, July 1994).



- 1994 - Data Recovery Plan for Site 2271 Feature 3 in Phase I Area (Sinoto and Pantaleo, July 1994). SHPD reviewed and accepted the plan on August 4, 1994 (Log No. 12365, Doc. No. 9408TD09).
- 1995 - Supplemental Archaeological Data Recovery for Site 2271 Feature 3 in Phase I Area (Sinoto and Pantaleo, February 1995). SHPD concurred with the significance evaluations and with preservation recommendations for Sites 2263, 2265 and 2266, requested that a mitigation plan for 2263 include an interpretive display, and accepted the report on March 2, 1995 (Log No. 13981, Doc. No. 9502TD20).
- 2007 - Cultural Resources Preservation Plan for Sites 2263, 2264, 2265, and 2266 (Sinoto and Tichenel 2005 [SHPD received August 2, 2007]). SHPD review and accepted this plan on October 25, 2007 (Log No. 2007.2651, Doc. No. 0710ED13).





DEPARTMENT OF BUSINESS,  
ECONOMIC DEVELOPMENT & TOURISM

NEIL ABERCROMBIE  
GOVERNOR

RICHARD C. LIM  
DIRECTOR


MARY ALICE EVANS  
DEPUTY DIRECTOR

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June 5, 2014

To: Leo R. Asuncion, Acting Director  
Office of Planning, State of Hawaii

From: Mark B. Glick, Energy Program Administrator   
Department of Business, Economic Development, and Tourism

Subject: Comments on Motion to Amend Decision and Order:  
Land Use Commission Docket No. A87-610, Kamehameha Schools

The Hawaii State Energy Office ("HSEO") within the Department of Business, Economic Development, and Tourism ("DBEDT") submits the following comments on the *Motion for Order Amending Findings of Fact, Conclusions of Law and Decision and Order Dated May 17, 1988: Land Use Commission Docket No. A87-610*, filed by Kamehameha Schools on May 13, 2014 ("Motion").

HSEO appreciates the efforts made by Kamehameha Schools and SunEdison to help achieve Hawaii's clean energy goals. Our comments herein are guided by Hawaii's clean energy policy, which has a significant influence on the State's economic and environmental well-being.

All renewable energy projects must balance technical, economic, environmental, and cultural considerations. This requires taking a holistic view of the impacts a proposed project may have on Oahu's electrical system and the surrounding community. According to Kamehameha Schools, "Putting a solar farm on the KS property will not inhibit or restrict Hawaiian Electric Company's ("HECO") ability to accept [photovoltaic] ("PV") power from individual homes and businesses that also wish to use solar energy."<sup>1</sup> Should the Land Use Commission ("LUC") approve this Motion, HSEO recommends that Kamehameha Schools confirm via a HECO interconnection requirements study ("IRS") or comparable study/report that the proposed project will not adversely impact HECO's acceptance of such distributed PV power systems.

We appreciate the opportunity to provide these comments. If you have any questions, please feel free to contact me at 587-3812 or [mark.b.glick@dbedt.hawaii.gov](mailto:mark.b.glick@dbedt.hawaii.gov).

<sup>1</sup> See Motion for Order Amending Findings of Fact, Conclusions of Law and Decision and Order Dated May 17, 1988 at 14.

**OP EXHIBIT 5**

**DOCKET NO. A87-610**



State of Hawaii  
DEPARTMENT OF AGRICULTURE  
1428 South King Street  
Honolulu, Hawaii 96814-2512  
Phone: (808) 973-9600 FAX: (808) 973-9613

June 3, 2014

Mr. Leo Asuncion, Acting Director  
Office of Planning  
235 S. Beretania Street, 6<sup>th</sup> Floor  
Honolulu, HI 96804

Dear Mr. Asuncion:

Subject: Motion to Amend Decision and Order:  
Land Use Commission Docket No. A87-610, Kamehameha Schools  
Proposed Action: Motion for Order Amending the Decision and Order  
Location: Waiawa, Ewa, Oahu  
TMK: (1) 9-4-06: 26 (por), 9-6-04: 1 and 16 (por), 9-6-05:1, 7 and 14 (por)  
Acreage: Phase 1 (300 acres); Phase 2 (277 acres)

The Hawaii Department of Agriculture (HDOA) has reviewed the subject petition and has no objection to the Petitioner's proposed interim use of a portion of the property for solar energy facilities. We recommend the Petitioner consider the use of livestock or other compatible agricultural use(s) for vegetation control within the solar energy facilities. This may result in the added benefit of food production for local consumption. The concept of compatible agricultural use is proposed by other utility-scale renewable energy companies for their Oahu projects.

The Land Use Commission reclassified the 1,395-acre property (Waiawa Ridge) in May of 1988. In 1998, 1,049 acres of the property received Development Plan approval from the City Council, followed by rezoning of 874 acres, and an additional 175 acres in 2003. The Memorandum in Support of Motion (page 5) states that there has been no agricultural activity on the property since 1983.

The Petitioner seeks approval to use a portion of their Urban District property as a utility-scale solar energy project for an interim period not to exceed 35 years. Phase 1 (300 acres) will be in the northwest corner and be fully operational by 2016. Phase 2 (277 acres), should it be pursued, will be located on the southeastern edge of the property.



**OP EXHIBIT 6**

**DOCKET NO. A87-610**



Mr. Leo Asuncion, Acting Director

June 3, 2014

Page 2 of 2

The vegetation growing in the solar energy project that is within the hydrologic "zone of contribution" will be controlled by mechanical means (mowers and weed cutters). Vegetation located outside this zone will be controlled by application of herbicide (Memorandum in Support of Motion, page 13).

We understand that another renewable energy company is proposing a 135-acre photovoltaic energy facility on agricultural land in central Oahu. According to a report (Pacific Business News, March 14, 2014), the company "...plans to have local ranchers raise sheep in and around the solar panels while the project operates to keep the grass down and provide fresh, locally-raised lamb meat." The Department of Agriculture believes the Petitioner should take into consideration this approach to vegetation control that has the added value of food production.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott E. Enright", with a long horizontal line extending to the right.

Scott E. Enright, Chairperson  
Board of Agriculture

Docket No. A87-610

**CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing was served upon the following by either hand delivery or depositing the same in the U.S. Postal Service by regular mail.

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Department of the Corporation Counsel  
530 South King Street, Room 110  
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DATED: Honolulu, Hawaii, this 16th day of June 2014.

  
LEO R. ASUNCION  
Acting Director  
Office of Planning