

Second Draft
ENVIRONMENTAL ASSESSMENT

Kalaeloa Renewable Energy Park
Kalaeloa, O'ahu, Hawai'i

Commander, Navy Region Hawaii
August 2012

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Cover Sheet

Proposed Action: Authorization of the development of a renewable energy park on approximately 20 acres (8 hectares) of land leased to Kalaeloa Ventures, LLC at Kalaeloa (former Naval Air Station Barbers Point), O'ahu, Hawai'i.

Type of Document: Environmental Assessment

Lead Agency United States Department of the Navy
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Navy Region Hawaii

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Abstract

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This environmental assessment (EA) was prepared in accordance with the National Environmental Policy Act of 1969 (42 United States Code Section [§]4321, *et sequens [et seq.]*), as implemented by the Council on Environmental Quality (Code of Federal Regulations [CFR] Title 40, Parts 1500 *et seq.*), Department of the Navy Procedures for Implementing National Environmental Policy Act (32 CFR § 775), and Office of the Chief of Naval Operations Instruction 5090.1C CH-1, *Navy Environmental Readiness Program Manual*, 18 July 2011.

The United States Department of the Navy (Navy) proposes to authorize its lessee, Kalaeloa Ventures, LLC (KV), to construct a renewable energy park (REP) at Kalaeloa, O'ahu, Hawai'i. The REP would consist of an approximately 6-megawatt photovoltaic array and related facilities which would be operated for a period of 20 years. Also, under the Proposed Action, a 0.8-mile (1.3-kilometer) overhead power line would be constructed connecting the REP to the local electrical grid. Several alternative power line corridors were analyzed, in addition to the No Action Alternative.

Pursuant to its Lease Agreement with KV, the Navy has evaluated the environmental impacts associated with the KV proposal through the preparation of this EA. The Navy determined that the Proposed Action would not result in significant impacts to the following resources: climate, air quality, noise, topography, soils, flood hazard, water resources, biological resources, scenic and visual resources, hazardous and regulated materials, land use compatibility, infrastructure, public services, or socio-economic environment. The Proposed Action would not create environmental health and safety risks that could disproportionately impact children or minority and low-income populations. The Proposed Action is considered a *de minimis* activity as agreed upon between the Navy and the State of Hawai'i Coastal Zone Management Program.

The Navy determined that the Proposed Action would have an adverse effect on historic properties at Kalaeloa including the Ewa Field Runway and Warm-up Platform, Marine Corps Air Station (MCAS) Runway #8, and MCAS Compass Rose. The Navy has complied with Section 106 and 110 of the National Historic Preservation Act by affording the Hawai'i State Historic Preservation Officer (SHPO), the Advisory Council on Historic Preservation (ACHP), KV, and the community an opportunity to comment on the Proposed Action. The parties (Navy, SHPO, ACHP, and KV) have executed a Programmatic Agreement (PA) documenting how adverse effects associated with the REP will be resolved. The Proposed Action is to be implemented in accordance with the stipulations in the PA, and any amendments to the PA.

Based on the information gathered during the preparation of this EA and the analysis presented, the Navy anticipates making a determination that the Proposed Action will not significantly impact human health or the environment, that an Environmental Impact Statement will not be required, and that a Finding of No Significant Impact (FONSI) is warranted.

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LIST OF ACRONYMS AND ABBREVIATIONS

1		
2		
3	°	degree (s)
4	§	section
5	ac	acres
6	ACHP	Advisory Council on Historic Preservation
7	AHPA	Archaeological and Historic Preservation Act
8	BMP	best management practice
9	BRAC	Base Realignment and Closure
10	C	Celsius
11	CEQ	Council on Environmental Quality
12	CFR	Code of Federal Regulations
13	cm	centimeters
14	CNRH	Commander, Navy Region Hawaii
15	CR	Coral Outcrop
16	CRMP	Cultural Resources Management Plan
17	CWA	Clean Water Act
18	CWB	Clean Water Branch
19	CZMA	Coastal Zone Management Act
20	CZMP	Coastal Zone Management Program
21	DHHL	Department of Hawaiian Home Lands (State of Hawai’i)
22	DLNR	Department of Land and Natural Resources (State of Hawai’i)
23	DOH	Department of Health (State of Hawai’i)
24	DNL	day-night sound level
25	EA	Environmental Assessment
26	ECP	Environmental Condition of the Property
27	EO	Executive Order
28	et seq.	et sequens
29	F	Fahrenheit
30	FAA	Federal Aviation Administration
31	FEMA	Federal Emergency Management Agency
32	FIRM	Flood Insurance Rate Map
33	FL	mixed fill land
34	FONSI	Finding of No Significant Impact
35	FR	Federal Register
36	ft	feet
37	ha	hectares
38	gal	gallons
39	HAR	Hawai’i Administrative Rules
40	HCDA	Hawai’i Community Development Authority (State of Hawai’i)
41	HCEI	Hawai’i Clean Energy Initiative
42	HECO	Hawaiian Electric Company, Inc.

1	HEI	Hawaiian Electric Industries
2	HHF	Helber Hastert & Fee Planners, Inc.
3	HIA	Honolulu International Airport
4	ICRMP	Integrated Cultural Resource Management Plan
5	in	inches
6	KCDD	Kalaeloa Community Development District
7	km	kilometers
8	KV	Kalaeloa Ventures, LLC
9	kV	kilovolts
10	l	liters
11	LLC	Kalaeloa Renewable Energy Park, LLC
12	m	meters
13	MAI	Mason Architects, Incorporated
14	MBTA	Migratory Bird Treaty Act of 1918
15	MCAS	Marine Corps Air Station
16	mi	miles
17	MOA	Memorandum of Agreement
18	msl	mean sea level
19	mW	megawatt
20	NAS	Naval Air Station
21	NAVFAC	Naval Facilities Engineering Command
22	NAVFAC PAC	Naval Facilities Engineering Command, Pacific
23	Navy	Department of the Navy
24	NEPA	National Environmental Policy Act
25	NHL	National Historic Landmark
26	NHPA	National Historic Preservation Act
27	NPDES	National Pollution Discharge Elimination System
28	NRHP	National Register of Historic Places
29	OR&L	O’ahu Rail and Land Company
30	PA	Programmatic Agreement
31	PUC	Primary Urban Center
32	PV	photo voltaic
33	REP	Renewable Energy Park
34	RSIP	Regional Shore Infrastructure Plan
35	SHPO	State Historic Preservation Office
36	SOSUS	Sound Surveillance System
37	TMK	Tax Map Key
38	U.S.	United States
39	USC	United States Code
40	USFWS	United States Fish and Wildlife Services
41	WQC	Water Quality Certification
42	WWTP	Wastewater Treatment Plant

1 **1.0 PURPOSE OF AND NEED FOR ACTION**

2 **1.1 Summary of Proposed Action**

3 The United States (U.S.) Department of the Navy (Navy) proposes to authorize its lessee, Kalaeloa
4 Ventures, LLC (KV), to construct a renewable energy park (REP) at Kalaeloa, O’ahu, Hawai’i (Figures 1-1
5 and 1-2). The REP would be constructed on approximately 20 acres (ac) (8 hectares [ha]) of land, owned
6 by the Navy and leased to Ford Island Ventures, LLC (now known as KV) in 2008. The REP would consist
7 of an approximately 6-megawatt (mW) photovoltaic (PV) array and related facilities, and would be
8 operated for a period of approximately 20 years. Also, under the proposed action a 0.8-mile (mi) (1.3-
9 kilometer [km]) overhead power line would be constructed connecting the REP to the local electrical
10 grid.

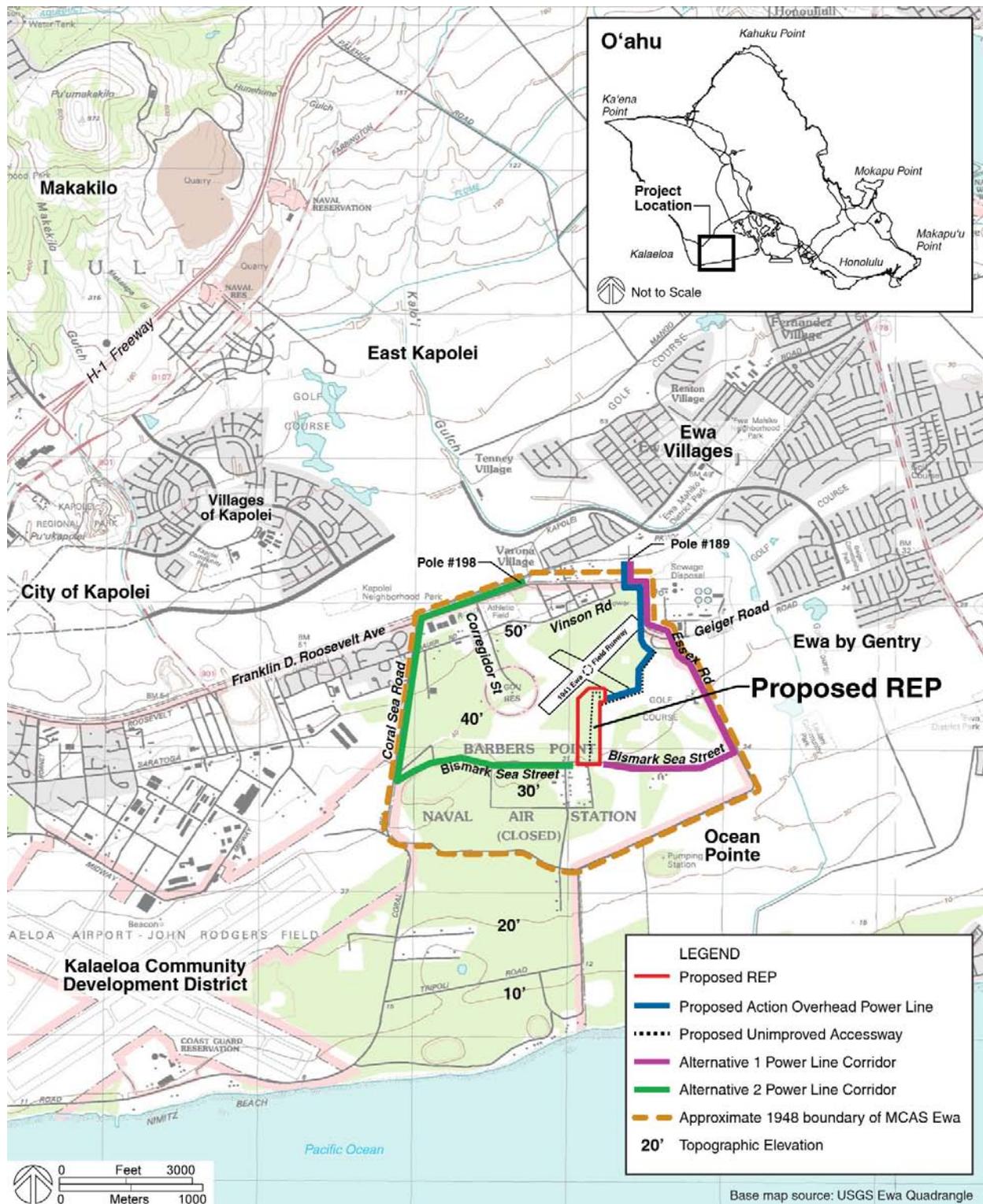
11 The proposed project site is located within the former Naval Air Station [NAS] Barbers Point, O’ahu,
12 which is now referred to as Kalaeloa (Figures 1-1 and 1-2). The REP is south of the former Ewa Field
13 Runway (1941) and Warm-up Platform (1941), which was one of the sites attacked by Japanese Imperial
14 Naval forces on 7 December 1941. Furthermore, the site is situated within the former Marine Corps Air
15 Station (MCAS) Ewa, which was in use by the Marine Corps during World War II as a training facility.
16 MCAS Ewa was decommissioned in 1952 and its runways were closed. The Navy recognizes the historic
17 nature of the former Ewa Field and MCAS Ewa. The project would be implemented in accordance with a
18 Programmatic Agreement (PA) between Commander Navy Region Hawaii (CNRH), the Advisory Council
19 on Historic Preservation (ACHP), Hawaii State Historic Preservation Officer (SHPO), and KV.

20 **1.2 Purpose and Need**

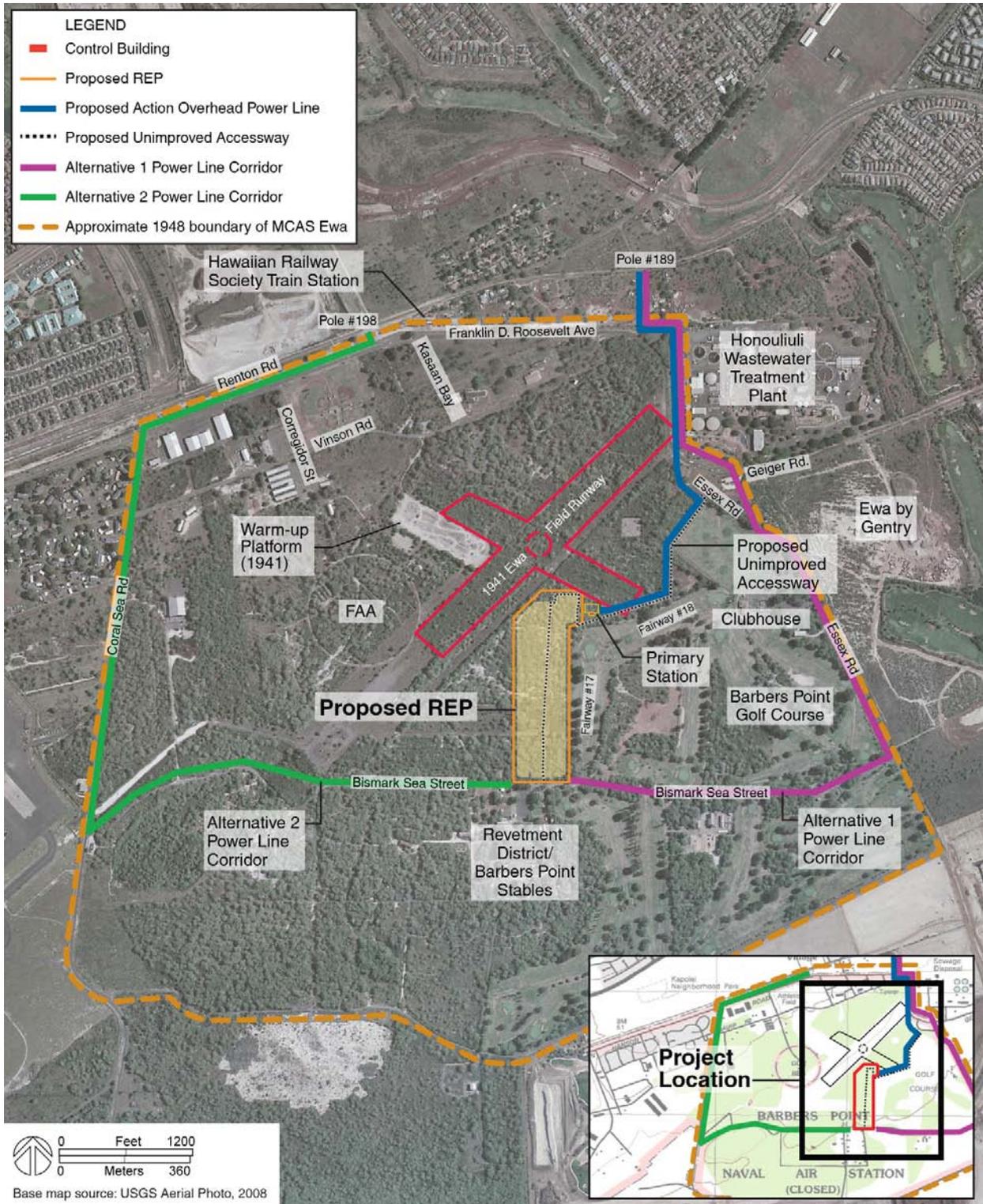
21 **Purpose:** The purpose of the Proposed Action (i.e., authorization) is to ensure that the leased land use
22 (i.e., REP) would comply with the conditions of the 2008 real estate agreement with KV. The
23 authorization will allow the lessee to use the property to generate electricity by a sustainable and
24 renewable means (i.e., solar energy). Development of renewable energy sources is consistent with the
25 State of Hawai’i’s renewable energy initiatives.¹ The Navy supports this effort and is committed to
26 environmental stewardship and renewable energy. The Proposed Action is also consistent with the
27 Hawai’i Community Development Authority’s (HCDA’s) 2006 *Kalaeloa Master Plan* (HCDA 2006).

28 **Need:** The Proposed Action (i.e., authorization) is needed to fulfill the lease agreement between the
29 Navy and KV. In accordance with Ford Island special legislation (10 United States Code [USC] Section [§]
30 2814) and in compliance with a Congressional mandate (§2843 of Public Law 109-364), approximately
31 499 ac (202 ha) of Navy retained land was conveyed to KV for potential reuse and development (Navy
32 2008b). The real estate agreement states that the lessee shall not materially modify or change the use
33 or character of the leased premises without prior written approval from the Government (Navy 2002).
34 The proposed REP, therefore, requires review and approval from the Navy.

¹ Over 90 percent of the electricity in Hawai’i is generated from imported fossil fuels. The Hawai’i Clean Energy Initiative (HCEI) is a comprehensive road map with the goal of changing Hawai’i’s energy use to where 70 percent of the State’s electricity and ground transportation needs come from clean sources by the year 2030. As part of the HCEI, on October 20, 2008, Hawaiian Electric Industries (HEI), the Governor of the State of Hawai’i, the State of Hawai’i Department of Business, Economic Development, and Tourism, and the State of Hawai’i Consumer Advocate signed an agreement that puts Hawai’i on a path to supply 40 percent of electricity needs and 70 percent of overall needs (including transportation) using clean sources by 2030 (HCEI 2012). In 2009, the Hawai’i State Legislature enacted Act 155 that establishes a renewable energy portfolio standard of 40 percent by the year 2030.



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 2 **Figure 1-1: Vicinity Map for the Action Alternatives**



1
 2 **Figure 1-2: Location of the Action Alternatives**

1 **1.3 Regulatory Overview**

2 The following provides an overview of the primary federal laws and consultations that may be relevant
3 to implementing the Proposed Action.

4 1.3.1 National Environmental Policy Act

5 The National Environmental Policy Act (NEPA) of 1969 (42 USC § 4321 *et sequens [et seq.]*), as amended,
6 requires federal agencies to prepare an Environmental Assessment (EA) or Environmental Impact
7 Statement for federal actions that have the potential to significantly affect the quality of the human
8 environment, including both natural and cultural resources. This EA has been prepared pursuant to
9 NEPA as implemented by the Council on Environmental Quality (CEQ) regulations (40 Code of Federal
10 Regulations [CFR] Parts 1500-1508), the Department of the Navy Procedures for Implementing NEPA (32
11 CFR § 775), and the Office of the Chief of Naval Operations Instruction 5090.1C CH-1, Environmental and
12 Natural Resources Program Manual of 18 July 2011.

13 This document furthers the analysis provided in the EA prepared for Conveyance of Navy Retained Land
14 and Utility Systems, Kalaeloa, Oahu, Hawaii, of July 2008 (Navy 2008b). The project location was
15 addressed in the previous EA. The potential for adverse affect on historic properties prompted the need
16 for the additional NEPA analysis documented in this EA.

17 1.3.2 National Historic Preservation Act

18 The National Historic Preservation Act (NHPA) of 1966, as amended (16 USC § 470) established a
19 national policy for the preservation of historic properties as well as the National Register of Historic
20 Places (NRHP), ACHP, and SHPOs. Additionally, Section 106 of the NHPA requires federal agencies
21 having direct or indirect jurisdiction over a proposed federal or federally assisted undertaking to take
22 into account the effects of the undertaking on any district, site, building, structure, or object that is
23 included in or eligible for inclusion in the NRHP. Federal agencies shall also afford the ACHP a
24 reasonable opportunity to comment on such undertakings.

25 Section 110 of the NHPA requires federal agencies to use, to the maximum extent feasible, historic
26 properties available to the agency; have appropriate records made of historic properties prior to
27 substantial alteration or demolition; and to the maximum extent possible, undertake planning and
28 actions to minimize harm to a National Historic Landmark (NHL), and afford the ACHP the opportunity to
29 comment on proposed undertakings that may have an adverse effect on a NHL. Section 110 also states
30 that where a Section 106 memorandum of agreement (MOA) has been executed, such MOA shall govern
31 the undertaking and all of its parts.

32 1.3.3 Archaeological and Historic Preservation Act of 1974

33 The Archaeological and Historic Preservation Act (AHPA) of 1974 (16 USC § 469 *et seq.*) provides for the
34 survey, recovery, and preservation of significant scientific, pre-historical, historical, archaeological, or
35 paleontological data when such data may be destroyed or irreparably lost due to a federal, federally
36 licensed, or federally funded project. The Department of the Interior's "Standards and Guidelines" were
37 published in the Federal Register (FR) on September 29, 1983 (48 FR 44716) to advise on the manner in
38 which this law will be implemented. AHPA requirements for identification, evaluation, and data
39 recovery can be carried out in conjunction with the Section 106 NHPA process.

40 1.3.4 Coastal Zone Management Act

41 The U.S. Congress noted in the Coastal Zone Management Act (CZMA) of 1972 (16 USC § 1451 *et seq.*) a
42 national interest in the effective management, beneficial use, protection and development of the

1 coastal zone. While areas under the control of the federal government are, by definition, excluded from
2 the state’s coastal zone, federal agency activities within or outside the zone that affect any land or water
3 use or natural resources of the coastal zone shall be carried out in a manner which is consistent to the
4 maximum extent practicable with the enforceable policies of an approved State Coastal Zone
5 Management Program (CZMP). If the federal agency proponent determines that an effect on coastal
6 resources within the State of Hawai’i is reasonably foreseeable, a consistency determination is
7 submitted to the State of Hawai’i’s CZMP. In 2009, the Navy and the Hawai’i CZMP updated a list of *de*
8 *minimis* activities that are expected to have insignificant direct or indirect coastal effects and are not
9 subject to further review by the Hawai’i CZMP.

10 **1.3.5 Clean Water Act**

11 The Clean Water Act (CWA) of 1972 (33 USC § 1251 *et seq.*) is the primary federal law that protects the
12 nation’s waters, including lakes, rivers, and coastal areas. The primary objective of the CWA is to restore
13 and maintain the integrity of the nation’s waters. Section 401 of the CWA requires a Water Quality
14 Certification (WQC) be obtained from the State (or territory) for actions that require a federal permit to
15 conduct an activity, construction or operation that may result in discharge to waters of the U.S. The
16 State of Hawai’i Department of Health (DOH), Clean Water Branch (CWB) issues the WQC for Hawai’i
17 waters. Section 402 of the CWA requires a National Pollution Discharge Elimination System (NPDES)
18 permit for point source discharges including stormwater discharges associated with construction
19 activities. The NPDES permit coverage is required for construction activities that disturb a land area of 1
20 ac (0.4 ha) or more and discharge stormwater from the construction site to waters of the U.S. The DOH-
21 CWB administers the NPDES program for Hawai’i waters. Section 404 of the CWA requires a permit for
22 discharge of dredged or fill material into a wetland or other water of the U.S. The U.S. Army Corps of
23 Engineers issues this permit.

24 **1.3.6 Potential Permits Required**

25 Potential permits, approvals, and consultation requirements for this project include but are not limited
26 to those listed in Table 1-1.

27

Table 1-1: List of Potential Permits, Approvals, and Required Consultations

Oversight Agency	Permit, Approval, or Consultation
SHPO, Department of Land and Natural Resources	NHPA Section 106 Consultation
State of Hawai’i DOH, CWB	Section 402 NPDES (stormwater) Discharge Permit coverage for discharges of stormwater (may be required)

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1 **2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION**

2 This chapter presents a discussion of the Proposed Action, Alternative 1, and Alternative 2 (hereinafter
3 referred to as the “action alternatives”), and a summary of the environmental consequences associated
4 with these actions.

5 **2.1 Description of the Proposed Action and Alternatives**

6 The alternatives listed below (including the Proposed Action) were considered in accordance with NEPA,
7 Council on Environmental Quality regulations for implementing NEPA, and OPNAVINST 5090.1C. The
8 alternatives consist of the REP and the different utility routes with the exception of the No Action
9 Alternative.

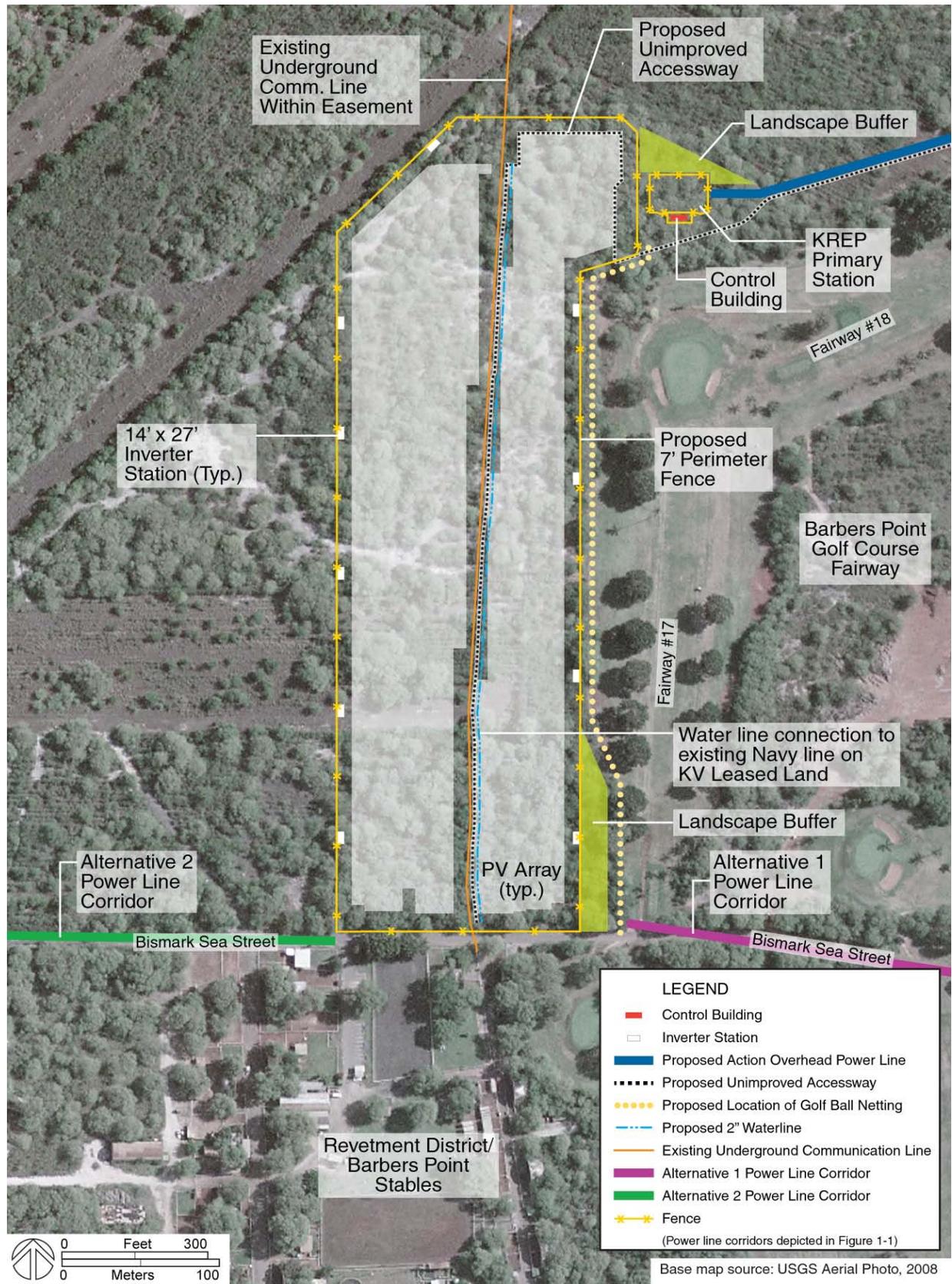
- 10 • Proposed Action: The Navy to authorize its lessee (KV) to construct an approximately 6-mW REP
11 on 20 ac (8 ha) of land south of the former Ewa Field Runway, Kalaeloa, O’ahu. The REP would
12 be connected to the Hawaiian Electric Company (HECO) electrical grid via a 0.8 mi (1.3 km)
13 overhead power line extending in the northeast direction and terminating at HECO pole #189.
- 14 • Alternative 1: Similar to the Proposed Action; however, the overhead power line connecting the
15 REP to the HECO utility grid would run approximately 1.6 mi (2.65 km) from the REP east along
16 Bismark Sea Street and then north along Essex Road terminating at HECO pole #189.
- 17 • Alternative 2: Similar to the Proposed Action; however, the power line connecting the REP to
18 the HECO utility grid would be partially overhead and partially underground, and would run
19 approximately 1.9 mi (3.0 km) from the REP west along Bismark Sea Street, north along Coral
20 Sea Road, and then east along Franklin D. Roosevelt Avenue terminating at HECO pole #198.
- 21 • No Action Alternative: The Navy would not authorize KV’s proposed REP for the leased property.
22 The property would remain unchanged in its current condition.

23 Figure 1-2 shows the location of the Proposed Action and Alternatives 1 and 2, and Figure 2-1 shows the
24 site plan for the REP under the action alternatives. Sections 2.1.1 through 2.1.4 describe the
25 alternatives in greater detail. Section 2.1.5 describes alternatives considered but dismissed from further
26 analysis.

27 2.1.1 Proposed Action

28 Under the Proposed Action, the Navy would authorize KV to construct a REP at Kalaeloa, O’ahu, Hawai’i
29 on approximately 20 ac (8 ha) of land (Figures 1-2 and 2-1). Kalaeloa Renewable Energy Park, LLC (LLC)
30 has been established to execute this project. LLC would construct the approximate 6-mW REP, which is
31 expected to generate approximately 8,200 mW hours of electricity per year. The power would be sold to
32 the local utility, HECO, through a long-term power purchase agreement. The REP would be maintained
33 and operated by LLC for the useful life of the system, estimated to be a period of approximately 20
34 years. A 0.8-mi (1.3-km) overhead power line, which would be owned and maintained by HECO, would
35 connect the REP to the local electrical grid.

36 The estimated cost of constructing the REP is \$29.4 Million and the estimated cost of the overhead
37 power line corridor is approximately \$2.5 Million. The REP would employ approximately 20 fulltime
38 personnel during the construction phase and approximately two fulltime personnel during the
39 operational phase. Reasonably foreseeable development of the REP would include the following:



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Figure 2-1: Proposed Action Site Plan

- **Grubbing and Clearing:** The project site (i.e., location of proposed REP and unimproved accessways) is currently overgrown with koa haole and kiawe trees. Clearing for the project site would include removal of trees, stump grinding, collection of green waste, and leveling of mounds. If feasible, the green waste would be composted or repurposed (i.e., wood chips for landscaping).
- **PV Array:** Approximately 21,000 poly-crystalline PV panels supported by a modular racking system approximately 3.5 foot (ft) (1 meter [m]) high would be installed. The panel racks would be mounted on a non-penetrating, pre-cast concrete ballast system (Photo 2-1, Figure 2-1). The ballasts provide support to the structure and wind resistance. The PV panels would use poly-crystalline solar cells with a tempered glass front and an anodized aluminum alloy frame. The panels come with an anti-reflective coating that improves light absorption while reducing glare from the array.



Photo 2-1: Example of array and racking system. (Note concrete ballast/footings)

- **Inverter Stations:** Approximately ten inverter stations with corresponding switchboards, and associated transformers would be mounted on concrete pads measuring approximately 27 ft (8 m) by 14 ft (4.2 m) around the perimeter of the REP. Excavation depth for the concrete pads would be about 2 ft (0.6 m).
- **Primary Station:** The primary station would be located at the northeast corner of the facility and would be comprised of the power transformer, circuit breaker and other electrical hardware. It also would include a “control building” measuring approximately 10 ft (3 m) by 34 ft (10.4 m) by 10 ft (3 m) high. Excavation depth for the concrete pad associated with the control building would be about 2 ft (0.6 m).
- **Unimproved Accessway:** A 12-ft (4-m) wide, 0.5 mi (0.7 km) long accessway would be cleared from Essex Road, along the southern and eastern edge of the Ewa Field Runway to the Primary Station, and through the PV array, following an existing communication line easement (Figure 2-1).
- **Security Fence:** A 7-ft (2.1-m) high chain link fence would be installed around the perimeter of the REP. Fence posts would require excavations for concrete footings every 10 ft (3 m) to a depth between 3 and 4 ft (1+ m). The security fence height would meet minimum safety standards. A black fencing material would be used for aesthetic purposes (in lieu of galvanized fencing).
- **Landscaping:** A vegetative buffer would be provided using existing plant materials around the perimeter of the REP. The buffer would provide a screen between the REP and the adjacent 17th Fairway of the Navy's Barbers Point Golf Course and a portion of the adjacent

1 Revetment District. Additional landscape buffers using existing vegetation would be
2 maintained in the northeast and southeast corners of the REP. New plant materials would be
3 added as needed.

- 4 • **Golf Ball Net:** A golf ball net approximately 1,200 ft long (274 m) and 20 to 30 ft high (6 to 9
5 m) secured with 10 to 12 poles would be constructed along the eastern edge of the project
6 site along the 17th Fairway frontage. Fence posts would require excavations for concrete
7 footings to a depth of about 3.5 ft (1 m). The netting would use low visibility material for
8 aesthetic purposes (i.e., color and weave).
- 9 • **Water Line:** A 2-inch (in) (5-centimeter [cm]) water line would be installed to meet the
10 maintenance needs of the REP. The water line would run under the proposed unimproved
11 accessway and along the existing communication line easement, where it would connect with
12 the Navy's water distribution system. Approximately 300 ft (91 m) of ¾-in (2-cm) line would
13 be used to feed hose bibs at each break in the PV panel rows. Water lines would be installed
14 approximately 1 ft (0.3 m) below ground surface, based on Uniform Plumbing Code.
- 15 • **Utility Lines:** The extent and dimensions of utility trenches have been limited where possible.
16 A utility trench approximately 1.5 ft-3 ft (0.5-1m) wide by 3 ft (1m) deep is planned around
17 the perimeter of the PV field connecting the inverter stations with the primary station.
- 18 • **Power Line:** Generated power from the REP would be transmitted to the HECO electrical grid via a
19 new 46-kV overhead utility pole line running northeast approximately 0.8 mi (1.3 km). The power
20 line would cross Geiger Road near the Honouliuli Wastewater Treatment Plan (WWTP) (current
21 powerline crossing location), and terminates at HECO's 46-kV power line north of the WWTP and
22 south of Renton Road, at HECO Pole #189 (Figure 1-2).
23 The utility poles would require excavations 9 to 10 ft (2.7 to 3.0 m) deep and approximately 1.5 ft
24 (0.5 m) in diameter. The pole line would be owned and maintained by HECO. Power poles would be
25 aligned within easements and rights-of-way for existing power lines, where feasible. Power pole
26 heights would be limited to minimum acceptable safety standards but not greater than 55-ft (17-m);
27 poles would be spaced approximately 160 ft (49 m) apart (total of 25 to 30 poles). Standard wood
28 poles or painted black or brown poles would be used.

29 **Operational Period Activities.** Approximately two fulltime jobs would be created to maintain and
30 operate the REP during the operational period. Maintenance activities include one complete system
31 washing per year requiring approximately 250,000 gallons (gal) (945,353 liters [l]) of water using a
32 cleaning solution of 1 tablespoon (15 milliliters) of vinegar per gal (4 l) of water. The cleaning would
33 consist of hand washing with gentle agitation. The annual cleaning would take place over a period of
34 about five days. Additionally, a spot cleaning requiring approximately 200 gal (757 l) of water would be
35 performed on a monthly basis using the same water-vinegar solution. The spent cleaning solution
36 would be allowed to evaporate on the panels or to flow on to the ground where it would either
37 evaporate or be absorbed into the soil.

38 2.1.2 Alternative 1

39 This alternative would be similar to the Proposed Action; however, the power line connecting the REP to
40 the HECO grid would run along Essex Road. The power line corridor would extend east from the
41 southeast corner of REP to Bismark Sea Street and then north along Essex Road, past the WWTP to
42 HECO Pole #189, a distance of approximately 1.6 mi (2.65 km) (Figure 1-2). The power line would be
43 entirely above ground and pole heights and spacing would be similar to the power line in the Proposed
44 Action. Estimated cost of the REP would be the same as the Proposed Action (\$29.4 Million) and the
45 estimated cost of the power line corridor under this alternative would be \$3.5 Million. An additional
46 real estate easement would be required from the Navy to implement this alternative.

1 2.1.3 Alternative 2

2 This alternative would be similar to the Proposed Action; however, the power line connecting the REP to
3 the HECO grid would be partially overhead and partially underground. It would run west from the
4 southwest corner of the REP along Bismark Sea Street, north along Coral Sea Road, and then east along
5 Franklin D. Roosevelt Avenue, terminating at HECO Pole #198 (Figure 1-2), a distance of approximately
6 1.9 mi (3.0 km). For the overhead portion of the power line corridor, pole heights and spacing would be
7 similar to the Proposed Action. The Coral Sea Road section of the power line corridor is along a future
8 utility corridor proposed in the *Kalaeloa Master Plan* (HCD 2006). A portion of this corridor is located
9 in the Kalaeloa Airport clear zone and, therefore, must be underground (vice pole-mounted). Estimated
10 cost of the REP would be the same as the Proposed Action (\$29.4 Million) and the estimated cost of the
11 power line corridor under this alternative would be \$9.9 Million. Additional real estate easements
12 would be required from the Navy, National Park Service and DHHL to implement this alternative.

13 2.1.4 No Action Alternative

14 Under the No-Action Alternative, the Navy would not authorize the REP to be constructed and the
15 project site would remain in its current state (i.e., overgrown with non-native trees and shrubs).

16 2.1.5 Alternatives Considered but Dismissed from Further Consideration

17 Alternatives considered but dismissed from further consideration include an alternate site for the REP
18 ("Runway Alternative"), and another power line corridor alternative which would serve the REP in the
19 Proposed Action ("North-South Road" Power Line Corridor Alternative). An aerial photo depicting these
20 alternatives is included as Appendix D.

21 **Runway Alternative.** The "Runway Alternative" proposed construction of a 20-ac (8-ha) REP on the 1941
22 Ewa Field Runway, a NRHP-eligible site (see Appendix D). This alternative would have an unimproved
23 accessway and security fence around the perimeter and access would be via the proposed Kualaka'i
24 Parkway (previously referred to as the North-South Road as described in the Draft *Kalaeloa Master*
25 *Plan – Infrastructure Master Plan Updates* [Ford Island Ventures, LLC and HCD 2010]), east of the 1941
26 Ewa Field Runway and within the MCAS Ewa. This alternative was dismissed through the NHPA Section
27 106 consultation process because of its adverse direct, physical, and visual impacts to historic
28 properties.

29 **North South Road Power Line Corridor Alternative.** This alternative consists of an overhead power line
30 extending from the Proposed Action REP site approximately 0.9 mi (1.4 km) north along the proposed
31 extension of the Kualaka'i Parkway, terminating at HECO pole #198 (see Appendix D). The REP would be
32 similar to the Proposed Action. This alternative was dismissed through the NHPA Section 106
33 consultation process because of its adverse impacts to historic properties.

34 **2.2 Environmental Consequences of the Proposed Action and Other Alternatives**

35 Table 2-1 summarizes the environmental consequences of the Proposed Action and alternatives. The
36 information in the table is summarized from Chapter 4, Environmental Consequences. The only
37 significant difference between the alternatives with regard to environmental impacts is in the area of
38 cultural resources.

1 **Table 2-1: Summary of Environmental Consequences of the Proposed Action and Alternatives**

Resource or Issue [Section in EA]	Proposed Action	Alternative 1	Alternative 2	No Action Alternative
<p>Physical Environment [4.2]: climate, air quality, and noise [4.2.1]; topography, soils, and flood hazards [4.2.2]; water resources [4.2.3]; biological resources [4.2.4]; and scenic and visual resources [4.2.5]</p>	<p>Section 4.2.1: Long-term, minor, beneficial impact to the climate by providing clean, renewable energy that would reduce the State’s dependence on fossil-fuels and thereby reducing emission of carbon monoxide and greenhouse gases into the atmosphere. Minor, short-term noise and air quality impacts during construction.</p> <p>Section 4.2.2: No significant impact to topography, soils, or flood hazards.</p> <p>Section 4.2.3: No impact to surface water (including coastal waters); no significant impact to groundwater. Compliance with best management practices (BMPs), Hawai’i Administrative Rules (HAR), Title 11, Chapter 54, Water Quality Standards and Chapter 55, Water Pollution Control requirements would apply. Clean Water Act Section 402 NPDES stormwater permit conditions could apply.</p> <p>Section 4.2.4: No significant impacts to biological resources including protected species or critical habitats.</p> <p>Section 4.2.5: No significant impact to visual and scenic resources.</p>	<p>Section 4.2: Same as Proposed Action.</p>	<p>Section 4.2: Same as Proposed Action.</p>	<p>Section 4.2: No impact.</p>

Resource or Issue [Section in EA]	Proposed Action	Alternative 1	Alternative 2	No Action Alternative
<p>Cultural Resources [4.3]</p>	<p>Ewa Field Runway and Warm-up Platform (1941). Adverse direct/physical effect on the historic Ewa Field Runway surface from power line that traverses the southeast runway; adverse visual effects resulting primarily from overhead power poles.</p> <p>Ewa Field Entrance Road (1941). No adverse direct/physical or visual effect on the historic entrance road. Due to dense vegetation and distance, it is unlikely that power poles and overhead transmission line will be visible from the road.</p> <p>MCAS Ewa Runway #8 (1944). Adverse direct/physical and visual effect on the historic MCAS Ewa Runway, obscuring it both visually and physically with the installed PV array. There will also be an adverse visual effect resulting from power poles and the overhead transmission line.</p> <p>MCAS Ewa Compass Rose (1944). Adverse visual effect on the historic compass rose, resulting primarily from power poles and the overhead transmission line. No direct/physical adverse effects will result.</p> <p>MCAS Ewa Revetments #1 and #2 (1942-1943). No adverse physical or visual effect on the historic Revetment District. Due to dense vegetation and low profile of PV components in close proximity to the revetments, it is unlikely that any project elements will be visible from the site.</p> <p>Administration Building #972 (1958). Pacific Sound Surveillance System (SOSUS) Operations Buildings #1767 and 1768 (1960). No direct/physical or visual adverse effects will result.</p> <p>Archaeological resources (Native Hawaiian). Based on the absence of known historic properties within the project site, together with the previous ground disturbing activities, the Proposed Action would not affect any Native Hawaiian archaeological resources. However, as a precaution and in compliance with the 2008 Oahu Integrated Cultural Resources Management Plan (ICRMP) (Navy 2008c), archaeological monitoring will be conducted for all ground disturbing activities associated with the alternative.</p>	<p>Ewa Field Runway (1941) and MCAS Ewa Runway #8 (1944). Same as the Proposed Action.</p> <p>No adverse physical/direct or visual effect on other historic properties (e.g., Warm-up Platform, Ewa Field Entrance Road, MCAS Ewa Compass Rose, MCAS Ewa Revetments #1 and #2, Administration Building #972, SOSUS Operations Buildings #1767 and 1768.</p> <p>Archaeological resources (Native Hawaiian). Same as Proposed Action (no effect); as a precaution, archaeological monitoring will be conducted for all ground disturbing activities associated with the alternative.</p>	<p>Same as Alternative 1.</p>	<p>No impact.</p>

Resource or Issue [Section in EA]	Proposed Action	Alternative 1	Alternative 2	No Action Alternative
Hazardous and Regulated Materials [4.4]	Potential minor, short term impacts to pre-existing hazardous and regulated materials could occur as a result of grubbing and grading; compliance with applicable local, State, and federal regulations, laws, and guidance will be required.	Same as Proposed Action.	Same as Proposed Action.	No impact.
Land Use Compatibility [4.5]	Beneficial impact to land use compatibility through compliance and compatibility with regional land use plans. The Geiger Road portion of the power line corridor was considered under the <i>Kalaeloa Master Plan</i> ; however, the other portion (on KV-leased land) was not contemplated under the plan.	Beneficial impact to land use compatibility through compliance and compatibility with regional land use plans. The Bismark Sea Street portion of the power line corridor was not considered under the <i>Kalaeloa Master Plan</i> ; however, the remainder (Geiger and Essex Roads) was contemplated under the plan.	Beneficial impact to land use compatibility through compliance and compatibility with regional land use plans. The Bismark Sea Street portion of the power line corridor was not considered under the <i>Kalaeloa Master Plan</i> ; however, the remainder (Coral Sea Road and Franklin D. Roosevelt Avenue) was contemplated under the plan.	No impact.
Infrastructure and Public Services [4.6]	Roads and Traffic Section 4.6.1: Minor construction period traffic impacts on local streets or traffic and no significant impact to roads or traffic during the operational period.	Same as Proposed Action.	Same as Proposed Action.	No impact.

Resource or Issue [Section in EA]	Proposed Action	Alternative 1	Alternative 2	No Action Alternative
<p>Infrastructure and Public Services [4.6] (Continued)</p>	<p>Potable Water, Wastewater, Electrical, Telecommunications, Drainage, and Solid Waste Section 4.6.2: No significant impact to the potable water system. No impact to wastewater and telecommunications systems. Long-term beneficial impact to HECO through the generation of clean, renewable energy. No significant impact to the drainage system during the construction period and the operational period. No significant impact to solid waste disposal.</p> <p>Parks, Recreation, and Open Space Section 4.6.3: No impact to parks or recreation; no significant impact to the availability of open space.</p>	<p>Same as Proposed Action.</p>	<p>Same as Proposed Action.</p>	<p>No impact.</p>
<p>Socio-Economic Environment [4.7]</p>	<p>Minor beneficial impacts during the construction and operational period due to local increases in employment.</p>	<p>Similar to the Proposed Action except that the cost of power line for this alternative would be 40 percent higher than that of the Proposed Action. This alternative would delay the project by 9 months beyond the schedule for the Proposed Action.</p>	<p>Similar to the Proposed Action except that the cost of the power line for this alternative would be 400 percent higher than the Proposed Action. This alternative would delay the project by at least 12 months beyond the schedule for the Proposed Action.</p>	<p>No impact.</p>

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1 **3.0 AFFECTED ENVIRONMENT**

2 This chapter describes the environmental setting and baseline conditions of environmental resources
3 within the area of the action alternatives. There would be no direct physical changes under the No
4 Action alternative.

5 **3.1 Overview**

6 The action alternatives (Figure 1-2) are located within the Kalaeloa Community Development District
7 (KCDD). KCDD is part of the *ahupua‘a* of Honouliuli on the leeward and southwestern coast of O‘ahu
8 and includes the lands associated with the former NAS Barbers Point, which was closed in 1999. Located
9 approximately 16 mi (26 km) west of downtown Honolulu, KCDD is west of the ‘Ewa Beach community,
10 east of Campbell Industrial Park, south of the City of Kapolei, and north of the Pacific Ocean. The Navy
11 has maintained ownership of some former NAS Barbers Point lands, including the project site that was
12 leased to Ford Island Ventures, LLC (now known as KV) in 2008.

13 The project site is located on the northeastern side of KCDD within Land Court parcel 13058-A-2 and the
14 City and County of Honolulu Tax Map Key (TMK) (1) 9-1-13: 096 (portion of). Neighboring properties for
15 the alternatives include Barbers Point Golf Course, Barbers Point Stables and Revetment District, former
16 NAS Barbers Point facilities, residential communities, Honouliuli WWTP, City parks, FAA parcel, and
17 limited commercial/retail businesses. Figure 3-1 depicts their locations.

18 The action alternatives are located within the ‘Ewa Plain, the most extensive of O‘ahu’s coastal plains.
19 The ‘Ewa Plain is composed of marine and terrigenous sediments deposited over lavas when the sea
20 stood at a higher level or stand (Stearns 1985). The marine and sedimentary rock or caprock at Kalaeloa
21 ranges from 50 to 400 ft (15 to 22 m) in thickness near the project site. The upper 100 ft (31 m) of
22 caprock is marine sediment consisting mainly of coral reef limestone with minor layers of shell fragment
23 limestone and beach sands (Navy 1994). As shown in Figure 1-1, the topography of the area is relatively
24 flat with the maximum elevation of approximately 40 ft (12 m) above mean sea level (msl). The terrain
25 is densely vegetated with non-native, dry-land trees, and shrubs.

26 The following major reference sources consisting of planning documents, environmental studies, and
27 cultural reports were reviewed and used to prepare this chapter. For detailed information on the
28 resource areas in this section please refer to the source documents.

- 29 • *Final Environmental Impact Statement for the Disposal and Reuse of Naval Air Station Barbers*
30 *Point*. Navy 1999a.
- 31 • *Cultural Resources Management Plan Naval Air Station Barbers Point*. Navy 1999b.
- 32 • *Final Programmatic Environmental Impact Statement Ford Island Development*. Navy 2002.
- 33 • *Kalaeloa Master Plan*. HCDA 2006.
- 34 • *Environmental Assessment, Conveyance of Navy-retained Land and Utilities, Kalaeloa, O‘ahu,*
35 *Hawai‘i*. Navy 2008b.
- 36 • *O‘ahu Integrated Cultural Resource Management Plan*. Naval Facilities Engineering
37 Command, Pacific (NAVFAC PAC) (Navy 2008c).
- 38 • *Draft Kalaeloa Master Plan - Infrastructure Master Plan Update*. Ford Island Ventures, LLC
39 and HCDA 2010.
- 40 • *Battlefield Evaluation of Ewa Field*. AECOM March 2011.
- 41 • *Inventory and Historic Contexts*. Mason Architects Inc (MAI). March 2011.
- 42 • *Ewa Development Plan Review Report*. City and County of Honolulu May 2011.

1 **3.2 Physical Environment**

2 The discussion of the physical environment is presented in five subsections: (1) climate, air quality, and
3 noise; (2) topography, soils, and flood hazard; (3) water resources; (4) biological resources; and (5)
4 scenic and visual resources.

5 3.2.1 Climate, Air Quality, and Noise

6 **Climate.** The climate in Hawai‘i is notably mild with low day-to-day and month-to-month variability.
7 Two seasons are generally recognized in Hawai‘i: (1) summer, which commonly is defined as the period
8 from May through September; and (2) winter, which is defined as the period from October through April
9 (Juvik *et al* 1998). The mean annual temperature at Kalaeloa is 76 degrees (°) Fahrenheit (F) (24° Celsius
10 [C]), varying from a mean of 72° F (22° C) in winter to 79° F (26° C) during the summer. A combination of
11 prevailing northeasterly tradewinds, present 70 percent of the time, and milder southerly winds blowing
12 15 percent of the time provide for virtually constant air movement on the windward side of O‘ahu, while
13 the leeward side is often hotter due to less consistent prevailing winds. At Kalaeloa, local land and sea
14 breezes prevail most of the year. Rainfall in Kalaeloa averages 20 in (51 cm) per year. The pan
15 evaporation rate at Kalaeloa is approximately 90 in (229 cm) per year (Lau and Mink 2006). The solar
16 radiation output of the Kalaeloa region is amongst the highest on the island at approximately 500
17 calories per square cm per day (Scatec Solar North America, Inc and Hunt ELP, Ltd 2011).

18 **Air Quality.** The DOH is the agency responsible for monitoring air quality on the island of O‘ahu, and has
19 established ambient air quality standards similar to the National Ambient Air Quality Standards under
20 the Clean Air Act of 1970, 42 USC §7401 *et seq.* Based on air quality data collected and published by the
21 DOH, the island of O‘ahu is classified as being in attainment of the federal standards and is not subject
22 to the Clean Air Act’s General Conformity Rule. Air quality criteria pollutant levels in the State of Hawai‘i
23 are well below State and federal ambient air quality standards.

24 There are no significant stationary air emission sources at Kalaeloa subject to permitting. Existing
25 mobile sources of emissions, such as motor vehicles that may be operated within KCDD, are not likely to
26 substantially degrade local or regional air quality. The James Campbell Industrial Park, located west of
27 KCDD, contains a number of permitted stationary air emission sources including two oil refineries and a
28 cogeneration plant. The City and County of Honolulu Honouliuli WWTP is located northeast of Kalaeloa
29 and is considered a permitted stationary air emission source. Odors from the WWTP are noticeable in
30 the northeast quadrant of Kalaeloa in the vicinity of the action alternatives.

31 **Noise.** Ambient noise levels within the project site are relatively low and are predominantly a function
32 of the amount of traffic on adjacent roadways and air traffic from Kalaeloa Airport. The project site is
33 located about 6,000 ft (1,829 m) northeast of Kalaeloa Airport, a 752-ac (304-ha) general aviation airport
34 and reliever airfield for the Honolulu International Airport (HIA). The *Kalaeloa Master Plan* indicates
35 that the project site is located outside of the airport 60 Day-Night Sound Level (DNL)² noise contour
36 associated with the flight patterns at Kalaeloa Airport. Exterior noise exposure classifications between
37 50 DNL and 60 DNL are considered compatible for commercial-wholesale (i.e., some retail, industrial,
38 manufacturing, utilities) land uses.

² Noise exposure from aircraft is measured using the day-night average sound level metric (DNL). The DNL presents a reliable measure of community sensitivity to aircraft noise. The DNL, expressed in decibels, represents the average sound exposure during a 24-hour period and does not represent the sound level for a specific period. The Hawai‘i Department of Transportation has recommended that the 60 DNL be used as the common level for determining land use compatibility in respect to noise sensitive uses near airports (HCDA 2006).

1 The nearest noise-sensitive receptors to the project site are the residents and businesses along Franklin
2 D. Roosevelt Avenue located approximately 4,000 ft (1,219 m) to the northwest, and the residents in
3 Ewa Villages located approximately 3,000 ft (914 m) the north (all distances measured from the
4 northern edge of the project site). In addition, the Barbers Point Stables, which board horses, is located
5 immediately south of the project site.

6 3.2.2 Topography, Soils, and Flood Hazard

7 **Topography and Soils.** As shown in Figure 1-1, the topography of the Proposed Action and alternatives
8 is relatively flat. The ground elevation of the project site is approximately 40 ft (12 m) above msl.
9 Elevations across the power line corridors range from approximately 30 ft (9 m) along Bismark Sea
10 Street to about 60 ft (18 m) along Franklin D. Roosevelt Avenue.

11 The project site is predominantly underlain by fill land – mixed (FL). FL areas are filled with material
12 dredged from the ocean or hauled from nearby areas, garbage, and general material from other sources
13 (U.S. Department of Agriculture 1972). A portion of the power line corridor associated with Alternative
14 1 is underlain by Māmala stony silty clay loam, 0 to 12 percent slopes which is characterized as having
15 moderate permeability, very slow to medium runoff, and only a slight erosion hazard. Portions of the
16 power line corridor associated with Alternative 2 are underlain by FL and coral outcrop (CR). CR is
17 composed of coral or cemented calcareous sand.

18 Beneath shallow surface soils, much of KCDD is underlain by a coralline limestone unit (Section 3.1). The
19 unit contains numerous solution cavities of various shapes and sizes. Many of the cavities have been
20 filled, or partially filled with material derived from the breakup of old coral reefs and, in places, some
21 cavities have been plugged or partially plugged by stream-laid alluvium. These sink holes, which are
22 sometimes described as karst features, are natural cavities and represent actual remnants of the original
23 reef structure that have been enlarged or otherwise structurally altered through solution by
24 groundwater (Navy 1994).

25 **Flood Hazard.** The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM)
26 for the land encompassed by the Proposed Action and alternatives indicates that the area is within Zone
27 D (i.e., areas with possible but undetermined flood hazards) (FEMA 2011). There are no streams or
28 surface water features in or near the Proposed Action and alternatives that could cause potential flood
29 hazards. The Proposed Action and alternatives are located outside of the tsunami evacuation zone (City
30 and County of Honolulu 2010).

31 3.2.3 Water Resources

32 **Groundwater.** The Proposed Action and alternatives are located within the Pearl Harbor Aquifer Sector.
33 The area is underlain by both deep and shallow aquifers. The deep aquifers are basal, confined flank
34 aquifers in the underlying basalt. The shallow aquifers overlie the deep aquifers and are basal,
35 unconfined, sedimentary caprock aquifers (Mink and Lau 1990). The depth to the shallow groundwater
36 aquifers at Kalaeloa ranges from about 60 ft (18 m) along the northern border of Kalaeloa, to zero at the
37 coast. These depths correspond to a seaward gradient of 1 to 2 ft per mi (0.2 to 0.4 m/km).
38 Groundwater seeps (surface leakage from the shallow groundwater aquifer) are present along the
39 coastline of the 'Ewa coast. The mingling of groundwater and surface water at the coast is important in
40 the sustainment of the 'Ewa Plain coastal ecosystems (Mr. Mike Lee 2010). This interaction replenishes
41 and nurtures coastal limu. Coastal limu provides traditional and customary medicine and sustenance for
42 the Native Hawaiian population and is also the foundation of the food cycle for marine invertebrates
43 such as 'opihi, mollusks, ha'uki'uki, wana, and pu'umo'o, or chiton used in the Mawaewae ceremony.

1
2 **Surface Water.** The Proposed Action and alternatives are in an upland location approximately 6,000 ft
3 (1,829 m) to 7,500 ft (2,286 m) north of the shoreline. The flat topography at Kalaeloa, combined with
4 the highly permeable soil and rock, allow storm water runoff to easily infiltrate the ground surface and
5 collect in man-made detention basins, dry wells, natural sinkholes, or pits in the subsurface. During
6 extreme precipitation events however, storm water typically overflows and sheet-flows into the nearest
7 drainage or collects in low-lying areas. Within the land areas that comprise the Proposed Action and
8 alternatives, the soils are very permeable and there are no identified wetlands or other surface water
9 features.

10 3.2.4 Biological Resources

11 **Terrestrial Flora.** The land areas that comprise the Proposed Action and alternatives have been
12 extensively modified, particularly during the periods in which the airfield and NAS Barbers Point were
13 built. The vegetation within the project site (i.e., REP) is overgrown with introduced species including
14 thickets of koa haole (*Leucaena leucocephala*) and kiawe (*Prosopis pallida*) trees.

15 **Protected Plant Species.** There are no federally- or State-listed, threatened or endangered species, as
16 defined by the U.S. Fish and Wildlife Service (USFWS) and the State of Hawai'i Department of Land and
17 Natural Resources (DLNR), in the lands that comprise the Proposed Action and alternatives. The
18 endemic shrub, the 'Ewa Plain 'akoko (*Chamaesyce skottsbergii* var. *kalaeloana*), is a federally-listed,
19 endangered plant species documented within the boundaries of the KCDD in isolated locations;
20 however, it is not found within the Proposed Action and alternatives sites (Whistler 2008). Similarly, the
21 federally-listed, endangered plant species, the round-leafed chaff-flower shrub (*Achyranthes splendens*
22 var. *rotundata*) is known to occur within KCDD (and elsewhere) but is not found within the lands that
23 comprise the Proposed Action and alternatives.

24 **Terrestrial Fauna.** Birds are the dominant wildlife within Kalaeloa, as is common for the Hawaiian
25 Islands. Mammal species commonly found in similar areas on O'ahu include feral dogs, cats, rodents
26 and mongoose.

27 **Protected Animal Species.** There are no federally-listed, threatened or endangered animal species
28 known to occur within the lands that comprise the Proposed Action and alternatives. In addition, there
29 are no designated or proposed critical habitats as defined by USFWS or DLNR within the Proposed
30 Action and alternatives sites.

31 The federally-listed, endangered Hawaiian black-necked stilt has been documented at the Barbers Point
32 Golf Course, outside the boundaries of the lands that comprise the Proposed Action and alternatives
33 (Navy 2006); however, stilts have been observed at water features associated with the Barbers Point
34 Golf Course in the vicinity of the Bismark Sea Road portion of the power line corridor associated with
35 Alternative 1.

36 Several bird species protected under the Migratory Bird Treaty Act (MBTA) have been observed in
37 Kalaeloa (Navy 2006) and may occur within the Proposed Action and alternatives sites. These species
38 include cattle egret (*Bubulcus ibis*), black-crowned night heron (*Nycticorax nycticorax*), Pacific golden
39 plover (*Puvialis fulva*), ruddy turnstone (*Arenaria interpres*), and wandering tattler (*Heteroscelus icanus*).
40 Other MBTA species that may be present in the Proposed Action and alternative sites are the Northern
41 cardinal (*Cardinalis cardinalis*), the Northern mockingbird (*Mimus polyglottos*), the house finch
42 (*Carpodacus mexicanus*), the mourning dove (*Zenaida macroura*), and the barn owl (*Tyto alba*).

1 3.2.5 Scenic and Visual Resources

2 Visual landmarks and significant vistas identified in the *'Ewa Development Plan* (City and County of
3 Honolulu 2011) which are relevant to Kalaeloa include panoramic views of the distant shoreline from the
4 H-1 Freeway above the 'Ewa Plain, mountain and ocean views, and distant views of central Honolulu and
5 Diamond Head. The lands within the Proposed Action and alternatives are characterized as generally
6 flat and overgrown by non-native vegetation, with most of the area having been altered by plantation,
7 agricultural, and airfield development. Due to their location in the broad, flat 'Ewa Plain, the Proposed
8 Action and alternatives sites do not project into the view planes identified in the 'Ewa Development
9 Plan. Most of the project site is overgrown with koa haole and kiawe consistent with an overgrown
10 airfield location, and much of it is not visible from nearby roadways. Most of the proposed power line
11 corridors (i.e., majority of Coral Sea Road, Franklin D. Roosevelt Avenue, Geiger Road and a small portion
12 of Bismark Sea Road) have utility poles and overhead power lines. These poles are similar in height and
13 spacing to those proposed under the action alternatives. The only significant vista is the mauka view
14 towards the Wai'anae Mountains.

15 **3.3 Cultural Resources**

16 The NHPA defines historic properties as "...any prehistoric or historic district, site, building, structure, or
17 object included in, or eligible for inclusion in the National Register of Historic Places..." (16 USC § 470w).
18 For the purposes of this document, the terms "historic properties" and "cultural resources" are used
19 synonymously. The categories of historic properties considered in this EA are archaeological sites,
20 properties of traditional cultural significance, and historic facilities.

21 Previous cultural resource studies of Kalaeloa have included archaeological surveys; historic architecture
22 studies; paleoenvironmental studies; and a study of Native Hawaiian places that addressed the oral
23 tradition surrounding Kalaeloa. Cultural resources are summarized in Tuggle and Tomonari-Tuggle
24 (1997a and 1997b) and in the *Cultural Resource Management Plan, Naval Air Station Barbers Point*
25 (CRMP) (Navy 1999b). *A Battlefield Evaluation of Ewa Field and Inventory of Historic Contexts* was also
26 recently completed (AECOM and MAI 2011) to assess the historical integrity of Ewa Field as a battlefield
27 site. Cultural resources in the Kalaeloa region are also described in the *Environmental Assessment, the*
28 *Conveyance of Navy-retained Land and Utilities, Kalaeloa, O'ahu, Hawai'i* (Navy 2008b).

29 The ICRMP (Navy 2008c) designates historic management zones and general planning guidelines to
30 protect and preserve their contributing features. According to the ICRMP, the Navy-retained lands of
31 the former NAS Barbers Point no longer exhibit historic significance or integrity due to their extensive
32 disposition and discontinuous nature. Only select historic buildings and structures (e.g., Revetment
33 District) continue to retain significance and integrity.

34 3.3.1 Summary of Archaeological Sites and Historic Facilities in the Vicinity of the Proposed Action and
35 Alternatives

36 With the exception of the O'ahu Rail and Land Company (OR&L) Railroad Right of Way, archaeological
37 sites that have been identified in the vicinity of the Proposed Action and alternatives relate to military
38 activities associated with MCAS Ewa and the former Ewa Field. These were originally surveyed and
39 described in Tuggle and Tomonari-Tuggle (1997a, 1997b) and later summarized in the NAS Barbers Point
40 CRMP (Navy 1999b). Archaeological site survey results are included in Table 3-1. Pre-historic Hawaiian
41 sites and non-military historic sites have not been found near the Proposed Action and alternatives,
42 probably due to the extensive modifications that occurred during the construction of first Ewa Field and
43 later, MCAS Ewa. Human burial sites are known to be present in some of the sinkholes in the 'Ewa area

1 (Mr. Mike Lee 2010); however, no human burial sites are known to exist within the lands encompassed
2 by the Proposed Action and alternatives.

3 Historic properties in the vicinity of the action alternatives have been identified in the *Battlefield*
4 *Evaluation of Ewa Field and Inventory and Historic Contexts* (AECOM & MAI 2011). In addition, sites
5 identified during the Section 106 process are being treated as eligible for the NRHP until a formal
6 Determination of Eligibility has been made by the Keeper of the NRHP (Appendix A1 Navy Determination
7 of Effect Letter). Figure 3-2 depicts the sites and their relation to the project site, the proposed
8 unimproved accessway, and power line corridors associated with the alternatives; Table 3-1 summarizes
9 the historic properties in the vicinity of the Proposed Action and alternatives.

10

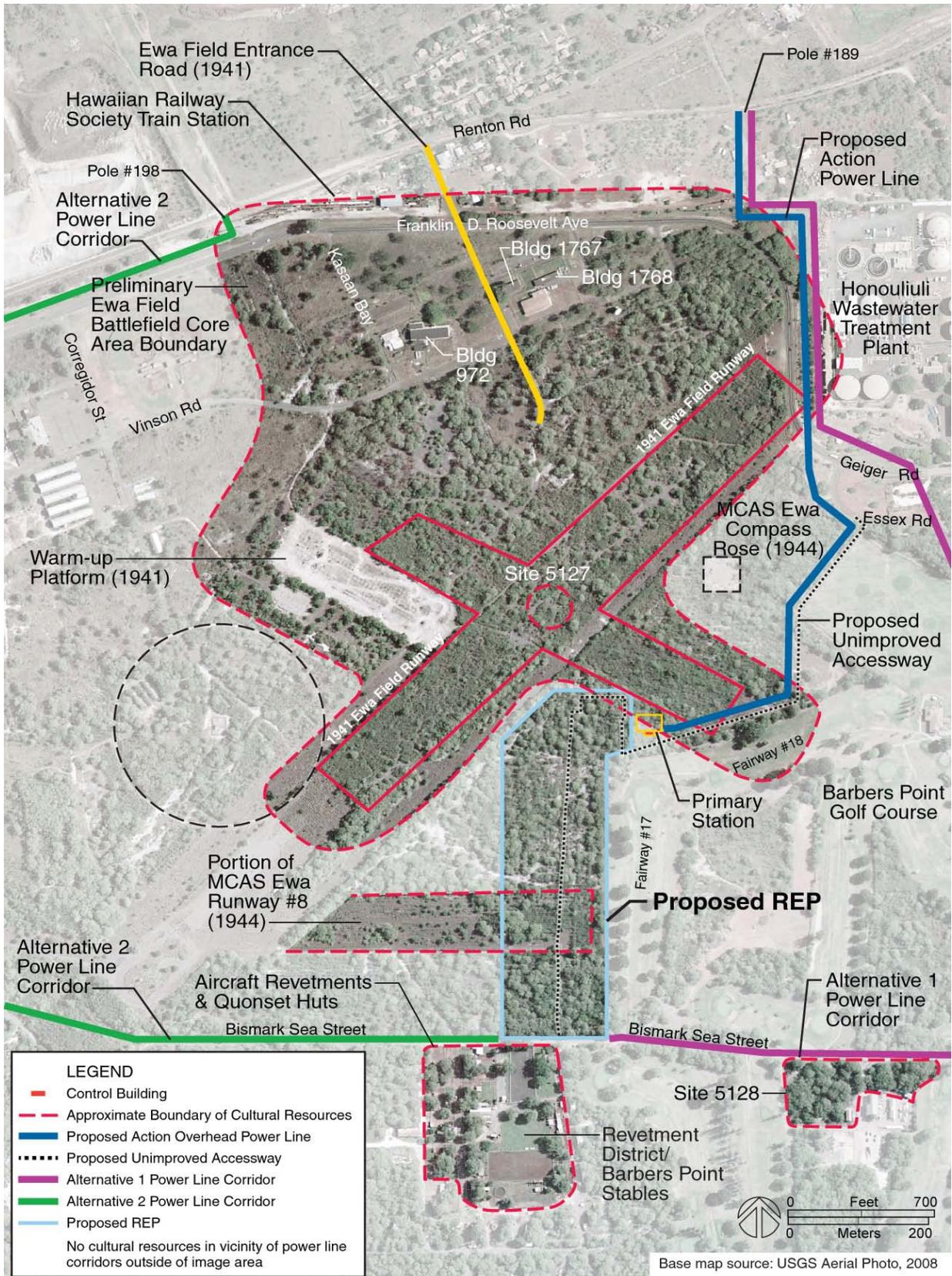


Figure 3-2: Historic Properties in the Vicinity of the Proposed Action and Alternatives

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Table 3-1: Historic Properties in the Vicinity of the Proposed Action and Alternatives

Site Number or Number	Site Description
Ewa Field Runway and Warm-up Platform (1941) (Figure 3-1)	In January 1941, the Marines began to expand the short landing mat and airship mooring mast into a Marine aircraft installation. The short landing mat was expanded to an X-shaped, macadam paved airfield 300 ft (91 m) wide, with runways of varying lengths (900-1600 ft [274-488 m] long) extending northeast, northwest, southwest and southeast (AECOM & MAI 2011:34). The northwest runway was utilized as an aircraft parking apron with tie downs and a 300-ft (91 m) wide, concrete warm-up platform was built south of the apron. Most of the Ewa Field buildings were situated between the northeast and northwest runways, north of the X-shaped airfield. On December 7, 1941 the Japanese Imperial Navy destroyed or rendered inoperable over 30 aircraft at Ewa Field (Navy Determination of Effect Letter, Appendix A1). At present, the runways are largely obscured by invasive vegetative growth.
Ewa Field Entrance Road (1941) (Figure 3-1)	Asphalt paved entrance, partially extant, leading south from Franklin D. Roosevelt Avenue. The road originally provided access to sites/structures no longer extant, including the mooring mast, mess hall, camp area, tents, dispensary, and sick bay, support structures, and parking lot (Navy Determination of Effect Letter, Appendix A1).
MCAS Ewa Runway #8 (1944) (Figure 3-1)	Located north of the Revetment District and with a portion of the runway included in the project site, this asphalt-paved runway was constructed as part of the World War II expansion of Ewa Field which eventually became MCAS Ewa. The runway is approximately 300-ft (91-m) wide and is largely obscured at present by invasive vegetative growth (Navy Determination of Effect Letter, Appendix A1). This runway was originally called Runway 8/26 (MAI 2011).
MCAS Ewa Compass Rose(1944) (Figure 3-1)	Located northeast of the project site and east of the 1941 Ewa Field Runway, this feature is a surface-treated concrete pad 200 ft (61 m) square with a 10-ft (3-m) diameter raised concrete pad at center. Radiating from the concrete pad are the remnants of 24 painted lines that formed the compass points. The radial lines of the compass rose are aligned to the points of the compass and were used to calibrate the magnetic compass of aircraft (Navy Determination Letter, Appendix A1). The Compass rose is associated with MCAS Ewa development (1944) (MAI 2011).
Revetment District (Buildings 1226-1247, 1287, 1291-1300 and two Quonset huts) (Figure 3-1)	Located south of project site adjacent to Barbers Point Golf Course/ Barbers Point Stables, these aircraft revetments were built between 1942 and 1943. They are associated with the change in aircraft parking policies following December 7, 1941 attacks (Tuggle and Tomonari-Tuggle, 1997a; 1997b).
Building 972 (Figure 3-1)	Located north of the Ewa Field Runway along Franklin D. Roosevelt Avenue, this Cold War-era Administration Building was built in 1958 and was associated with the Pacific Barrier Program and the Distant Early Warning System (i.e., Cold War facilities) (Tuggle and Tomonari-Tuggle, 1997a; 1997b).
Building 1767 (Figure 3-1)	Located north of the Ewa Field Runway along Franklin D. Roosevelt Avenue, Building 1767 (1960) was the operations building for the Pacific SOSUS, a secret operation of the Cold War (Tuggle and Tomonari-Tuggle, 1997a; 1997b).
Building 1768 (Figure 3-1)	Located north of the Ewa Field Runway, Building 1768 is a single-story concrete building constructed to support the sound surveillance of underwater listening posts during the Cold War (Navy Determination of Effect Letter, Appendix A1).

**Table 3-1: Historic Properties in the Vicinity of the Proposed Action and Alternatives
 (Continued)**

Site Number or Number	Site Description
Site 5127 (Dashed circle in Figure 3-1)	Located within the Ewa Field Runway, the site denotes the original part of the airfield constructed in 1941. It commemorates the December 7, 1941 attack on the airfield (Navy 2008b).
Site 5128 (Figure 3-1)	Located south of the project site and makai of Bismark Sea Street, within the Barbers Point Golf Course, this is a World War II Complex of concrete footings, curbs and pads remaining from barracks and shops of MCAS Ewa (Tuggle and Tomonari –Tuggle, 1997a; 1997b).

1

2 Ewa Field began as a mooring mast, constructed by the Navy in 1925. An important consideration for
 3 the Navy in choosing the site was its proximity to the OR&L railway. A circular area about 1,500 ft (457
 4 m) in diameter was cleared of vegetation and a mooring mast was built within the clearing. An airstrip,
 5 several hundred feet wide and approximately 1,250 ft (381 m) long, and oriented northeast/southwest
 6 was cleared to the south of the mooring mast (MAI 2011:34). The mooring mast was meant to serve
 7 lighter-than-air craft, an experimental military program at the time; however no lighter-than-air craft
 8 ever visited the site. Today, the OR&L railway alignment runs parallel to Franklin D. Roosevelt Avenue,
 9 north of the Ewa Field Runway and is a 15 mi (24 km) remnant of the original railway that was the
 10 longest stretch of narrow-gauge railroad track in Hawai’i.

11 Ewa Field was attacked by forces of the Japanese Imperial Navy on December 7, 1941 along with several
 12 other O’ahu military airfields and the Pearl Harbor Naval Base. During the attack, four Marines were
 13 killed from gunfire and 30 aircraft were destroyed. The runways, however, were only slightly damaged
 14 and Ewa Field was able to provide a functional airstrip and facilities for Army and Navy units (AECOM &
 15 MAI 2011:39). At the time of the attack, Ewa Field consisted of numerous buildings, structures, an X-
 16 shaped airfield, and several groups of tents (AECOM 2011).

17 The *Battlefield Evaluation of Ewa Field* analyzed information from historical documentation and existing
 18 conditions of Ewa Field for the purpose of assessing its integrity as a site of a significant battle event,
 19 using the National Register criteria for evaluation (AECOM & MAI 2011:1). The study found that the
 20 battlefield core area encompasses approximately 180 ac (73 ha), including the extent of the
 21 installation’s 1941-era aviation and camp areas (Figure 3-1). It concludes that Ewa Field retains minimal
 22 integrity as a battlefield site. Though certain battlefield defining features such as the swimming pool
 23 and the strafing on the concrete (1941) Warm-up Platform survive as physical evidence of the battle,
 24 other features have been lost or are in poor condition. The loss of the camp area, a key battlefield
 25 defining feature, and the deteriorated condition of many of the surviving features have contributed to
 26 the minimal integrity of the site (AECOM 2011: 18-19). The extent of the Ewa Field Battlefield has not
 27 yet been determined. Per the PA, a proposed Ewa Battlefield boundary will be included as part of the
 28 completion of the DOE for the battlefield cultural landscape and archaeological resources.

1 During World War II, Ewa Field underwent significant growth eventually forming the largest installation
2 for Marines in the Pacific, MCAS Ewa (Figure3-2). Following World War II in 1952, MCAS Ewa was
3 subsumed into the NAS Barbers Point. The MCAS Ewa airfields were decommissioned by 1952, NAS
4 Barbers Point was closed in 1999, and the project site has been leased to Ford Island Ventures since
5 2008.

6 **3.4 Hazardous and Regulated Materials**

7 The project site, a portion of the proposed unimproved accessway and Proposed Action power line
8 corridor were assessed in a 2008 Environmental Condition of Property (ECP) document (Navy 2008a).
9 The area was surveyed between 2007 and 2008 and documentation was reviewed to assess their
10 environmental condition and establish findings of suitability to lease or lease-in-furtherance-of-
11 conveyance. Through the ECP, the Navy provided the lessee with appropriate notifications, covenants,
12 and/or restrictions on land use that may be necessary to protect human health and the environment
13 and to prevent interference with existing or planned environmental restoration activities. Some of the
14 materials that the ECP identified included lead-based paint, asbestos, and solid waste.

15 **3.5 Land Use Compatibility**

16 3.5.1 Proposed Action and Alternatives

17 Completed in 2006, HCDA's *Kalaeloa Master Plan* represents a redevelopment effort encompassing
18 approximately 3,695 ac (1,495 ha) of KCDD with a full build out of approximately 25 years. If fully
19 implemented, the plan would include 3 million square ft (278,709 square m) of light industrial,
20 commercial, retail and office space and would create 7,000 jobs including opportunities for high-
21 technology development. The plan includes approximately 6,350 residential units (minimum 30 percent
22 affordable), associated schools and recreation facilities as well as transit-oriented development and
23 regional connections. The plan promotes alternative-energy development and self-sufficiency for KCDD
24 as well as the preservation of open space, shoreline access, recreation, cultural sites, and protected
25 species and habitats.

26 With the exception of retained or leased federal lands (e.g., Barbers Point Golf Course and nearby lands
27 including the project site), HCDA has the authority to establish the land use and zoning to facilitate
28 redevelopment activities at KCDD. HCDA's September 2011 letter to Ford Island Ventures, LLC
29 (Appendix C) confirms that HCDA's current draft rules would support a REP on the project site which is in
30 a "T2 Rural Zone" (HCDA 2011). The portion of the power line corridor on Coral Sea Road (under
31 Alternative 2) is along a future utility corridor proposed in the *Kalaeloa Master Plan* (HCDA 2006).
32 However, the portions of the power line corridor along Bismark Sea Street under Alternatives 1 and 2
33 were not contemplated in the Draft *Kalaeloa Master Plan – Infrastructure Master Plan Updates* (Ford
34 Island Ventures, LLC and HCDA 2010).

35 Figure 3-3 depicts the preferred land uses outlined in the *Kalaeloa Master Plan* which HCDA adopted in
36 2006 (the plan has yet to be adopted in the HAR). The preferred land use for the project site is open
37 space/recreation. Small portions of the power line corridors along Geiger Road (under the Proposed
38 Action and Alternative 2) are located in an area designated for light industrial land use. The power line
39 corridors within the Barbers Point Golf Course (Bismark Sea Street) and along Essex Road (under the
40 Alternative 1) are zoned for open/space recreation. The power line corridor for Alternative 2 bisects an
41 area zoned for recreation with an eco-industrial overlay, moderate intensity mixed use and school use.

42 A variety of Open Space/Recreation land uses are planned as part of the *Kalaeloa Master Plan's*
43 preferred land use including a large preserve/cultural park, natural area preserves and distinctive types

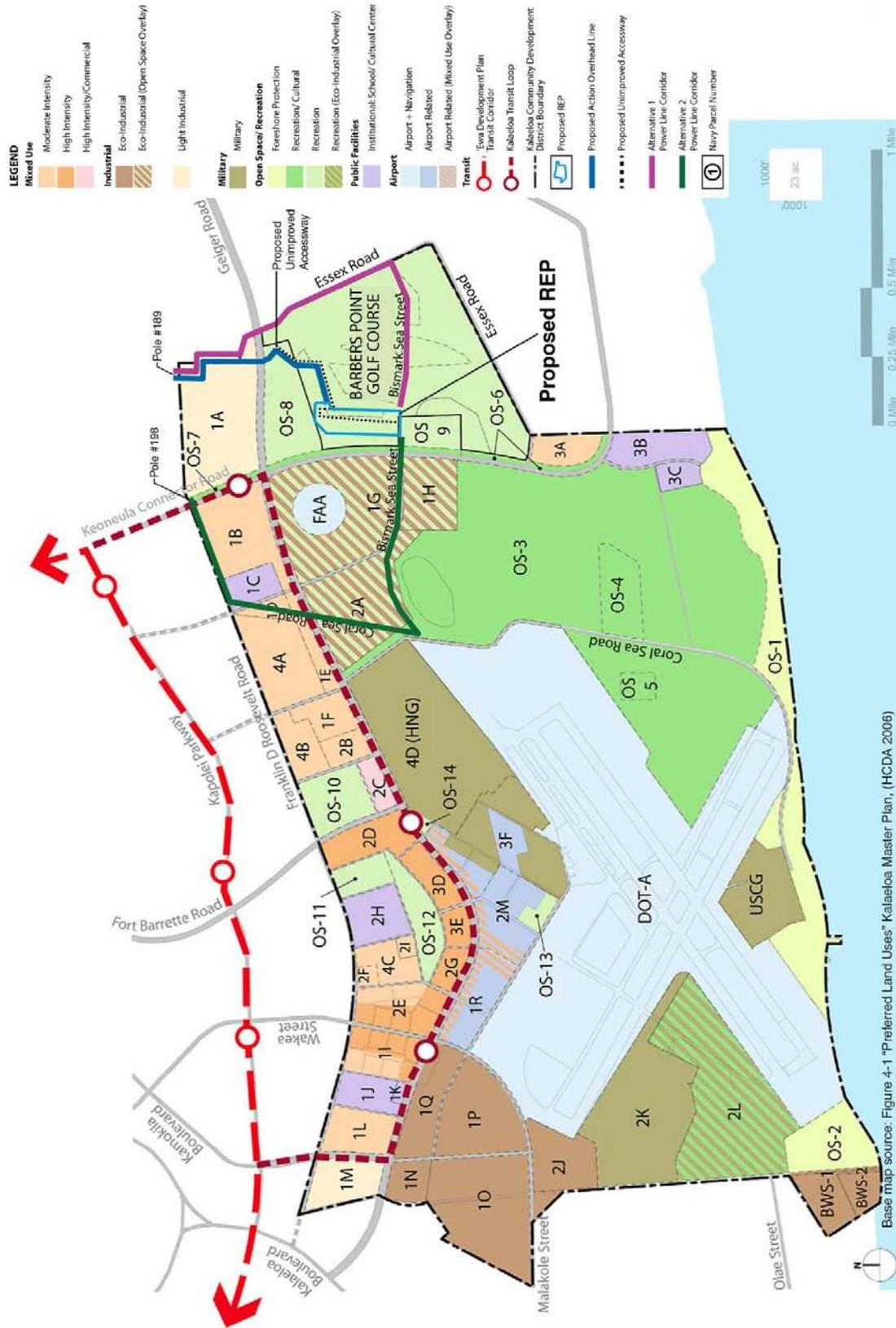
1 of parks. Light Industrial parcels are intended to support industrial activities and/or accommodate
2 short-to long-term industrial demand at Campbell Industrial Park (to the west) and Honouliuli WWTP (to
3 the east). Light industrial uses can include manufacturing, warehousing, and distribution, as well as
4 related and compatible office and retail uses. Eco-industrial land use can include environmentally
5 compatible industries such as solar or hybrid energy generation, bio-filtration, or other such
6 technologies. Moderate intensity mixed use is intended to have storefront uses on the ground level and
7 residential uses above. School use is intended to meet requirements for grade level for elementary or
8 middle schools (HCDA 2006).

9 **Surrounding Uses:** As shown on Figure 3-1, lands immediately to the east and south of the project site
10 are retained by the Navy for recreation, primarily the Barbers Point Golf Course and horse stables within
11 the Revetment District. Lands to the west and southwest are owned by DHHL and, according to the
12 *Kalaeloa Master Plan*, have been designated for eco-industrial use (Figure 3-3). An approximately 18 ac
13 (7 ha) circular area of land west of the project site is maintained by the Federal Aviation Administration
14 (FAA) for navigational aids (Figure 3-3). The Ewa Field Runway is north of the project site. Former
15 military buildings adjacent to the Ewa Field Runway and along Franklin D. Roosevelt Avenue are
16 currently being utilized for office and administrative purposes by Hunt ELP, Ltd (parent company of KV).
17 To the north of Franklin D. Roosevelt Avenue is the Hawaiian Railway Society railroad yard. To the
18 northeast of Ewa Field Runway is the Honouliuli WWTP.

19 The lands where the project site and a portion of the Proposed Action power line corridor are located
20 are largely overgrown by koa haole and kiawe (Figure 3-1). Portions of the power line corridors
21 associated with Alternatives 1 and 2 extend along existing roadways (e.g., Bismark Sea Street, Essex
22 Road, Coral Sea Road, Franklin D. Roosevelt Avenue). Utility poles are located along a small portion of
23 Bismark Sea Street as well as most of Essex Road, Geiger Road, Coral Sea Road, and Franklin D.
24 Roosevelt. A portion of the Coral Sea Road power line corridor is located in a clear zone associated with
25 Kalaeloa Airport, and, therefore, utility lines must be located underground (vice pole mounted).

26 3.5.2 Alternative Energy/ Ecologically Sustainable Development within Kalaeloa

27 The *Kalaeloa Master Plan* recognizes the potential of the Kalaeloa area to provide lands and resources
28 to produce alternative forms of energy. Hawai'i State Senate Bill 2474, also known as Act 95, was
29 adopted in 2004 and mandates the State of Hawai'i's utility companies to establish renewable energy
30 standards showing renewable energy sales of 8 percent by 2005, 10 percent by 2010, 15 percent by
31 2015 and 20 percent by 2020. The Hawai'i Clean Energy Initiative, a partnership between the State of
32 Hawai'i and the U.S. Department of Energy launched in 2008, goes beyond the objective of Act 95 by
33 promoting the goal of meeting 70 percent of energy needs by 2030 through 30 percent energy efficiency
34 measures and 40 percent locally produced renewable energy. Kalaeloa, with its large expanse of flat,
35 undeveloped land and arid climate, offers the potential for alternative energy development. Kalaeloa
36 has one of the highest solar radiation outputs on O'ahu, at 500 calories per square cm per day.



1 Industries such as solar, hybrid energy generation, bio-mass conversion, bio-filtration, seawater cooling
2 and other such technologies may have development potential in Kalaeloa (HCDA 2006). As of 2010,
3 renewable energy initiatives have already been tested such as the use of biofuel to successfully run the
4 cogeneration plant of independent power producer, Kalaeloa Partners, at the nearby James Campbell
5 Industrial Park. In addition, the monitoring of solar irradiance and cloud cover to improve the
6 performance of PV arrays (Department of Business and Economic Development and Tourism 2010) has
7 been analyzed in the Kalaeloa area.

8 Table 3-3 summarizes the existing and proposed eco-development in the vicinity of Kalaeloa. These
9 developments include 37.8 mW of renewable energy from eight solar farms; seven of these (including
10 the action alternatives) would be within KCDD. Other eco-industrial development in the area includes
11 the expansion of both the HECO Generation Station and the HPOWER Station at Campbell Industrial
12 Park.

Table 3-2: Eco-Industrial Development at Kalaeloa

Name	Type of Eco-Industrial Use	Land Area	Location	Time Frame
Kapolei Sustainable Energy Park (Hoku Solar & Campbell Co.) ³	Solar Farm (1.18 mW)	12 ac (5 ha)	Kapolei Harborside	2012
Kalaeloa Solar One (Kalaeloa Solar One LLC & Department of Hawaiian Home Lands [DHHL]) ¹	Solar Farm (5 mW)	40 ac (16 ha)	Roosevelt Ave & Boxer Rd	2011
Kalaeloa Solar Two (Sunpower Corp & DHHL) ¹	Solar Farm (5 mW)	40 ac (16 ha)	Roosevelt Ave & Boxer Rd	2012
Four Solar Farms (HCDA in partnerships) ²	Four (4) Solar Farms (20 mW)	Portion of 388 ac (157 ha) transferred to State	Navy’s former northern and southern trap and skeet ranges	to be decided
Kalaeloa REP	Solar Farm (6 mW)	20 ac (8 ha)	Project site	to be decided
HECO Generation Station Expansion	Bio-diesel combustion turbine generation (110 mW) & auxiliary	NA	Campbell Industrial Park	complete
Covanta Honolulu	HPOWER Station Expansion (new 3 rd combustor unit, turbine/generator & associated air pollution control); waste energy recovery	NA	Campbell Industrial Park	to be decided

13 ¹Ford Island Ventures, LLC and HCDA 2010
14 ² Pacific Business News, September 9, 2011
15 ³ Honolulu Star Advertiser, February 20, 2012

1 **3.6 Infrastructure and Public Services**

2 The discussion of infrastructure and public services is divided into three sections: (1) roads and traffic;
3 (2) potable water, wastewater, electrical distribution, telecommunications, and solid waste; and (3)
4 parks, recreation, and open space.

5 3.6.1 Roads and Traffic

6 **Roads.** At the present time, vehicular access to the project site is via Bismark Sea Street at the south
7 end of the project site. As shown on Figure 1-1, roadways in the vicinity of the project site include
8 Franklin D. Roosevelt Avenue and Vinson Road to the north, Geiger and Essex Roads to the east, Bismark
9 Sea Street to the south, and Corregidor Road to the west.

10 Two future roads are proposed in the *Kalaeloa Master Plan* (HCDA 2006) adjacent to the project site
11 (Figure 3-4): (1) Independence Street and (2) Kualaka‘i Parkway Extension (also known as the “North-
12 South Road”). Independence Street is to be an east-west arterial road that will connect Geiger Road
13 with Enterprise Avenue. In early 2010, the Kualaka‘i Parkway/H-1 interchange opened and now
14 provides a direct connection from H-1 to Kapolei Parkway. Plans exist to extend Kualaka‘i Parkway
15 south from Kapolei Parkway to Keoneula Boulevard in the southeast. As arterial roads, both facilities are
16 to have 80-ft (24-m) rights-of-way widths, two travel lanes in each direction, a center median or turn-
17 lane, a bike lane and sidewalk in each direction (HCDA 2006).

18 **Traffic.** Traffic congestion only occurs on portions of Franklin D. Roosevelt Avenue (approximately 2,000
19 ft (600 m) north of the project site), which carries volumes as high as 14,000 vehicles per day (State of
20 Hawai‘i Department of Transportation 2004). According to 2030 traffic volume projections, the
21 completion of Kapolei Parkway between Kamokila Boulevard and Kama‘aha Avenue would have a
22 substantial effect on reducing traffic volumes on Franklin D. Roosevelt Avenue, as some west to east
23 (‘Ewa-Diamond Head) traffic would divert from the existing two-lane road to the six-lane parkway (Ford
24 Island Ventures, LLC and HCDA 2010).

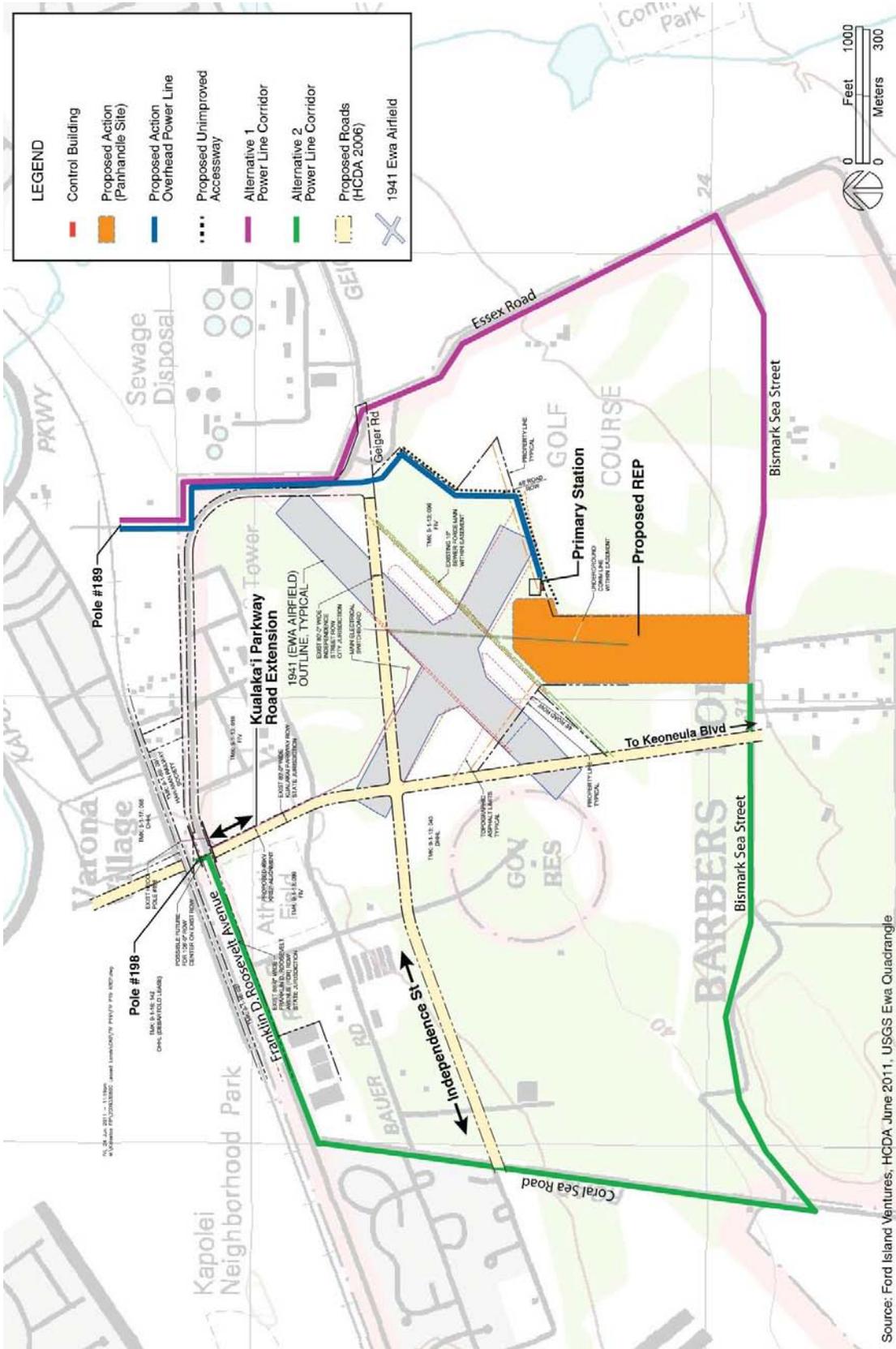
25 3.6.2 Potable Water, Wastewater, Electrical, Telecommunications, Drainage, and Solid Waste

26 The potable water source and distribution system and the existing electrical distribution system at KCDD
27 are currently owned and operated by the Navy; the Navy is in the process of conveying the systems to
28 interested parties. The wastewater collection system is owned by the Navy and operated under license
29 from the City and County of Honolulu Department of Environmental Services. Telephone and
30 communications systems are owned by the Navy; telephone service is provided by agreement with
31 Hawaiian Telcom. There are no drainage systems at the project site or the power line corridors for the
32 alternatives; stormwater sheetflows to surrounding areas or percolates into the ground. The project
33 site is currently undeveloped and there are no sources of solid waste. The *Kalaeloa Master Plan*
34 recognizes that all infrastructure will require substantial upgrades and improvements (HCDA 2006).

35 3.6.3 Parks, Recreation and Open Space

36 Park facilities in the vicinity of the project site include community parks within Ewa Gentry. Major
37 recreation facilities in the region include seven golf courses (Barbers Point [immediately adjacent to the
38 project site],³ Kapolei, Ko Olina, Coral Creek, Hawai‘i Prince, ‘Ewa Villages and West Loch). Barbers Point
39 Stables is a stable located in the Revetment District, south of and adjacent to the project site; the stables
40 offer boarding for horses and hosts the Barbers Point Riding Club. Pointer Fields and Pride Fields, both

³ Restricted to DOD employees and dependents.



Source: Ford Island Ventures, HCDA June 2011, USGS Ewa Quadrangle

1
 2 **Figure 3-4: Proposed Roads near the Project Site**

1 City and County of Honolulu Department of Parks and Recreation facilities, are located approximately
2 7,500 ft (2,286 m) to the west and 2,000 ft (610 m) northwest, respectively, of the project site. They
3 contain baseball fields and other amenities. Kalaeloa Raceway Park, off of Coral Sea Road, is a new
4 motorsports facility under construction. The former OR&L railroad right-of-way running along the
5 corridor is largely overgrown with non-native shrubs and trees. The northern edge of KCDD is planned
6 by the State of Hawai'i to accommodate a regional bikeway facility (HCDA 2006).

7 **3.7 Socio-Economic Environment**

8 This section provides a general discussion of the socioeconomic conditions in the surrounding
9 community.

10 3.7.1 Population, Housing, and Employment

11 According to the 2010 U.S. Census, in 2010 the population of the State of Hawaii was 1,360,301 and the
12 population of the City and County of Honolulu was 953,207. The 'Ewa Development Plan area had a
13 population of 102,180 in 2010 (U.S. Census Bureau 2011) and is projected to grow to over 164,000 by
14 2035.

15 There were 11,700 housing units in the 'Ewa Development Plan region in 1990. Between 1990 and
16 2000, the number of housing units increased nearly 80 percent to 20,800 units in 2000. The City and
17 County of Honolulu predicts that the 'Ewa Development Plan region will need over 88,000 new homes
18 between 2005 and 2035. The 'Ewa Development Plan region is O'ahu's fastest growing development
19 plan area (City and County of Honolulu 2011).

20 O'ahu's economic activity is concentrated around the Primary Urban Center (PUC) Development Plan
21 area (i.e., urban Honolulu), which provides about 74 percent (371,000) of the island's jobs. Projections
22 to the year 2030 anticipate a decrease in job share in the PUC to approximately 68 percent (429,100
23 jobs). In contrast, the job share in the 'Ewa Development Plan area is projected to increase from 16,400
24 (non-construction) jobs in 2000 to approximately 87,000 jobs by 2035. Major employment centers are
25 expected to be concentrated around the City of Kapolei, the Ko 'Olina Resort, Kapolei Business Park, and
26 Kalaeloa Barbers Point Harbor (City and County of Honolulu 2011).

1 **4.0 ENVIRONMENTAL CONSEQUENCES**

2 **4.1 Overview**

3 This chapter evaluates the probable direct, indirect, short-term, long-term, and cumulative impacts of
4 the action alternatives, and the No Action Alternative on relevant environmental resources. This
5 chapter focuses on resource areas where there are potential impacts for each alternative. None of the
6 alternatives would result in significant long-term impacts on climate, air quality, topography, or socio-
7 economic factors.

8 **4.2 Physical Environment**

9 4.2.1 Climate, Air Quality, and Noise

10 During the construction period, the action alternatives would have no impact on climatic conditions.
11 During the operational period, the action alternatives would have a long-term, minor beneficial impact.
12 The action alternatives would improve climatic conditions by providing clean, renewable energy and
13 thereby reducing the contribution of carbon monoxide and green house gases that are emitted into the
14 atmosphere.

15 The action alternatives would have a minor, short-term impact on air quality during the construction
16 period due to exhaust emissions of equipment and fugitive dust from site. For the action alternatives,
17 KV would be required to control airborne dust according to BMPs incorporated into the construction
18 documents. The action alternative would not cause National/State Ambient Air Quality Standards to be
19 exceeded.

20 During the operational period, there would be no significant impacts to air quality due to the nature of
21 the operational activities. Negligible impacts to air quality would occur under the action alternatives
22 due to a slight increase in vehicle trips to support the REP during the operational period. In the event
23 that new sources of air emissions are introduced, the new sources would be expected to comply with air
24 quality permit requirements.

25 The action alternatives would have minor, short-term impacts on ambient noise level during the
26 construction period that is unlikely to affect the nearest noise-sensitive receptors (i.e., residents at Ewa
27 Village, businesses along Franklin D. Roosevelt Avenue, horses at Barbers Point Stables). Under the
28 action alternatives, site preparation and construction activities would be expected to create short-term
29 noise impacts. The action alternatives are compatible with the *Kalaeloa Airport Master Plan* (State of
30 Hawai'i Department of Transportation 1998).

31 The No Action Alternative would not impact current climatic conditions, air quality, or noise because the
32 existing site conditions would continue (i.e., *status quo* of overgrown fallow land with non-native
33 vegetation).

34 4.2.2 Topography, Soils, and Flood Hazard

35 The action alternatives would have no significant impact on topography or soils. Given the flat terrain of
36 the project site and power line corridors, the need for grading and site preparation work is expected to
37 be minimal and largely limited to grubbing and minor excavation associated with foundations associated
38 with the power stations, mechanical building, poles for fencing, power poles, golf ball netting, and
39 limited underground utility lines (i.e., water, power line [Alternative 2]). The PV array would use a
40 concrete ballast support system that would not require excavation. Potential erosion associated with
41 construction activities would be controlled through the use of BMPs to prevent soil loss and sediment
42 discharge from the sites.

1 No significant impacts to flood hazards would occur as a result of the action alternatives.

2 The No Action Alternative would have no impact to topography, soils, or flood hazards because the
3 existing site conditions would continue (i.e., *status quo* of overgrown fallow land with non-native
4 vegetation). The existing topography and soils would remain. There are no streams or surface water
5 features in or near the project site that could cause potential flood hazards and the project site is
6 located outside of the tsunami evacuation zone.

7 4.2.3 Water Resources

8 The action alternatives would not impact surface waters (including coastal waters) and would have no
9 significant impact to groundwater. The action alternatives are located upland, approximately 6,000 ft
10 (1,829 m) from the coastline. During the construction period, the action alternatives would not involve
11 any action that would impact water resources, as site preparation and construction activities are limited
12 to grubbing, minor grading, and localized shallow excavation (e.g., utility trenches, pole foundations).
13 None of the alternatives include any in-water or over-water construction or demolition work. All site
14 preparation and construction debris would be contained and controlled, and BMPs would be employed
15 to prevent pollutants from entering ground water or surface water bodies. KV would be responsible for
16 ensuring that all construction activities comply with applicable regulations, including the Clean Water
17 Act Section 402 NPDES Permit and HAR, Title 11, Chapter 54, Water Quality Standards and Chapter 55,
18 Water Pollution Control.

19 During the operational period, the action alternatives would have no impact to surface water bodies
20 (including coastal waters) and would have no significant impacts to groundwater resources. Under the
21 action alternatives, the PV panels would be cleaned by hand using a non-hazardous, water-vinegar
22 based solution with a maximum application rate of 7 ounces/square foot/day (2.31 liters/square
23 meter/day). It is anticipated that the majority of the spent solution would evaporate on the surface of
24 the PV panels due to the area's high pan evaporation rate, with only a small fraction absorbed into the
25 site's soil. It is unlikely that the spent solution would reach groundwater, estimated to be approximately
26 35 to 40 ft (11 to 12 m) below ground surface.

27 For a limited time (i.e., grow-in period), irrigation of the vegetative buffer around the perimeter of the
28 project site may be required under the action alternatives. However, irrigation of plant materials would
29 have no impact on surface water bodies and would have no significant impact to groundwater
30 resources.

31 The No Action Alternative would not affect ground or surface water resources because the existing site
32 conditions would continue (i.e., *status quo* of overgrown fallow land with non-native vegetation). The
33 current use (i.e., fallow land) does not impact these resources.

34 4.2.4 Biological Resources

35 The action alternatives would have no significant impact to any protected biological resources, critical
36 habitat, or sensitive habitat. Construction period activities (e.g., grubbing, grading, excavation) could
37 disturb habitat used by MBTA-bird species, However, similar habitat is common throughout the region.
38 Therefore, it is unlikely that the project will have significant impact on these birds during the
39 construction period. If during construction activities an active nest of a MBTA protected species is
40 encountered, KV would be required to not destroy or disturb the nest and to contact the NAVFAC
41 Hawaii Natural Resources Manager. Under the operational period, the action alternatives would
42 provide open space and roadside areas similar to those currently used by MBTA-bird species, resulting in
43 no significant impact to these birds. The REP would use anti-reflective PV panels which are not expected
44 to attract birds.

1 There would be no significant impact to any federally or State-listed, threatened or endangered species
2 as none are found within the proposed area of the action alternatives. Removal of native vegetation, if
3 found during minimal grubbing and grading of site, will be documented prior to clearing so that
4 restoration of native vegetation may be carried out after removal of the PV array.

5 The No Action Alternative would not affect biological or botanical resources because the existing site
6 conditions would continue (i.e., *status quo* of overgrown fallow land with non-native vegetation). There
7 are no known federally- or State-listed, threatened or endangered species, as defined by the U.S. Fish
8 and Wildlife Service (USFWS) and the State of Hawai'i Department of Land and Natural Resources
9 (DLNR), in the project site. Existing habitat that may be used by bird species protected under the MBTA
10 would remain.

11 4.2.5 Scenic and Visual Resources

12 No significant impact to visual landmarks and significant vistas (e.g., coastline, mountain views) would
13 occur as a result of the action alternatives. Scrub and trees would be cleared at the project site with the
14 exception of the vegetative buffer. A low-profile 6-mW REP and fencing would be constructed; poles
15 and power lines would be installed along the power line corridors; and 20 to 30 ft (6 to 9 m) high golf
16 ball netting would be established along the east side of the REP.

17 The visual impact of the REP construction would be limited to the immediate surroundings due to the
18 existing dense vegetation and the establishment of a vegetative buffer adjacent to the Revetment
19 District. Power poles currently exist along portions of Bismark Sea Street, Essex Road, Geiger Road,
20 Coral Sea Road, and Franklin D. Roosevelt Avenue (i.e., along the power line corridors). Therefore, the
21 addition of power poles and/or lines would not significantly impact the existing visual setting. The
22 action alternatives would not change visual landmarks and significant vistas identified in the 'Ewa
23 *Development Plan* (City and County of Honolulu 2011). These include panoramic views of the distant
24 shoreline from the H-1 Freeway above the 'Ewa Plain, mountain and ocean views, and distant views of
25 central Honolulu and Diamond Head. Section 4.3 provides a discussion of visual impacts to historic
26 properties in the vicinity of the project site.

27 The action alternatives would employ PV panels with an anti-reflective coating that improves light
28 absorption while reducing glare from the array; therefore, the action alternatives would not create a
29 nuisance effect for overhead flights to the Kalaeloa Airport or HIA or a reflective nuisance to
30 surrounding areas.

31 The No Action Alternative would have no impact on scenic or visual resources because the existing site
32 conditions would continue (i.e., *status quo* of overgrown fallow land with non-native vegetation).

33 **4.3 Cultural Resources**

34 For purposes of this analysis, significant cultural resources are those properties listed or may be eligible
35 for listing in the NRHP. As defined in implementing regulations for Section 106 of the NHPA, impacts of
36 an undertaking on significant cultural resources would be considered adverse if they "diminish the
37 integrity of the property's location, design, setting, materials, workmanship, feeling, or association" (36
38 CFR §800.5(a)). Examples of adverse effects include, but are not limited to, the following:

- 39 • Physical destruction, damage, or alteration of all or part of the property (36 CFR § 800.5 (a)
40 (2) (i) and (ii));
- 41 • Isolation of the property from or alteration of the character of the property's setting when
42 that character contributes to the property's qualification for listing on the NRHP (36 CFR §
43 800.5 (1) (2) (iii) and (iv));

- 1 • Introduction of visual, audible, or atmospheric elements that are out of character with the
2 property or alter its setting (36 CFR § 800.5 (a) (2) (v));
- 3 • Neglect of a property resulting in its deterioration or destruction (36 CFR § 800.5 (a) (2) (vi));
4 and
- 5 • Transfer, lease, or sale of the property out of federal ownership or control without adequate
6 and legally enforceable restrictions or conditions to ensure long-term preservation of the
7 property's historic significance (36 CFR §800.5 (a)).

8 In addition, pertinent planning guidelines from the ICRMP (Navy 2008c) for buildings and structures at
9 Kalaeloa are listed below.

- 10 • Re-use, to the maximum extent viable, existing facilities before building any new structures.
11 Adaptive use of existing historic facilities is encouraged over demolition.
- 12 • Retain the historic materials or historic buildings where economically feasible and
13 environmentally acceptable. Building surfaces should not be covered with other materials.
14 Where existing materials need to be repaired or replaced, the replacement materials should be
15 in accordance with the Secretary of the Interior's Standards.
- 16 • Retain the physical and visual prominence of the revetment area by limiting construction in this
17 area. Continued use of the revetments as horse stables is encouraged.
- 18 • Historic facilities that are under-used, or without current or identified users, should be retained
19 as long as practicable to allow for future adaptive use opportunities. Demolition of historic
20 facilities should be viewed as a last resort.
- 21 • Tools such as Economic Analyses, Condition Assessment Reports, and Feasibility Studies should
22 be used as appropriate prior to the undertaking of future historic preservation, adaptive use, or
23 demolition projects (Navy 2008c).

24 Proposed work on the project site would involve clearing an area of vegetation including a portion of the
25 MCAS Ewa Runway #8 (1944), and clearing vegetation near the historic aircraft Revetment District
26 (Barbers Point Stables) for PV panels. An ICRMP guideline recommends limiting new construction near
27 the historic aircraft revetments to help retain its physical and visual prominence. The clearing of
28 vegetation at the project site and the establishment of the vegetative buffer between the REP and the
29 Revetment District would not impact the physical and visual prominence of the Revetment District,
30 which is only visible at close range due to surrounding dense vegetation.

31 **Potential Effects Related to the Proposed Action**

32 The Navy has determined the following potential effects on historic properties in the project area as a
33 result of the Proposed Action (Appendix A1):

34 **Ewa Field Runway and Warm-up Platform (1941).** Adverse direct/physical effect on the historic Ewa
35 Field Runway surface resulting from power poles traversing the southeast corner of the runway. There
36 will also be adverse visual effects resulting primarily from the overhead transmission line and power
37 poles.

38 **Ewa Field Entrance Road (1941).** No adverse direct/physical or visual effect on the historic entrance
39 road. Due to dense vegetation and distance, it is unlikely that the overhead transmission line and power
40 poles will be visible from the road.

41 **MCAS Ewa Runway #8 (1944).** Adverse direct/physical and visual effect on the historic MCAS Ewa
42 Runway, obscuring it both visually and physically with the installed PV array. There will also be an
43 adverse visual effect resulting from the overhead transmission line and power poles.

1 **MCAS Ewa Compass Rose (1944).** No direct/physical adverse effects will result. Adverse visual effect
2 on the historic compass rose, resulting primarily from the overhead transmission line and power poles.

3 **MCAS Ewa Revetments #1 and #2 (1942-1943).** No adverse physical or visual effect on the historic
4 Revetment District. Due to dense vegetation surrounding the revetments, proposed vegetative buffer,
5 and proposed use of low profile of PV components, it is unlikely that any project elements will be visible
6 from the Revetment District.

7 **Administration Building #972 (1958).** No direct/physical or visual adverse effects will result due to the
8 dense vegetation and distance.

9 **SOSUS Operations Building #1767 (1960).** No direct/physical or visual adverse effects will result due to
10 dense vegetation and distance.

11 **SOSUS Operations Building #1768 (1960).** No direct/physical or visual adverse effects will result due to
12 dense vegetation and distance.

13 **Archaeological resources (Prehistoric Native Hawaiian).** Based on the absence of known prehistoric
14 properties of Native Hawaiian origin within the project site (see Table 3-1 for archaeological site survey
15 results), together with the previous ground disturbing activities, the Proposed Action would not affect
16 any prehistoric Native Hawaiian archaeological resources. However, as a precaution and in compliance
17 with the ICRMP (Navy 2008c), archaeological monitoring will be conducted for all ground disturbing
18 activities associated with the action alternatives. Native Hawaiian Organizations will be consulted
19 regarding the archaeological monitoring plan in accordance with DoD and ACHP guidance. NAVFAC
20 Hawaii and/or KV will provide cultural/historical awareness training to contractors and subcontractors
21 prior to commencement of work.

22 **Archaeological resources (Historic resources).** The Navy will treat all identified historic properties
23 within the Area of Potential Effect as eligible for the NRHP for Section 106 purposes until a formal
24 Determination of Eligibility is made by NRHP. The project site lies within a portion of the MCAS Ewa
25 Runway #8 (1944). The action alternatives would involve adaptive reuse of this historic property (e.g.,
26 MCAS Ewa Runway #8) and is in compliance with the ICRMP planning guidelines. The Navy recognizes
27 the importance of the former Ewa Field in American history due to its involvement with the attack on
28 Pearl Harbor on December 7, 1941 by Japanese Imperial Naval forces. A Battlefield Evaluation report
29 has been prepared related to the former Ewa Field. If it meets National Park Service battlefield criteria,
30 the former Ewa Field would be eligible for listing as a battlefield site on the NRHP. The Proposed Action
31 (i.e., installation of the REP, unimproved accessway, and power line corridor) may impact the eligible
32 portion(s) of the former Ewa Field. As part of the approval process (for the proposed REP), the Navy will
33 be working closely with the SHPO, its Historic Preservation Partners, and the public to ensure
34 compliance under Section 106 of the NHPA. The Navy has prepared this EA due to an adverse affect
35 determination upon historic properties.

36 Beyond archaeological monitoring to be conducted for all ground disturbing activities associated with
37 the action alternatives, a remote sensing testing plan and a standard/systematic archaeological testing
38 plan will be developed by the Navy and implemented by the Navy and KV to assist in defining World War
39 II battlefield boundaries and event locations. KV will provide a Temporary Protection Plan for work
40 performed in close proximity to the affected historic resources, including near the south end of the 1941
41 Ewa Airfield and in proximity of the Compass Rose.

42 To further mitigate impacts to extant cultural resources, clearing of vegetation will be performed with
43 manual labor and small-scale machinery and light trucks (maximum GVW of 8,500 pounds). Bulldozers

1 and metal-tracked equipment will not be used for clearing activities. Utility installations will be limited
2 to those for the sole purpose of the proposed action.

3 **Alternatives 1 and 2**

4 Under Alternatives 1 and 2, the impact to cultural resources is considered less than that of the Proposed
5 Action. Like the Proposed Action, both Alternatives 1 and 2 (i.e., REP on the project site) would have
6 adverse direct/physical and visual effect on the historic MCAS Ewa Runway #8 and the southeast portion
7 of the Ewa Field Runway (due to the location of the PV field and unimproved accessway). However,
8 neither Alternative 1 nor Alternative 2 power line corridors would result in direct/physical and visual
9 effect on the Warm-up Platform, the Ewa Field Entrance Road, MCAS Ewa Compass Rose, MCAS Ewa
10 Revetments, Administration Building #972, or the SOSUS Operations Buildings #1767 and #1768.
11 Further, similar to the Proposed Action, these alternatives would have no direct/physical or visual effect
12 on archaeological resources of Native Hawaiian origin. However, as a precaution and in compliance with
13 the ICRMP (Navy 2008c), archaeological monitoring would be conducted for all ground disturbing
14 activities associated with the action alternatives.

15 **No Action Alternative**

16 Under the No Action Alternative cultural resources would remain unchanged from their existing
17 condition.

18 **4.4 Hazardous and Regulated Materials**

19 Potential minor, short-term impacts to preexisting hazardous and/or regulated materials (e.g., asbestos,
20 lead-based paint, solid waste) could occur as a result of construction activities (i.e., grubbing, grading,
21 excavation). Under the action alternatives, KV will be required to appropriately store, handle, manage,
22 and dispose of any hazardous and regulated materials related to this project in accordance with
23 applicable laws, rules, and regulations.

24 The No Action Alternative would not impact the existing presence of any hazardous and regulated
25 materials as no land disturbing activities would occur.

26 **4.5 Land Use Compatibility**

27 The action alternatives would construct a REP and the project site would remain largely as open space.
28 It is believed that the action alternatives would have a beneficial impact on land use compatibility
29 through compliance with regional land use plans for the vicinity (i.e., open space/eco-industrial). As
30 previously described in Section 3.5, HCDA has indicated the proposed REP is consistent with its land use
31 for areas zoned as T-2 Rural (HCDA 2011; see Appendix C). The Bismark Sea Street portions of
32 Alternatives 1 and 2 were not contemplated as part of the *Kalaeloa Master Plan* (HCDA 2006); however,
33 they would not have a significant impact on land use compatibility.

34 Under the No Action Alternative, the land would remain as unmanaged, overgrown, fallow land with
35 non-native vegetation.

36 **4.6 Infrastructure and Public Services**

37 4.6.1 Roads and Traffic

38 The action alternatives would have minor construction period impacts on local streets. The action
39 alternatives are not considered a traffic-inducing land use and therefore would not impact roadways or
40 traffic within the Kalaeloa area or on regional roadways. During the construction period, there would be

1 a temporary increase in construction-related traffic to and from the project site and action alternative
2 power line corridors.

3 No significant impacts to roads and traffic are anticipated during the operational period. The action
4 alternatives are expected to generate approximately two-to-four person trips per day on average during
5 the operational period, less than a single-family dwelling.

6 Under the No Action Alternative, there would be no impact to existing roads or traffic because the
7 existing site conditions would continue (i.e., *status quo* of overgrown fallow land with non-native
8 vegetation). The current use is passive and does not generate vehicular traffic.

9 4.6.2 Potable Water, Wastewater, Electrical, Telecommunications, Drainage, and Solid Waste

10 The action alternatives would have no significant impact to the potable water system at Kalaeloa as the
11 quantity of water required to support the project is small (approximately 35 gal/ac/ per day [323
12 l/ha/day) and is available from an existing Navy potable water connection.

13 The action alternatives would have no impact to the wastewater and telecommunications systems at
14 Kalaeloa as there would be no site connections.

15 The action alternatives would have a long-term beneficial impact to the local electrical utility (HECO).
16 Under the action alternatives, a power line would be constructed to connect the REP with the existing
17 electrical grid. The REP project is expected to produce about 8,200 mW hours of clean energy per year.
18 The renewable energy generated will be sold to HECO through a long-term power purchase agreement.
19 This action will help reduce the amount of fossil fuels the State needs to import on a yearly basis,
20 partially fulfilling the State of Hawai'i's goal of achieving 70 percent energy self-sufficiency by 2030.

21 The action alternatives would have no significant impacts to the drainage system. No activities are
22 proposed in, over, or adjoining the coastal waters at Kalaeloa. During the operational period, there
23 would be no increase in impermeable surface areas; stormwater would continue to drain into the
24 porous surface soils. No significant impact to groundwater or surface water resources is expected from
25 cleaning activities as it is unlikely that the vinegar-water cleaning solution would reach the underlying
26 groundwater resources as a result of the cleaning method (hand washing), high pan evaporation rate,
27 and depth to groundwater (~35 to 40 ft [11 to 12 m]).

28 The action alternatives would have no significant impact to solid waste generation. Solid waste from the
29 construction period would be limited to green waste from grubbing activities and trash. Green waste
30 would be either composted or repurposed (e.g., chipped for use in landscape materials). During the
31 operational period, solid waste would be limited to small quantities of trash. Under the action
32 alternatives, KV would be responsible for disposing of any solid waste generated. The anticipated
33 quantities of solid waste from these periods are within the capacity of the existing disposal facilities on
34 island.

35 The No Action Alternative would have no impact on the potable water, wastewater, electrical,
36 telecommunications, or drainage systems at Kalaeloa or on solid waste facilities in the region because
37 the existing site conditions would continue (i.e., *status quo* of overgrown fallow land with non-native
38 vegetation). The current use for the project site is passive and does not consume these resources, or
39 generate wastewater or solid waste.

40 4.6.3 Parks, Recreation, and Open Space

41 The action alternatives would have no impact on parks or recreation and no significant impact on open
42 space in Kalaeloa.

1 Under the No Action Alternative, there would be no impact to parks, recreation, or open space because
 2 the existing site conditions would continue (i.e., *status quo* of overgrown fallow land with non-native
 3 vegetation).

4 **4.7 Socio-Economic Environment**

5 Implementing the action alternatives would not result in significant impacts to the socio-economic
 6 environment. The action alternatives would provide minor, beneficial economic effects to Hawai’i’s
 7 economy during the construction period through temporary construction employment (20-30
 8 personnel) and during the operational period (equivalent of about two fulltime personnel for a period of
 9 20 years).

10 The Proposed Action would cost approximately \$31.9 M including the REP and the northeast power line
 11 corridor. The rest of the action alternatives will be more expensive due to the length and locations of
 12 the power line corridors. Alternative 1 and Alternative 2 power line corridors will require real estate
 13 easement rights; additional time is needed to negotiate the easement rights and to install the poles,
 14 power lines, and/or underground conduits. Table 4-1 provides a summary of the costs and schedule
 15 impacts of the different power line corridors.

16 Under the No Action Alternative there would be no impact to the socio-economic environment because
 17 the existing site conditions would continue (i.e., *status quo* of overgrown fallow land with non-native
 18 vegetation). The current use for the project site is passive and does not generate economic activity.

19 **Table 4-1: Summary of Costs and Schedule Impacts of the Alternative Power Line Corridors**

Alternative	Cost of Power Line	Additional Easement Requirements	Impact to Construction Schedule	Comment
Proposed Action	\$2.5 M	No	Not applicable	
Alternative 1	\$3.5 M	Yes	9 months delay	Stake holders include the Navy and the City and County of Honolulu; additional approval from HECO required.
Alternative 2	\$9.9 M	Yes	Unknown – 12 months or more	Stake holders include the Navy, City and County of Honolulu, and DHHL; additional approval from HECO required.
No Action Alternative	\$0.0 M	No	None	

20 The power line corridor for Alternative 1 would cost an estimated additional \$1.0 M, or about 40
 21 percent more than the power line corridor for the Proposed Action. It would also require an additional
 22 nine months beyond the schedule for the Proposed Action. The power line corridor for Alternative 2
 23 would cost an estimated additional \$7.4 M, or about 300 percent more than that of the Proposed
 24 Action. Its impact to the schedule is not known at this time.

1 **4.8 Cumulative Impacts**

2 Cumulative impacts to environmental resources result from the incremental effects of development and
3 other actions when evaluated in conjunction with other government and private, past, present and
4 reasonably foreseeable actions. Cumulative impacts can result from individually minor, but collectively
5 significant actions, taking place over a period of time. Analysis of cumulative impacts was conducted on
6 a qualitative basis, and included an assessment of known land use changes within the 'Ewa
7 Development Plan area, as well as future potential actions within the area (e.g., intensification of
8 development on adjacent land).

9 The 'Ewa Development Plan area is a key growth area for the City and County of Honolulu. Historically,
10 from the late 19th century through the late 20th century, much of the area was used for sugarcane
11 cultivation which supported a plantation lifestyle for the majority of its residents. Industry and
12 associated employment came to the Leeward Coast in the early 1960's when Campbell Industrial Park
13 opened. Residential communities grew in the 1970's with the development of Makakilo and 'Ewa
14 Beach. In 1977, the Honolulu City Council approved a new general plan which established a "second
15 city" or secondary urban center with its nucleus at Kapolei (City and County of Honolulu 1997). Urban
16 growth continues to be a major factor for the 'Ewa Development Plan area with an anticipated increase
17 in population from 68,000 in 2000 to 177,000 in 2030 as well as 37,000 additional housing units and
18 49,000 non-construction jobs during the same period (City and County 2011).

19 The Kalaeloa area has undergone a series of major changes in land use spanning over the past 200 years.
20 Prior to European contact in the late 18th century, Kalaeloa supported a limited number of permanent
21 residents (Native Hawaiians) who practiced subsistence living including fishing. In the 19th century, the
22 land area included a sisal plantation and, in most of the 20th century, Kalaeloa was active as a military
23 installation (i.e., NAS Barbers Point). Since the closure of NAS Barbers Point in 1999, Kalaeloa has been
24 undergoing increased urbanization through the implementation of the *Kalaeloa Master Plan* (HCDA
25 2006) (Figure 3-3).

26 Under the *Kalaeloa Master Plan*, preferred land uses in the vicinity of the action alternatives include
27 eco-industrial, recreation/open space, and light industrial. Currently, there is one 40-ac (16-ha) solar
28 farm (Kalaeloa Solar One, see Table 3-3) in operation at KCDD and another 12-ac (5-ha) solar farm at
29 Kapolei Harborside at nearby Campbell Industrial Park. Another 448 ac (181 ha) of land at KCDD is
30 currently proposed for construction of solar farms which includes this project (see Table 3-3). Other
31 foreseeable future projects in the vicinity include planned roadways (e.g., Kualaka'i Parkway Extension
32 and Independence Road) outlined in the *Kalaeloa Master Plan* (HCDA 2006). If built, these roadways
33 would extend across the Ewa Field Runway, through the battlefield and along the west side of the
34 project site (Figure 3-4). Long-range public plans such as the City's *'Ewa Development Plan* and HCDA's
35 *Kalaeloa Master Plan* account for a 20-year build-out of the roadway system, including these arterial
36 roads.

37 The action alternatives would reuse and develop the 20-ac (8-ha) project site into a REP which is
38 consistent with preferred use stated in the *Kalaeloa Master Plan* (HCDA 2006). The Draft *Kalaeloa*
39 *Master Plan - Infrastructure Master Plan Update* (Ford Island Ventures, LLC and HCDA 2010)
40 contemplated various utility corridors to support anticipated growth in the area. Additional analysis and
41 coordination with stakeholders in the area will be needed before the final utility corridors are
42 established.

43 When evaluated in conjunction with other past, present and foreseeable government and private sector
44 actions, the action alternatives are not expected to contribute to cumulative impacts on the physical
45 environment, hazardous and regulated materials, land use compatibility, infrastructure and public

1 services, or the socio-economic environment. The action alternatives are reversible and temporary in
2 nature, with an expected lifetime of 20 years. The action alternatives would not significantly impact
3 population or long-term employment levels in the City and County of Honolulu or the State of Hawai'i.
4 They would not disproportionately affect children, minorities or disadvantaged populations. The action
5 alternatives are consistent with HCDA's land use for KCDD.

6 The action alternatives would contribute to cumulative impacts on cultural resources in the vicinity (see
7 Section 4.3). Means of mitigating these effects are presented in Section 4.13

8 **4.9 Compliance with Executive Orders**

9 4.9.1 Executive Order 12898, Environmental Justice in Minority Populations and Low Income 10 Populations.

11 Executive Order (EO) 12898 (11 February 1994), and the Secretary of the Navy Notice 5090 (27 May
12 1994) require the Navy to identify and address the potential for disproportionately high and adverse
13 human health and environmental effects of their actions on minority and low-income populations.
14 There are no known significant or adverse environmental impacts, including human health, economic or
15 social effects that would disproportionately affect minority or low-income communities resulting from
16 any of the alternatives.

17 4.9.2 Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks.

18 EO 13045 (21 April 1997) requires federal agencies to make it a high priority to identify and assess
19 environmental health and safety risks that may disproportionately affect children; and ensure that its
20 policies, programs, activities, and standards address disproportionate risks to children that result from
21 environmental health or safety risks.

22 The action alternatives would not pose any environmental health and safety risks that may
23 disproportionately affect the general public, including children. Since no significant impacts on
24 environmental resources are expected from the action alternatives, no health and safety risks to
25 children are expected. Under the No Action Alternative, the project area would remain in its current
26 state (i.e., overgrown fallow land with non-native vegetation).

27 4.9.3 Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance

28 Executive Order 13514, (5 October 2009) makes reductions of greenhouse gas emissions a priority of the
29 federal government, and requires federal agencies to develop sustainability plans focused on cost-
30 effective projects and programs. Under this EO, agencies are required to measure, manage, and reduce
31 greenhouse gas emissions toward agency-defined targets, and meet a number of energy, water, and
32 waste reduction targets and sustainability requirements.

33 The action alternatives would increase renewable energy and renewable energy generation on federal
34 property, thus helping to meet sustainability requirements and reduce greenhouse gas emissions.
35 Under the No Action Alternative, no renewable energy would be produced on this property.

1 **4.10 Consistency with the Objectives of Federal, State and County Land Use Policies, Plans**
2 **and Controls**

3 4.10.1 Federal

4 **Commander Navy Region Hawaii Regional Shore Infrastructure Plan Overview Plan**

5 The CNRH *Regional Shore Infrastructure Plan (RSIP) Overview Plan* (2002) represents current Navy land
6 use policy for installations in Hawai'i, and is intended to direct future planning and management
7 decisions. The Long Range Land Use Plan and the accompanying sub-area development plans presented
8 in the *RSIP Overview Plan* provided guidance for appropriate property use within a five- to ten-year time
9 frame. The guiding principles of the plan emphasize:

- 10 • Protection of operational capabilities and mission readiness;
11 • Reduction of shore infrastructure costs and the reuse, divestiture or demolition of
12 underutilized facilities; and
13 • Optimized land use/facility locations.

14 The action alternatives meet the intent of the CNRH RSIP Overview Plan guiding principles by optimizing
15 land use of underutilized properties (leased to a private developer). Through adaptively reusing the
16 project site which contains a portion of former MCAS Ewa Runway #8, the action alternatives are
17 consistent with the CNRH RSIP Overview Plan guiding principles to reuse underutilized facilities and to
18 optimize land use and facility locations.

19 Under the No Action Alternative, the principles of the CNRH RSIP Overview Plan would not be met as
20 land use would not be optimized (i.e., overgrown fallow land with non-native vegetation).

21 **Commander Navy Region Hawaii O'ahu Integrated Cultural Resources Management Plan**

22 The ICRMP (Navy 2008c) designates historic management zones and general planning guidelines to
23 protect and preserve their contributing features. Only select historic buildings and structures continue
24 to retain significance and integrity. Pertinent planning guidelines for such building and structures at
25 Kalaeloa are summarized in Section 4.3.

26 The action alternatives would be consistent with the intent of the planning guidelines that encourage
27 adaptive use of existing historic facilities over building of new structures or demolition. The
28 construction of the REP on the project site (portion of the former MCAS Ewa Runway #8) would be an
29 example of adaptive reuse of an under-utilized, and under-appreciated historic property.

30 Under the No Action Alternative, the guidelines of the ICRMP would not be met as the project site
31 would continue to be overgrown by non-native vegetation.

32 4.10.2 State of Hawai'i

33 **Coastal Zone Management Act**

34 By the exchange of letters dated June 1, 2009 and July 9, 2009, the Navy and the State of Hawai'i's
35 Department of Business, Economic Development and Tourism, Office of Planning respectively proposed
36 and concurred that those activities listed under the "Navy/Marine Corps De Minimis Activities under
37 CZMA" are not subject to further review by the Hawai'i CZMP when such an activity was conducted in
38 compliance with the corresponding "Project Mitigation/General Conditions" (Appendix B).

39 The action alternatives fall within Items 1 and 2 on the *De Minimis* Activity list: "Construction of new
40 facilities and structures wholly within Navy/Marine Corps controlled areas (including land and water)
41 that is similar to present use and, when completed, the use or operation of which complies with existing

1 regulatory requirements” and “acquisition, installation, operation, construction, maintenance, or repair
2 of utility or communication systems that use rights of way, easements, distribution systems, or facilities
3 on Navy/Marine Corps controlled property. This also includes the associated excavation, backfill, or
4 bedding for the utility lines, provided there is no change in preconstruction contours.”

5 The Navy has informed the CZMP of the project and the applicability of the *De Minimis* Activity list to
6 the project. The CZMP has acknowledged receipt of the Navy’s finding (Appendix B).

7 ***Hawai'i Clean Energy Initiative***

8 Hawai'i Clean Energy Initiative (HCEI) calls for the changing of Hawai'i's energy use to where 70 percent
9 of the State's electricity and ground transportation needs come from clean sources by the year 2030. As
10 part of the HCEI, on October 20, 2008, Hawaiian Electric Industries (HEI), the Governor of the State of
11 Hawai'i, the State of Hawai'i Department of Business, Economic Development, and Tourism, and the
12 State of Hawai'i Consumer Advocate signed an agreement that puts Hawai'i on a path to supply 40
13 percent of electricity needs and 70 percent of overall needs (including transportation) using clean
14 sources by 2030 (HCEI 2012). In 2009, the Hawai'i State Legislature enacted Act 155 that establishes a
15 renewable energy portfolio standard of 40 percent by the year 2030.

16 The action alternatives would generate 8,200 mW hours of clean energy per year and, thereby, support
17 the intent of HCEI and Act 155.

18 The No Action Alternative would not generate any clean energy and, therefore, would not support the
19 intent of HCEI and Act 155.

20 **4.11 Short-Term Use and Long-Term Productivity**

21 This section considers the short-term and long-term uses of the under the Proposed Action and other
22 alternatives. “Short-term” refers to the consequences resulting from the construction period of the
23 solar farm; “long-term” refers to the post-construction period. The action alternatives would have the
24 following short- and long-term gains and losses:

- 25 • Short-term negative impacts on air quality and noise during construction under action
26 alternatives;
- 27 • Short-term negative impact to traffic on local roadways during the construction period under
28 the action alternatives; and
- 29 • Short-term economic benefit due to an increase in employment created by the construction
30 period under the action alternatives.

31 Long-term

- 32 • Long term beneficial impact to the climate by providing clean, renewable energy and
33 reducing the contribution of carbon monoxide and green house gases (action alternatives
34 only);
- 35 • Long-term adverse impacts to cultural resources under the action alternatives;
- 36 • Long-term negative impact on the environment due to potential illegal disposal of hazardous
37 and/or regulated materials under the No Action Alternative as a result of overgrown,
38 underutilized property;
- 39 • Long-term negative economic impact resulting from underutilized property under the No
40 Action Alternative;
- 41 • Long-term beneficial impacts to land use compatibility under all alternatives;

- Long-term benefits to HECO by importing less fossil fuels and acquiring more energy security locally; and
- Long-term, minor economic benefits associated with the employment created by the operation of the REP for a period of 20 years.

4.12 Irreversible and Irretrievable Commitments of Resources

Resources that are committed irreversibly or irretrievably are those that cannot be recovered if the action alternatives were implemented. This project would not irreversibly or irretrievably affect historic properties. The action alternatives are temporary in nature with a projected life cycle of only 20 years. At the end of the 20-year period, the use may be continued or removed and replaced with a new use. The build out of the REP under the action alternatives would meet the project’s purpose and need elements. The action alternatives would adaptively reuse and preserve historic assets. Although some changes may alter certain characteristics of the historic assets, they are not perceived to be irreversible. The PV panels themselves are meant to be installed on a temporary racking system using non-penetrating, pre-cast concrete ballasts to support the structure.

The No Action Alternative would maintain the status quo and would not irreversibly or irretrievably commit any resources.

4.13 Means of Mitigating Adverse Effects on Cultural Resources [per Final Programmatic Agreement dated 30 July 2012]

The following summarizes the stipulations, design standards, and measures to be implemented by the Navy and KV to mitigate the Proposed Action’s impacts on historic properties, as stipulated in the PA. The full text of the PA is included in Appendix A2. The Navy’s determination of the effects to historic properties related to the Proposed Action are presented in Section 4.3.

- A. CNRH shall prohibit activity (e.g., new development) that will result in an adverse effect to historic resources within the 1941 Ewa Field installation boundary or areas with extant 1944 MCAS Ewa resources (Ewa Runway #8 and the MCAS Compass Rose) until a formal Determination of Eligibility has been made by the Keeper.
- B. The Navy will initiate preparation of a Determination of Eligibility for submission to the keeper of the Register within three months of conclusion of review under the National Environmental Policy Act.
- C. KV will implement design modifications, with written concurrence of SHPO, to minimize physical/visual impacts to historic resources.
- D. KV and the Navy will conduct on-site monitoring for archeological and/or historic resources during all ground-disturbing activities.
- E. KV will improve opportunities for visitation to and interpretation of the concrete warm-up platform by removing and keeping the site clear of all vegetation and debris.
- F. KV will provide a financial contribution of up to \$20,000 to be used by an “Affiliate Group” for the long-term public interpretation and commemoration of Ewa Field’s history and role in the events of World War II, and particularly the events of December 7, 1941.
- G. KV will be responsible for all maintenance of the site and improvements thereto, including access routes.
- H. KV will remove all installed components (including utility poles) and restore the site to its original condition as deemed satisfactory to the Navy and SHPO at the end of their useful life, when no longer needed, or upon the end of the KV-LLC sublease term, whichever occurs first.

- 1 I. KV and the Navy will monitor and report to all parties of the PA on activities and status of the
2 stipulations.

1 **5.0 AGENCIES AND ORGANIZATIONS CONSULTED**

2 Public meetings pertaining to the project were held on 19 July 2011 and 4 August 2011. The following
3 agencies, organizations, and individuals were consulted as part of the Section 106 consultation process:

- 4 • Advisory Council on Historic Preservation
- 5 • Department of Land and Natural Resources, Historic Preservation Division
- 6 • Kalaeloa Ventures, LLC (KV)
- 7 • 'Ewa Beach Community Association
- 8 • Hawai'i Community Development Authority
- 9 • Hawai'i Aviation Preservation Society
- 10 • Hawai'i Museum of Military Vehicles
- 11 • Hawaiian Railway Society
- 12 • Historic Hawai'i Foundation
- 13 • Honolulu City Council Member (Mr. Tom Berg, District 1)
- 14 • Mr. Mike Lee
- 15 • Ms. Marissa Capelouto
- 16 • Military Stables.Com
- 17 • National Trust for Historic Preservation
- 18 • Naval Air Museum Barber's Point
- 19 • O'ahu Island Burial Council
- 20 • Office of Hawaiian Affairs
- 21 • Pacific War Memorial Association
- 22 • Save 'Ewa Field

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1 **6.0 LIST OF PREPARERS**

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1 **7.0 REFERENCES**

- 2 AECOM and Mason Architects Inc. 2011. *Battlefield Evaluation of Ewa Field and Inventory and Historic*
3 *Contexts*. March 2011.
- 4 Airnav.com. 2011. <http://www.airnav.com/airport/PHJR>. Accessed June 2011.
- 5 City and County of Honolulu. 1997. *'Ewa Development Plan*. City and County of Honolulu Planning
6 Department. August 1997.
- 7 _____.2009. *Annual Report of the Status of Land Use on O'ahu, Fiscal Year 2008*. City and County
8 of Honolulu Department of Planning and Permitting. December 2009.
- 9 _____.2010. *Tsunami Evacuation Zone Maps*. City and County of Honolulu Department of
10 Emergency Management.
11 http://www1.honolulu.gov/dem/draft_tsunami_evacuation_zone_maps_.htm accessed 23 June
12 2011.
- 13 _____.2011. *Draft 'Ewa Development Plan*. City and County of Honolulu Planning Department.
14 May 2011.
- 15 Department of Business and Economic Development (State of Hawai'i). 2007. Profile of Hawai'i-Based
16 Armed Forces. Pamphlet from the Research and Economic Analysis Division, January.
- 17 _____.2010. *State of Hawaii Energy Resources Coordinator's Annual Report*. 44.
- 18 _____.2011. *DP-1, Honolulu, County, Hawai'i: Profile of General Population and 2010 Demographic*
19 *Profile Data*,
20 [http://hawaii.gov/dbedt/info/census/Census_2010/demographic/2010_Census_Demo_Profile.p](http://hawaii.gov/dbedt/info/census/Census_2010/demographic/2010_Census_Demo_Profile.pdf)
21 [df](http://hawaii.gov/dbedt/info/census/Census_2010/demographic/2010_Census_Demo_Profile.pdf).
- 22 Federal Emergency Management Agency. 2011. *National Flood Rate Map. Flood Insurance Rate Map.*
23 *Community Panel Numbers 15003C0311G, 15003C0312G, 15003C0316G, and 15003C0317G.*
- 24 Ford Island Ventures , LLC and Hawai'i Community Development Authority (HCDA) (State of Hawai'i).
25 2010. *Draft Kalaeloa Master Plan – Infrastructure Master Plan Updates*. Prepared for Ford
26 Island Ventures, LLC and HCDA. Prepared by Belt Collins, Hawaii Ltd. October 2010.
- 27 Hawai'i Clean Energy Initiative 2012. <http://www.hawaiicleanenergyinitiative.org/about/>
- 28 HCDA. 2005. *Kalaeloa Strategic Plan 2005-2010*. May 2005.
- 29 _____.2006. *Kalaeloa Master Plan*. Prepared by Belt Collins Hawai'i, Ltd. March 2006.
- 30 _____.2011. Letter from HCDA to Hunt Development Corp. Dated 9 September 2011.
- 31 Helber Hastert & Fee Planners, Inc. (HHF). 1997. *Naval Air Station Barbers Point Community*
32 *Redevelopment Plan*. Prepared for the Barbers Point Redevelopment Commission 1997. March
33 1997.
- 34 Lau, L. Stephen and John Mink, 2006. *Hydrology of the Hawaiian Islands*. University of Hawai'i Press,
35 Honolulu, Hawai'i.
- 36 Lee, Mike, 2011. Personal communication with Mr. Mike Lee and NAVFAC Hawaii.
- 37 Mink, John and L. Stephen Lau. 1990. *Aquifer Identification and Classification for O'ahu: Groundwater*
38 *Protection*. Water Resources Research Center, University of Hawai'i. 1990.

- 1 Scatec Solar North America, Inc. and Hunt ELP, LTD. 2011. *Kalaeloa Renewable Energy Park Project*.
2 Project Package for U.S. Department of Navy. September 29, 2011.
- 3 State of Hawai'i Department of Education, Planning Section, Facilities Development Branch. 2007. *2006-*
4 *2012 Actual and Projected Enrollment Leeward District*. Facsimile memo dated June 27, 2007.
- 5 State of Hawai'i Department of Transportation. 1998. *Kalaeloa Airport Master Plan*. November 1998.
- 6 Stearns, H.T. 1985. *Geology of the State of Hawai'i*. Second Edition. Pacific Books, Palo Alto, California.
- 7 TEC Inc. 2011. *Kalaeloa Solar One and Two*. Prepared for Keahole Solar Power, LLC. January 2011.
- 8 Tuggle, H.D. and M.J. Tomonari-Tuggle. 1997a. *A Cultural Resource Inventory of Naval Air Station,*
9 *Barbers Point, O'ahu, Hawai'i. Part I: Phase I Survey and Inventory Summary*. Prepared for the
10 Department of the Navy, Pacific Division, Naval Facilities Engineering Command (NAVFAC PAC)
11 under contract with Belt Collins Hawai'i. International Archaeological Research Institute, Inc.,
12 Honolulu.
- 13 _____ .1997b. *Synthesis of Cultural Resource Studies of the 'Ewa Plain, Task 1a: Archaeological*
14 *Research Services for the Proposed Cleanup, Disposal and Reuse of Naval Air Station, Barbers*
15 *Point, O'ahu, Hawai'i*. Prepared for NAVFAC PAC under contract with Belt Collins Hawai'i.
16 Prepared by International Archaeological Research Institute, Inc., Honolulu.
- 17 _____ .2004. *A Study of Potential Native Hawaiian Traditional Cultural Places, Navy Region Hawaii*.
18 Prepared for NAVFAC PAC. Prepared by International Archaeological Research Institute, Inc.,
19 Honolulu.
- 20 United States (U.S.) Department of Agriculture. 1972. *Soil Survey of the Islands of Kaua'i, O'ahu, Maui,*
21 *Moloka'i, and Lāna'i, State of Hawai'i*. Prepared for the U.S. Department of Agriculture, Soil
22 Conservation Service in Cooperation with the University of Hawai'i Agricultural Experiment
23 Station. Prepared by Donald E. Foote *et al.* August 1972.
- 24 U.S. Department of the Navy (Navy). 1994. *NAS Barbers Point Final Environmental Baseline Survey*.
25 Prepared for NAVFAC PAC. Prepared by Environmental and Energy Services Co., Inc. June 1994.
- 26 _____ .1999a. *Final Environmental Impact Statement for the Disposal and Reuse of Naval Air*
27 *Station Barbers Point*. Prepared for NAVFAC PAC. Prepared by Belt Collins. February 1999.
- 28 _____ .1999b. *Cultural Resources Management Plan (CRMP) Naval Air Station Barbers Point O'ahu,*
29 *Hawai'i*. March 1999. Prepared for NAVFAC PAC. Prepared by International Archaeological Research
30 Institute, Inc., Honolulu.
- 31 _____ .2002a. *Final Programmatic Environmental Impact Statement Ford Island Development*.
32 Prepared for NAVFAC PAC. Prepared by Belt Collins Hawai'i. January 2002.
- 33 _____ .2002b. *COMNAVREG Hawaii RSIP Overview Plan*. Prepared for NAVFAC PAC. Prepared by
34 HHF. November 2002.
- 35 _____ .2006. *Survey of Birds for the Integrated Natural Resources Management Plan, O'ahu*
36 *Complex, O'ahu, Hawai'i*. Prepared by NAVFAC PAC (Vanessa Pepi). 2006.
- 37 _____ .2008a *Final Environmental Condition of Property Non-BRAC Property Parcels: B4-1, B4-2, B4-*
38 *3, B1-B, B4-5, B4-6, B4-7, B4-8, B4-9, B4-10, B4-11, B4-12, B4-13, B4-14, B4-15A, B4-15B, B4-16,*
39 *B4-17, B4-18, B4-19, B4-20, B4-21, B4-22, B4-23, B4-24, B4-25 and the Credit Union Parcel*
40 *Kalaeloa, O'ahu, Hawai'i*. Prepared for Naval Facilities Engineering Command (NAVFAC) Hawaii.
41 Prepared by Environmental Science International, Inc. May 2008.

- 1 _____ .2008b. *Environmental Assessment, Conveyance of Navy-retained Land and Utilities, Kalaeloa,*
2 *O'ahu, Hawai'i.* Prepared for Commander Navy Region Hawaii. Prepared by HHF. August 2008.
- 3 _____ .2008c. *O'ahu Integrated Cultural Resources Management Plan (ICRMP).* Prepared for
4 NAVFAC PAC and NAVFAC Hawaii. Prepared by HHF. October 2008.
- 5 _____ .2011. *Final Integrated Natural Resource Management Plan Joint Base Pearl Harbor-Hickam,*
6 *O'ahu, State of Hawai'i.* Prepared for NAVFAC PAC. Prepared by HHF. September 2011.
- 7 Whistler, Art. 2008. *Botanical Surveys for 'Akoko on Seven Parcels at Kalaeloa, O'ahu.* Prepared for HHF.
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**APPENDIX A
NATIONAL HISTORIC PRESERVATION ACT SECTION 106
DOCUMENTATION**

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APPENDIX A1
24 OCTOBER 2011 FINAL DETERMINATION OF EFFECT

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DEPARTMENT OF THE NAVY
COMMANDER
NAVY REGION HAWAII
850 TICONDEROGA ST STE 110
JBPHH, HAWAII 96860-5101

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October 24, 2011

CERTIFIED MAIL NO. 7010 0290 0002 1769 6864

Ms. Pua Aiu, PhD.
Administrator
Department of Land and Natural Resources
State Historic Preservation Division
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, HI 96707

Dear Ms. Aiu:

**SUBJECT: SECTION 106 CONSULTATION FOR PROPOSED KALAELOA RENEWABLE
ENERGY PARK, OAHU, HAWAII.**

Pursuant to Section 106 of the National Historic Preservation Act, the Navy requests your review of the proposed Kalaeloa Renewable Energy Park (Barber's Point), Oahu, Hawaii. In accordance with the implementing regulations for Section 106 of the National Historic Preservation Act (NHPA), we have reviewed the project and determined that it is an undertaking as defined in 36 CFR 800.16(y).

Project Description

This project proposes to construct a 5.91 MW photovoltaic (PV) field array on approximately 20 acres of land at Kalaeloa, a location selected for its high solar radiation output. Consultation for this Undertaking is being led by the Navy on behalf of Ford Island Ventures (FIV), the current lessee. The proposal includes a sublease by FIV to the Kalaeloa Renewable Energy Park LLC, a company formed to develop this PV project.

The proposed site is on a stretch of land south of the 1941 Ewa Field Runway. This "panhandle" location affords the opportunity to construct this important renewable energy project while avoiding the historic runway known to be one of the first sites attacked on December 7, 1941. Due to known historic resources and any potential for archeological finds, the project has been designed to incorporate fully reversible and modern renewable energy features while minimizing ground penetrations or excavations.

An initial proposal to locate the installation on the 1941 Ewa Field Runway is no longer being considered. The "Panhandle" proposal outlined herein is the Undertaking currently under consideration. Refer to *Figure 1* for alternative locations considered.

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Figure 1: Alternatives Considered

The proposed undertaking for development of the "Kalaeloa Renewable Energy Park" includes installation of the following (*ground-disturbing activities identified in italics*):

- Approximately 21,000 Photovoltaic (PV) polycrystalline panels installed on a fixed-axis modular racking system that uses non-penetrating concrete ballasts. The height of panels is approximately three feet (3'). *Minimal grubbing and grading will be required to provide an acceptable surface for the racking system.*
- Mechanical building, approximately 140 square feet (10' x 14') in area and eight feet (8') in height. *Excavation of between 12" to 18" will be required to prepare for poured-in-place concrete slab foundation.*
- Ten power centers, each containing two inverters and auxiliary equipment and measuring approximately 352 square feet (16' x 22') in area and six feet (6') in height. Connections between power centers will be made via above-ground conduit. *Excavation of between 12" to 18" will be required to prepare for poured-in-place concrete slab foundation.*
- Eight-foot (8') high chain-link perimeter fence with posts spaced at ten feet (10') on center. *Fence post footings will be excavated to a depth of three feet and six inches (3'-6").*

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- A two-inch (2") water line extending approximately 1,700 feet through the middle of the array and within the existing communication line easement. *Narrow trenching will require excavation to a depth of approximately one foot (1').*
- Landscaped buffer native trees and plants around perimeter of project.
- Golf ball net approximately thirty feet (30') high with twelve inch (12") diameter poles spaced at approximately sixty feet (60') on center. *Pole footings will be excavated to an estimated depth of four to five feet (~4'-5').*
- High-voltage (46kV) overhead transmission line connecting to HECO power grid. Poles of approximately 50' in height, along property line and/or within existing road rights-of-way. *Pole footings will be excavated to a depth of five to six feet (5'-6').*
- Twelve-foot (12') wide unpaved access/maintenance road along the path of the overhead transmission line and through the middle of the array. *Minimal grubbing and grading will be required to provide an acceptable surface for the road.*

Additional information may be found in the Project Proposal (Enclosure 1) as well as a supporting Battlefield Inventory and Evaluation (Enclosure 2) included herein.

Area of Potential Effect

The Area of Potential Effect (APE) has been determined based on the location of project components as well as offsets dependent on component heights. An offset of 1,000-foot (radius) has delineated the visual APE around all potential locations for utility poles and a 50-foot offset has delineated the visual APE around all other above-ground energy components. Refer to Enclosure 3 for APE as well as the historic properties identified within that APE.



The APE was defined with guidance from the Navy's core historic preservation partners as well as through research of comparable installations (i.e., utility lines/poles) that have been evaluated under the NHPA as well as under the National Environmental Policy Act (NEPA).

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Identification of Historic Properties

Past cultural resource investigations (refer to List of References (Enclosure 4) as well as a more recent Environmental Assessment for the "Conveyance of Navy Retained Land and Utility Systems" prepared in August 2008 have been used to identify historic resources in and around the APE. Identified resources within the APE include various foundations and sites at the Ewa Field Installation associated with December 7, 1941; portions of the WWII (1945) Marine Corps Air Station (MCAS) Ewa Installation, including portions of Runway #8, the Compass Rose, and Revetments #1 and #2; and three Cold War era structures. No native Hawaiian archeological sites have been identified within the APE, but the Navy acknowledges that archeological investigations for military sites have not yet been completed.

The following provides a synopsis of individual resources -- refer to Inventory section of Enclosure 2 for more detailed information and graphic/documentary information:

▪ **Ewa Field Runway / Warm-up Platform (1941)**

An X-shaped airfield runway with arms 300' wide and varying in length from 900' to 1600'. The northwest runway has aircraft tie downs at 20' intervals and was used as a parking apron. The runways and parking surfaces have a surface of macadam that is largely obscured at present by invasive vegetative growth. A 300' wide concrete aircraft warm-up platform lies along the south edge of the northwest parking apron.

A 1941 aerial photo shows that at least 44 aircraft were located at the site. Over 30 of these aircraft were either destroyed or rendered inoperable by the Japanese on December 7, 1941.

▪ **Ewa Field Entrance Road (1941)**

Asphalt-paved entrance road, partially extant, leading south from Roosevelt Avenue. The road originally provided access to sites/structures no longer extant, including a mooring mast, mess hall, camp area, tents, dispensary and sick bay, support structures, and parking lot.

▪ **MCAS Ewa Runway #8 (1944)**

Asphalt-paved runway constructed as part of the WWII expansion of Ewa Field to become MCAS Ewa. Runway is approximately 300' wide and is largely obscured at present by invasive vegetative growth.

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▪ **MCAS Ewa Compass Rose (1944)**

Surface-treated concrete pad 200' square with a 10' diameter raised concrete pad at center. Radiating from the 10' diameter pad are the ghosts of 24 painted lines that formed the compass points.

The radial lines of the compass rose are aligned to the points of the compass and were used to calibrate the magnetic compass of aircraft. The aircraft would taxi to the center of the rose and, with its engine running, would be rotated through the compass points of the rose to confirm or correct compass readings in the aircraft.

The Compass Rose was originally accessed by aircraft via driveways at its east and west ends that connected to north-south Runway 17 (east end) and the taxiway along northeast-southwest Runway 21 (west end).

▪ **MCAS Ewa Revetments #1 and #2 (1942-3)**

Two of 75 extant vaulted reinforced concrete aircraft revetments constructed as part of the WWII expansion of MCAS Ewa. The half-dome structures measure approximately 18' high, 55' wide, and 40' deep. The revetments are in good conditions and several are currently under lease for use as horse stables.

The revetment district was determined potentially eligible, under Criteria A and C, for listing on the National Register of Historic Places in 1997.

▪ **Administration Building #972 (1958)**

Two-story concrete Cold War structure built as the administrative center of the Pacific Barrier program, and later serving as the headquarters of the Pacific Antisubmarine Patrol Wing. The International Style structure is considered potentially eligible for the National Register of Historic Places under Criterion A.

▪ **SOSUS Operations Building #1767 (1960)**

Single-story concrete building constructed to support the sound surveillance of underwater listening posts during the Cold War. The structure is considered potentially eligible for the National Register of Historic Places under Criterion A.

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▪ **SOSUS Power Plant Building #1768 (1960)**

Single-story concrete building constructed to support the sound surveillance of underwater listening posts during the Cold War. The structure is considered potentially eligible for the National Register of Historic Places under Criterion A.

▪ **Archeological Resources**

The proposed project Location and APE has undergone extensive modifications as a cattle ranching, sugarcane and sisal cultivation, and military installation. No archaeological sites have previously been identified in the proposed panhandle location. Initial settlement of the Ewa plain probably occurred between AD 1200-1400 to exploit fishing resources and the hunting of birds. The majority of pre-Contact sites are concentrated along the coastal zone. The closest cultural resources include Site 3721, a traditional Hawaiian habitation complex consisting of stone structures, and Site 3722, sisal walls (Welch 1987). These sites are located north across the existing Ewa Runway.

No WWII military sites surveyed to date were identified in the proposed panhandle location. The closest WWII features are Site 5127, the Ewa Runway, and Site 5128, the remnant concrete footings, foundations, and pads. Site 5127 is located to the north and west of the project area, and a portion of Site 5128 (remnants of the administration complex of MCAS Ewa) is located south of the project area. Several Consulting Parties have identified the need to conduct additional investigations related to military archeology, citing the lack of physical investigations to date.

Section 106 Consultation

Due to the high level of public interest, consultation for this Undertaking was initiated with your office on 28 June 2011 (with provision of the original "runway" proposal and supporting "Battlefield Evaluation and Inventory" report); and the proposed project was presented to the public at a Public Informational Meeting on 19 July 2011.

Section 106 review was formally initiated at a public meeting on 04 August 2011. The project proposal and supporting documents were provided (either in hard copy or on compact disc) to all in attendance as well as via the Navy Region Hawaii website. At the initiation meeting, a 30-day public comment period was announced, with any

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feedback in response to the provided documentation requested by 06 September 2011.

A total of 71 comments were received within 30 days (provided to all Consulting Parties under separate cover), with a vast majority of 49 explicitly requesting that an alternate location off of the Ewa Field 1941 Runway be considered as a way of avoiding adverse impacts to the resource (nine supported the runway location, five supported the renewable energy project but were undecided with regard to location, and eight contained statements not specific to the Undertaking). As a result of those comments as well as discussions held at Consulting Party meetings on 30 August and 13 September 2011, the Navy recommended to Ford Island Ventures that they consider other lands at the site and offered them guidance if choosing to revise their proposal in response to comments.

The proposed Undertaking that is the subject of this review represents the revised proposal received by FIV on 29 September 2011. A third consulting party meeting was held on 06 October to review the revised proposal. This Determination letter and the proposed response measures outlined in the last section of this letter reflect the discussions and outcome of that last consulting party meeting.

Determination of Adverse Effect

It is the determination of the Navy that this Undertaking will cause an adverse effect on historic properties within the APE. The following identifies potential effects, by historic resource:

▪ **Ewa Field Runway / Warm-up Platform**

The Undertaking may cause an adverse direct/physical effect on the historic Ewa Field Runway surface if any poles for the transmission line that traverses the southeast runway cannot be re-routed.

The Undertaking will cause an adverse visual effect on the runway, resulting primarily from power poles and overhead transmission line.

▪ **Ewa Field Entrance Road**

The Undertaking will not cause an adverse direct/physical or visual effect on the historic Entrance Road. Due to dense vegetation and distance, it is unlikely that power poles and overhead transmission line will be visible from the road.

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▪ **MCAS Ewa Runway #8**

The Undertaking will cause an adverse direct/physical and visual effect on the historic MCAS Ewa Runway, obscuring it both visually and physically with the installed PV array. There will also be an adverse visual effect resulting from power poles and overhead transmission line.

▪ **MCAS Ewa Compass Rose**

The Undertaking will cause an adverse visual effect on the historic Ewa Field Runway, resulting primarily from power poles and overhead transmission line. No direct/physical adverse effects will result.

▪ **MCAS Ewa Revetments #1 and #2**

The Undertaking will not cause an adverse physical or visual effect on the historic Revetment District. Due to dense vegetation and low profile of PV components in close proximity to the Revetments, it is unlikely that any project elements will be visible from the site.

▪ **Administration Building #972**

The Undertaking will cause an adverse visual effect, resulting primarily from power poles and overhead transmission line. No direct/physical adverse effects will result.

▪ **SOSUS Operations Building #1767**

The Undertaking will cause an adverse visual effect, resulting primarily from power poles and overhead transmission line. No direct/physical adverse effects will result.

▪ **SOSUS Power Plant Building #1768**

The Undertaking will cause an adverse visual effect, resulting primarily from power poles and overhead transmission line. No direct/physical adverse effects will result.

▪ **Archeological Resources (Native Hawaiian)**

Based on the absence of any known historic properties within the Alternative Panhandle Location, together with extensive previous ground disturbing activities, the proposed Undertaking will not

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affect any Native Hawaiian archeological resources. However, as a precaution and in compliance with the 2008 O'ahu ICRMP, archaeological monitoring shall be conducted for all ground disturbing activities associated with the subject undertaking.

▪ **Archeological Resources (Military)**

Due to the limited survey data for military archeological resources, it is unknown if any excavations will cause adverse effects to these resources.

Proposed Ways to Avoid, Minimize, or Mitigate Adverse/Unknown Effects

As a result of Section 106 consultation with your office and other Consulting Parties (refer to Enclosure #5 for List of Consulting Parties), we propose the following ways to avoid, minimize, or mitigate the potential adverse effects.

- Limit activity (i.e., no new development) within the 1941 Ewa Field installation boundary or in areas of extant MCAS Ewa resources until a formal Determination of Eligibility (DOE) has been made by the Keeper of the Register.
 - DOE will be a Navy action to begin within six months of conclusion of this Section 106 review.
 - DOE will include a final proposed battlefield boundary developed in collaboration with SHPD and the National Park Service Battlefield Protection Program.
- Implement the following design modifications to minimize physical/visual impacts:
 - Retain non-penetrating, low-profile racking/panel PV system
 - Use black chain link fencing in lieu of galvanized.
 - Align power poles within easements and rights-of-way for existing power lines.
 - Explore agreements with adjacent landowners that may eliminate transmission line crossing of southeast runway corner.
 - Limit height of power poles and perimeter fence to minimum acceptable/safe standard [dependent on HECO engineering].
 - Provide temporary protection of identified historic resources during construction, particularly when work is in close proximity (i.e., Power Line installation near Compass Rose).
 - Use vegetation to visual screen photovoltaic array, particularly adjacent to Revetment district and golf course.

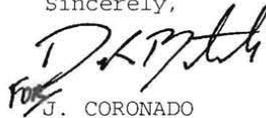
5750
Ser N45/ 1412
October 24, 2011

- Perform on-site archeological monitoring for all ground-disturbing activities; and in collaboration with SHPD archeologist and the National Park Service Battlefield Protection Program, develop a remote sensing testing plan to aid in defining WWII battlefield boundaries and event locations.
- Improve access to the concrete warm-up platform by removing and keeping clear of all vegetation and debris. Allow scheduled visitation/use for non-profit groups [that maintain corporate liability insurance] to facilitate interpretation and commemorative activities at the site.
- Provide financial support (contribution pledge from FIV) to initiate development of an *Ewa Field Task Force* focusing on Ewa Field's History and role in the events of December 7, 1941. This Task Force will perform the following:
 - Serve as the lead entity for future public-benefit partnerships with the Lessees.
 - Evaluate opportunities for interpretation/commemoration.
 - Perform financial accounting of contributions and related fundraising efforts.
 - Maintain liability insurance and record of visitors to the site.
 - Coordinate with Lessees to establish protocols for access to U.S. Government owned/leased lands.

5750
Ser N45/1412
October 24, 2011

The Navy supports this important renewable energy project and greatly appreciates the level of effort and participation shown by your office to date. Should you have any questions regarding this proposed Undertaking, please contact Ms. Ellyn Goldkind, Historic Preservation Officer, Naval Facilities Engineering Command Hawaii at 808-471-1171, x356 or e-mail at ellyn.goldkind@navy.mil.

Sincerely,



J. CORONADO
Captain, CEC, U.S. Navy
Regional Engineer
By direction of the Commander

- Enclosures:
1. Project Proposal "Kalaeloa Renewable Energy Park Project" (29 September 2011, revised)
 2. "Battlefield Evaluation of Ewa Field and Inventory of Historic Contexts" (March 2011)
 3. Area of Potential Effect and Identified Historic Properties
 4. List of References
 5. List of Section 106 Consulting Parties

Copy to: Section 106 Consulting Parties, *see attached list*
(Enclosure #5)

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APPENDIX A2
30 JULY 2012 FINAL PROGRAMMATIC AGREEMENT

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30 July 2012
[Amended and Restated]

**PROGRAMMATIC AGREEMENT (PA)
AMONG
THE COMMANDER NAVY REGION HAWAII,
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION,
THE HAWAII STATE HISTORIC PRESERVATION OFFICER, KALAELOA
VENTURES LLC, AND THE KALAELOA RENEWABLE ENERGY PARK LLC
REGARDING THE PROPOSED
KALAELOA RENEWABLE ENERGY PARK**

WHEREAS, pursuant to the 07 Dec 2001 Ford Island Programmatic Agreement (Attachment A), Commander Navy Region Hawaii (CNRH) shall initiate consultation under 36 CFR § 800.6 for any undertaking that may have an adverse effect on a property eligible for listing on the National Register of Historic Places; and

WHEREAS, Kalaeloa Renewable Energy Park, LLC (LLC), proposes to sublease for a term of 21 years roughly twenty (20) acres of land from Kalaeloa Ventures, LLC (KV) *[Formerly Ford Island Ventures]* that KV leases from the United States Navy pursuant to a lease dated October 6, 2008; and

WHEREAS, CNRH and KV agree by their signatures hereto, for themselves and any assignees of their interests under such lease, that such lease from the United States Navy as it applies to the 20 acres of land subleased to LLC will be subject to any applicable provisions of this Programmatic Agreement throughout its term; and

WHEREAS, LLC proposes to construct an approximately 5.91 MW photovoltaic (PV) field, including utility transmission line and support structures, at Kalaeloa - Barber's Point (Attachment B – Project Proposal) to generate approximately 8,200,000 kW hours per year of clean electricity which will be sold to local utility Hawaiian Electric Company (HECO) through a long-term (20-year, renewable/extendable) Power Purchase Agreement between LLC and HECO dated November 22, 2011 (PPA); and

WHEREAS, the proposed PV field and related components will be maintained and operated by LLC for the full useful life of the system, estimated to be a period of approximately twenty (20) years; and

WHEREAS, CNRH has determined the proposed construction constitutes an Undertaking subject to review under Section 106 of the National Historic Preservation Act (NHPA), 16 U.S.C. §470f, and its implementing regulations, 36 CFR 800; and

WHEREAS, pursuant to 36 CFR §800.4, CNRH has established the Area of Potential Effects (APE), as defined in 36 CFR §800.16(d), of the Undertaking, as shown in project site map (Attachment C); and

WHEREAS, CNRH has determined that the Undertaking will have an adverse effect on the Ewa Field Runway and Warm-up Platform (1941), MCAS Ewa Runway #8 (1944), and MCAS Ewa Compass Rose (1944), which are being treated as eligible for the National Register of Historic Places (Register) for Section 106 purposes until a formal Determination of Eligibility has been made by the Keeper of the Register (Keeper); and

Kalaeloa Renewable Energy Park Programmatic Agreement

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WHEREAS, there are no known archaeological resources eligible for the National Register of Historic Places within the APE; and

WHEREAS, the 1825 Lt. Malden map of Kalaeloa depicting the freshwater spring of Hoakalei, a U.S. Geological Survey map of 1927-30 depicting water holes, and a 1943 Territory of Hawaii Department of Engineering map depicting the continued existence of water holes, all support a belief by some Hawaiians that the 'Ewa Karst system is present throughout the Kalaeloa area; and

WHEREAS, some Hawaiians believe the 'Ewa Karst system serves as a repository for Native Hawaiian burial sites, cultural remains, and fresh water deposits that replenish and nurture coastal limu; and

WHEREAS, some Hawaiians believe the coastal limu provides traditional and customary medicine and sustenance for the Native Hawaiian population and is also the foundation of the food cycle for marine invertebrates such as 'opihi, mollusks, and Ha'uki'uki, wana, and pu'umo'o, or chiton used in the Mawaewae ceremony.

WHEREAS, pursuant to 36 CFR §800.3, Initiation of the Section 106 Process, members of the public have been notified and consulted on the Undertaking through a public information meeting on 19 July 2011; and consultation meetings on 4 August 2011, 30 August 2011 (including a site tour), 13 September 2011, 06 October 2011, 08 November 2011, and 05 January 2012; and

WHEREAS, CNRH has consulted with the Hawaii State Historic Preservation Officer (SHPO) pursuant to 36 CFR §800.6(a); and

WHEREAS, pursuant to 36 CFR §800.6(a)(1), CNRH has notified the Advisory Council on Historic Preservation (ACHP) and invited the ACHP to sign this Programmatic Agreement (PA) as a Signatory; and

WHEREAS, pursuant to 36 CFR §800.6(c)(2), CNRH has invited KV and LLC to sign this PA as Invited Signatories; and

WHEREAS, pursuant to 36 CFR §800.6(c)(3), CNRH has invited all Consulting Parties (Attachment D) to participate in the consultation and to sign this PA as Concurring Parties; and

WHEREAS, the National Park Service has participated in the consultation by providing technical assistance to the Navy and Consulting Parties; and

NOW, THEREFORE, CNRH and the Hawaii SHPO agree that upon CNRH's decision to proceed with the Undertaking, CNRH shall ensure that the following stipulations are implemented in order to take into account the effects of the Undertaking on the affected historic properties.

Kalaeloa Renewable Energy Park Programmatic Agreement

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[Amended and Restated]

Stipulations

Signatories, as identified, shall be responsible for ensuring implementation of the following stipulations:

I. KALAELOA RENEWABLE ENERGY PARK

- A. Following the procedure outlined below, CNRH shall prohibit activity (e.g., new development exclusive of the Undertaking) that will result in an adverse effect to historic resources within the 1941 Ewa Field installation boundary or areas with extant 1944 MCAS Ewa resources (Ewa Runway #8 and the Compass Rose) until a formal Determination of Eligibility (DOE) has been made by the Keeper (refer to Attachment C – APE map with areas outlined/labeled as “Ewa Field – 1941 Perimeter Fenceline” and “MCAS Runway #8”).
- LLC shall provide to the Navy for a 30-day review period both the Preliminary and Final Construction documents, including standard installation details. Professionals meeting the Secretary of the Interior Professional Qualification Standards shall approve the design prior to the start of construction. Any required changes from the proposal shall be provided by the Navy to the Signatories of the subject PA to review for any potential adverse effects.
 - Proposals for work outside the scope of the proposed Undertaking shall be submitted to the Navy for separate review under Section 106. Activities determined adverse by SHPO will not be permitted within the 1941 Ewa Field installation boundary (perimeter fence line).
- B. The Navy will initiate preparation of a DOE within three months of conclusion of review under the National Environmental Policy Act (NEPA).
- Within three months of execution of this PA, the Navy shall provide to all Consulting Parties a schedule for development of the DOE.
 - Pursuant to 36 CFR §63.2(c) through (e), the Navy shall complete the DOE and submit to the Keeper within 12 months from conclusion of NEPA review. If the Keeper determines that additional information is required, the Navy shall revise the DOE and provide any additional information within six months from receipt of notification by the Keeper.
 - Completion of the DOE for the battlefield cultural landscape and archeological resources will include a proposed Ewa Battlefield boundary.
 - In consultation with SHPO archaeologist and the National Park Service American Battlefield Protection Program (NPS-ABPP), the Navy will develop a remote sensing testing plan and a standard/systematic archeological testing plan to aid in defining World War II battlefield boundaries and event locations.
 - The Navy and the KV will be responsible for implementation of the testing plans, the documentation and evaluation, and for reporting findings on a quarterly basis to the SHPO and other Consulting Parties.

Kalaeloa Renewable Energy Park Programmatic Agreement

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[Amended and Restated]

- If determined eligible, the Navy will support nomination (by others) of the Ewa Field Battlefield to the National Register of Historic Places. Support will include providing technical assistance, review of draft nominations and supporting documents, research/documentation assistance, and access to all archival materials. The Navy Region Hawaii Historic Preservation Officer will forward the nomination to the Navy's Federal Preservation Officer for review and action, pursuant to applicable sections of 36 CFR 60.
 - The Navy will make accessible to any interested party all research and archival records that relate to Ewa Mooring Mast Field, MCAS Ewa, and NAS Barber's Point; and will provide copies of all to the Affiliate Group referenced in Stipulation I.F of this PA.
- C. LLC will implement design measures, with written concurrence of SHPO, to minimize physical/visual impacts to historic resources:
- Use non-penetrating, low profile racking/panel PV system. Install system in a way that will minimize adverse effects on the site and be fully reversible.
 - Use black fencing in lieu of uncoated galvanized fencing.
 - Use golf netting that has low visibility due to color/weave.
 - Align power poles within easements and rights-of-way for existing power lines, where feasible.
 - LLC shall explore agreements with adjacent landowners and HECO that may eliminate transmission line and access roads crossing of southeast runway corner or better integrate into the utility company's plans for providing service to the greater Kalaeloa area. LLC shall report in writing to CNRH, in 30 day intervals after execution of this PA and prior to initiating construction, summarizing the following: (a) routes evaluated, (b) entities consulted, (c) criteria for evaluation, (d) compatibility with HECO planned grid for the Kalaeloa Master Plan area, and (e) determination of feasibility; and CNRH will forward reports to Consulting Parties within five business days. Potential routes to be considered include, but are not limited to, the following:
 - East of the site along Coral Sea Road/(planned) North-South Road Extension
 - East-west along Bismarck Sea Road
 - Essex Road, coordinating with larger area plans for infrastructure/utility development
 - Along existing arterial roads and circulation routes within the extant MCAS Ewa installation
 - Limit height of power poles (currently proposed to be 50 feet) and perimeter fence to minimum acceptable/safety standards (dependent on HECO engineering). Use single, standard wood power poles (or painted brown/black metal poles if required by building code/HECO engineering standards) and black vinyl-coated fencing. Utility installations shall be limited to those for the sole purpose of the proposed Undertaking.

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[Amended and Restated]

- Provide a Temporary Protection Plan to Navy and SHPO for work performed ~~is~~ in close proximity to identified historic resources (e.g. PV installation near south end of 1941 Runway, high voltage line installation near Compass Rose). Work shall not commence until the Temporary Protection Plan is approved by Navy and SHPO. Review of the Plan shall be completed within twenty-one (21) calendar days of receipt. Refer to Attachment C, map showing the Area of Potential Effect and historic resources therein.
 - Use vegetation to visually screen photovoltaic array, particularly adjacent to WWII Revetment district (to the south) and golf course (to the east).
- D. LLC and the Navy will conduct on-site monitoring for archeological and/or historic resources during all ground disturbing activities.
- Monitoring will be conducted by individuals who meet the Secretary of the Interior's Professional Qualification Standards for Archeologists, Architectural Historians, or Historical Architects, as appropriate to the resources.
 - Within 45 days of provision of Final Construction Documents by KV/LLC, Navy will formulate an archaeological monitoring plan and submit to SHPO and Native Hawaiian Organizations (NHOs) for concurrence. The plan shall include a Scope of Work, Research Design, Burial Treatment Plan, Professional Qualification Requirements, and cultural/historical awareness information sheet for construction workers.
 - Consultation with NHOs shall be conducted in accord with DoD and ACHP guidance for consulting with NHOs.
 - The monitoring plan will clearly identify acceptable and prohibited activities to be included.
 - SHPO/NHOs review shall occur within 30 days of submission by Navy. Construction shall not commence until SHPO concurrence, not unreasonably withheld or delayed, is obtained.
 - NAVFAC Hawaii and/or KV will provide cultural/historical awareness training to contractors and sub-contractors prior to beginning work.
- E. KV will improve opportunities for visitation to and interpretation of the concrete warm-up platform by removing and keeping clear of all vegetation and debris.
- KV will develop, in collaboration with the Navy and SHPO, a clearing plan that defines methodology for removal and control of invasive vegetation. Procedures for allowing access by volunteer groups to assist with ground clearing shall be included.
 - Clearing shall include removal of above grade trees, stump grinding if necessary, raking of green waste from top of grade, and leveling of mounds left from previous activities (minimal grubbing and grading). Removal of native vegetation, if extant, shall be documented prior to clearing so that restoration of native vegetation may be carried out after removal of PV array.

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[Amended and Restated]

- Clearing shall be performed with manual labor and small-scale machinery and light trucks (maximum GVW of 8,500 pounds, as defined by Corporate Average Fuel Economy standards). Bulldozers and metal-tracked equipment shall not be used for clearing activities.
 - KV will allow scheduled visitation/use for non-profit groups that maintain commercial general liability insurance to facilitate interpretation and commemorate activities at the site.
 - Procedures for access: A minimum of one week in advance of the scheduled visit, groups shall provide the following: group name/affiliation, date, time frame, estimated number of persons visiting, type/quantity of vehicles expected, and description of proposed activity.
 - KV shall accommodate a minimum of one visit per month.
 - KV will consult with adjacent landowners of the remainder of the warm-up platform to explore means and methods for treating the entire expanse of concrete, including protection of extant strafing marks. KV will report to Navy on such consultations in 30-day intervals following execution of this PA. Navy will forward reports to Consulting Parties within five (5) calendar days of receipt.
- F. KV will provide a financial contribution of up to \$20,000 (\$10,000 in seed money plus up to \$10,000 in 1:1 matching funds) to be used by an “Affiliate Group” for the long-term public interpretation and commemoration of Ewa Field’s history and role in the events of World War II, and particularly the events of December 7, 1941.
- “Affiliate Group” is defined as an organization(s) selected by the Signatories per the process and criteria outlined below. Minimum qualifications for organization(s) to be considered for selection include designation or contractual affiliation with a tax-exempt charitable organization under 501(c)(3) of the Internal Revenue Code, with a mission related to or compatible with long-term public interpretation and commemoration of historic events, persons, objects, buildings, or culture related to the site.
 - Within 60 days of conclusion of NEPA review, Signatories to this PA shall draft criteria and process for selection of an Affiliate Group that will serve as the lead organization to use the contributed funds for the preservation, interpretation, and/or commemoration of Ewa Field.
 - Draft criteria shall be provided by Navy to Concurring Parties of this PA for a 30-day review and comment period.
 - Final criteria for selection of an Affiliate Group shall be developed by Signatories within 30 days of receipt of Concurring Parties’ comments.
 - Proposals by prospective Affiliate Groups will be reviewed by Signatories in three-month intervals, beginning with the first day of the month following the Navy’s Notice to Proceed.
 - Within 60 days of selection of an Affiliate Group, \$10,000 in seed money to support the Affiliate Group shall be placed into escrow by KV.

Kalaeloa Renewable Energy Park Programmatic Agreement

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[Amended and Restated]

- In addition to the lump sum seed money, contribution of matching funds shall be made by KV to support publicly-accessible activities related to interpretation or commemoration of Ewa Field. Funds raised by the Affiliate Group shall be matched by KV, in \$2,000 increments, up to a total KV matching contribution of \$10,000. KV contribution shall be placed in escrow within 60 days of the Affiliate Group's proof of matching funds.
 - Within 30 days of selection of the Affiliate Group, a cooperative agreement between the Signatories of this PA and the Affiliate Group shall be executed to memorialize roles and responsibilities of each party, conditions for release of funds, performance standards for evaluating activities funded, reporting requirements, and alternate use of funding in the case of unforeseen conditions and/or if the Affiliate Group is not able to perform to agreed upon standards.
 - If an Affiliate Group has not been selected within six months of conclusion of the DOE process, Navy shall notify Signatories and Consulting Parties to this PA to consider alternative mitigation.
- G. LLC will be responsible for all maintenance of the site and improvements thereto, including access routes. Maintenance and eventual removal of improvements of the Affiliate Group are not the responsibility of the LLC unless an agreement between the Affiliate Group and the LLC is developed separate to this Agreement.
- H. LLC will remove all installed components (including utility poles) and restore the site to its original condition (clear of non-native vegetation) as deemed satisfactory to Navy and SHPO at the end of their useful life, when no longer needed, or upon the end of the KV-LLC sublease term, whichever occurs first. LLC will utilize its remaining Operating Period Security funds (as defined in the PPA) up to the amount of \$200,000 towards the site restoration. In addition KV will hold in escrow, for the benefit of the Navy, 3 months of security deposit, an amount greater than \$15,000, which will allow the Navy to implement site restoration in the unforeseen event that the LLC does not carry out this Stipulation or is dissolved prior to termination of this PA.
- I. KV and the Navy will monitor and report to all parties of this agreement on activities and status of the Stipulations herein.
- During the term of the sub-lease, KV and LLC shall allow the Navy and SHPO to visit the site upon request for purposes of monitoring compliance with this PA.
 - Quarterly reporting shall be made for a period of two years after execution of this agreement.
 - Semi-annual reporting shall be made for years three and four after execution of this agreement.
 - Annual reporting shall be made for the remainder of time that this agreement stays in effect.

Kalaeloa Renewable Energy Park Programmatic Agreement

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[Amended and Restated]

II. PROJECT EXECUTION

- A. KV may sublease the project site to LLC, and LLC may construct the Kalaeloa Renewable Energy Park thereon, after CNRH filing of this executed PA with the ACHP and with prior written consent of the Navy, which consent shall not be unreasonably withheld or delayed. The LLC and their assignees and transferees shall be entitled to contract with a third party for work involved for the proposed undertaking; and the LLC shall be responsible for ensuring that all necessary permits and performance bonds are obtained.
- This PA and its commitments shall be attached and incorporated into any assignments, transfers, and contracts between LLC and any third party.
- B. This PA shall be made a legally enforceable amendment to the existing lease between KV and the Navy. The Navy shall notify Consulting Parties in writing to confirm that KV's lease has been amended to attach and incorporate this PA.
- C. The subject PA shall run with the land for the Duration identified in Section VII of this PA; and all sub-lessees, owners and assignees/transferees will be bound by the agreement.

III. DISCOVERIES

- A. If during the performance of the Undertaking, previously unidentified historic properties are discovered within the APE, or previously unanticipated effects occur to known historic properties within the APE, CNRH shall make reasonable efforts to avoid, minimize or mitigate adverse effects to such properties. CNRH shall determine actions that can be taken to resolve adverse effects, and notify the Hawaii SHPO and Native Hawaiian organizations as appropriate within 48 hours of the discovery by telephone, followed by notification to be sent by email. The notification shall include an assessment of National Register eligibility and proposed actions to resolve potential adverse effects.
1. Native Hawaiian organizations to be notified include, but are not limited to, the Oahu Island Burial Council, Office of Hawaiian Affairs, Kapolei Hawaiian Civic Club, Association of Hawaiian Civic Clubs, and Hui Mālama I Na Kūpuna O Hawai'i Nei.
- B. CNRH will take into account recommendations regarding National Register eligibility and proposed actions, and then carry out appropriate actions. Should such actions include archaeological investigations, CNRH shall ensure these actions will be carried out by or under the direct supervision of a person or persons meeting, at the minimum, the Secretary of the Interior's Professional Qualification Standards (Federal Register, Vol. 62, No. 119, page 33712, June 20, 1997) for Archaeologists. Should such actions include historic structures, CNRH shall ensure these actions will be carried out by or under the direct supervision of a person or persons meeting, at the minimum, the Secretary of the Interior's Professional Qualification Standards (Federal Register, Vol.

Kalaeloa Renewable Energy Park Programmatic Agreement

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[Amended and Restated]

62, No. 119, page 33712, June 20, 1997) for Historical Architects. CNRH shall provide the Hawaii SHPO and Native Hawaiian organizations, as appropriate, a report of the findings and actions in accordance with applicable federal regulations as well as guidance from ACHP.

IV. RESOLVING OBJECTIONS

- A. Should any Signatory or Concurring Party to this PA object in writing to CNRH regarding how the proposed Undertaking is being carried out or the manner in which the terms of this PA are being carried out, CNRH shall consult with the objecting party and the SHPO to resolve the objection. All other Signatories should be notified in writing that one of Signatories or Consulting Parties is objecting to a specific action in this PA. The notification shall include the reasons for the objection and possible solutions. The objecting party shall do the notifications.
- B. If CNRH and the SHPO determine that the objection cannot be resolved, CNRH shall forward all documentation relevant to the dispute to the Advisory Council on Historic Preservation (ACHP), including CNRH's proposed response to the objection. Within 30 days after receipt of all pertinent documentation, the ACHP will:
 1. Advise CNRH that it concurs with CNRH's proposed response, whereupon CNRH shall respond to the objection accordingly; or
 2. Provide CNRH with recommendations pursuant to 36 CFR § 800.2(b)(2) which CNRH shall take into account in reaching a final decision regarding the dispute; or
 3. Notify CNRH that it will comment pursuant to 36 CFR § 800.7(c) and proceed to comment on the subject in dispute.
- C. Should the ACHP not exercise one of the above options within 30 days after receipt of all pertinent documentation, CNRH may move forward with its proposed response.
- D. CNRH shall take into account the ACHP's recommendation or comment provided in accordance with this stipulation with reference only to the subject objection. CNRH's responsibility to carry out all actions under this PA that are not the subject of the objection shall remain unchanged.

V. AMENDMENTS

- A. Any Signatory or Concurring Party that has signed this PA may propose that this PA be amended, whereupon the Signatories will consult with all Consulting Parties to consider such amendment. A written notice must be sent to all Signatories by the party that wishes to amend the PA. The notice will include the proposed amendments and the reasons for proposing them.

Kalaeloa Renewable Energy Park Programmatic Agreement

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[Amended and Restated]

- B. A 30-day review period shall be established by the Navy for Consulting Parties to review and provide written comments on the proposed amendment; and the Navy shall forward to the Signatories a final version of the amendment for consideration.
- C. No amendment shall take effect until it has been agreed upon by all Signatories. The amendment will be effective on the date a copy signed by all of the Signatories is filed with the Advisory Council on Historic Preservation (ACHP).

VI. TERMINATION

- A. If any signatory to this PA determines that its terms will not or cannot be carried out, that party shall consult with the other parties to attempt to develop an amendment per Stipulation V (AMENDMENTS), above. If within 60 days (or another time period agreed to by all Signatories) an amendment cannot be reached, any signatory may terminate this PA upon written notification to the other Signatories. The written notice must explain in detail the reasons for the proposed termination.
- B. For elements of the undertaking not covered by Stipulation VI.A above, once the PA is terminated, and prior to work continuing on the undertaking, CNRH must either (a) execute a new PA pursuant to 36 CFR § 800.6, or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR § 800.7. CNRH shall notify the Signatories as to the course of action it will pursue.

VII. DURATION

- A. This PA shall expire upon the first of the following to occur: (1) determination by the Keeper that neither the project site nor individual historic resources within the APE are eligible for the National Register; (2) completion of the Undertaking, including all stipulations in this PA; or (3) termination pursuant to Stipulation VI (TERMINATION). CNRH shall immediately notify the Consulting Parties in writing if the PA is terminated or expires.
- B. If CNRH has not obtained funding for any of the mitigation measures as stipulated in the PA within two (2) years from the date of execution of the PA, CNRH shall consult with the Signatories and Concurring Parties that have signed this PA to develop an amendment in accordance with Stipulation V (AMENDMENTS) to establish new time frames for actions that are still required, or establish new replacement actions as necessary and agreed upon by all parties.
- C. If the LLC or other parties to the sub-lease propose to extend the period of the PV array and supporting infrastructure beyond the proposed period of 20 years, the Signatories will consult on the need to renew or amend this PA concurrent with the pending renewal of the sub-lease.

Kalaeloa Renewable Energy Park Programmatic Agreement

30 July 2012

[Amended and Restated]

VIII. ANTI-DEFICIENCY

- A. The Anti-Deficiency Act, 31 USC §1341, prohibits federal agencies from incurring an obligation of funds in advance of or in excess of available appropriations. Accordingly, CNRH's obligations under this PA are subject to the availability of funds and the stipulations of this PA are subject to the provisions of the Anti-Deficiency Act. CNRH will make reasonable and good faith efforts to secure the necessary funds to implement this PA in its entirety. If compliance with the Anti-Deficiency Act alters or impairs CNRH's ability to implement the stipulations of this PA, CNRH will consult with the Hawaii SHPO and the ACHP in accordance with the amendment and termination procedures outlined in Stipulations V and VI, respectively.

EXECUTION of this PA together with its submission by CNRH to the Advisory Council on Historic Preservation pursuant to 36 CFR § 800.6(b) (2) and its implementation, evidences that CNRH has taken into account the effects of this undertaking on historic properties and consulted with the Advisory Council on Historic Preservation and other Consulting Parties to seek ways to avoid, minimize, or mitigate adverse effects.

Kalaeloa Renewable Energy Park Programmatic Agreement

30 July 2012
[Amended and Restated]

SIGNATORIES:

COMMANDER NAVY REGION HAWAII

By: 

Date: 8-1-2012

RDML F. L. Ponds
Commander, Navy Region Hawaii

COMPTROLLER, NAVY REGION HAWAII

By: 

Date: 8/7/12

Lyle K. Tom
Comptroller, Navy Region Hawaii

Kalaeloa Renewable Energy Park Programmatic Agreement

30 July 2012

[Amended and Restated]

SIGNATORIES:

ADVISORY COUNCIL ON HISTORIC PRESERVATION

By: _____ Date: _____

Mr. John M. Fowler
Executive Director

Kalaeloa Renewable Energy Park Programmatic Agreement

30 July 2012
[Amended and Restated]

SIGNATORIES:

STATE HISTORIC PRESERVATION OFFICER

By:  _____

Date: 8/9/12

Mr. William J. Aila, Jr.
State of Hawaii Historic Preservation Officer

Kalaeloa Renewable Energy Park Programmatic Agreement

30 July 2012
[Amended and Restated]

INVITED SIGNATORIES:

KALAELOA VENTURES, LLC

By: 

Date: 8/3/12

Steven W. Colón
Senior Vice President

KALAELOA RENEWABLE ENERGY PARK, LLC
By Scatec Solar North America, Inc. LLC, its Manager

By: _____

Date: _____

Luigi Resta
President

Kalaeloa Renewable Energy Park Programmatic Agreement

30 July 2012
[Amended and Restated]

INVITED SIGNATORIES:

KALAELOA VENTURES, LLC

By: _____

Date: _____

Steven W. Colón
Senior Vice President

KALAELOA RENEWABLE ENERGY PARK, LLC
By Scatec Solar North America, Inc. LLC, its Manager

By: Luigi Resta

Date: 8.6.2012

Luigi Resta
President

Kalaeloa Renewable Energy Park Programmatic Agreement

30 July 2012

[Amended and Restated]

CONCURRING PARTIES:

HONOLULU CITY COUNCIL MEMBER

By: _____

Date: _____

Mr. Tom Berg
Councilman, District 1

Kalaeloa Renewable Energy Park Programmatic Agreement

30 July 2012

[Amended and Restated]

CONCURRING PARTIES:

MARISSA CAPELOUTO

By: _____

Date: _____

Marissa Capelouto
Individual Consulting Party

Kalaeloa Renewable Energy Park Programmatic Agreement

30 July 2012

[Amended and Restated]

CONCURRING PARTIES:

EWA BEACH COMMUNITY ASSOCIATION

By: _____

Date: _____

Mr. Glenn Oamilda
President

Kalaeloa Renewable Energy Park Programmatic Agreement

30 July 2012

[Amended and Restated]

CONCURRING PARTIES:

HAWAII COMMUNITY DEVELOPMENT AUTHORITY

By: _____ Date: _____

Tesha Malama
Director of Planning and Development, Kalaeloa District

Kalaeloa Renewable Energy Park Programmatic Agreement

30 July 2012

[Amended and Restated]

CONCURRING PARTIES:

HAWAII AVIATION PRESERVATION SOCIETY

By: _____

Date: _____

Colin Perry
Director

Kalaeloa Renewable Energy Park Programmatic Agreement

30 July 2012

[Amended and Restated]

CONCURRING PARTIES:

HAWAII MUSEUM OF MILITARY VEHICLES

By: _____

Date: _____

Norman Wong
President

Kalaeloa Renewable Energy Park Programmatic Agreement

30 July 2012

[Amended and Restated]

CONCURRING PARTIES:

HAWAIIAN RAILWAY SOCIETY

By: _____

Date: _____

Robert Yatchmenoff
President, BOD

Kalaeloa Renewable Energy Park Programmatic Agreement

30 July 2012

[Amended and Restated]

CONCURRING PARTIES:

HISTORIC HAWAII FOUNDATION

By: _____

Date: _____

Ms. Kiersten Faulkner
Executive Director

Kalaeloa Renewable Energy Park Programmatic Agreement

30 July 2012

[Amended and Restated]

CONCURRING PARTIES:

MICHAEL LEE

By: _____ Date: _____

Mr. Michael Lee
Individual Consulting Party / Native Hawaiian Practitioner

Kalaeloa Renewable Energy Park Programmatic Agreement

30 July 2012

[Amended and Restated]

CONCURRING PARTIES:

MILITARY STABLES.COM

By: _____

Date: _____

Valerie Van der Veer
Owner/Operator

Kalaeloa Renewable Energy Park Programmatic Agreement

30 July 2012

[Amended and Restated]

CONCURRING PARTIES:

NATIONAL TRUST FOR HISTORIC PRESERVATION

By: _____

Date: _____

Mr. Paul Edmondson
Vice President and General Counsel

Kalaeloa Renewable Energy Park Programmatic Agreement

30 July 2012

[Amended and Restated]

CONCURRING PARTIES:

NAVAL AIR MUSEUM BARBER'S POINT

By: _____

Date: _____

Brad Hayes
Executive Director

Kalaeloa Renewable Energy Park Programmatic Agreement

30 July 2012
[Amended and Restated]

CONCURRING PARTIES:

OAHU ISLAND BURIAL COUNCIL

By: 

Date: AUG. 20 12

Shad Kane
Ewa Moku Representative

Kalaeloa Renewable Energy Park Programmatic Agreement

30 July 2012

[Amended and Restated]

CONCURRING PARTIES:

OFFICE OF HAWAIIAN AFFAIRS

By: _____

Date: _____

Keola Lindsey
Native Hawaiian Historic Preservation Council
Lead Advocate, Culture

By: _____

Date: _____

Kai Markell
Compliance Manager

Kalaeloa Renewable Energy Park Programmatic Agreement

30 July 2012

[Amended and Restated]

CONCURRING PARTIES:

PACIFIC WAR MEMORIAL ASSOCIATION

By: _____

Date: _____

LiG H.C. Stackpole
Chair of Board of Directors

Kalaeloa Renewable Energy Park Programmatic Agreement

30 July 2012

[Amended and Restated]

CONCURRING PARTIES:

SAVE EWA FIELD

By: _____

Date: _____

John Bond
Executive Director

APPENDIX B
CZMP CORRESPONDENCE

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From: [John Nakagawa](#)
To: [Furuhashi, James M CIV NAVFAC HI, OPHEV2](#)
Subject: Re: De Minimis List Usage - KREP EA
Date: Friday, September 30, 2011 9:51:38

Thank you for the notification of the Navy CZMA DeMinimis List usage in accordance with Condition No. 16.

John Nakagawa
Hawaii Coastal Zone Management Program
(808) 587-2878

From: "Furuhashi, James M CIV NAVFAC HI, OPHEV2" <james.furuhashi@navy.mil>
To: <jnakagaw@dbedt.hawaii.gov>
Date: 09/30/2011 09:39 AM
Subject: De Minimis List Usage - KREP EA

Hello Mr. Nakagawa,

The Navy is preparing an Environmental Assessment for the development of a renewable energy park (REP) on Navy land currently leased to Ford Island Ventures (FIV) at Kalaeloa (former Naval Air Station Barbers Point), O'ahu, Hawai'i.

FIV's proposal to develop a REP falls within Items 1 and 2 on the Navy/Marine Corps De Minimis Activities Under CZMA:

Item 1: Construction of new facilities and structures wholly within Navy/Marine Corps controlled areas (including land and water) that is similar to present use and, when completed, the use or operation of which complies with existing regulatory requirements.

Item 2: Utility Line Activities: Acquisition, installation, operation, construction, maintenance, or repair of utility or communication systems that use rights of way, easements, distribution systems, or facilities on Navy/Marine Corps controlled property. This also includes the associated excavation, backfill or bedding of the utility lines, provided there is no change in preconstruction contours.

Per General Condition 16 of the De Minimis Activities Under CZMA we are notifying you of the de minimis list usage. Please let me know if you have any questions.

Very Respectfully,
James

James Furuhashi
NAVFAC Hawaii, Environmental OPHEV2
400 Marshall Road, Building X-11
Pearl Harbor HI 96860-3139
Phone: (808)471-1171x207
Fax: (808)471-5643
Email: james.furuhashi@navy.mil



**DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM**

OFFICE OF PLANNING

235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

LINDA LINGLE
GOVERNOR
THEODORE E. LIU
DIRECTOR
MARK K. ANDERSON
DEPUTY DIRECTOR
ABBIEY SETH MAYER
DIRECTOR
OFFICE OF PLANNING

Telephone: (808) 587-2846
Fax: (808) 587-2824

Ref. No. P-12644

July 9, 2009

Lieutenant Commander E. J. D'Andrea
Assistant Regional Engineer
Department of the Navy
Commander
Navy Region Hawaii
850 Ticonderoga Street, Suite 110
Pearl Harbor, Hawaii 96860-5101

Attention: Mr. Brian Yamada

Dear Lt. Commander D'Andrea:

Subject: Hawaii Coastal Zone Management (CZM) Program Federal Consistency
Concurrence with Modifications to the Department of the Navy De Minimis
Activities in Hawaii under the Coastal Zone Management Act (CZMA)

The Hawaii CZM Program has completed the federal consistency review of the proposed modifications to the list of Department of the Navy de minimis activities under the CZMA, including changes to various activity categories, adding new activity categories, and expanding the coverage to Marine Corps Base Hawaii Kaneohe Bay and Camp Smith. The CZM Program conducted a thorough review of the request and a public notice of the CZM review was published in the State of Hawaii Office of Environmental Quality Control's publication, *The Environmental Notice*, on June 23, 2009. The public was provided an opportunity to participate in the review through July 7, 2009. There were no public comments received.

We concur that the activities identified on the modified list entitled, "Navy/Marine Corps De Minimis Activities Under CZMA" are expected to have insignificant direct or indirect (cumulative and secondary) coastal effects, and should not be subject to further review by the Hawaii CZM Program on the basis and condition that the listed activities are subject to and bound by full compliance with the corresponding "Project Mitigation / General Conditions."

The Hawaii CZM Program reserves the right to review, amend, suspend, and/or revoke the "Navy/Marine Corps De Minimis Activities Under CZMA" list whenever it finds that a listed activity or activities will have reasonably foreseeable coastal effects. CZM consistency

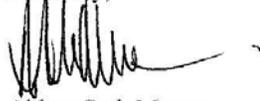
Lieutenant Commander E. J. D'Andrea
Page 2
July 9, 2009

concurrence does not convey approval with any other regulations administered by any State or County agency.

Modifying and expanding the list of Navy de minimis activities under the CZMA was a cooperative effort between our Office and Mr. Brian Yamada from the Department of the Navy, who interned with the Hawaii CZM Program in September 2008. We appreciate the efforts of Mr. Yamada in working with our CZM staff. The de minimis activities list will result in more efficient compliance with CZMA federal consistency requirements for both the Navy and the Hawaii CZM Program.

If you have any questions, please call John Nakagawa of our CZM Program at 587-2878.

Sincerely,

A handwritten signature in black ink, appearing to read "Abbey Seth Mayer", with a long horizontal flourish extending to the right.

Abbey Seth Mayer
Director

c: U.S. Army Corps of Engineers, Regulatory Branch (w/ copy of de minimis list)
Ms. Rebecca Hommon, Region Counsel, Navy Region Hawaii



DEPARTMENT OF THE NAVY
COMMANDER
NAVY REGION HAWAII
850 TICONDEROGA ST STE 110
PEARL HARBOR, HAWAII 96860-5101

5090
Ser N4/ 04163

01 JUN 2009

CERTIFIED MAIL NO. 7007 2560 0002 0326 9580

Mr. Abbey Mayer
Office of Planning
Department of Business, Economic
Development and Tourism
P. O. Box 2359
Honolulu HI 96804

Dear Mr. Mayer:

SUBJECT: REQUEST FOR CONCURRENCE WITH MODIFICATIONS TO THE DEPARTMENT
OF THE NAVY DE MINIMIS ACTIVITIES UNDER THE COASTAL ZONE
MANAGEMENT ACT (CZMA)

This letter is to request your concurrence with the attached list of Navy/Marine Corps de minimis activities under the CZMA. The attached de minimis list will amend the current de minimis list which was established on April 2, 2007. The new de minimis list will include the Marine Corps, and will cover areas in the Pearl Harbor Naval complex, Naval Magazine Lualualei, Naval Communications and Telecommunications Area Master Station Pacific, Pacific Missile Range Facility on Kauai, Kaneohe Marine Corps Base Hawaii, Camp Smith and all associated installations/facilities/equipment located outside of those Navy/Marine Corps properties.

The Navy and Marine Corps have determined that the listed Proposed Actions have insignificant direct or indirect (cumulative and secondary) coastal effects and should therefore be categorized as de minimis in accordance with the Department of Commerce, National Oceanic and Atmospheric Administration, CZMA Federal Consistency Regulations 15 CFR part 930.33 (3). With the corresponding mitigation and conditions applied, these actions would be exempt from a negative determination or a consistency determination from the State of Hawaii.

Should you have any questions, please contact Mr. Brian Yamada at 472-1449, by facsimile transmission at 474-5419, or by email at brian.yamada@navy.mil.

Sincerely,

A handwritten signature in cursive script, appearing to read "E. J. D'Andrea".

E. J. D'ANDREA
Lieutenant Commander, CEC, U. S. Navy
Assistant Regional Engineer
By direction of the
Commander

Enclosure: 1.Navy De minimis Activities Under CZMA

Navy/Marine Corps De Minimis Activities Under CZMA
*covering areas in Pearl Harbor Naval Complex, Naval Magazine Lualaie, Naval Communications and Telecommunications Area Master Station (NCTAMS) Pacific, Pacific Missile Range Facility (PMRF), Kaneohe Marine Corps Base Hawaii, Camp Smith, and all associated installations/facilities/equipment located outside of these Navy/Marine Corps properties

No.	Proposed Action	Description	Mitigation / Conditions
1	New Construction	Construction of new facilities and structures wholly within Navy/Marine Corps controlled areas (including land and water) that is similar to present use and, when completed, the use or operation of which complies with existing regulatory requirements.	1, 3, 6, 8, 9, 10, 11, 13, 14, 16
2	Utility Line Activities	Acquisition, installation, operation, construction, maintenance, or repair of utility or communication systems that use rights of way, easements, distribution systems, or facilities on Navy/Marine Corps controlled property. This also includes the associated excavation, backfill, or bedding for the utility lines, provided there is no change in pre-construction contours.	1, 10, 11, 12, 14, 16
3	Repair and Maintenance	Routine repair and maintenance of buildings, ancillary facilities, piers, wharves, dry docks, vessels, or equipment associated with existing operations and activities.	12, 14, 16
4	Aids to Navigation	Includes buoys, beacons, signs, etc. placed within Navy/Marine Corps controlled coasts and navigable waters as guides to mark safe water.	2, 5, 14, 16
5	Structures in Fleeting and Anchorage Areas	The installation of structures, buoys, floats and other devices placed within anchorage or fleeting areas to facilitate moorage of vessels within Navy/Marine Corps controlled property.	2, 5, 14, 16
6	Oil Spill and Hazardous Waste Cleanup	Activities required for the containment, stabilization, removal and cleanup of oil and hazardous or toxic waste materials on Navy/Marine Corps controlled property.	1, 8, 14, 16
7	Maintenance Dredging	Excavation and removal of accumulated sediment for: maintenance to previously authorized depths.	2, 3, 4, 5, 7, 8, 9, 13, 14, 16
8	New Dredging	Excavation and removal of material from the ocean floor not to exceed 100 cubic yards below the plane of the ordinary high water mark or the mean high water mark from navigable waters of the US and; excavation and removal of material from the ocean floor within Navy/Marine Corps controlled property. This does not include dredging or degradation through coral reefs.	2, 3, 4, 5, 7, 8, 9, 13, 14, 16
9	Scientific Measuring Devices	The installation of devices which record scientific data (staff gages, tide gages, water recording devices, water quality testing and improvement devices and similar structures) on Navy/Marine Corps controlled property. Devices must not transmit acoustics (certain frequencies) that will adversely affect marine life.	1, 2, 14, 16
10	Studies and Data Collection and Survey Activities	Studies, data and information-gathering, and surveys that involve no permanent physical change to the environment. Includes topographic surveys, wetlands mapping, surveys for evaluating environmental damage, engineering efforts to support environmental analyses, core sampling, soil survey sampling, and historic resources surveys.	2, 3, 6, 8, 9, 11, 12, 13, 14, 16
11	Demolition	Demolition and disposal involving buildings or structures when done in accordance with applicable regulations and within Navy/Marine Corps controlled properties.	1, 11, 12, 14, 16
12	Military Testing and Training	Routine testing and evaluation of military equipment on or over military, or an established range, restricted area or operating area or training conducted on over military land or water areas in which the impact is not significant.	9, 13, 14, 15, 16
13	Real Estate/Property Transfer	Real estate acquisitions or outleases of land involving new ingranits/outgrants and/or 50 acres or more where existing land use will change.	14, 16

ENCLOSURE(/)

14	Mission Changes	Mission changes, base closures/relocations/consolidations, and deployments that would cause long term population increases or decreases in affected areas.	14, 16
15	Limitation of Access to Property	Permanent closure or limitation of access to any areas that were open previously to public use, such as roads or recreational purposes (provided the access is not required by established agreements with State of Hawaii, private industry, etc.)	14, 16
16	Environmental Management Activities	Environmental management activities within Navy/Marine Corps controlled areas including, but not limited to, activities such as vegetation and mangrove removal, ditch clearing, sediment removal, invasive species removal, construction related to protecting endangered species and wildlife, and actions prescribed by the Integrated Natural Resources Management Plan (INRMP)	2, 13, 14, 16
17	Towers	Installation, operation, and maintenance of towers (such as communication towers, cellular phone antennas, wind-energy towers) within Navy/Marine Corps controlled areas.	1, 2, 6, 8, 9, 12, 13, 14, 16
18	Alternative Energy Research	Installation, operation, replacement, and removal of alternative energy research structures/equipment taking place within Navy/Marine Corps controlled areas.	1, 2, 3, 5, 6, 12, 13, 14, 16
19	Army Corps Nation Wide Permits	Work subject to an Army Corps of Engineers Nationwide permit (which are applicable to Hawaii)	16

Project Mitigation / General Conditions

- 1) Navy/Marine Corps controlled property refers to land areas, rights of way, easements, roads, safety zones, danger zones, ocean and naval defensive sea areas under active Navy/Marine Corps control.
- 2) If any listed species enters the area during conduct of construction activities, all activities should cease until the animal(s) voluntarily depart the area.
- 3) Turbidity and siltation from project related work shall be minimized and contained to within the vicinity of the site through appropriate use of effective silt containment devices and the curtailment of work during adverse tidal and weather conditions.
- 4) Dredging/filling in the marine/aquatic environment shall be scheduled to avoid coral spawning and recruitment periods.
- 5) All project-related materials and equipment (dredges, barges, backhoes, etc.) to be placed in the water shall be cleaned of pollutants prior to use.
- 6) No project-related materials (fill, reversion rock, pipe, etc.) should be stockpiled in the water (intertidal zones, reef flats, stream channels, wetlands, etc.).
- 7) All debris removed from the marine/aquatic environment shall be disposed of at an upland site or EPA approved ocean disposal site, and Best Management Practices shall be followed.
- 8) No contamination (trash or debris disposal, alien species introductions, etc.) of adjacent marine/aquatic environments (reef flats, channels, open ocean, stream channels, wetlands, etc.) shall result from project-related activities.
- 9) Fueling of project-related vehicles and equipment should take place away from the water and a contingency plan to control petroleum products accidentally spilled during the project shall be developed. Absorbent pads and containment booms shall be stored on-site, if appropriate, to facilitate clean-up of accidental petroleum releases.
- 10) Any under-layer fills used in the project shall be protected from erosion with stones (or core-loc units) as soon after placement as practicable as soon as practicable (with vegetation matting, hydroseeding, etc.).
- 11) Any soil exposed near water as part of the project shall be protected from erosion (with plastic sheeting, filter fabric, etc.) after exposure and stabilized as soon as practicable (with vegetation matting, hydroseeding, etc.).
- 12) Section 106, of the National Historic Preservation Act (NHPA), consultation requirements must be met. Also, follow guidelines in the area-specific Integrated Cultural Resources Management Plan (ICRMP) if applicable.
- 13) Navy/Marine Corps shall evaluate the possible impact of the action on species and habitats protected under the Endangered Species Act (ESA). If the Navy/Marine Corps determines that no such species or habitats will be affected by the action, neither U.S. Fish and Wildlife (FWS) Service nor National Oceanic and Atmospheric Administration (NOAA) concurrence is required. Should it be determined by the Navy/Marine Corps, FWS, or NOAA that the action may affect any such species or habitat, informal or formal consultation will be initiated by the Navy/Marine Corps as required by section 7 (Interagency Cooperation) of the ESA.
- 14) The National Environmental Policy Act (NEPA) review process will be completed.
- 15) The training, testing and evaluation will be conducted in accordance with applicable standard operating procedures protective of the environment.
- 16) Navy or Marine Corps staff shall notify State CZM of de minimis list usage for projects which require an Environmental Assessment (EA). Notification can be sent via email: to JNakagaw@cbeetl.hawaii.gov

**APPENDIX C
HAWAI'I COMMUNITY DEVELOPMENT AUTHORITY
CORRESPONDENCE**

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HAWAII COMMUNITY
DEVELOPMENT AUTHORITY



**KAKA'IKO
KALAELOA**

Neil Abercrombie
Governor

C. Scott Bradley
Chairperson

Anthony J. H. Ching
Executive Director

461 Cooke Street
Honolulu, Hawaii
96813

Telephone
(808) 594-0300

Facsimile
(808) 594-

E-Mail
contact@hcdaweb.org

Web site
www.hcdaweb.org

Ref. No.: PL KALAELOA 17.5.4

September 9, 2011

Mr. Steve Colon
President, Hawaii Division
Hunt Development Group
Mauka Tower, Suite 2750
737 Bishop Street
Honolulu, Hawaii 96813

Dear Mr. Colon:

Re: Kalaeloa Renewable Energy Park – Island of Oahu, Ewa District
TMKs: 9-1-013: 016 (Portion) and 9-1-013: 096

Thank you for your request for comments on the Kalaeloa Renewable Energy Park ("KREP") Project Package for the U.S. Navy ("Navy") to be located on the lands still owned by the Navy and on lease to the Ford Island Ventures, LLC. The Hawaii Community Development Authority ("HCDA") is responsible for the planning and development of the Kalaeloa Community Development District ("KCDD"). In 2006, the Kalaeloa Master Plan ("KMP") for the KCDD was adopted. Until the Kalaeloa administrative rules are adopted, the KMP is the primary resource available to guide activities in the KCDD.

The KMP designates portions of this parcel as "recreational" with an "eco-industrial" overlay which allows for sustainable and renewable energy technology projects such as the KREP. The draft Kalaeloa Administrative Rules, designed to execute the KMP, anticipates a "transect-2/rural zoning" for this parcel. Therefore this project would be an acceptable land use. The HCDA expects to have its administrative rules adopted before the end of 2011 and therefore request that you incorporate the appropriate building heights, streetscape frontages, building setbacks, and other zoning and development requirements that are detailed in the draft rules into the project's final building design and layout. In addition, the HCDA recommends a thorough review of the project eligibility requirements as it refers to public dedication and infrastructure.

Although the significance of archaeological sites, cultural sites, endangered species and historical sites does not fall within the HCDA's purview, the HCDA encourages every developer to work closely with the State Historic Preservation Division ("SHPD") to ensure significant resources are not negatively impacted. Please include in your packet request for a consistency review the final mitigation plan approved by the SHPD.

Mr. Steve Colon
Page Two
September 9, 2011

We would like to also encourage that you and/or your designee coordinate with the Federal Aviation Administration ("FAA") by filing the FAA Form 7460-1 Notice of Proposed Construction or Alteration. Due to the proximity of the Kalaeloa Airport, it is necessary for all project design and construction to ensure that the project causes no interference with air travel.

We anticipate that the KREP will become a valuable part of the community and support our State's goal for achieving energy independence. However, in conjunction with the community's vision that Kalaeloa be a *Wahi Ho'okela*, a Center for Excellence within the Ewa region, we strongly encourage that your project blend as seamlessly as possible with the surrounding environment through creative design, landscape architecture and "green" buffer zones.

If you have any questions, please do not hesitate to contact Tesha Malama, Kalaeloa Director of Planning and Development, at 692-7245 or via email at tesha@hcdaweb.org.

Sincerely,



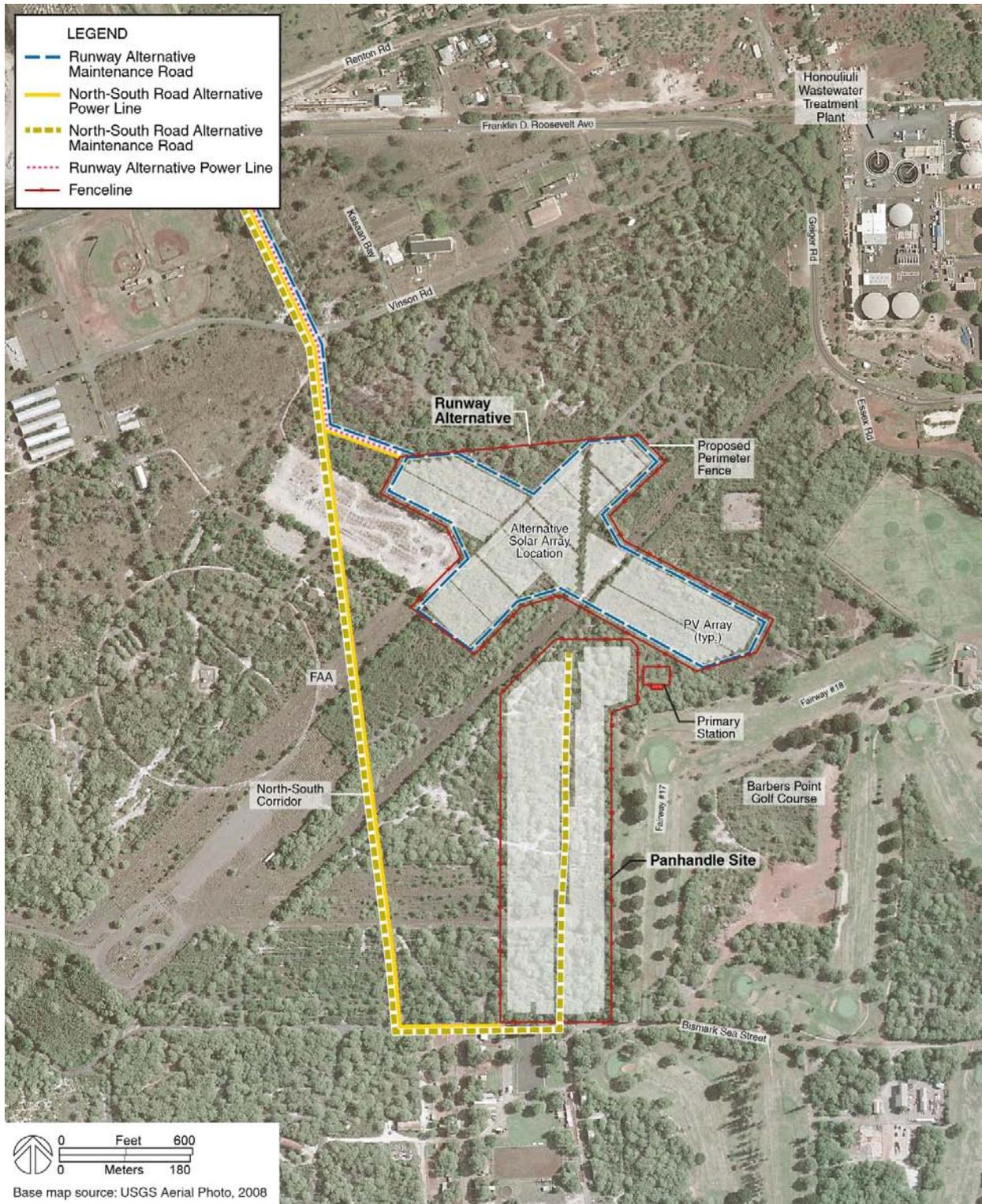
Anthony J. H. Ching
Executive Director

AJHC/TM:ak

c: Mr. David Tanoue, Director
(Department of Planning and Permitting)
Ms. Kathy Sokugawa, Division Chief for Planning Division
(Department of Planning and Permitting)
Mr. Alapaki Nahale-a, Chairperson
(Department of Hawaiian Home Lands)
Ms. Linda Chinn, Administrator for Land Management Division
(Department of Hawaiian Home Lands)

APPENDIX D
ALTERNATIVES CONSIDERED AND DISMISSED

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1
 2 **Alternatives Considered and Dismissed: Runway and North-South Road Alternatives**

**APPENDIX E
COMMENTS RECEIVED ON FIRST DRAFT EA**

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APPENDIX E1
COMMENTS RECEIVED ON FIRST DRAFT EA, APRIL 2012

**Hunt PV Park combined with a Major HCDA East
Kalaeloa Energy Corridor will cause significant
Cultural and Environmental Impacts.**

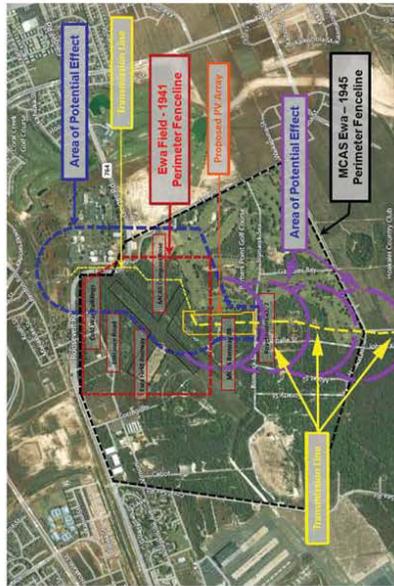
**KANEHLI AND MCAS EWA IMPACTS
RESPONSE TO NAVY ENVIRONMENTAL ASSESSMENT**

**Response To Navy Draft ENVIRONMENTAL ASSESSMENT
Kalaeloa Renewable Energy Park, Kalaeloa, O'ahu, Hawai'i**

Kanehili Cultural Hui does not agree with the Finding of No Significant Impact (FONSI).

The Draft Environmental Assessment fails to address many important points. The Draft Environmental Assessment fails to address the fact that the Navy's development partner Hawaii Community Development Association (HCDA) plans to use this exact same out for a major power utility corridor.

The EA fails to address what HECO's actual plans are and why they were never included in any consultations or discussions as they are in fact a major part of this entire project.



Area of Potential Effect || Identification of Historic Resources

JUNE 15, 2012

HCDA exhibits a strongly pro-development agenda at expense of community opinions and testimony as well as an intentional ignorance of historic preservation covenants in Navy BRAC documents. HCDA has previously rejected National Trust for Historic Preservation comments to improve the Kalaeloa Administrative Rules, which is indicative of HCDA's intentions.

The alternative power line routes were never seriously considered and there has always been the intention for this project to be part of a front for a major HECO HCDA utility corridor as HCDA has already publicly stated and was confirmed through a conversation with State Senator Gabbards office in March 2012.

"The estimated cost of the 35 overhead power line corridor would be approximately \$2.5 Million." - Hunt - Navy EA

The State Legislature has already approved \$5 Million for the East Kalaeloa Energy Corridor which is going through the exact same route..

Aloha,

Elynn Goldkind in her Thu, March 8, 2012 11:10 pm email "Kalaeloa Renewable Energy Park - Overhead Transmission Line Update (RE: additional info for PA comments)"

Elynn Goldkind states:

"The Navy does not have plans to extend the overhead transmission line south from the project site."

Yes, of course not. (The "Navy does not...")

But on a telephone conference call with myself, Senator Gabbard's office manager Rock Riggs and Teshia Malama of HCDA, Teshia CONFIRMED that Coral Sea Road would NOT be the route for the East Kalaeloa Energy Corridor, which Senator Gabbard, as Kalaeloa area senator and chairman of the Senate energy committee) has budgeted \$5 Million for this exact project in the current State budget - which means Hunt and the Navy will pay ZERO for a Hawaii Tax-Payer funded utility corridor built by HECO.

The route that Navy-Hunt have chosen for the KREP site will ALSO be the route of the major State and Federal funded East Kalaeloa Energy Corridor which will continue south to Trippoli Road (near the shoreline) and then go west to the US Coast Guard Station, which will be getting FEDERAL funds to complete that section to the USCG Station, as stated by Teshia Malama of HCDA on the conference call.

This exactly what site stated: The East Kalaeloa Energy Corridor route will use the HECO route that will go to the Hunt/FV/KV KREP, and then south to Trippoli, and then over to the USCG Station.

The East Kalaeloa Energy Corridor will be a "bifurcated (dual) 46KV powerline"... This means well over TWICE AS big as the stated Hunt-Hunt/FV/KV KREP powerline.

Elynn Goldkind also states:

"Although not considered feasible at this time due to schedule constraints, uncertainties related to broad-scale implementation of the HCDA Master Plan for Kalaeloa, and funding limitations, the Environmental Assessment (EA) for the project currently being drafted will address these alternate routes."

The Kanehili Cultural Hui and other members of the participating Section 106 community doesn't consider an EA to be adequate and seeks an EIS due to the scale of the East Kalaeloa Energy Corridor, which will be multi- 46 KV bifurcated lines and also carrying high volume Telecom and CATV to the USCG Station- meaning an electrical system over twice as big as we were told in Section 106 meetings and over three times the amount of other utility (Telecom & CATV) traffic than stated in the original 106 meetings.

We also don't believe that the Coral Sea Road alternative has been fairly assessed - as it will do the least amount of environmental damage and APE to historic and important Hawaiian cultural sites and will in fact be a much SHORTER route to the USCG Station, still allowing Hunt's PV site a connection via Bismarck Sea Road which runs west to Coral Sea Road.

John Bond
Saxe Eva Field
Kanehili Cultural Hui



get funds from ANY PV farm, HECO, HCDA, etc. That's what they told us. Maybe HCDA should orchestrate their "Kalaeloa Heritage Park" better than just press releases. This is a BOOUS statement made to make people think that the top profit-makers are doing some "good works for the Hawaiians the aina, etc." Typical story of developers in Hawaii.

Sorry for so much skepticism but we have already seen this movie many times before in Hawaii.

John Bond
Save Eva Field
Kanehili Cultural Hui

The Shortest Distance Between Two REQUIRED Points - Coral Sea Road

Aloha,

The US Coast Guard needs an updated utility system as soon as possible-but HCDA developers want to use the tax-payer money to fund their OAHU LAND DEALS as the first priority! The defense and safety of the US Homeland comes SECOND to their corporate profits...

Keep in mind Hunt is using US Tax-Payer owned land to set up land deals at BIG PROFITS for them, with huge Hawaii State and Federal solar tax credits, which they in turn FLIP to other companies for more BIG PROFITS. For every solar PV farm built HECO will pick up their rates even more! HECO's profits are SOARING with a stranglehold on everyone in Hawaii with profits of \$138.2 Million. Hunt made \$900 Million last year.

The land Hunt-HCDA want to run their power lines through is loaded with historic Hawaiian sites, Hawaiian lvi Kupuna, Karst sink holes, WW-II site's-all National Register eligible.

The LOGICAL East Kalaeloa Energy Corridor route that will best spend US and Hawaii tax-payer \$\$\$ to serve the IMMEDIATE NEEDS of the US Coast Guard and Homeland Security is down Coral Sea Road. This is already a major right-of-way and best for on-going power line maintenance.

John Bond
Kanehili Cultural Hui

Table 3-1: Historic Properties in the Vicinity of the Proposed Action and Alternatives

*"Located south of project site adjacent to Barber's Point Golf Course/ Barber's Point Stables, these aircraft revetments were built between 1942 and 1943. They are associated with the change in aircraft parking policies following December 7, 1941, attacks"

Does not show 1943 Building 1545 Quonset Hut

Does not include historic WW-II Baseball Field, show in original 1941 airfield plans
Does not show site of 1943 Squadron Wall which was destroyed just before start of Section 106 meetings

"Today, the OIR&L railway alignment runs parallel to Franklin D. Roosevelt Avenue, 8 north of the Eva Field Runway and is a 15 mi (24 km) remnant of the original railway that was the 9 longest stretch of narrow-gauge railroad track in Hawaii."

"Eva Field was attacked by forces of the Japanese Imperial Navy on December 7, 1941 along with several 11 other O'ahu military airfields and the Pearl Harbor Naval Base. During the attack, four Marines were killed from gunfire and 30 aircraft were destroyed."

Not mentioned- major overhead air battles and navy's 800's shot down...

Woefully INCOMPLETE and "preliminary survey" Hunt Corp Contractor paid for "Battlefield Survey", says "It concludes that Eva Field retains minimal integrity as a battlefield site" - This is NOT what the National Park Service concluded- as well as most other involved in the Section 106 process. This is a CONTRACTOR PAID FOR conclusion- not a FACT...

"Though certain battlefield defining features such as the swimming pool and the strafing on the concrete (1941) Warm-up Platform survive as physical evidence of the battle, other features have been lost or are in poor condition. The loss of the camp area, a key battlefield defining feature, and the deteriorated condition of many of the surviving features have contributed to the minimal integrity of the site."

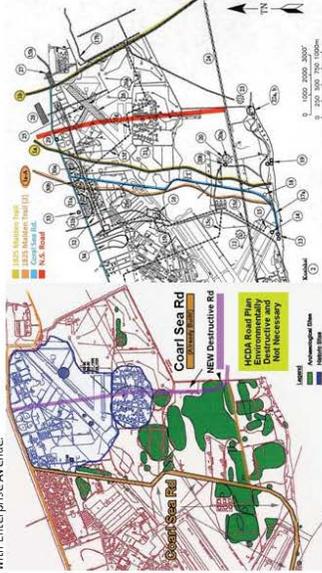
In FACT- the entire camp area is still there
for Marines in the Pacific, MCAS Ewa."

"During World War II, Eva Field underwent significant growth eventually forming the largest installation Yes, and a huge amount of that history has been neglected to be told- but the Navy BRAC office and SHPD did conclude at the time of land transfers that the ENTIRE MCAS EWA was national register eligible considering the range of historic events and famous people associated with the base during its operational life.

An HONEST and PROFESSIONAL Battlefield Survey has yet to be done and has to include the larger overhead air battles with Army P-40's, Vals, Zeros and Navy 800's shot down over and around Eva Field, as well as major strafing of Eva Plantation Village and anti-aircraft fire from nearby Camp Kalaeloa, Fort Weaver and strafing of nearby Fort Barreite, killing an Army railway engineer.

 The EA roads are a perfect example of how completely FLAWED
 The Kalaeloa Master Plan is...

"Two future roads in the Kalaeloa Master Plan" - all FLAWED, done by a few people in a downtown office building with total disregard for historic and cultural sites... Two future roads are proposed in the Kalaeloa Master Plan (HCDA 2006) adjacent to the project site (Figure 3-4): (1) Independence Street and (2) Kualakā'ī Parkway Extension (also known as the "North South Road"). Independence Street is to be an east-west arterial road that will connect Geiger Road with Enterprise Avenue.



Consultation and Referral Documents:

- Final Environmental Impact Statement for the Disposal and Reuse of Naval Air Station Barbers Point, 29 Navy 1999a.
- Cultural Resources Management Plan Naval Air Station Barbers Point, Navy 1999b.
- Final Programmatic Environmental Impact Statement Ford Island Development, Navy 2002.
 - Kalaeloa Master Plan, HCDA 2006.
- Environmental Assessment, Conveyance of Navy-retained Land and Utilities, Kalaeloa, O'ahu, Hawai'i, Navy 2008b.
 - O'ahu Integrated Cultural Resource Management Plan, Naval Facilities Engineering Command, Pacific (NAVFAC PAC) (Navy 2008c).
 - Draft Kalaeloa Master Plan - Infrastructure Master Plan Update, Ford Island Ventures, LLC and HCDA 2010.
 - Battlefield Evaluation of Ewa Field, AECOM March 2011.
 - Inventory and Historic Contexts, Mason Architects Inc (MAI), March 2011.
 - Ewa Development Plan Review Report, City and County of Honolulu May 2011.



Executive Orders

4.9.2 Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks, EO 13045 (21 April 1997) requires federal agencies to make it a high priority to identify and assess environmental health and safety risks that may disproportionately affect children; and ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health or safety risks.

1.3.3 Archaeological and Historic Preservation Act of 1974

The Archaeological and Historic Preservation Act (AHPA) of 1974 (16 USC § 469 et seq) provides for the survey, recovery, and preservation of significant scientific, pre-historical, historical, archaeological, or paleontological data when such data may be destroyed or irreparably lost due to a federal, federally licensed, or federally funded project.

The U.S. Congress noted in the Coastal Zone Management Act (CZMA) of 1972 (16 USC § 1451 et seq) a national interest in the effective management, beneficial use, protection and development of the

coastal zone. While areas under the control of the federal government are, by definition, excluded from the state's coastal zone, federal agency activities within or outside the zone that affect any land or water use or natural resources of the coastal zone shall be carried out in a manner which is consistent to the maximum extent practicable with the enforceable policies of an approved State Coastal Zone Management Program (CZMP). If the federal agency proponent determines that an effect on coastal resources within the State of Hawaii is reasonably foreseeable, a consistency determination is submitted to the State of Hawaii's CZMP.

The Clean Water Act (CWA) of 1972 (33 USC § 1251, et seq.) is the primary federal law that protects the nation's waters, including lakes, rivers, and coastal areas. The primary objective of the CWA is to restore and maintain the integrity of the nation's waters. Section 401 of the CWA requires a Water Quality Certification (WQC) be obtained from the State (or territory) for actions that require a federal permit to conduct an activity, construction or operation that may result in discharge to waters of the U.S. The State of Hawaii's Department of Health (DOH), Clean Water Branch (CWB) issues the WQC for Hawaii waters. Section 402 of the CWA requires a National Pollution Discharge Elimination System (NPDES) permit for point source discharges including stormwater discharges associated with construction activities. The NPDES permit coverage is required for construction activities that disturb a land area of 1/4 acre (0.4 ha) or more and discharge stormwater from the construction site to waters of the U.S.

**HCDA is EXTREMELY HOSTILE to Historic Preservation
Draft Kalaeloa Rules – Public Hearing Comments by NTHP – NOT ADDRESSED**

Tesha Malama of HCDA sent out the attached DOC, which says "addressees". The 122 HCDA comments- but I don't see any of your comments being addressed on this DOC. She also says that they "Disagree" with any of the plans to change roadway routes. She has always been 100% determined to run a roadway through Ewa Field and nothing will stop them from doing it. Her boss Tony Ching has previously stated that the roadway routes "could be changed and don't have to go through there" – but Malama seems to have a very personal agenda about this.

The below section is actually part of comments I wrote for Councilman Tom Berg which was sent to HCDA:

Draft Kalaeloa Administrative Rules

Use Coral Sea Road- yet to be funded for improvement- that once improved- to be the route as the main thoroughfare extension for Kalaeloa Parkway south of Roosevelt Avenue to connect to Keenela Boulevard. This will preserve the ball fields and riding stable in Kalaeloa in order for them to maintain operations without further disturbance. Do not use the current configuration in this plan to extend

Kalaeloa Parkway that abuts the ball fields and riding stables. Please open / advance Essex Road as a pedestrian thoroughfare (currently closed around the golf course) as well to connect to the Leeward Bikeway. All military sites must undergo Section 106 prior to being disposed of or liquidated.

Disagreed.

3 connectivity studies have been conducted between 2006 and 2011, which determined "smart grid" street patterns and the need for the Kalaeloa Extension.

The development of Kalaeloa Extension, will not affect the preservation of mentioned activities.

Aloha KAT Members

I hope this email finds everyone well. Since our last meeting we held the Draft Rules Public Hearing on May 18th. We compiled all of the comments that was submitted up until that point. We are going to hold another public hearing on the proposed changes targeted for September 7, 2011. Before that hearing we would like to go through the proposed changes with the KAT. I have attached the Matrix of changes for your review.

Please confirm your attendance in order to provide adequate refreshments.

Mahalo

Tesha H. Malama
Kalaeloa Director of Planning and Development
Hawaii Community Development Authority
461 Crooke Street
Honolulu, Hawaii 96813
Tel: (808) 692-7245 Cell: (808) 372-3562

Recent concerns for me though was the accepting of lease offers from insiders (Kale Watkins formerly a DHHL Director). He wants to lease some 40 acres of land next to Parcel 24 for \$10,000, an acre. I did question why the amount was so meager and how it was that no RFPs were filed for. Seemingly the Executive Director (ED) is given the "power" to negotiate such leases without RFPs. This same issue was again asked of the ED by the State Comptroller (Copa) at the last HCDA meeting we had this past Wednesday. I felt that this is a valid issue and do not agree that the ED has the right to enter into such lease offers because this action (Watkins) has generated three more solar companies making inquiries into land leasing opportunities.

Problem I now see is that the ED has named a price and now HCDA have some problem getting more for the additional lands in Kalaeloa. Oh by the way, a comparable piece of property in Kalaeloa owned by DHHL is being leased for \$320,000!!! That's why the controversy about the amount of the lease. But again, the ED said he was "given" those powers to enter into these lease agreements without the consensus of the Board. Nevertheless, he did face some scrutiny by the Board members including myself. The only thing is...my last day at HCDA (after eight years) was this last meeting. I will make an inquiry to the people at HCDA and ask for an explanation as to why Tony Ching has that much discretion. This sweetheart deal is simply one of insiders taking care of insiders.

1.18 15-215-18 Preliminary consultation with state historic preservation district

(a) Properties situated in the Kalaeloa CDD that are determined by the authority to be historically and culturally significant shall be preserved, protected, reconstructed, rehabilitated and restored by the landowner consistent with the implementing regulations of section 106 of the National Historic Preservation Act, as amended, and chapter 6E, HRS.

(b) Prior to project eligibility review with the authority, new projects or projects with significant alterations shall consult with the state historic preservation division ("SHPD"), department of land and natural resources to allow an opportunity for review of the effect of the proposed project on any historic properties, aviation artifacts, or burial sites, consistent with section 6E-43, HRS.

(c) A written letter of concurrence shall be obtained from SHPD prior to application for project eligibility review.

(d) If SHPD finds the property culturally or historically significant, the applicant shall be instructed on mitigation measures prior to application for a development permit.

(e) All SHPD requirements shall be completed by the developer prior to submittal of a development permit to the authority.

COMMENTS:

1. [PF-HIF] As drafted, the rules would assume the authority to determine which properties are historically and culturally significant. They would allow only "new projects or those with significant alterations" to consult with SHPD prior to project eligibility review. Furthermore, the SHPD would be allowed only to review determinations of effect. The rules would not require that a project avoid or minimize harm to the historic or cultural resource, rather that the SHPD is limited to provide "instruction" on mitigation measures.

2.

[PF-HIF] Draft rules 15-215-18, -19, -20, -21 deal with historic preservation. HIF has a general concern that these sections intend to limit and restrict the existing legal processes and protections for historic and cultural resources, rather than reinforce or strengthen them.

3. Is SHPD to instruct on mitigation areas?

4. (d) Who will instruct the applicant on mitigation measures and what mitigation measure will be defined?

1.19 15-215-19 Designation of historic and cultural sites

Properties deemed historic or culturally significant and listed on the State and National Historic Register are so designated in the KMP.

COMMENTS:

1. [PF-HIF] Draft rules further limit the protection of historic and cultural resources by creating a narrow definition of historic and cultural resources. They would only allow those listed on the State and National Registers to be deemed historic or culturally significant and would use its new criteria to replace the earlier protections in the 2006 Kalaeloa Master Plan. The process of nominating historic properties is ongoing and never complete; and it is improper to assume that properties need to be on both State and federal registers.

2. Can we add verbiage to cover "discovery" of historic and cultural sites?

Uses of historic and cultural properties

A property designated historic or culturally significant may be put to any use permitted in the transect zone in which the property is situated, subject to the requirements of section 15-215-19 of this subchapter. Setback requirements shall not be enforced as to any lot on which an historic or culturally significant property is situated where such enforcement would result in damage to or destruction of the historic or culturally significant features of the property.

Alternatives....?

REF to the HECO utility grid would run approximately 1.5 mi (2.4 km) from the REF east along Bismark Sea Street and then north along Essex Road terminating at HECO pole #185.

Golf Ball Net: A golf ball net approximately 1,200 ft long (274 m) and 20 to 30 ft high (6 to 9 m) secured with 10 to 12 poles would be constructed along the eastern edge of the project site along the 17th Fairway frontage. Fence posts would require excavations for concrete footings to a depth 1 of 3.5 ft (1 m).

- Water line: A 2-inch (5-centimeter (cm)) water line would be installed to meet the maintenance needs of the REP. The water line would run under the proposed maintenance road and along the existing communication line easement, where it would connect with the Navy's water distribution system. Approximately 200 ft (91 m) of ¾-inch (2-cm) line would be used to feed hose 7 bibs at each break in the PV panel rows. Water lines would be installed approximately 1 ft (0.3 m) 8 below ground surface, based on Uniform Plumbing Code.

Power Line:

Generated power from the REP would be transmitted to the HECC electrical grid via a 10-46-kV overhead utility pole line running northeast approximately 0.7 mi (1.1 km) along the east 11 border of the project site. The power line would cross Geiger Road near the Honolulu Wastewater 12 Treatment Plant (WWTP); and terminate at HECC's 46-kV power line north of the WWTP and south 15 of Hennon Road at HECC Pole #189 (Figure 1-2).

The utility poles would require excavations 9 to 10 ft (2.7 to 3.0 m) deep and approximately 1.5 ft (0.5 m) in diameter. The pole line would be owned and maintained by HECC. Power poles would be aligned within easements and rights-of-way for existing power lines, where feasible. Power pole heights would be limited to minimum acceptable safety standards but not greater than 55-ft (17-m); poles would be spaced approximately 160 ft (49 m) apart (total of 20 to 22 poles). Standard wood poles or painted black or brown poles would be used.

Cultural Resources

For purposes of this analysis, significant cultural resources are those properties listed or may be eligible for listing in the NHP. As defined in implementing regulations for Section 106 of the NHP, impacts of an undertaking on significant cultural resources would be considered adverse if they "diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association" (36 CFR §800.5(a)). Examples of adverse effects include, but are not limited to, the following:

- Physical destruction, damage, or alteration of all or part of the property (36 CFR § 800.5 (a) (2) (i) and (ii));
- Isolation of the property from or alteration of the character of the property's setting when that character contributes to the property's qualification for listing on the NHP (36 CFR § 800.5 (b) (2) (iii) and (iv));
- Introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting (36 CFR § 800.5 (a) (2) (v));

- Neglect of a property resulting in its deterioration or destruction (36 CFR § 800.5 (a) (2) (vi)); and
- Transfer, lease, or sale of the property out of federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance (36 CFR §800.5 (a)).

In addition, pertinent planning guidelines from the KCRMP (Navy 2008c) for buildings and structures at Kalaeloa are listed below.

- Re-use, to the maximum extent viable, existing facilities before building any new structures. Adaptive use of existing historic facilities is encouraged over demolition.
- Retain the historic materials or historic buildings where economically feasible and environmentally acceptable. Building surfaces should not be covered with other materials. Where existing materials need to be repaired or replaced, the replacement materials should be in accordance with the Secretary of the Interior's Standards.

- Retain the physical and visual prominence of the retirement area by limiting construction in this area. Continued use of the retirement areas for se stabilis is encouraged.

- Historic facilities that are under-used, or without current or identified users, should be retained as long as practicable to allow for future adaptive use opportunities. Demolition of historic facilities should be viewed as a last resort.

- Tools such as Economic Analysis, Condition Assessment Reports, and Feasibility Studies should be used as appropriate prior to the undertaking of future historic preservation, adaptive use, or demolition projects (Navy 2008c).

Operational Period Activities

Approximately two full-time jobs would be created to maintain and operate the REP during the operational period. Maintenance activities include one complete system washing per year requiring approximately 250,000 gallons (945,353 liters) (l) of water using a cleaning solution of 1 tablespoon (15 milliliters) of vinegar per gal (4 l) of water. The cleaning would consist of hand washing with gentle agitation. The annual cleaning would take place over a period of about five days. Additionally, a spot cleaning requiring approximately 200 gal (757 l) of water would be performed on a monthly basis using the same water-vinegar solution. The spent cleaning solution would be allowed to evaporate on the panels or to flow on to the ground where it would either evaporate or be absorbed into the soil.

Topography and Soils

As shown in Figure 1-1, the topography of the Proposed Action and alternatives is relatively flat. The ground elevation of the project site is approximately 40 ft (12 m) above msl. Elevations across the power line corridors range from approximately 30 ft (9 m) along Bismark Sea Street to about 60 ft (18 m) along Franklin D. Roosevelt Avenue.

The project site is predominantly underlain by fill land—mixed (FL). FL areas are filled with material dredged from the ocean or hauled from nearby areas, garbage, and general material from other sources (U.S. Department of Agriculture 1972). A portion of the power line corridor associated with Alternative 1 is underlain by Mānala stony silt, clay loam, 0 to 12 percent slopes which is characterized as having moderate permeability, very slow to medium runoff, and only a slight erosion hazard. Portions of the power line corridor associated with Alternative 2 are underlain by FL and coral outcrops (CR). CRs are composed of coral or cemented calcareous sand.

Beneath shallow surface soils, much of KCDD is underlain by a coralline limestone unit (Section 3.1). The unit contains numerous solution cavities of various shapes and sizes. Many of the cavities have been filled, or partially filled with material derived from the breakup of old coral reefs and, in places, some cavities have been plugged or partially plugged by stream-laid alluvium. These sink holes, which are sometimes described as karst features, are natural cavities and represent actual remnants of the original reef structure that have been enlarged or otherwise structurally altered through solution by groundwater (Navy 1994).

Water Resources

Groundwater
 The Proposed Action and alternatives are located within the Pearl Harbor Aquifer Sector. The area is underlain by both deep and shallow aquifers. The deep aquifer is a basal, confined flank aquifer in the underlying basalt. The shallow aquifers overlie the deep aquifer and are basal, unconfined, sedimentary caprock aquifers (Mink and Lau 1999). The depth to the shallow groundwater aquifers at Kalaeloa ranges from about 60 ft (18 m) along the northern border of Kalaeloa, to zero at the coast. These depths correspond to a seaward gradient of 1.1 to 2 ft per mi (0.2 to 0.4 m/km). Groundwater seeps (surface leakage from the shallow groundwater aquifer) are present along the coastline of the 'Ewa coast.

The mingling of groundwater and surface water at the coast is important in the attainment of the 'Ewa Plain coastal ecosystems (Mr. Mike Lee 2010). This interaction replenishes and nurtures coastal limu. Coastal limu provides traditional and customary medicine and sustenance for the Native Hawaiian population and is also the foundation of the food cycle for marine invertebrates such as 'opihī, mollusks, ha'uhauki, wana, and pa'umou, or chiton used in the Mawaevae ceremony.

(1,829 m) to 7,500 ft (2,286 m) north of the shoreline. The flat topography at Kalaeloa, combined with the highly permeable soil and rock, allow storm water runoff to easily infiltrate the ground surface and collect in man-made detention basins, dry wells, natural sinkholes, or pits in the subsurface. During extreme precipitation events however, storm water typically overflows and sheet-flows into the nearest drainage or collects in low-lying areas. Within the land areas that comprise the Proposed Action and alternatives, the soils are very permeable and there are no identified wetlands or other surface water features.

Terrestrial Flora

The land areas that comprise the Proposed Action and alternatives have been extensively modified, particularly during the periods in which the airfield and MAS Barbers Point were built. The vegetation within the project site (i.e., REP) is overgrown with introduced species including thickets of foa haole (*Leucaena leucocephala*) and *Kaave* (*Prosopis pallida*) trees.

Protected Plant Species. There are no federally- or State-listed, threatened or endangered species, as defined by the U.S. Fish and Wildlife Service (USFWS) and the State of Hawaii's Department of Land and Natural Resources (DLNR), in the lands that comprise the Proposed Action and alternatives. The endemic shrub, the 'Ewa Plain 'akoko (*Chaenactis scottsborgii* var. *kalaeloana*), is a federally-listed, endangered plant species documented within the boundaries of the KCDD in isolated locations; however, it is not found within the Proposed Action and alternatives sites (Whistler 2008). Similarly, the federally-listed, endangered plant species, the round-leaved chaff-flower shrub (*Achyrocline splendens* var. *rotundata*) is known to occur within KCDD (and elsewhere) but is not found within the lands that comprise the Proposed Action and alternatives.

Terrestrial Fauna. Birds are the dominant wildlife within Kalaeloa, as is common for the Hawaiian Islands. Mammal species commonly found in similar areas on O'ahu include feral dogs, cats, rodents and mongoose.

Protected Animal Species. There are no federally-listed, threatened or endangered animal species known to occur within the lands that comprise the Proposed Action and alternatives. In addition, there are no designated or proposed critical habitats as defined by USFWS or DLNR within the Proposed Action and alternatives sites.

The federally-listed, endangered Hawaiian black-necked stilt has been documented at the Barbers Point 31 Golf Course, outside the boundaries of the lands that comprise the Proposed Action and alternatives 32 (May 2005); however, stilt has been observed at water features associated with the Barbers Point 33 Golf Course in the vicinity of the Bismark Sea Road portion of the power line corridor associated with

Several bird species protected under the Migratory Bird Treaty Act (MBTA) have been observed in Kalaeloa (Navy 2006) and may occur within the Proposed Action and alternatives sites. These species include cattle egret (*Bubulcus ibis*), black-crowned night heron (*Nycticorax nycticorax*), Pacific golden plover (*Puffinus pacificus*), muddy turnstone (*Arremonia interpres*), and wandering tattler (*Heteroscolus icampus*). Other MBTA species that may be present in the Proposed Action and alternative sites are the Northern cardinal (*Cardinalis cardinalis*), the Northern mockingbird (*Mimus polyglottos*), the house finch (*Carduelis mexicanus*), the mourning dove (*Zenaidura macroura*), and the barn owl (*Tyto alba*).

**Response To Navy Draft ENVIRONMENTAL ASSESSMENT
Kalaeloa Renewable Energy Park, Kalaeloa, O'ahu, Hawai'i**

The Kanehili Cultural Hui does not agree with the Finding of No Significant Impact (FONSI).

The Draft Environmental Assessment fails to address many important points.

The Draft Environmental Assessment fails to address the fact that the Navy's development partner Hawaii Community Development Association (HCDA) plans to use this same project for a major power utility corridor.

The EA fails to address what HECO's actual plans are and why they were never included in any Section 106 consultations or discussions, as they are in fact, a major part of this entire Hunt PV farm project and the related PV farms going in.

The Navy EA states that many more PV projects, roads, etc. are going into this same area. Money from the State of Hawaii legislature has already been committed to build the East Kalaeloa Energy Corridor using the Hunt right-of-way. This was not disclosed in the Section 106. We believe this needs to be revisited through the EIS process.

We will be sending over further documentation of our concerns and why we believe an Environmental Impact Statement is required for this project.

Sincerely,

The Kanehili Cultural Hui

Mike Lee
Glenn Oamilda
John Bond
Henry Chang Wo

KANEHILI AND MCAS EWA IMPACTS

RESPONSE TO NAVY ENVIRONMENTAL ASSESSMENT

TO:

COMMANDER

NAVY REGION HAWAII

ALOHA

**Kanehili – MCAS Ewa
 Historic 70 Year Old Baseball Field**
 A KANEHILI CULTURAL HUI REPORT
 IN RESPONSE TO NAVY EA

PRIDE FOR EWA – Ewa's PRIDE in Historic 70 Year Old Pride Field
 "An Ewa Beach team went up there and won. They won every single game (in the Little League World Series and the regional in San Bernardino)," she said, her eyes rimmed with tears. "The Lord is with us."
 "I told you they were going to make 'em," said the 67-year-old father of West Oahu's head coach as he folded his hands across his cane. "Never give up. Play hard, work hard. I feel very proud."



Not everyone in Ewa West Oahu knows that their favorite Little League baseball field actually has a sports history going back sixty five years. Nor do many even know HOW Pride Field got its name. For them, the field is just a very important little league baseball area that the City of Honolulu maintains since the closing on Barbers Point in 1999.

Before the Navy was there it was a US Marine air station called MCAS Ewa. The area was actually designated for baseball in early 1941, when Ewa Field was under construction, but because of the start of WW-II on December 7, 1941, the field was used for anti-aircraft machineguns, then as a general physical training area, including sports. It was not actually laid out formally as a baseball field until around 1943-44, when the US Marine had a team called Fleet Marine Force – Hawaii (FMFH Hawaii) that played the other Oahu service teams with very big name major leaguers recruited into the military during the war. One of the big baseball legends who played there was Marine pilot Ted Williams.

Without a doubt, historic Pride Field must be saved from developers and placed on the National Historic Register for its illustrious 70 year history as an Ewa open space sports field, and remain in use for Ewa's current and future Little Leaguers to use forever. This is about local community history and PRIDE FOR EWA.

Pride Field – Historic Open Recreational Space and Baseball Field

One cannot possibly over-estimate the importance of baseball in the 1940's. Not only the national sport, it was avidly followed by nearly everyone in America. Hawaii during WW-II enjoyed an especially huge baseball following because many major league players were drafted into the military specifically to play baseball during the war for morale and public relations, and many wound up in the islands on military teams. Major national baseball stars could be seen locally at Honolulu Stadium and major Army and Navy sports fields.

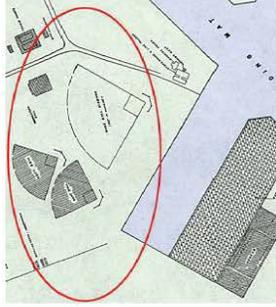
Ewa's Pride Field – Historic Open Recreational Space and Baseball Field

A National Register eligible Community Sports and Baseball field since the early 1940's and still heavily used today by Ewa Plains area baseball teams and as venue for baseball clinics and league championship games

John Bond
 6/15/2012

Baseball has an over 160 year history in Hawaii and Pride Field goes back to 1941 as an historic open space baseball and recreational area as part of Ewa Field, and during the WW-II MCAS Ewa era it became a professional size hardball field with two softball fields. After the 1999 BRAC the facility was taken over by City Parks and developed into a cloverleaf of four baseball fields for Little League training, games and island-wide tournaments.

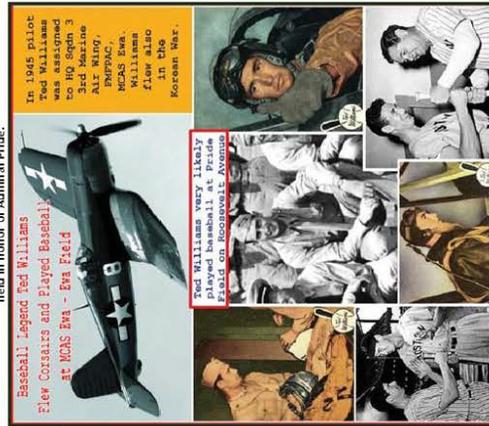
Pride Field goes back as an historic open space recreational area to 1941, when contractors working on the construction of the airfield show it as a professional size hardball field with two softball fields. This location originally made sense as there was also a major Rec-Gym building and swimming pool planned nearby, but airfield operational needs required moving its location over to its present Pride Field location.



Once the war started, Ewa Field grew rapidly and became Marine Corps Air Station Ewa - a huge military base for Marine fighters, bombers and transports supporting the Pacific Island invasion campaigns. MCAS Ewa also became the headquarters for Fleet Marine Force Pacific - which was the forerunner of today's MARFORPAC headquarters at Camp H.M. Smith. Accordingly, there was a Fleet Marine Force baseball team which played the nearby Navy Barbours Point "Pomies", as well as the other Pearl Harbor and Army teams from Schofield, Wheeler, etc. A 1948 map of MCAS Ewa shows the Fleet Marine Force Pacific baseball field with a professional hardball diamond and a smaller softball diamond.



Baseball Legend Ted Williams - was a fighter pilot at MCAS Ewa in 1945 and played for the Fleet Marine Force Pacific baseball team at what is today known as Pride Field. When the Navy took over the Marine base they renamed all the roads and facilities, including the baseball field in honor of Admiral Pride.



Ter Williams was stationed at MCAS Ewa during the end of the war, flying Corsairs, in 1945. Williams played for the MCAS Ewa team called Fleet Marine Force Pacific, when the base was still a huge WW-II base of Pacific operations. What became known as Pride Field was a big professional sized field then. After December 7, 1941, the field had anti-aircraft machine guns installed into dug-in foxholes to protect the airfield. Later Army anti-aircraft units arrived to guard Ewa Field and the baseball field went back to being a sports field.



MCAS EWA in 1948. The full sized baseball field is seen in the background, in this view taken from the control tower. Note that there are full size hard ball and softball diamonds.



Red Arrow shows the view taken from the MCAS Ewa control tower. Buildings in the background are within the Ewa Field Warehouse Historic District.



PRIDE FIELD 14th Naval District Fast Pitch Leagues, 1970's

Pride baseball field is today maintained by the City and County of Oahu Parks Department under a license from Hunt Corp. the Navy Lease, which stated it's eventual intention to remove the baseball field and commercially develop the site.

Built during WW-II, the field has seen continuous use in 70 years of history. Anti-aircraft machine gun positions were dug in around the playing field after the Pearl Harbor attack, and it was also used by the nearby Marine barracks for physical training and field day inspections of unit uniforms and equipment.

In 2005 the Ewa Beach baseball team won the Little League World Series. It has also been used for island-wide Little League Championship games and tournaments. Today, developers want to bulldoze this historic Ewa West Oahu Community field.

August 29, 2005 "Memia's heroic homer books Hawai'i pride"
 By Rod Ohtira and Peter Boylan, Advertiser Staff Writers



West Oahu Team Wins Little League World Series

<http://www.khwh.com/sports/5907589/detail.html>

July 26, 2007 Little League Majors Stare T tournament final

By Kyle Sakamoto Honolulu Advertiser



Games Played on Historic Pride Field

It came down to power yesterday for Waipio in the Little League Major State T tournament championship game. The Majors (ages 11-12) is the oldest Little League division, starting in 1939 with its first World Series in 1947. In 2005, West Oahu became the first team from Hawaii to win the World Series.

"Seeing these kids swing the bat, with fireworks and the fence (205 feet) being so close... on our team we have about eight guys (who can't throw runs)," Waipio coach Timo Donahue said.

"Being there was already a great us as well, look on what the kids to be out there, living conditions are so good, what to expect," Timo Donahue said.

Recent West Oahu Baseball Clinic held at Historic Pride Field



The boys from Ewa Beach and Waipahu, all 11- and 12-year-olds, put a state on their collective shoulders yesterday and represented it with pride and grit. As Michael Merner nailed his game-winning homer in the bottom of the seventh and teammates waited at home plate to embrace him, thousands of people around Oahu — and millions more watched worldwide — celebrated the wild victory.

"We all blue-collar workers," said Darwin Nazarimo, a 28-year-old preschool teacher who was watching the game on TV at a party. "We love our sports, it gets us through. If (the victory) brings the community and the families together, it gives a little bit hope that wherever you from, whatever you do, if you work hard, it can happen."

Terry Memea, a first-grade teacher at Holoama Elementary School in Ewa and former professional hula dancer, said when her son hit the ball, "I sat down and cried. He was struggling for three games. I thought, 'OK, there's no one and Youta (F'cho) and Quentini (Chievarra) are coming up so if he could just get on base.' When I heard it, I knew it was gone. The sound was so sweet."

<http://the.honoluluadvertiser.com/article/2005/Aug/29/hv/P50829D366.html>



Herbert Alivisato, left, and Kia Hale celebrate West Oahu's victory in the Little League World Series at Alivisato's home in Ewa Beach. The win was especially sweet for Alivisato, the father of West Oahu's head coach and grandfather of the team's first baseman.

Hawaii's Ewa Beach Wins Little League World Series

It has been a dream season for a bunch of boys who live and play baseball just a few miles from my home here on Oahu.

Hawaii is very proud of her boys from Ewa Beach. The coaches and parents have been "class acts" and have shown the world that the word "aloha" can be used in the same sentence as "World Champions!"

In the early 1920s, having joined the Regular Navy, Pride became involved in the experiments to develop U.S. aircraft carriers. He served aboard the USS Langley, the converted coling ship that became the Navy's first aircraft carrier, and also took part in the development of the carriers USS Saratoga and USS Lexington, as a member of the original crews.

Pride continued his work in Naval Aviation testing for the rest of the interwar period. He went on to study aeronautical engineering at the Massachusetts Institute of Technology (MIT). In 1921, he became the first person to land a biplane on an aircraft carrier. From 1924-1926 he headed the Flight Test Section at Naval Air Station Anacostia, Washington, D.C., at that time the Navy's center for aircraft testing.

During World War II, Pride served as first commanding officer of the carrier USS Belleau Wood (CVL-24). He received promotion to Rear Admiral and became Commandant, 14th Naval District, at Pearl Harbor, Hawaii. He then was assigned out to Fleet jobs, including command of Carrier Division Six and Carrier Division Four.

He returned to the Pacific in 1953, when he received promotion to Vice Admiral and command of the U.S. Seventh Fleet (December 1, 1953 - December 19, 1955). During this time, he was featured on the cover of the Time magazine (February 7, 1955 issue). Pride served as head of the Seventh Fleet until 1956, when he became Commander, Air Forces, Pacific Fleet.

**August 11, 2010 "Trying To Save A Historic Ball Field"
By Senator Bob Hogue - Hawaii MidWeek**

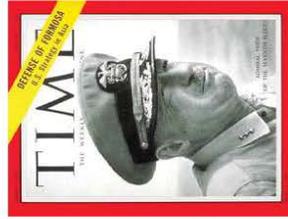
There's an old ball field in Ewa that is suddenly much talked about. The field, now used by Little Leaguers, dates back to World War II, when historian John Flood says: legendary Boston Red Sox star Ted Williams played there.

"Ted Williams was here at the end of the war, flying Corsairs," Flood says. "He played for different base teams around the country during his time as a pilot. He played for a team here called Fleet Marine Force Pacific in Ewa when the base was huge, massive in 1945. It was a big professional-sized field then."

The Ewa teams played their games at Pride Field, known as Morning Mass Field in the WWII era. Several other major leaguers, including Joe DiMaggio and PeeWee Reese, were in different branches of the service then and played on other Oahu teams.

Williams a Navy Marine pilot known by baseball fans as the Splendid Splinter, who was the last player to hit over 400 when he batted .406 in 1941, reportedly spent nearly all of the time when he wasn't flying playing baseball. "He was obsessed with baseball. He would have me pitch to him every chance he got," wrote a former serviceman in a published account.

"There was no other field here (in Ewa)," he says. "Back then, baseball was really big for everyone. Massive crowds came out to see these teams play. Major Leaguers like Williams were the rock stars of their day. Everybody would turn out to watch them."



Alfred Meahule Fride (1897 - December 24, 1988) pioneer Naval aviator

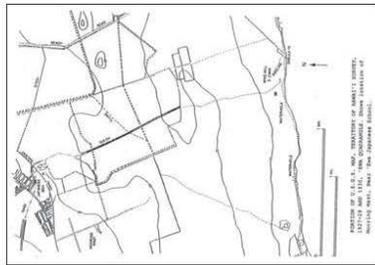
Fride Field was named such when under the Navy as Naval Air Station, Barbers Point after MCAS Ewa closed in 1952. This was a ritual because Admiral Pride was a very famous naval aviator, aircraft-carrier commander and Seventh Fleet Commander during the Cold War era. NAS Barbers Point was the major supporting Pacific airbase.

It is also very likely due to LCDR Wynn Junk, who was the Barbers Point MWR-Special Services director, who was stationed on and had flown aircraft from the USS Belleau Wood (CVL-24), when Alfred Fride was the commander of that aircraft carrier. Even more fitting for the former MCAS Ewa baseball field was that the USS Belleau Wood was named for a famous WW-I US Marine battlefield and Pride was highly regarded by Marines under his command during WW-II. So honoring Admiral Fride with a popular baseball field seemed like a perfect fit by everyone. If the field had a name during the MCAS Ewa era, it has been unfortunately lost.

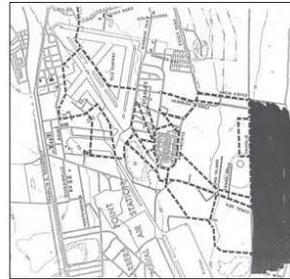
Alfred Meahule Fride (1897 - December 24, 1988) was a United States Navy admiral and pioneer Naval aviator, who distinguished himself during World War II as an aircraft-carrier commander.

He served during the late 1940s as Chief of the Bureau of Aeronautics and during the Korean War as Commander of the U.S. Seventh Fleet. Fride's career was remarkable for its time, in that he achieved flag rank without having attended the United States Naval Academy or even completing college. (He did, however, later complete advanced studies in aeronautical engineering.)

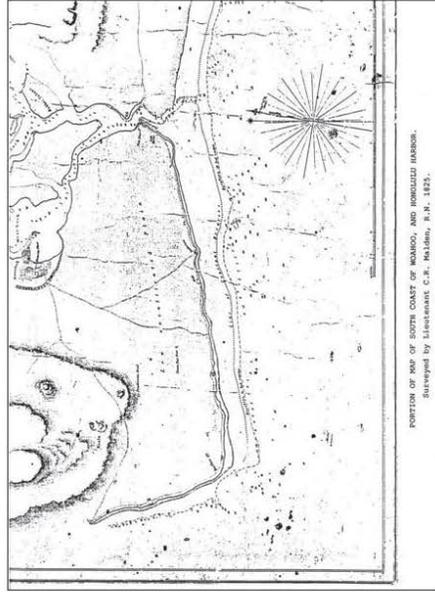
A native of Somerville, Massachusetts, he studied engineering at Tufts University in Boston for several years before dropping out to enlist in the Navy during World War I. He served first as a machinist's mate in the Naval Reserve, but was soon given the chance to receive flight training and gain a commission as an ensign. Fride was sent to France, where he served briefly during the latter part of the war.



1920's map shows Mooring Mast Field, Ewa Plantation Village, Kai'i Gulch, Ewa Plains Ranch roads, fences and corrals, trails, waterholes, etc.



1960's map shows old historic ranch and foot trails which were used by Marine Corps mounted horse patrols in WW-II and for the past 60 years by the Barbers Point Stables and Riding Club.



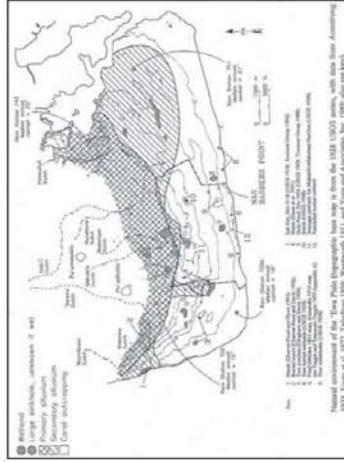
Hawaiian Trails as identified by Lt. C.R. Holden, R.N. in 1825. These trails pass through the Ewa Plains area known to Hawaiians as Kanehili, which later became MOCAS Ewa and NAS Barbers Point.

This is the earliest known recorded map of the trail network in the Ewa Plains. Actually there were of course many additional trails that went to various important Hawaiian cultural and sacred sites as well as to water holes, fishing areas, imu gathering areas and burial sites.

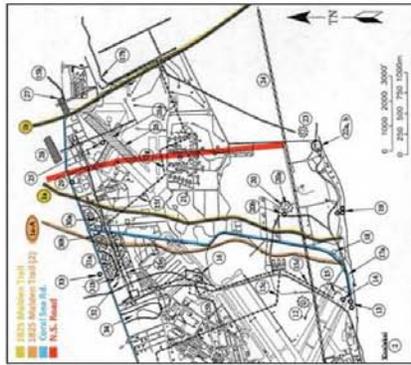
Western culture followed in the footsteps of these trails, first for ranching trails and then for Sisal plantations, salt gathering and then sugar cane plantations with railway tracks throughout the entire Ewa Plains. Ewa Plantation had the largest private railway network in the Hawaiian Islands, which connected to the Oahu Railway and ship loading docks in the port of Honolulu.



Ewa Plains Karst map based on USGS surveys and geological research.



Natural environment of the Ewa Plain, Kanehikii area which became the CBS Ewa and CBS Barbers Point in center. Topographic data from the US Geological Survey.



Overlays of cultural and historic sites showing historic trails, roads, etc. Kanehikii CBS Ewa

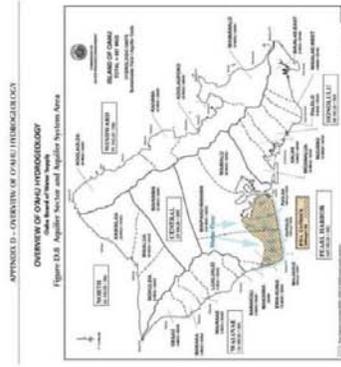
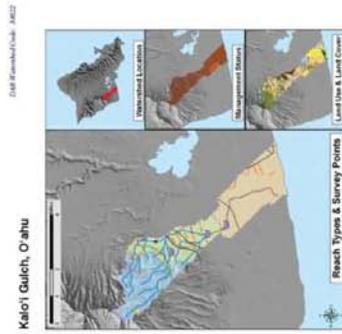


Archaeological and historic sites by no means complete Kanehikii, Ewa Plains CBS Ewa. The 11th addressed North-South Rd. runs directly through the center of all other historic and archeological sites as well as endangered species preserves, sinkholes and burial areas.



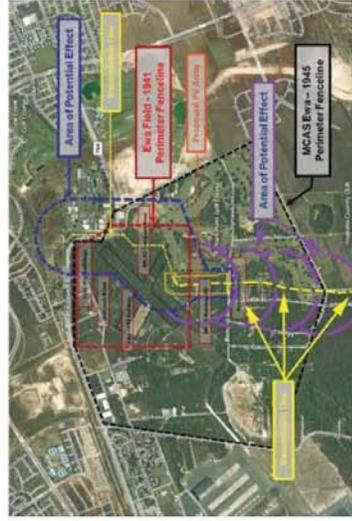
The Kāneʻihi Traditional Cultural Place represents the very last land preserve and refuge in a sea of huge clusters of densely packed hotels, tiny parks, and badly planned traffic circles pushed by land developers that want to do away with all debris and restrictions so they can do as they please for a profit. They have no connection with the local community.

Many important Hawaiian cultural sites have been destroyed and the once great Kōneʻihi along the Ewa shoreline has been destroyed by pollution and destruction of the natural Kōneʻihi water system that filters storm water and provides the organic nutrients that form an ecological food chain. From the reef fish, sea turtles and up to larger pelagic fish such as tuna. Developers greed and their ability to persuade and influence government decisions with various gifts and contributions has led to decisions that reduce the public good and unity with false promises and future benefits that never actualize.

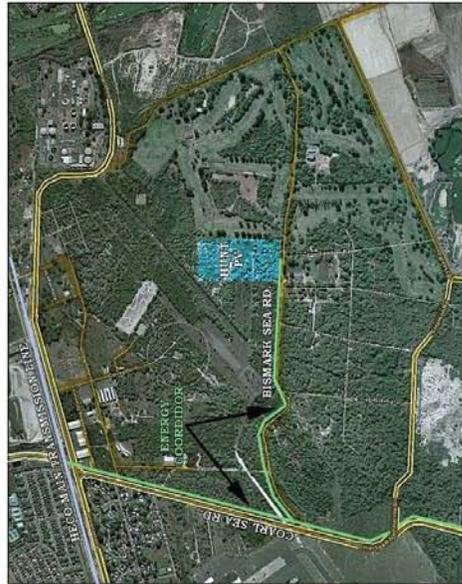




East Kalaeloa Utility Corridor showing greatly increased areas of Potential Effect as it passes through historic and culturally important areas.



Area of Potential Effect - Identification of Historic Resources



Map shows the route down Coral Sea Road for the East Kalaeloa utility corridor which would connect to the S Coast Guard Station-Barbers Point. This route would allow for their PV array connection and do the least amount of environmental damage in the area.

KANEHILI - MCAS EWA KANEHILI IS AN ANCIENT HAWAIIAN TRADITIONAL CULTURAL PLACE AND A 150 YEAR OLD WESTERN CULTURAL LANDSCAPE

Solar PV = Big Scams

Repeated Evidence Shows Solar Power Is Riddled With Scams, Rip-Offs, Bate and Switch...

John Bond
6/15/2012

June 03, 2012

CoR: Solar Tax Credit Scammers Will Take \$491M More than Projected
By Andrew Walden

The failure of the Legislature to check rampant abuse of Solar and Wind tax credits and shortfalls in projected income from last year's GE Tax hike may cost the General Fund as much as \$721M over the coming seven years according to the [latest Council on Revenue Forecast](#).

At its May 29 meeting, the CoR lowered its growth forecast for 2013 from 7.5% to 5.3%. Because CoR projects year on year growth, this shortfall causes increasing losses from \$106M to \$135M each year thereafter. The CoR didn't beat around the bush. Just days after the Legislative Conference Committee failed to pass out HB2417 which would have applied modest restrictions on the growth of solar tax credits, the CoR exclaimed:

The downward revision to the forecast for FY 2013 is mainly due to revised estimates for the revenue gain from Act 105 and the possibility that the renewable energy tax credits might cost more than initially anticipated.

CoR Chair Richard Kahle [tells HHI](#):

"It's the tax law that's jerking us around. Every house built has to have a solar on it, or some kind of PVC on it. And that means every house gets a tax credit. Multiply that by two, three per house, you got a problem."

Lowell Kalapa of the Tax Foundation of Hawaii, cites DoTax estimates that the suspension of certain general excise tax exemptions will bring in \$70M, not the \$300M previously projected. This means that the abuse of Solar and Wind tax credits is likely to cost taxpayers \$491M--nearly half a billion dollars above the costs projected earlier.

Year	Gen Fund Revenue '000	Growth year over year	Previous Forecast	Gen Fund Previous Forecast '000	Difference '000
2012	4,848,828	12.0%	12.0%	4,848,828	0
2013	5,105,816	5.3%	7.50%	5,212,490	106,674
2014	5,310,049	4.0%	4.0%	5,420,989	110,940
2015	5,639,272	6.2%	6.2%	5,757,091	117,819
2016	5,864,843	4.0%	4.0%	5,987,375	122,532
2017	6,158,085	5.0%	5.0%	6,286,743	128,658
2018	6,465,989	5.0%	5.0%	6,601,080	135,091

- Total Lost to General Fund: \$721,714,000
- Loss Due to failure of Act 105: \$200,000,000
- Solar and wind tax credit abuse: \$491,714,000

"There's no doubt in my mind that the way the tax credit has been used in terms of double, triple and quadruple dipping, was not the intent of the legislation when it was originally passed," said Marco Mangelsdorf, president of Provision Solar on the Big Island.

Bungled Again As Revenue Forecast is Curtailed

By Lowell L. Kalaga
(Revised on 6/10/12)

While lawmakers may have the best intent in mind, they often refuse to listen to the advice of those who have been there and done that.

This became more evident during the latest crystal ball gazing by the state's Council of Revenues' wizards. Although the seven-member roundtable believes that the state's economy is improving, the hopes of observers were dashed when the tax department announced that losses from the alternate energy tax credits are going to be \$70 million more than the department had first estimated and that the much anticipated revenues from the suspension of more than a dozen general excise tax exemptions would produce only a fraction of what the department had originally estimated.

Between the two estimates of revenue impact, the tax department advised the members of the Council on Revenues that their forecast for the coming fiscal year had to be adjusted downward by nearly \$110 million. This meant the Council had to drop its forecasted growth for general fund revenues from 7.5% to 5.3% for the fiscal year that will begin on July 1. Given that the supplemental budget approved by the most recent session of the legislature was based on the 7.5% growth rate in general fund tax revenues, there is no doubt that the governor will have to pare back the release of those dollars appropriated for the coming fiscal year.

While there will be lots of finger pointing, there is enough blame to pass around to all the concerned parties. While some issues can find their genesis in legislative actions, the department of taxation has to share some of the blame. In the case of the alternate energy tax credit, it is quite obvious that lawmakers did not do their homework to learn more about the developing technology in the field of alternate energy. Nor does it seem that lawmakers understand the limits placed on the amounts of the credits and how they reconcile with the conventional electric company to achieve "net zero" metering.

At the same time, the department of taxation interpretation of the alternate energy tax credit also created a huge hole in the revenue picture as its definition of "system" allowed taxpayers to claim more than one credit per installation. And when the department pointed out that the language of the law needed to be tightened up, the legislature left the correction legislation on the cutting room floor. Thus, the drain on state revenues will continue for another year or at least until the department can draft a new interpretation of the current law that will limit the definition of what constitutes a "system."

Hawai'i Free Press last November [exposed](#) massive DoTAX-authorized abuse of State Renewable Energy Technologies Income Tax Credits (REITIC) by both residential and commercial solar projects. This led directly to several pieces of legislation aimed at curbing the outlay. The last of these, [HB2417.HD2.S02](#), amended into [HB2417.CDL](#), died in Conference Committee April 27. According to sources on the committee, Senate Ways and Means Committee Chair Sen. David Ige (D-Hearl City, Alaia), and House Finance Committee Chair Rep. Marcus Oshiro (D-Wahiawa) decided that no tax credit bills would pass this session. The rationale was that in an election year, they did not want to anger any donors.

Because Hawaii has the most lopsided legislature in the nation, and because Democrat legislators are punished for challenging any decision of Committee Chairs, there are not sufficient minority legislators to win the necessary 30% vote on the floor of the House or Senate to pull a bill out of committee and force a floor vote.

Tuesday June 5 is the last day to file papers to run for legislature and many incumbents face little or no electoral challenge.

Hawaii has the nation's most regressive State tax structure. Now, thanks to secretive last minute negotiations, nearly half a billion dollars may be siphoned from the pockets of working-class taxpayers in order to make the pockets of the banks, insurance and tobacco companies, and the [banks, insurance and tobacco companies](#), which finance them.

Knowing that no Hawaii media outlet would explain his culpability, Oshiro boldly indicted himself in a May 29 interview with [KHON](#):

It means restricting Medicaid payments to hospitals, all of the grant in aid that were recently approved by the legislature, aid to community health centers, assistance to domestic violence shelters.

This will definitely have an impact on their collective bargaining positioning when they go in, right now as they look over the next several years.

But this is not the end of culpability. Multiple solar credits per house are allowed only under Do tax Tax Information Releases 2010-02 and 2010-03 and a February 11, 2011 DoTAX "Letter Bulletin." These edicts clearly violate the intent of the underlying REITIC Law: [HRS 235-12.5](#). It is thus fully within the power of the Abercrombie Administration to order DoTAX to revise its interpretation of [HRS 235-12.5](#).

In the case of the suspended general excise tax exemptions, lawmakers were told that many of the exemptions had been adopted because without them the structure of the general excise tax would exacerbate the imposition of the tax on goods and services causing the cost of living to increase substantially and put Hawaii at a competitive disadvantage in the global marketplace. They were also warned that they could not change the rules of the game in midstream as a number of businesses had existing contracts that recognized the exemptions as part of current and future transactions. As a result, the legislature recognized these existing contracts and grand fathered the exemption for these taxpayers. What they did not realize is that taxpayers who were watching this happen rewrote their existing contracts before the effective date of the legislation. As a result, those who might have been caught in the suspension of the exemptions were able to avoid being taxed.

As the accountant on the Council of Revenues pointed out, skilled accountants probably were able to devise ways to circumvent the suspended exemptions. But lawmakers relied on numbers generated by the department of taxation which obviously had no clue that ways could be devised to get around the suspended exemptions. The department analysts pegged the potential revenue to be gained by suspending the general excise tax exemptions at more than \$340 million. But the Council on Revenues was suspicious of the lofty revenue estimates and cut the anticipated revenue figure in half last September.

After reevaluating the impact of the suspended exemptions, the department believes that the suspended exemptions will generate just a wee bit more than \$50 million. The result is that there will be much less to fund state programs and services in the coming year.

And if there is a lesson to be learned, it is, don't rush in where wise men fear to tread.

Lowell L. Kalapa is the president of the Tax Foundation of Hawaii. Mr. Kalapa's commentary is printed each week in the [Maui News West Hawaii Today](#), [Candem Isle News](#), and the [HawaiiReporter.com](#).

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49% Waste: Inspector General Slams Hawaii Navy Solar Projects

by Andrew Walden Sunday, October 23, 2011

A damning report by the Inspector General of the US Department of Defense hits wasteful spending on solar energy projects on board Navy and Marine bases in Hawaii and California.

The report, issued September 20, 2011 focuses on solar contracts let in 2009 but has obvious implications for alternative energy projects awarded in 2010 and for the \$500M of DOD solar contracts hastily assigned last month for Pearl Harbor, Hickam and other military installations as part of a \$1.6 solar contract to install photovoltaic systems on military facilities nationwide.

The Inspector General explains:

We determined that the Department of the Navy (in 2009) did not select and plan photovoltaic projects in accordance with the Recovery Act and applicable energy legislation and that as a result, the Navy will not recover \$25.1 million of the \$30.8 million invested in photovoltaic projects.

In other words, for every \$1.00 spent on solar projects, less than \$0.51 of electricity will be produced over the life cycle of the projects. The Hawaii projects evaluated are at Naval Station Pearl Harbor and at the Barking Sands Pacific Missile Range Kauai. With the nation's highest electric rates and some of the world's best solar production conditions, Barking Sands still manages to produce 6% less value than the cost of initial construction being \$420,000 over the life of the project. Pearl Harbor will lose the Navy \$6.69M—41% of the initial cost of construction. Losses at the ten California military solar projects range from 49% to an amazing 105% of the initial construction cost at NAS Lemoore, a loss amount made possible because of the projected cost of maintenance.

The report is one of five IG reports documenting waste over \$1.17M on alternative energy projects launched on military bases nationwide in 2009.

In response to questions from the IG, Naval procurement officers argued that the projects were not required to be cost-effective. The IG rejected this assertion, and is demanding further answers due October 24 from twelve high-ranking DoD and Department of the Navy civilian and military officials.

In an October 20 article, [Greenwire explains](#):

In the two-and-a-half years since the stimulus projects were chosen, the military has heightened its focus on energy issues and the Obama administration made it a priority when it appointed officials with energy expertise to top-level posts. Hicks' office, for example, was newly created by the administration.

Jack Spencer, a fellow at the Heritage Foundation, said the military should not be held to cost-effectiveness rules for mission-critical projects, but he questions whether renewable

Hunt Corp's KREP (Kalaeloa Renewable Energy Park) uses 20 inverters. An inverter converts DC to AC. Using 20 inverters for a "Commercial System" means \$500,000 x 20 = \$10,000,000.

Does this lower local Hawaii utility costs and electric bills? ABSOLUTELY NOT.

Hawaiian Electric Co. has stated that they must keep raising their ever SKY-ROCKETING RATES to Hawaii consumers to COMPENSATE for the amount of SOLAR PV being installed.

HECO is a for profit corporation, has seen its own PROFITS also SKY-ROCKET as it gouges the Hawaii utility rate payer AT EVERY OPPORTUNITY.

The money made is pure profit for Hunt Corp which will use a Delaware LLC to pay few if ANY taxes, at the expense of Hawaii Tax-Payers who will get rate reduction NO BENEFIT other than the very FUZZY CONCEPT that somehow very RICH companies like Hunt Corp, which grosses \$900 Million annually, and gets incredibly cheap lease rates from the US Navy to use Federal Tax-Payer lands to make HUGE PROFITS

<http://www.hawaiirepress.com/Articles/Main/tabid/56/articleType/ArticleView/articleid/5131/Hawaii-Wind-Solar-projects-Millions-for-Wall-Street-Banks-maybe-even-Big-Tobacco.aspx>

Hawaii Wind, Solar projects: Millions for WallStreet, Banks...

In his New Day Plan, Neil Abercrombie defined energy independence as "retaining a major portion of the billions of dollars that we now spend on imported oil so we can reinvest it here at home."

(Rooftop PV is much less of a concern now that costs are trending toward \$5 per watt or less. The real problem is Hawaii's "Solyndra" which developed a "power plant" on the Big Island with Hawaii tax credits that cost us \$200 per Watt (<http://fkoahu.blogspot.com/2011/07/solar-power-plant-on-ohaiu-does-not-pass.html>). Now Solyndra has agreed with HECO to make a bigger "power plant" at Kalaeloa. PUC is expected to rubber stamp this power purchasing agreement at 33.5 cents per kWh.)

Hawaii law (HRS 235-12.5) allows for another 35% in state tax credits for many projects — bringing the total to 95%. State and federal taxpayers are basically giving wind farms and solar installations to grant corporations, banks, and Wall Street brokerages. The "alternative energy" becomes an excuse to jack up electric rates. And the so-called Tax Equity investors laugh all the way to the bank.

<http://hawaiirepress.com/Articles/Main/tabid/56/articleType/ArticleView/articleid/5180/Why-Stop-at-500K-DOTAX-Quietly-Multiplies-Hawaii-Solar-Tax-Credits.aspx>

Mainland solar contractors are pouring into Hawaii to launch every solar project imaginable. Gigantic solar farms are proposed for Pearl Harbor—part of a \$500M deal with the Navy. Other commercial solar farms are in the works on Kauai. Honolulu construction permitting records show that rooftop installers—including many newly arrived from the mainland—may commence nearly \$100M of work this year.

The looming December 31 expiration of the "Section 1603 Cash Grant"—Obama 'stimulus' money given to solar installers equal to 30% of a project's cost—is a key driver of the solar bubble economy.

But information provided to Hawaii Free Press by a Hawaii-based solar contractor points to an additional cause—massive DOTAX-authorized abuse of State Renewable Energy Technologies Income Tax Credits (RETTC) by both residential and commercial solar projects.

(Germany's Solar Failure is a Big Lesson for Hawaii:

<http://fkoahu.blogspot.com/2012/03/him-jamborg-recently-exposed-germanys.html>)

Defenders of Germany's solar subsidies claim that they have helped to create 'green jobs'. But each green job created by green energy policies cost on average \$175,000, while some are as high as \$240,000. And many 'green jobs' are being exported to China, meaning that Europeans subsidize Chinese jobs, with no CO2 reductions.

<http://www.hawaiireporter.com/germanys-energy-policy-flop-flop123>

RETTC is a state tax credit worth up to 35% of the actual cost of installing a solar system. It is capped at \$5000 per system. But in May, 2010, after solar installers started trying to claim that solar panels equipped with "micro-inverters" were each an individual system, the Hawaii Department of Taxation (DOTAX) responded with Tax Information Releases 2010-02 and 2010-03. Rejecting the micro-inverter scam, DOTAX instead mandated that "The number of independent connections into the building's electrical system is the determining factor." According to DOTAX, an installation with "a single 6,000 watt ... inverter" was "one system" entitled to one tax credit worth up to \$5000. But a system with "two 3,000 watt... inverters" was "two systems" and therefore could be eligible for up to \$10,000 in tax credits.

The result, according to our source, is that many solar contractors write their jobs to maximize the number of inverters, often using four 2,000 watt inverters where one 8,000 watt inverter would do. Instead of collecting a single \$5000 tax credit, a single job wired in this manner would now be considered four systems and therefore entitled to as much as \$20,000 in tax credits.

The DOTAX releases made the Hawaii Solar Energy Association see dollar signs:

The Hawaii Solar Energy Association is pleased that the Department of Taxation has released a new Tax Information Release (TIR.2010-03) that provides additional clarification on the use of

The Kanehili Natural Environment
A KANEHILI CULTURAL HUI REPORT
IN RESPONSE TO NAVY ENVIRONMENTAL ASSESSMENT

Kanehili – An Ancient Natural Treasure
Hunt-HCDA Energy Corridor Development Plan Has
Much Wider Impacts Than Indicated In Navy
Environmental Assessment.

By John Bond
6/15/2012

"For future understanding and research of the islands' natural history,
we should preserve this."

"The timeliness of where they [SHPP] are with this issue is indicative," Kalu said. "It's not a coincidence that the State allots so few staff to juggle all these responsibilities."

The Kanehili - MCAS Ewa area roads should use only the historic base roads and right-of-ways, which when analyzed, really do make a great deal of sense and will serve the entire area very well.

.....
New Roads Through Historic Sites Will Be Very Hard Sell For Federal Dollars

<https://www.environment.hawaii.gov/4/rnbsde.asp>

The Department of Transportation Act (DOT Act) of 1966 included a special provision - Section 4(f) - which stipulated that the Federal Highway Administration (FHWA) and other DOT agencies cannot approve the use of land from publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historical sites unless the following conditions apply:

- There is no feasible and prudent alternative to the use of land.
- The action includes all possible planning to minimize harm to the property resulting from use.

Section 4(f) of the Department of Transportation (DOT) Act of 1966 was set forth in Title 49 United States Code (U.S.C.), Section 1653(f). A similar provision was added to Title 23 U.S.C. Section 138, which applies only to the Federal-Aid Highway Program.

.....

Building a NEW ROADWAY through Kanehili Cultural and Historic area will destroy endangered Akoko plants directly in the way.

Building a NEW ROADWAY through Kanehili will surely uncover many NEW Hawaiian burial sites and hundreds previously unknown coral sinkholes.

In 2005 US Fish and Wildlife's project demonstrated restoration of anchialine pools within the Kalaeloa Unit area and rehabilitated an anchialine pool and led to the successful recruitment of two color phases of an anchialine pool shrimp known as 'opae 'ula (Halocaridina rubra), a species at risk. Found only in Hawai'i, 'opae 'ula can reach 10 to 15 years of age, an unusually long lifespan for a tiny crustacean. This species is approximately 0.5 inches (1.27 centimeters) in length and occurs in a range of colors--red, pink, white, light yellow/clear, and banded (red/clear). Kanehili is the only location in Hawai'i where two distinct genetic lineages of 'opae 'ula are found to coexist at the same site.

"Ewa Oahu sinkholes yield extinct birds"



"Ewa Oahu sinkholes yield extinct birds"

August 7, 2007 By Jan TenBruggencate Honolulu Advertiser Science Writer

The baking sun and frizzy kuaue trees hide dense caddies of history, relics from a time when the Ewa Plain was a dense forest alive with strange birds now long extinct.

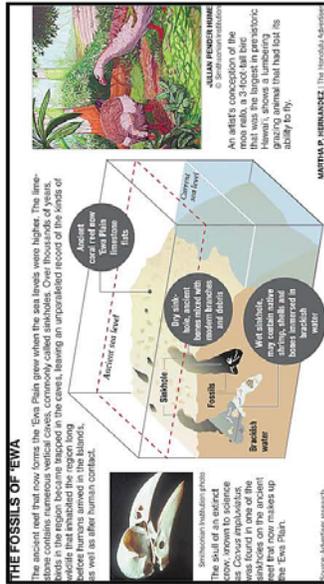
In those years, before the arrival of humans, the amazing monalo lumbered through the trees. It was a 3-foot-tall, flightless goose-like duck — the largest of the Native Hawaiian birds. Flightless snails and geese waddled around with it. Overhead flew a sea eagle, owls, crows, a hawk and bats. Finches and other perching birds flitted among the trees. Most of these birds have been extinct for hundreds of years.

But proof of their existence lies in the bottom of limestone "sinkholes" where they sometimes were trapped and died, leaving their bones and beaks behind. The shells of now-extinct tree snails, and the pollen from the plants that once forested this area are found in sediments with the bones.

The sinkholes are vertical caves in an ancient reef that grew during a period 120,000 years ago when sea levels were much higher. There once were thousands of sinkholes across the Ewa Plain — lime traps that preserved evidence from Hawaii's prehistory. Most have already been filled or covered by development.

"This is all we have left of a unique geological and biological setting in these islands," said Helen James, a fossil bird expert at the Smithsonian Institution, who with her former husband, Stars Olsen, has taken the lead in identifying the ancient bones and beaks. "For future understanding and research of the islands' natural history, we should preserve this."

The first person to find bird bones in sinkholes here was Jennie Peterson, now the environmental education program manager with the Hawaii Nature Center. During the 1970s, she was an archaeologist with Bishop Museum, looking for an ancient and important site, on the flat, on the flat, on the flat, on the flat. Deep Draft Lumber "I was digging in a large sinkhole when I found them. They were so big that I thought they were mammal bones, but I knew they couldn't be because they were too light," she said.



"VANISHED FOWL"

No animal known to have lived in Hawai'i could have produced those bones, so she took them to Bishop Museum zoologist Alan Ziegler, Marjorie Ziegler's dad. He recognized they were the same class as extinct birds whose bones had been found in sand dune deposits on Molokai, and consulted with Olsen, the Smithsonian Institution fossil bird expert, who happened to be conducting research on Maui.

It was a huge bird like nothing alive in the world today.

They called the group "vanished fowl" or monalo in Hawaiian. There are examples in the fossil record on all the major islands. The O'ahu monalo was given the scientific name of *Thambetochen xanion*.

Further digging in sinkholes — some of them dry, and some with pools so deep that scuba gear was needed — yielded the bones of dozens of species of flightless birds, land birds, sea birds and raptors. The most common bones came from the now-extinct, dark-cumped petrel. This seabird has never before reported from O'ahu in habitat files, but the fossil evidence shows there was an immense number of the birds here at one time.

"There must have been a major colony here. The whole Ewa Plain was just covered in them," James said.

Today, people think of the arid Ewa area as former desert, but in pre-human times, it was forested. Researchers have found seeds from extinct tree snails, and the pollen from the birds' or vegetation that probably once populated Ewa, including pritchardia palms, an acacia that was probably koa h, and a critically endangered legume called kamaloa.

SURVIVAL PRECARIOUS

Preliminary dating of the sinkhole material suggests that most of the bird species were in the region for thousands of years, and most disappeared from the area in the years after human contact with the islands. It is not yet clear what the direct cause was — perhaps humans directly feeding on birds, fire or other kinds of habitat disturbance, human-brought rats that could have both eaten vegetation and bird eggs, or something else.

Michigan State University zoology professor Peggy Ostrom is conducting studies to help answer some of the questions. She said she and her students will attempt to extract proteins from fossils for radio-carbon dating, and to analyze material in the bones to gain information about what the birds ate.

She said James also hopes to find clues about the fate of the sinkhole birds. "I'd be careful about making assumptions. It could have been a number of things," Ostrom said. There is very little left of the prehistoric life of this region. Almost all the vegetation is modern weeds and hardy introduced trees like kaawe and banyan.

But deep in at least one of the wet sinkholes, in a tiny pool of brackish water, by the illumination from a flashlight, you can see tiny flickers of movement. They are the native anchaline shrimp — living in darkness and among the last survivors of the time when this region was alive with forms of life no living human has ever seen.

Endangered Hawaiian Akoko Plants



Akoko, Ewa Plains (*Chamaesyce skottsbergii*, *Kalaeloa*) MCAS Ewa - Barber's Point, Oahu
<http://www.botanr.hawaii.edu/faculty/carr/ebowebria.htm>

This graceful shrub (var. *skottsbergii*) can be used in the landscape to lessen the harshness of an otherwise hot, dry location and does well on a west, southwest or south facing area. Black or red cinder or clean coral "rock" provide a natural mulch as well as highlight the tiny leaves.

Can grow in partial sun, but definitely prefers long days of full sun. This is a great plant to use on a west, south, or south-west location in the landscape. This species of akoko is found among coastal vegetation and dry scrubland, apparently restricted to calcareous (calcium carbonate or limestone) habitats.

This federally endangered variety *skottsbergii* is restricted to Kalaeloa around the Barber's Point (Naval Air Station) vicinity on O'ahu. The specific epithet is named in behalf of Prof. Carl Jolian Frohnik Skottsberg (1880-1963), a plant collector in the Hawaiian Islands and elsewhere.

Leaves of akoko turn red when plant is overly stressed. The name akoko comes from the Hawaiian word "koko" for blood. They get their name from the red, or blood-colored, seed capsules appearing as drops of blood on the plant.

Variety *skottsbergii* is an overall smaller plant with toothed (serrate) or sometimes smooth edged leaves usually less than 3/4 of an inch (2 cm).

On Oahu, *Chamaesyce skottsbergii* var. *kalae* /*oana* was recorded only on the Ewa Plains, extending from Kalaeloa (Barber's Point) to Puuloa (Pearl Harbor). One of the last remaining populations not subject to immediate bulldozing exist in the former MCAS Ewa area. The species does not take well to being transplanted and attempts to do so have been largely unsuccessful.

[David Eckhoff, Native Plants Hawai'i]



Ewa Hinahina (*Atriplex splendens*, endemic, MCAS Ewa - Barber's Point, Oahu)
<http://www.botanr.hawaii.edu/faculty/carr/echwanthes.htm>

Kalaeloa Habitat Restoration - By Ken Foote, US Fish and Wildlife Service 2009

At first glance, the area resembles an African savanna, but one marked with invasive species such as mesquite (*Prosopis* spp.), Indian mescal (leucaena (Pluchea indica)), and buffelgrasses (Cenchrus ciliaris) dominating the landscape. A closer inspection reveals an ancient raised limestone coral reef and remnants of the last remaining coastal dryland plant communities on the Hawaiian island of O'ahu.

This harsh, sun-drenched landscape is home to the Kalaeloa Unit of the Pearl Harbor National Wildlife Refuge. Located west of Honolulu on the Ewa Plain, Kalaeloa was part of the former Barber's Point Naval Air Station until it was added to the National Wildlife Refuge System to protect native plants, including two endangered species—*aloalo* (*Chamaesyce slossbergii* var. *kalaeloa*) and the Ewa *halehale* (*Alysicarpus sphenolobus* var. *roundaba*).

Although Kalaeloa has been heavily altered by agricultural, military, residential, and commercial activities, U.S. Fish and Wildlife Service biologists and land managers are working to restore the unique habitats native to this once pristine subtropical dry forest. Continuing habitat restoration activities include the removal of invasive plant species and the propagation and out-planting of native dryland plants, including endangered and threatened species.



In 2005, Phase I of a project to restore anchialine pools within the Kalaeloa Unit rehabilitated an anchialine pool and led to the successful recruitment of two color phases of an anchialine pool shrimp known as 'opae 'ula (*Haloecardina ubera*), a species at risk. Found only in Hawai'i, 'opae 'ula can reach 10 to 15 years of age, an unusually long lifespan for a tiny crustacean. This species is approximately 0.5 inches (1.27 centimeters) in length and occurs in a range of colors—red, pink, white, light yellow/clar, and banded (red/clar). Kalaeloa is the only location in Hawai'i where two distinct genetic lineages of 'opae 'ula are found to coexist at the same site.

Based on the success of Phase I, Phase II sought to expand the number of restored pools at sites that would benefit both 'opae 'ula and another anchialine pool shrimp, *Metabertus tohena*, which is a candidate for Endangered Species Act protection. Restored pools were also targeted as potential translocation sites for the orangeback Hawaiian damselfly (*Megalagrion xanthonoides*), another listing candidate.



In March 2008, Lorena Wada and Aaron Nadig, biologists with the Service's Pacific Islands Fish and Wildlife Office, and Jason Hanley, Invasive Species Strike Team Leader with the Hawai'i and Pacific



The 'opae 'ula (*Haloecardina ubera*) is a freshwater shrimp (found only in Hawai'i).

In addition to subtropical dry forest restoration, the Service is restoring another unique and rare habitat known as anchialine pools. Anchialine pools are landlocked brackish ponds created close to the shoreline and connected to the ocean by subterranean tunnels. On O'ahu, anchialine pools are generally found in karst formations rather than lava fields like those found on Maui and the island of Hawai'i. Karst is the type of topography that forms when raised limestone reefs are subjected to the movement of groundwater over and through the reef. The weak carbonic acid found in ground water slowly dissolves the limestone, creating large holes, channels, and bumpy surfaces. One of the largest such formations on O'ahu is the Ewa Karst.

The major threats to anchialine pools and the shrimp species that inhabit them are habitat degradation and destruction, nonnative invasive species, and over-collection of the shrimp for the aquarium trade. In the past, most of Kalaeloa's anchialine pools have been filled in with sediment and coral rubble.

Islands National Wildlife Refuge Complex, led the project to restore 12 anchialine pools. Personnel from the Service's Hawaiian Fisheries and Ecological Services offices, the Hawaii Division of Aquatic Resources, and the State Natural Area Reserve contributed over 800 hours of work during the first 6 months of the project.

Using heavy equipment, pumps, and hand tools, they removed coral rubble and soil blocking the pools. This work successfully restored natural tidal fluctuations in the pools, which allowed native anchialine pool shrimp to quickly recolonize the sites. In May 2008, the first 'opae 'ula were observed in one of the newly restored pools. 'Opae 'ula have now been seen in eight of the restored sites. As of September 1, 2009, 11 anchialine pools have been restored.

Future plans include monitoring 'opae 'ula, continuing data collection on water quality, evaluating the pools as potential reintroduction sites for the orange/black damselfly, and evaluating future translocation sites for *Metaboaes loeheni*. The work being accomplished at anchialine pools also provides a unique opportunity for partnerships and educational outreach.

The restoration of anchialine pools at Kalaeloa uncovered some hidden treasures that are just beginning to open a window to the area's ancient past. While removing the debris, Service personnel found fossilized bird bones, some from species never before seen. To date, scientists have uncovered fossilized bones of an extinct hawk (first time reported as a fossil on O'ahu), a long-legged owl, Hawaiian sea eagle, petrel, two species of crow, Hawaiian finches, Hawaiian honeyeaters, and the moa nalo (a turkey-size, flightless goose-like duck—the largest native Hawaiian bird). Further work is needed to confirm the identification and age of each species. The Service is working with representatives from the Smithsonian Institution and Bernice P. Bishop Museum to properly clean, store, preserve, and identify the bones.

PUEO: Endangered Guardian Spirit

The Pueo - Hawaiian Owl (*Asto flammeus sandwicensis*) – is considered sacred by many Hawaiians. It is a widely recognized Hawaiian ancestral guardian known as 'aumakua. These birds are believed to protect individuals from harm, and even death.



Unlike the other common Barn Owl, also found in Hawai'i, the *pueo* is diurnal, more active during daylight, and nests on the ground. The *pueo*'s modern diet consists of introduced rodents, rats, mice, and small mongooses. Before rodents arrived, *pueo* is thought to have feasted on the small Hawaiian rail, a

flightless bird that is now extinct. Even though the main diet of the *pueo* is mostly rodents and mongooses, the fact that the *pueo* is a ground nesting owl means the eggs and young, ironically, are often raided by rodents and mongooses. *Pueo* lays between 3 to 6 eggs over a span of several months resulting in babies being born at different times. A nest will often have all ages, baby to adult, in the nest at the same time. Owlets begin to fly at about 6 weeks of age.

Finding them today in greater numbers in Kalaeloa is largely due to being driven out of other nesting areas because of rapidly encroaching home construction in nearly all directions. The former MCRAS Ewa area has been an excellent Pueo refuge since the base closed in 1952, but now developers aim to eliminate this last island of refuge on the Ewa Plain.



'IO: Endangered Hawaiian Hawk

The 'io is endemic to Hawai'i and was a symbol of royalty in Hawaiian legend. The 'io is also the only hawk today native to Hawai'i. They depend on native forest for nesting, but are able to use a broad range of habitats for foraging, including forests dominated by native and introduced vegetation, from sea level to 6,500 feet elevation. It feeds on rodents, insects, small birds, and some game birds.

Ae'o Hawaiian Stilt



In Hawai'i, the Ae'o is found on all the main islands except Lanai. On Oahu, the largest numbers are found at Pearl Harbor and Kaneohe.



Should Barber's Point stables be shut down, fewer people will have access to horses, and Panolo culture will fade.

Horses relieve the stress of everyday life for civilians, military personnel, and military dependents whose parents are deployed.

Those children who work with horses have the opportunity to learn hard work, responsibility, and leadership, while enjoying themselves at the same time.

Historic significance



BPRC rests on land that was once a part of the Marine Corps Air Station Ewa, the birthplace of the famous "Black Sheep Squadron," led by none other than Major Gregory "Pappy" Boyington, a WWII ace awarded the Medal of Honor.

WWII veterans still stand at BPRC.

The importance of BPRC to the people of Oahu.

**Barber's Point Riding Club – a presentation to Ewa Neighborhood Board
by Isabella Garcia November 10, 2010**



BPRC offers affordable rates for their services.

BPRC makes owning horses a reality for regular, working-class people, not just for a privileged few.

BPRC is conveniently located for those who live in the Ewa and West Oahu communities, and allows them to enjoy equestrian activities without having to travel as far as the North Shore or Waianai.

Importance to the community



Therapeutic Horsemanship of Hawaii teaches people with special needs, as well as their siblings, how to groom, ride, and saddle a horse. The program has given exceptional children an outlet for stress, as well as the opportunity to excel.

Should Barber's Point Riding Club be shut down, however, the program would have one less place to operate in, and fewer horses to use.

Barber's Point's convenient location is important to the members of THH who live close to Ewa.

Barber's Point Riding Club is important to the preservation of Hawai'i's Panolo culture.

Ewa Neighborhood Board Votes To Support Paniolo Culture and Ewa Stables Preservation, November 10, 2010



RESOLUTION PASSED:

REQUEST FOR THE PRESERVATION OF THE HISTORIC EWA PLAINS STABLES SITE ON THE WEST SIDE OF THE ISLAND OF OAHU, STATE OF HAWAII, KNOWN DURING WWII AS US MARINE CORPS AIR STATION EWA, AND LATER AS NAVAL AIR STATION BARBERS POINT, AND TODAY AS THE KALAELOA COMMUNITY DISTRICT.

Whereas, In 1942 special heavy concrete half shell domed concrete aircraft bunkers, known as revetments, were created for the protection of MCAS Ewa aircraft from air bombardment, and

Whereas, These revetments were subsequently reused as horse stables, stalls and barns, which continues to this very day, and

Whereas, This same historic community facility has seen many decades of use for many community gatherings, events, hayrides, rodeos, and currently for supporting community needs for open space, therapeutic horse riding for handicapped children and military veterans, and

Whereas, New programs to further involve the local community and schools in activities such as 4H, Future Farmers of America, Boy and Girl Scouts, YMCA are in development, and

Therefore be it resolved, The Ewa Neighborhood Board supports the continued use and preservation of this valuable and historic community horse stable and riding facility and recommends that it remain open and not be closed down, which would cause many local Ewa Plains horse owners great hardship and terminate many valuable West Oahu community programs.

Barber's Point Riding Club – a presentation to Ewa Neighborhood Board by Isabella Garcia November 10, 2010



BPRC is a "home away from home" for many of the members who have been a part of the stables since childhood.

Should BPRC be shut down, veterans, their families, active duty personnel and their dependents, local residents, and all horses at the stables would be displaced.

BPRC is one of the few remaining wide-open spaces left amid the rapid development of the Ewa plain.

Please Pass This Resolution.

Please pass the resolution to keep BPRC (6.735 acres club used as a facility used by military personnel and civilians as an equestrian center) and support the continuing of operations at BPRC which include, but are not limited to, the preservation of open space, the therapeutic treatment and healing of those with physical disabilities as well as wounded war veterans, active duty personnel, and their families; the preservation of historic WWII features; and the interaction with our community to open activities at the stables for the community at large, such interaction being generated by those representing the Barber's Point Riding Club located within Kalaeloa, and to oppose the Navy's plan to terminate operations at the stables by June 2011.



- Current BP Ewa Stables Infrastructure:**
- Full Service Equestrian Facility: Historic Stables, WW-II Era Category II* preservation Rating
 - One of two affordable military stables on Oahu
 - Only Therapeutic Riding Center on Leeward Coast of Oahu
 - Last of three military rodeo arenas on Oahu, complete with bucking & roping chutes
 - Nestled within historic WW/II concrete revetments
 - 32 concrete WW/II aircraft revetments used as shelters for horses
 - Revetments built after Dec 7, 1941, attack on MCAS Ewa
 - WW/II concrete revetments, Category II* WW-II Era Preservation Rating
 - Variety of stable operators over 50 year span include Special Services, Private Vendors, Contractors, MWR, and presently the Barbers Point Riding Club (Private Organization)
 - Quonset hut serves as clubhouse and office with 2 restrooms
 - 2 arenas, round pen
 - Caretakers cottage / parking / roads
 - Open space for multi-purpose recreation



Barbers Point Stable Background/History:

- Located in Kalaeloa Community Development District on Leeward Coast of Oahu
- Formerly NAS Barbers Point and originally MCAS Ewa airfield - 1999, NAS Barbers Point closed by BRAC
- Stables are open to both military and civilian club members



Armed Services YMCA Barbers Point Stables Bunny Bash 2011

- <http://www.youtube.com/watch?v=81KJgQmPCgk>
- VIDEO
- <http://www.youtube.com/watch?v=h6N3XGAM8> feature=related
- Held April 22 - Friday 9AM- 11AM
- Military Kids & Families from many different Oahu bases attending.
- Easter Eggs, Hordogs, Kiddie Horse riding, etc



Karst caves and sinkholes located on or adjacent to lands Hunt Corp is already developing, and also very close to the planned Hunt PV site on the 1941 Iwa Battlefield pamphlet area.



The Trails of Ancient Kanehili still exist and have yet to be fully researched, documented and analyzed. According to the research done and presented in *A Cultural Resource Inventory of Awaiairi Station, Barber's Point, O'ahu, Hawai'i*, and many other related surveys of the area, remnants of the 1825 Maiden Trail run directly through the former MCAS areas Hunt Corp is currently grubbing and clearing, without any benefit of archaeological surveys or data collection.



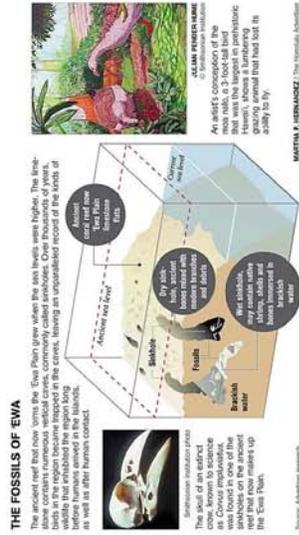
The sinkholes and caves of Ancient Kanehili still exist and have yet to be fully researched, documented and analyzed. Many still exist just below ground level all over former MCAS Ewa.



Ewa Mooring Mast Field in July 1925. Note that there are thousands of topped coral heads, any of which could have also been connected to sinkholes and underground caves. In 1941, when Ewa Field was constructed the runways were all placed atop the coral but of course without benefit of any archeology surveys first. The USMC command history notes finding karst caves as large as "railway boxcars" at Ewa Field. The likelihood of construction equipment falling into underground caves is still a very real possibility. (The Ewa aviation site is 87 years old!)



March 1932 photo shows nearby grazing ranch cattle and Ewa Plantation and Ewa Villages.



Sinkholes in Kanehili can be very small openings which can lead down to caves which can contain ancient fossils, extinct animal bones and Hawaiian burial remains – *Iwi/Kupuna*. There are thousands of these sinkholes throughout the entire Kanehili – MCAS Ewa area. Over the years many have started to reappear after heavy rainfalls. They also act as natural storm drains and should all be mapped as they can also pose a hazard to site clearance crews and heavy equipment operators. Historic Ewa field horse ranch trails still provide safe routes of passage.

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Kanehili – MCAS Ewa
Kanehili is an Ancient Hawaiian Traditional Cultural Place
and a 150 year old Western Cultural Landscape

A KANEHILI CULTURAL HUI REPORT
IN RESPONSE TO NAVY EA

Kanehili Traditions, Culture, History

Kanehili Traditional Cultural Place & MCAS Ewa Historic and Cultural Landscape Requires Documentation Studies

John Bond
6/15/2012

But above all else, Lee says that an inadvertent discovery made in 2001 challenges his opponents' legitimacy. It was then, after a raging storm, that a "homeless" man found a skull jutting out from a sinkhole in front of the planned marina. The iwi, or bones, were undoubtedly those belonging to a high-ranking chiefess because she was holding a niho palaoa, or royal whalebone hook, in each hand. Previously, Haselko had stated that many sinkholes were tested but no burials were found.

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Kanehili Traditional Cultural Place &
MCAS Ewa Historic and Cultural Landscape Studies Needed

Contents:

- Concepts for Kanehili Cultural And Historic Park Preserve
- Agency inaction puts royal Hawaiian burial complex at risk - Samson Kaala Reiny
- Oneula Burials: The Big Cover Up?
- Published Blog Excerpts about Kanehili from Hawaiian Cultural Historian Shad Kane
- HECO Power Corridor, Roads Could Impacting Oneula Beach Limu
- Legal Challenge By 'Ewa Beach resident Michael Kumukauoha Lee
- Storm Water Effects On Native Macroalgae (limu)
- Limu Replanting Project—Ewa shoreline near the Kanehili traditional cultural area
- The House of Limu: Clinging on to the past - by: Samson Kaala Reiny
- Community Supports 150 Year Old Paniolo Culture and Ewa Stables Preservation
- Unsettled Spirits in Kalaeloa Are A Traditional Hawaiian Cultural Concern
- H.C.R. NO. 49 Passed May 6, 2009 by Hawaii State legislature Urges MCAS Ewa Preservation - similar resolutions passed by three local elected neighborhood boards
- Major Points about Ewa Field History
- TRADITIONAL CULTURAL PLACES concept outlined
- CULTURAL LANDSCAPE REPORTS outlined
- Chapter 200 - Environmental Impact Statement Rules HAR § 11-200
- SECMAVINST 0000.35A, Section 4.b:
- US Navy is committed to responsible cultural resources stewardship
- KANEHILI CULTURAL AND ARCHEOLOGICAL REFERENCES

Final Environmental Assessment Disposal and Reuse of Surplus Property at Naval Air Station
Barbers Point, O'ahu, Hawai'i, August 2011, Department of the Navy, Base Realignment and
Closure Program Management Office stated regarding former MCAS Ewa lands:

"Open Space/Recreation. This land area would be comprised of mostly passive open space land
uses and preserve/cultural park space. These parcels contain a relatively high density of cultural
and archaeological sites."

However, this does NOT mean this will actually happen, as Hawaii Community Development
Authority (HCDA) is using every means possible, including the Hawaii State Legislature, to undo
ALL cultural and historic protections and covenants so that these special lands can be
plundered. HCDA operates in a very shady way and wants maximum land development.

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Kanehili Traditions, Culture, History

Kanehili Traditional Cultural Place & MCAS Ewa Historic and Cultural
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82

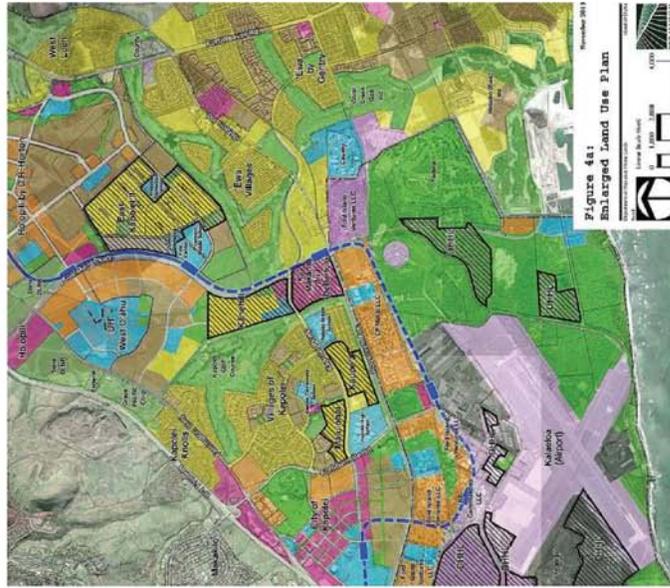


Figure 4a: Enlarged Land Use Plan

The HUGE build-out of the Ewa Plains is under-way and big developers want every inch of land covered in densely packed homes, shopping centers and tiny community parks. After total traffic gridlock, lack of any sustainable agricultural lands and exhaustion of the water aquifers, destruction of traditional food sources and fisheries, there will be a final ecological collapse and the big developers will move on to their next exploitation target on some other island or state.

"Agency inaction puts possible royal Hawaiian burial complex at risk to Haseko development"
 Sep 22, 2010 by Samson Kaala Reiny, The Hawaii Independent
 EXCERPTS FROM THE ARTICLE:

EWA—The site of what may be the most significant ancient Hawaiian burial complex discovered in recent times happens to be situated along a roughly mile-long stretch of shoreline where luxury resort developer Haseko plans to open up its marina to the ocean.

Lee also noted that, during a visit where he and Office of Hawaiian Affairs (OHA) staff marked the exact locations of the sites with a Global Positioning System (GPS), others there that day agreed with his claims.

Bur above all else, Lee says that an inadvertent discovery made in 2001 challenges his opponents' legitimacy. It was then, after a raging storm, that a "homeless" man found a skull jutting out from a sinkhole in front of the planned marina. The tui, or bones, were undoubtedly those belonging to a high-ranking chiefess because she was holding a niho palaoa, or royal whalebone hook, in each hand. Previously, Haseko had stated that many sinkholes were tested but no burials were found.

Also, *The Hawaii Independent* discovered that human remains were found in 1994 on the James Campbell Estate near Kapolei. A piece of heavy machinery fell into a sinkhole, exposing bones and a plank from a traditional canoe.



"He [Rosenbahl] really minimized the number of important sites," said photographer and educator Jan Becket. "He claimed there were no ihu [shrines] in existence, even though areas were littered with these large upright stones."

Scientists posed the hypothesis that nutrients from storm water runoff would affect the nutrition and relative abundance of native and non-native limu. To test this hypothesis, we studied intertidal limu communities at three locations in Ewa Beach, O'ahu. The study was multi-faceted, and involved measuring the following variables in intertidal communities at the three sites.

Throughout the Hawaiian archipelago, there is growing concern about the displacement of native seaweeds, known as limu in the Hawaiian language, by non-native species. Non-native invasive limu compete with and displace native limu species important to Hawaiians for food, medicine, and religious purposes (Abbott, 1984). Russett (1992) documented how non-native *A. stipifera* and *H. musciformis* displaced native populations of *Laurencia nidifica* and *Hypnea cervicornis*.

Increased urbanization of upland watersheds is a major mechanism increasing nutrient pollution of coastal waters which has been widely recognized as a common factor linking an array of problems, including harmful algal blooms, dead zones, seagrass and coral reef die-offs, declining fisheries, and marine mammal and seabird deaths. Blooms of the native invasive chlorophyte *Dictyosphaeria cavernosa*, which overgrew and killed corals in Kaneohe Bay, O'ahu, were also linked to nutrient enrichment from sewage.

Summary and conclusions

Our results showed that native limu species diversity and abundance decreased with proximity to stormwater discharges, whereas non-native limu increased. Nutrient availability is a major factor affecting competition among limu in tropical oligotrophic settings.

"Compelling evidence that cumulative impacts from episodic storm water discharges were the primary source of nutrient enrichment in the study area."

Acknowledgements

We would like to acknowledge the assistance of Dr. Phil McGilivray, Mike Lee, Henry Chang Wo, David Kimo Frankel, the Office of Hawaiian Affairs, Dr. Robert Richmond of the University of Hawaii, Manoa, and residents of Ewa Beach that provided access to their properties. This is contribution # 1817 from the Harbor Branch Oceanographic Institute at Florida Atlantic University, Ft. Pierce, FL.

Legal Challenge By Ewa Beach resident Michael Kumukauoha Lee

<http://archives.starbulletin.com/2008/01/28/news/story04.html>

Ewa Beach resident Michael Kumukauoha Lee, through the Native Hawaiian Legal Corp. is challenging Hasako's application, contending that the widened channel would destroy native limu that he learned to gather and use as a medicinal remedy from descendants through the generations.

Walled sinkhole.

Highly probable that it served as a water source. Some of these sinkholes that served as a water resource also have paved stairs within them to reach the water as the water level varied with the rainy season. In the traditions associated with the place once known as Kanehili is the story of the travels of the gods Kane and Kanaloa. In their travels Kanehili is the place they visited where Kane brought forth water from the sinkholes with the strike of his ko'oko'o (staff).

Large walled Sinkhole.

Probable water source, however its size seems to indicate a possible religious purpose. Sinkholes are also identified as agricultural sinkholes. Our ancestors planted their crops within the moist and damp recesses of sinkholes. Amongst these agricultural resources were maia (banana), kou (sugar cane), lu'i (ti leaves) and others. There are examples of ti leaves growing out of sinkholes. It is also important to understand these ti leaves may be as old as the culturally modified sinkhole. Amongst these hural sinkholes are chambers and walls within the sink designed and constructed to conceal the kupuna. There are also above ground burials as coral mounds or ahu.

Agricultural sinkhole with ti leaf growing in it.

Perhaps the one most interesting cultural feature is a paved trail of upright stones every 6 to 8 feet. The paved trail of coral slates is perfectly straight. Only approximately 200 yards of this trail exist today. It can be seen on Madden's Map of 1825. It had to have taken hundreds of people to construct as the trail provided access to several places to include as far away as Honouliuli or where today is the West Loch Golf Course.

The Kalaeloa Heritage Park, December 10th, 2009 by Shad Kane

HECO Power Corridor, roads through Kanehili Cultural Zone, With Storm Water Runoff Could Impacting Onehau Beach Limu Population and Coastal Fisheries

O'ahu is an island surrounded by ocean and the sea plays a major role in the traditional sources of food for the local population as well as being extremely important to Hawaiian cultural practices such as limu gathering for food and medicinal purposes.

The proposed Project is directly above the underground karst watershed and will cause contaminants to be transported to the lower coastal area, impacting the struggling limu population and various aquatic species which provide a traditional source of food to the local community.

A study done by Brian Lapointe, a research professor at the Florida-based Center for Coastal Research at Harbor Branch Oceanographic Institute at Florida Atlantic University, said that testing of existing storm-water discharges showed "significant effects on both the taxonomic and chemical composition of limu communities."

LaPointe concluded that increasing the amount of storm water into the area will add to the growth of invasive, non-native species and degrade native limu communities not only at the Kalo Gukki, "but also at One'ula Beach Park and other locations to the east and west."

About a decade ago, Lee said, a variety of limu was found off Ewa Beach all year around. "Now it's all bare," he said.

Downfalling the limu decline is a drop in sand crabs and fish, said fishermen Albert Lauro and Teo Tangilan. Marine scientist Brian Lapointe of Florida has said the cumulative impacts of the storm-water runoff at the proposed sites would likely cause the loss of limu species, coral and invertebrates such as sea urchins and anemones.

University of Hawaii water resource maps show the Kalo Gukki watershed as including the Eastern side of MCAS Ewa, which means the area where the Hunt PV project is located.

Its from the Hawaii Watershed Atlas...
http://www.wrrc.hawaii.edu/research/project_lu/kalo.php

Mike Lee's testimony to the Hawaii Land Use Commission regarding a large proposed development north of Ewa Field but within the Kalo Gukki watershed which directly affects the Ewa - One'ula seacoast limu and fisheries.

As a life resident (65yrs) of Ewa Beach, Earl Arakaki agrees that developers have ruined sea life along the Ewa Beach shoreline.

"Many believe over harvesting of sea weed depleted limu growth in the area. Not so. Because even the "rubbish limu" which once flourished is no more. Notice the pile of seaweed depicted in this photo of the shore line fronting One'ula Place. It was like this from the Barbers Point fence to Poutua firing range."

Project's impact on limu at issue
<http://the.honoluluadvertiser.com/article/2008/Jun/15/hn/hawaii06160327.html>

A study funded by the Native Hawaiian Legal Corp., which is representing a lifelong limu gatherer in the contested case hearing, contends that Haseko's \$2 million Kalo Gukki drainage way project at the eastern end of One'ula Beach Park could have serious adverse impacts on the native limu beds at the park, also known as Hau Bush, as well as oceanfront along the rest of the Ewa Beach coastline.

Ewa Beach resident Michael Kumuakaoha Lee, through the Native Hawaiian Legal Corp., is challenging Haseko's application, contending that the widened channel would destroy native limu that he learned to gather and use as a medicinal remedy from descendants through the generations.

A study done by Brian Lapointe, a research professor at the Florida-based Center for Coastal Research at Harbor Branch Oceanographic Institute at Florida Atlantic University, said that testing of existing storm-water discharges showed "significant effects on both the taxonomic and chemical composition of limu communities."

LaPointe concluded that increasing the amount of storm water into the area will add to the growth of invasive, non-native species and degrade native limu communities not only at the Kalo Gukki, "but also at One'ula Beach Park and other locations to the east and west."

Stormwater nutrient inputs favor growth of non-native macroalgae (Rhodophyta) on O'ahu, Hawaiian Islands

Storm Water Effects On Native Macroalgae (limu)

Brian E. Lapointe *, Bradley J. Bedford
Center for Marine Ecosystem Health, Harbor Branch Oceanographic Institute at Florida Atlantic University, 5600 US 1 North, Ft. Pierce, FL 34946, United States

In Hawaii, blooms of native and non-native macroalgae (limu) have become increasingly problematic in recent decades. Although the role of human vectors in introducing non-native macroalgae is well documented, the ecological role of nutrient pollution in facilitating blooms of these species is not. This study assessed the effects of stormwater discharges on the diversity, abundance, and nutrient content (C, N, P and d15N) of native and non-native limu at three sites in the intertidal zone at Ewa Beach, O'ahu. The results showed that native limu species diversity and abundance decreased with proximity to a stormwater outfall (ASWO), whereas non-native species abundance increased. These results indicate that the spread of non-native macroalgae in oligotrophic coral reef regions can be facilitated by anthropogenic nutrients in stormwater runoff, thereby threatening native species and ecosystem services.

<http://www.fau.edu/hboj/ProjectManagers/BrianLapointe/bilhome.php>

LIMU REPLANTING PROJECT -Ewa shoreline near the Kanehili traditional cultural Area
"Ke Akua Ka'au o ke Kai - God's Medicine from the Sea"; Kupuna Uncle Henry Chang Wo and a group of loyal caretakers meet every second Saturday of the month to replant limu (seaweed) at One'ula Beach Park in Ewa.

Ewa Beach was once known for its abundance of limu, or seaweed. Its limu beds were considered the richest and most diverse in Hawaii. However, Ewa Beach's limu population is now diminishing.

About six years ago, a group assembled to help replenish the limu in the local beaches. That group, a nonprofit foundation founded by Walter Kamanao, Henry Chang Wo and Mack Poepoe, formed the local Ewa Beach "Limu Project". Since its founding, many members of the community have participated in the project, assisting in various tasks to help replant the limu in Ewa Beach.

One of the dedicated participants is Campbell marine science teacher Eric Whitehead. Whitehead's students are taking part in the project as a marine science class requirement, and they take great pride in it.

The program is designed to educate the community about the history and preservation of the edible limu and unite those whose goals include keeping this part of Hawaiian culture alive.

"I think that it's a wonderful opportunity to get the community together for a good cause, to promote the care of the ocean," Ruth Craft, a Limu Project council member, said. "I hope to gain a better understanding of the limu, friendships, and the closer sense of community and belonging."

Limu preservation involves braiding the seaweed on string and burying them under rocks. The limu lock onto the rocks and repopulate.

Campbell marine science students taught participants how to weave the limu by tying raffia string to their toes and braiding the limu in as they go up the string.

In two years, Limu Project members hope this area in Ewa Beach will be considered a state Department of Land and Natural Resources Sanctuary, stopping any further destruction of the limu.

By Leonard Rifele, Antonio Azevedo and Lance Ordonio Campbell High School

The House of Limu: Clinging on to the past

The Ewa Plains are a massive ancient coral reef where deep underneath, ocean meets mountain streams - to spawn freshwater shrimp and one of the world's most diverse limu populations...

http://www.lawaia.net/blogs/lawaia/2010/08/18/issue5-2010-house_of_limu

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"Up until three or four years ago, the water here used to flow straight to the ocean," he said. "You knew because there used to be a lot of toads here. They need the fresh water."

"And how does this connect to the seaweed exactly?" I thought, my forehead wrinkling.

"You have to understand that the ocean needs to drink," he said seeming to anticipate the confusion. "When the water from the mountains meets the ocean, that's when the ocean gives birth. That's where there's the hanau. That's how the limu grow."

Up until that point, the thought of flowing water in Ewa was as real to me as the mirages on Fort Weaver. I had assumed that the golf courses and endless subdivisions drew their water from faraway places. But below the summer heat of Ewa, the underground pulses with water.

For thousands of years, rains from the Waianae and Koolau mountains have drained into the vast underground channels of the Plain. Those waters then used to flow heavily out to Pearl Harbor's and Ewa's shores. According to Uncle Henry, limu needs this constant flow of brackish water to thrive. "It needs the sweet water from the top," he said. "It cannot grow without it."

The Honolulu City Council and the two local elected area Neighborhood Boards voted to protect and preserve Hawaiian Paniolo Culture and on the last remaining anchoring area in Kanehili.

Ewa Neighborhood Board Votes To Support Paniolo Culture and Ewa Stables Preservation, November 10, 2010

(a similar was also passed by the Kapolei-Makakilo Neighborhood Board

RESOLUTION PASSED:

REQUEST FOR THE PRESERVATION OF THE HISTORIC EWA PLAINS STABLES SITE ON THE WEST SIDE OF THE ISLAND OF OAHU, STATE OF HAWAII, KNOWN DURING WW-II AS US MARINE CORPS AIR STATION EWA, AND LATER AS NAVAL AIR STATION BARBERS POINT, AND TODAY AS THE KALAELOA COMMUNITY DISTRICT.

Whereas,

In 1942 special heavy concrete half shell domed concrete aircraft bunkers, known as reverments, were created for the protection of F4U Ewa aircraft from air bombardment, and

Whereas,

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After the war these same aircraft reventments were adaptively reused as horse stables, stalls and barns, which continues to this very day, and

Whereas,
This same historic community facility has seen many decades of use for many community gatherings, events, hayrides, rodeos, and currently for supporting community needs for open space, therapeutic horse riding for handicapped children and military veterans, and

Whereas,
New programs to further involve the local community and schools in activities such as 4H, Future Farmers of America, Boy and Girl Scouts, YMCA are in development, and

Therefore be it resolved,
The Ewa Neighborhood Board supports the continued use and preservation of this valuable and historic community horse stable and riding facility and recommends that it remain open and not be closed down, which would cause many local Ewa Plains horse owners great hardship and terminate many valuable West Oahu community programs.

Unsettled Spirits in Kanehili Are A Traditional Hawaiian Cultural Concern

The Environmental Assessment done for the nearby DHHL Ka Makana Ali I shopping center project (directly across from Ewa Field) includes a Cultural Impact Assessment (CIA) by Pacific Legacy, which states: "Furthermore, there is the concern (among local interviewees) about unsettled spirits that remain in the area causing unwanted paranormal activities to plague the new development or, conversely, surrounding localities being haunted by the displaced spirits." In fact, considerable Hawaiian cultural and oral history of the Ewa Plains and Kalaheba speaks of the entire area as a location of unsettled spirits. Even current paranormal researchers who have brought in their own measuring devices claim the Ewa Field area and buildings like Quonset 1545 exhibit intensive and very strong recorded multi-spectrum paranormal activity.

Pacific Legacy states: "Three of the four interviewees state that the general area of central Ewa Plains is the land of the "Wandering Spirits" and "Night Marchers." One interviewee claims that these restless spirits become a problem for many recent developments in the area."

Furthermore, (says the CIA report) "there is the concern about unsettled spirits that remain in the area causing unwanted paranormal activities to plague the new development or, conversely, surrounding localities being haunted by the displaced spirits. Some informants fear that archaeological sites and burials, also cultural resources, possibly contained in sinkholes and concealed by plantation era soils may be damaged or lost during ground disturbing activities related to the project's construction. It is a common belief that the disturbance of

archaeological sites and burials can also upset spirits or cause bad fortune to befall those who have caused the disturbance."

TWENTY-FIFTH LEGISLATURE, 2009 STATE OF HAWAII

H.C.R. NO. 49

Passed May 6, 2009

URGING FULL PRESERVATION OF UNITED STATES MARINE CORPS AIR STATION EWA AS A NATIONAL MONUMENT, MUSEUM, AND RESTORED PARK FOR THE STATE OF HAWAII.

WHEREAS, as international tensions intensified and military conflicts broke out in Europe and Asia prior to America's entry into World War II, Japan resented what it perceived to be United States interference in the affairs of the Far East; and

WHEREAS, Japan decided to destroy the United States Pacific Fleet based in Pearl Harbor and all Army, Navy, and Marine air forces on Oahu to ensure that the United States could not hinder Japan's plans for conquest in Asia and the Pacific; and

WHEREAS, in order to attain this objective, Japan sent a powerful naval force of six aircraft carriers and supporting ships across the Pacific Ocean to attack American forces based on the island of Oahu; and

WHEREAS, in the early stages of that attack, at approximately 7:53 a.m. on the morning of December 7, 1941, Lieutenant Kiyokuma Okajima led nine Mitsubishi Type 0 (Zero) carrier fighters from the aircraft carrier Hiryu toward the Ewa Mooring Mast Field (later re-designated Marine Corps Air Station Ewa) on the island of Oahu, and coming from the north, the fighters flew as low as 20 feet over the unsuspecting Marine Corps airfield, and in subsequent firing passes, destroyed many of the 49 aircraft there, damaging buildings and equipment; and

WHEREAS, within minutes, fighters from the aircraft carriers Akagi, Kaga, and Soryu arrived over the Ewa Mooring Mast Field and caused further destruction at the base; and

WHEREAS, the attack on Ewa Mooring Mast Field was so precise and well-executed that it appeared as though the Japanese fighters had previously selected their particular targets with the purpose of riddling them, and setting fire to the gas tanks so as to render them useless for pursuit and interception; and

WHEREAS, the Ewa Mooring Mast Field lay along the departure route for many Japanese aircraft flying toward their rendezvous point northwest of Kaena Point, those aircraft subjected the field to additional strafing attacks and completed the destruction of 33 aircraft and the damage to 16 others of the 49 present; and

WHEREAS, within minutes, the Marines mounted a gallant defense of their base, while the remainder of the Japanese strike force attacked Pearl Harbor and other airfields on Oahu; and

WHEREAS, the bravery of the United States Marines at Ewa showed itself in full force that morning, with the men fighting gallantly in the face of a ruthless and determined enemy who carried out their mission of neutralizing any American aircraft that could intercept and counterattack the Japanese invaders; and

WHEREAS, in one example of courage, Private William G. Turner, who died of his wounds and received a posthumous Bronze Star, assisted Master Technical Sergeant Emil S. Peters who jumped into the rear cockpit of a SBD-2 dive bomber, with Peters firing from the cockpit as Turner fed ammunition; and

WHEREAS, the Japanese aircraft also inflicted other casualties among the Marines at the Ewa Mooring Mast Field, killing three men and wounding 13 others; and

WHEREAS, Sergeant Carlo A. Micheleito, Private First Class Edward S. Lawrence, and Private William G. Turner, gave their lives in defense of their country, and two civilian residents of Ewa, Yaeiko Lillian Oda and Francisco Tacderan, also lost their lives as a result of the attack; and

WHEREAS, Japanese Lieutenant Yoshio Shiga, leader of the first wave fighter unit from the aircraft carrier Kaga, while strafing the parked planes at Ewa Field with his 7.7 mm machine guns, recorded for posterity the account of a lone Marine, who stood amidst the gunfire striking the ground around him and bravely emptied his sidearm at the aircraft attacking overhead, a man in whom Lieutenant Shiga found the "spirit of dogged tenacity that was the very embodiment of bravery and valor" that he did not expect from an American, and commented that this Marine was the bravest soldier he ever encountered; and

WHEREAS, two Army Air Force fighter pilots from Wheeler Field, Second Lieutenants Kenneth M. Taylor and George S. Welch, engaged Japanese dive bombers in the vicinity of the Ewa Mooring Mast Field in one of the most famous dogfights of the war; and

WHEREAS, the Ewa Mooring Mast Field constitutes one of the very first points of the attack against the United States which precipitated our nation's entry into World War II; and

WHEREAS, during 1941, the Marine Corps developed the Ewa Mooring Mast Field which later, as Marine Corps Air Station Ewa, served through World War II; and

WHEREAS, the Marine Corps Air Station Ewa was officially closed on June 18, 1952, and its property assumed by Naval Air Station Barbers Point; and

WHEREAS, the designation and development of Ewa Field as a National Monument, Museum, and Restored Park would preserve this critical American historic site, allowing stories to be told of the associated military conflicts, American sacrifices, and the heroism and

determination that became the foundation for victory in the Pacific arena and eventually in World War II itself; and

WHEREAS, a National Monument at the former Marine Corps Air Station Ewa would further preserve documentation of Hawaii's involvement in World War II, serving as a focal point for the observation, remembrance, and expression of American patriotism, honoring those who served within its gates; and

WHEREAS, the preservation of Marine Corps Air Station Ewa as a National Monument would create opportunities for employment, education, and community pride for the people of Hawaii; and

WHEREAS, to designate Ewa Field as a National Monument, Museum, and Restored Park it is necessary to identify an appropriate boundary for nomination to the Hawaii State and National Registers of Historic Places by conducting a battlefield survey and historic research, and making an inventory of contributing and noncontributing historic features; now, therefore,

BE IT RESOLVED by the House of Representatives of the Twenty-fifth Legislature of the State of Hawaii, Regular Session of 2009, the Senate concurring, that the President of the United States, the Secretary of Defense, Secretary of the Interior, and United States Navy are respectfully urged to preserve Marine Corps Air Station Ewa, or a portion of it, as a National Monument; and

BE IT FURTHER RESOLVED that the United States Navy and its private, public, and non-profit partners are respectfully requested to proceed with the research, battlefield analysis, and other activities necessary to designate an appropriate boundary for nomination of Ewa Field to the Hawaii State and National Registers of Historic Places; and

BE IT FURTHER RESOLVED that the Department of Land and Natural Resources submit a report no later than 20 days before the convening of the 2010 Regular Session on the research, battlefield analysis, and other activities necessary to designate an appropriate boundary for nomination of Ewa Field to the Hawaii State and National Registers of Historic Places; and

BE IT FURTHER RESOLVED that certified copies of this Concurrent Resolution be transmitted to the President of the United States, the Secretary of Defense, and the Secretary of the Interior, Commander of Navy Region Hawaii, and to each member of Hawaii's Congressional delegation.

After passage, a copy of HCR49 was sent to various government and preservation organizations, including to the Commander of Navy Region Hawaii. There should have been a section 106 review at that time, as had already been highly recommended by government agencies and preservation organizations since 2008.

Between the three locally elected neighborhood boards and the representatives and senators of the Hawaii State legislature, it could have more clearly stated that the preservation of the Ewa Field is a public trust and that the preservation of the Ewa Field is a public trust. This isn't an anti-development agenda, it is about preserving areas that have great local meaning and significance.

USE&WS expressed concerns about BRAC transfer to HCDA

Concerns by the US Fish and Wildlife Service expressed in their letter to the Navy about Land transfer to HCDA also need to be taken very seriously as HCDA seems to be oriented to insider deals that benefit certain friends and developers rather than community interests for open space, conservation and historic preservation.

HCDA completely REJECTED the suggested amendments provided by attorney Brian Turner of the National Trust for Historic Preservation regarding poorly defined historic preservation guidelines in the draft Kalaeloa Master Plan which was reviewed for comments last year.

Traditional Cultural Places - From the National Park Service website:

"The Traditional Cultural Place (or Property) is one of the most powerful historic preservation designations."

TCEs and other sacred places can be very broadly defined. These resources can include such things as sacred sites, locations where traditional plants and other resources are collected, and some archaeological sites. "Traditional cultural places" (TCPs) are important for the roles they play in community cultural traditions, beliefs, and activities. They must be considered in planning under the National Historic Preservation Act, Executive Order 12898 and 13007, and other preservation issues relating to NEPA, NEPA, GCRCLA, AREA, and NAGPPA.

Traditional cultural properties are NPS National Register eligible...

One kind of cultural significance a property may possess, and that may make it eligible for inclusion in the Register, is traditional cultural significance. "Traditional" in this context refers to those beliefs, customs, and practices of a living community of people that have been passed down through the generations, usually orally or through practice. The traditional cultural significance of a historic property, then, is significance derived from the role the property plays in a community's historically rooted beliefs, customs, and practices.

Sinkholes in the general area were utilized as natural planters for kalo (taro, dry-land variety), temporary shelters, storage features, and sources of water. The traditional lands were also to have been used for the cultivation of kalo (taro, dry-land variety), and other crops. The beach area and the types of fish (banihi, etc.) that were banded (today extinct or nearly so) were trapped for feathers in or near to the area, including the ae'o (Eimantopus mexicanus knutseni), i'iwi (Vestiaria coccinea), 'apapane (Eimantopus mexicanus knutseni), and the mamo (Drepanis pacifica).

More contemporary cultural practices taking place in the area have included the gathering of 'uha loa (Waltheria indica) for traditional Hawaiian medicine and 'alae (red clay) for coloring salt, medicine, dye, and spiritual purification.

CULTURAL LANDSCAPE REPORTS

A Cultural Landscape Report (CLR) is the primary report that documents the history, significance and treatment of a cultural landscape. A CLR evaluates the history and integrity of the landscape including any changes to its geographical context, features, materials, and use.

A CLR will often yield new information about a landscape's historic significance and integrity, even for those already listed on the National Register. Where appropriate, National Register files should be amended to reflect the new findings.

Executive Order 12898 directs federal agencies to make achieving environmental justice part of its mission.

The EO emphasizes the importance of NEPA's public participation process, directing that each Federal agency shall provide opportunities for community input in the NEPA process. Agencies are further directed to identify potential effects and mitigation measures in consultation with affected communities.

Local Residents Fear Displacement and Loss of Cultural Areas

Other cultural informants, told Pacific Legacy (for the Environmental Assessment done for the nearby OHL Ka Nakama Ali'i Cultural Impact Assessment) that those currently living in nearby (Swa Plantation) Varona Village, fear that the new development may be further cause to displace them from their plantation era homes. Those informants associated with the Hawaiian Railway Society have similar fears of proposed roadways conflicting with existing tracks and switching yard - ultimately displacing them from their current location.

Traditional Trails Run directly through the Project Area

In the Ewa Kalaeloa Cultural Context, from a larger International Archeological Research Institute Cultural Resource Inventory of HASEP, MCS Ewa, by the (Tuggles, Denfeld, Yoklavich, 1991, 1997) there is put forward a map of the Kanehili area with a number of sinkholes identified. Hooouliuli was the Kalaeloa Field identified by Lt. Malden in an 1825 map featuring the south coast of O'ahu. This prominent trail once connected Hooouliuli Village to the coastal settlements of Onoula and Kalaeloa, and would have been crucial to life on the 'Ewa Plain and its coast.

During the early Western contact era of Kanehili there was first ranching

Wild cattle and domestic cattle and cattle ranches. Kanehili was also once a ranch, and had paniolo horse trails throughout the area to manage the cattle and fences. Staying on fixed trails was very important as the area has vast numbers of sinkholes, some difficult to see in the grass and brush in the Kanehili ranchlands.

Later the area became the Mooring Mast Field in the mid 1920's and cattle roamed throughout the airfield perimeter. (see photos). In 1941 the area became a Marine fighter base and attacked on December 7. This caused a major expansion of the base and the original cattle ranch road was used for access and construct concrete aircraft revetments below the airfield.

During the war these same ranch horse trails became used by mounted Marine security patrols. When the war ended and the base closed, the area reverted back to its earlier paniolo era with the building of a large rodeo arena and use of the aircraft revetments as horse stables. Quonset huts that once house fighter pilot mission operations became a place for a riding club and storage of horse tack, feed hay and grain. And it remains so to this very day.

And the traditional Kanehili Paniolo horse trails also remain to this day- which is what the community wishes to preserve for all time.

It is likely that the probability of encountering subsurface archaeological deposits increases with proximity to where ancient trail was located as the sinkholes provided water, planting and burials.

The International Archeological Research Institute Cultural Resource Inventory of HASEP, MCS Ewa, by the (Tuggles, Denfeld, Yoklavich, MAI, 1997) indicates many such archeological sites, trails, habitation sites, burial remains, etc.

In the Environmental Assessment done for the nearby DHHI Ka Makana Afi Cultural Impact Assessment (CIA) by Pacific Legacy states: "Interviewee also recalls the existence of at least one ahu (shrine) in the general area, which was dedicated to agriculture. This ahu 'ano was made of stacked waterworn basalt boulders and cobbles, likely collected from a nearby stream bed, that

stood up to five feet tall and possibly as wide as it was tall with a circular paha view. On these ahu, devotees, including the interviewee, would leave offerings to show appreciation for these natural resources and respect for the divine."

Likely Discovery of New Sinkholes, Caves, Hawaiian burials or Disassociated Iwi Remains

The Ewa Kalaeloa Cultural Context, from a larger International Archeological Research Institute Cultural Resource Inventory of HASEP, MCS Ewa by the (Tuggles, Denfeld, Yoklavich, MAI, 1997) states: (Native Hawaiian) Burials- High potential for discovery of additional remains in dunes, habitation and untested sinkholes that may have been covered by base construction.

Cultural Deposits - High potential for discovery of cultural deposits in dunes, habitation and untested sinkholes in areas with demolished surface features.

Haven spoken with various well regarded archeologists they all agree that the last real cultural history and archeology study of the Kanehili area, which was done in 1999, is way out of date. There is still the great likelihood of many archeological sites which have been overlooked, especially below ground caves and sinkholes, which could likely contain iwi.

Horse riders at Barbers Point stables describe many sinkholes throughout the area and the reason why they must stay on proscribed trails when riding.

Past USMC Ewa Field Command History describes karst caves as large as railway box cars.

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**State of Hawaii House of Representatives
Honorary Certificate Presented on December 7, 2008
By Ewa Representative Kimberly Pua**

**To Save Ewa Field
Ewa Field combat battle site, Ewa, Hawaii**

MARINE CORPS AIR STATION EWA FIELD

WHEREAS, the 83 year old MARINE CORPS AIR STATION (MCAS) EWA FIELD has a rich and storied history dating back to its beginnings in 1925 when it was carved out of the kiawe bush, becoming one of the first airfields in Hawaii; and

and machetes- and only a very few mechanized tractors and dirt haulers.

Ewa Field was the designated mooring site for the U.S. Navy's Drigible Program of the 1930's, and later its mooring mast was converted into an air traffic control tower- one of the most unique at that time in aviation history. Ewa Field was considered "High Tech" in its day.

4 U.S. Marines: Sgt William E. Lutschan, Sgt Karolo Micheleitta, PFC William G. Turner, and PFC Edward S. Lawrence, were killed defending Ewa Field, against the direct enemy action of the Empire of Japan's armed Naval Air Force, 2 civilians: Yaeiko Lillian Oda (6 years old) and Francisco Taderan (34 years old), residents from Ewa Community, were also killed as a result of the attack.

Over Ewa Field was the widely depicted in films air battle between US Army P-40's and Imperial Japanese Navy fighter-bombers. Pilots Taylor and Welch arrived from Haleiwa Airfield, still wearing parts of tuxedos, aloha shirts and armed only with light 30 caliber ammunition, and engaged an overwhelming number of enemy planes, shooting some down and dispersing the rest.

Ewa Field was very likely the first place attacked on December 7 because it was the major USMC fighter base standing in the way of the air attack on Pearl Harbor. The attack on Ewa was so well coordinated and precise that it was clear that the Japanese Navy had spent considerable time and effort on taking out what they considered a very key tactical military fighter air base.

Ewa Field Marines were the one's sent to Wake Island a week before the attack on Pearl Harbor. These Ewa Marines fought a heroic one month resistance against an overwhelming Japanese invasion and it was the first time in history, for both the US and Japan, that a sea invasion force was successfully repelled by US forces. The Wake Island battle, where even Ewa Marine pilots fought in hand to hand combat, inspired the hugely influential 1942 film "Wake Island".

Ewa Marines again rose to great WW-II fame and destiny during the Battle of Midway, when they conducted suicidal air missions against superior Japanese forces, losing their lives, but causing the needed distraction of enemy forces and resulting in the crucial sea battle tipping in the favor of the US Navy.

During 1942-1945 MCAS Ewa was the major Marine Aviation Headquarters in the Pacific during World War Two (WWII), a staging and transit point for all Marine Aviation assets moving into combat against the Empire of Japan's Air, Naval and Ground Forces. The famous and decisive island invasion tactics of the Pacific War were largely conceived and developed at MCAS Ewa.

MCAS Ewa is the birth place of Marine Fighter Squadron 214th, known as "The Blacksheep", including many other famous Marine Aviation units, and also where many famous USMC Aces were trained or formed into fighter squadrons.

In July, 1944 MCAS Ewa was visited by President Franklin D. Roosevelt, General Douglas MacArthur and Admiral Chester Nimitz.

WHEREAS, on December 7, 1941, MCAS EWA FIELD became an indelible part of American history by being the first military installation attacked by Japanese fighters, just minutes before they assaulted Pearl Harbor; and

WHEREAS, on that faithful day in 1941, four marines, Sgt William E. Lutschan, Sgt Karolo Micheleitta, PFC George Turner, and PFC Edward Steven Lawrence, and two residents, Francisco Taderan and six year old Yaeiko Lillian Oda, lost their lives when the naval air forces of the empire of Japan attacked the MCAS EWA FIELD; and

WHEREAS, throughout the second world war, MCAS EWA FIELD played a critical role in America's war effort in the Pacific by serving as the major Marine aviation headquarters in the Pacific, and was a staging and transit point for all Marine assets moving into the combat zones of the South Pacific; and

WHEREAS, on June 18, 1952, MCAS EWA FIELD was forced to close because its runways were inefficient for jet aircrafts and expansion was impossible due to the proximity of the Naval Air Station at Barber's Point, and today the air field is now abandoned; and

WHEREAS, in recognition of the significant role that MCAS EWA FIELD played in our nation's and state's history, historian John Bond brought together a diverse group of current and retired military members, private citizens, and a bipartisan group of elected officials under the banner of saving Ewa Field to protect the historic airfield from development by placing it on a list of National Historic Places as a National Landmark; now, therefore,

BE IT RESOLVED by the House of Representatives of the Twenty-fourth Legislature of the State of Hawaii, on this day of December 7, 2008 that this body commends the efforts of John Bond and the tireless work of the numerous volunteers who are dedicated and committed to the preservation of the historic MCAS EWA FIELD.

Signed by:

Calvin Say, Speaker of the House
Representative Kymberly Pine
Representative Della Bellatti
Representative Tom Broover
Representative Lynn Finnegan
Representative Barbara Mannmolo
Representative Gene Ward
Representative Jon Riki Karamanui

The MAJOR HISTORIC POINTS about Ewa Field...

Ewa Field is one of the first Airfields in Hawaii, hand carved out of Kiawe and Sisal Forest in 1925 and is currently 84 years old, as of 2009. Much of the work was done with picks, shovels

result from individually minor but collectively significant actions taking place over a period of time. HRS § 11-200-2.

Secondary and cumulative impact analysis occurs in three significant steps under the EIS Rules: (1) when applying for an exemption (2) when preparing an EA, and (3) when preparing an EIS. If this analysis is missing or lacking, the permit granting authority must deny the requisite request by the applicant.

The Hawaii Environmental Policy Act ("HEPA") in a nutshell. Before we can make sense of secondary impacts we must first understand the HEPA process. HEPA establishes a system of environmental review that ensures environmental concerns are given appropriate consideration in decision making along with economic and technical considerations.

HRS § 343-1. HEPA will potentially apply whenever an agency or applicant (hereinafter, "applicant") initiates an action that requires a discretionary consent or approval. HRS § 343-2. An applicant must comply with HEPA if its proposed action is one of the triggers enumerated under HRS § 343-5. The most common trigger is the proposed "use of state or county lands" (e.g., modification to a state or county highway as part of a residential project).

Once triggered, a discretionary approval cannot be granted and the proposed action cannot proceed until the permitting agency does one of the following:

1. Exemption. Find that the project is exempt from HEPA, because the proposed action "will probably have minimal or no significant effects on the environment." HRS § 343-6.7 or
2. Finding of No Significant Impact ("FONSI"). If not exempt, an environmental assessment ("EA") must be prepared at the earliest practicable time to determine whether an environmental impact statement ("EIS") is required. HRS § 343-5(b). The permitting authority will review the EA and may issue a FONSI. If so the process ends here.) or
3. EIS. If the permitting authority finds that based on the EA "the proposed action may have a significant effect on the environment" then the applicant must prepare an EIS. Upon completion, the EIS must be accepted by the agency issuing the permit.

This is the short of it: discretionary permit->trigger->exemption->EA->FONSI->EIS. Embedded in the process are required periods for public notice, public comment, and specific limitations on when a permit can be issued. See HRS §§ 343-7, 343-5.

The December 7, 1941 attack on Ewa Field was witnessed by three still living EYE-WITNESSES from Ewa Village... Joel Fujita and his wife Francis, who both witnessed the December 7th attack on the Ewa Field main gate. Joel later served with the famed 442nd in Italy where he saw fierce combat and friends killed. Ramsay Hishikuma, who now lives in Aiea, was at Oneha Beach, Ewa Beach on December 7th and witnessed several US Navy and Japanese planes shot down and crash in the ocean or in the Kiawe trees around and near Ewa Field.

Chapter 200 - Environmental Impact Statement Rules HAR § 11-200

<http://open.doh.hawaii.gov/sites/har/AdmBkbs/11-200.htm>

"Effects" or "impacts" as used in this chapter are synonymous. Effects may include ecological effects (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic effects, historic effects, cultural effects, economic effects, social effects, or health effects, whether primary, secondary, or cumulative.

"Environment" means humanity's surroundings, inclusive of all the physical, economic, cultural, and social conditions that exist within the area affected by a proposed action, including land, human and animal communities, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.

"Environmental impact" means an effect of any kind, whether immediate or delayed, on any component of the environment.

Under the EIS Rules "impacts" are far broader and more inclusive than "significant impacts" as defined under HEPA. The EIS Rules define "impacts"/"effects" as including "primary, secondary, or cumulative" effects. "Secondary impacts" are defined as follows:

"Secondary impact" or "secondary effect" or "indirect impact" or "indirect effect" means effects which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

***Cumulative impacts* are defined as follows:**

"Cumulative impact" means the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. Cumulative impacts can

1995 *Archaeological Inventory Survey for Construction Projects at Naval Air Station, Barbers Point, O'ahu, Hawai'i*. Prepared for Belt Collins Hawaii and the U.S. Navy. International Archaeological Research Institute, Inc., Honolulu.

1995 *Tuigile and C. Eikekous Interpretive Trail Development Study, NAS Barbers Point*. Appendix F. in H. David Tuigile, Archaeological Inventory Survey for Construction Projects at Naval Air Station Barbers Point. Prepared for Belt Collins Hawaii. International Archaeological Research Institute, Inc., Honolulu.

1995 *Cultural Resource Inventory of Naval Air Station, Barbers Point, O'ahu, Hawai'i: Part I: Phase I Survey and Inventory Summary*. Archaeological research services for the proposed cleanup, disposal and reuse of Naval Air Station, Barbers Point, O'ahu, Hawai'i (Task 2a). Prefinal report prepared for Belt Collins Hawaii, Honolulu. International Archaeological Research Institute, Inc., Honolulu.

1994 *Cultural Resources of Naval Air Station, Barbers Point: Summary, Assessment and Research Design*. Prepared for Belt Collins Hawaii and the U.S. Navy. International Archaeological Research Institute, Inc., Honolulu.

1991 *Archaeological Survey of Two Demonstration Trails of the Hawaii Statewide Trail and Access System*. Prepared for Na Ala Hele Statewide Trails and Access Program, Department of Land and Natural Resources. International Archaeological Research Institute, Inc., Honolulu.

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Attorneys for Intervenor
The Sperm Club

BEFORE THE LAND USE COMMISSION OF THE STATE OF HAWAII

IN THE MATTER OF)
)
) Docket No. A06-771
)
)
) AFFIDAVIT OF
) MICHAEL KUMUKAUOHA LEE
)
)
)
) To Amend Agricultural Land Use
) District Boundaries into the Urban
) Land Use District for approximately
) 1.53,844 Acres of Land in Ewa District,
) Island of Oahu, Hawaii, Tax Map Key Nos.
) (1) 9-1-17: 004 per. 059 and 072; (2)
) 9-1-18:001 and 04

AFFIDAVIT OF MICHAEL KUMUKAUOHA LEE

- I, MICHAEL KUMUKAUOHA LEE, under penalty of perjury hereby state:
1. I am competent to testify to the matters herein, and unless otherwise indicated, I make this affidavit based upon personal knowledge.
 2. I am Hawaiian. My mother is Hawaiian and my father was Hawaiian.
 3. My Hawaiian grandfather Kino Valentine taught me about Iiua. My grandfather was born on January 22, 1908 and was taught by his Hawaiian mother, Anna Kanama Ka' amoku and her

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17. The *ivii* of Chiefess *Koanikeka* alumana Kamahakapu were found at Waipouli, a karst system underground at One' uia in Ewa in January of 2001.
18. Waipouli is mentioned in Sites of O' ahu in the Legend of Namakakapo' o on page 36, regarding how Namakakapo' o's mother was made Mo' i of O' ahu.
19. This Waipouli burial cave is referenced in "Burial of the Last Prince of Kaula" taken from the Annual Report of the Hawaiian Historic Society, Volumes 1-21, by the Hawaiian Historical Society in 1893.
20. Mikelole Kekanoahi, a granddaughter of Kamehameha the Great, and his 5th wife of her Uncle Kamehameha II, buries her second husband, the Prince of Kaula' i, Keali' iahoumi, the son of Kaula' i, in the caves at Pu' uloa, Ewa.
21. Being a kahui, or keeper of my families' ivii, kipuana Ali' i' Amoku, it is my responsibility as keeper to ensure the safety of all objects of my families' burial complex.
22. The Native Hawaiian cultural practices of communicating with the deceased, especially ancestors, is well documented through the practices of *ulalo*, *ho' alona*, *akaka ki*, *ke papa lua*, *mae' ulanae*, and other documented practices as outlined in the Nani I Ke Kumu series by Mary Kawena Pukui.
23. I was recognized as a Hawaiian Cultural Practitioner by the City Council of Honolulu as evidenced in a certificate, dated January 28, 2004, entitled "Honoring and Commending the Ewa Limu Project." I co-founded the project with Uncle Henry Chang Wo and Walter Kamana in 1999 for the restoration of limu along the Ewa Beach Coastline, while making every effort to replant for future harvest and to educate the community to replant the One' uia shoreline to allow for recovery and strengthening of the species of limu. Attached hereto as Attachment 1 is a true and correct copy of this certificate.
24. As a *Kahunalapa'au*limu, I was given standing in First Circuit Court, Civil No. 07-1-0904-05, (Agency Appeal), October 10, 2007. Judge Eden Elizabeth Hifo vacated a Board of Land and Natural Resources decision granting Haseko Ewa, Inc. a construction permit.
25. I was given standing as a Native Hawaiian Cultural Practitioner and *Kahunalapa'au*limu in a Department of Land and Natural Resources contested case hearing with Haseko Ewa, Inc. regarding a drainage improvement permit for Kalo'i Gulch in 2008. The permit was denied to Haseko Ewa Inc. in 2009.
26. At the site visit to the Kalo'i Gulch in the DLNR contested case hearing, a federally protected Hawaiian monk seal with the number "N3" etched on its side rested for three hours at the Kalo'i Gulch drainage site that day. Attached hereto as Attachment 2 is a photo of the Hawaiian monk seal at the drainage site.
27. I was given standing in the Ewa Marina Shrinkage case on July 26, 2011. (DLNR CC OA-1-1-02).
28. I entered testimony as the Kahui (or keeper or steward) of my royal family burials of the Mawele, Likou, Lupe Clan, known as the Lords of Lihue in seven locations at One' uia and the old Kulia Lion's club footprint in the protective recommendation of the Oahu Island Burial Council on April 14, 2010 to the State Historic Preservation Department.
29. My interest in the Ho'opili petition area has been ongoing for the past three years due to the fact that my fourth Great Grand Aunt, Queen Miriam Kekanoahi had seven Land Commission Awards

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3. My grandfather's grandparents planted seaweed in Miboli' i in the 1880's as Queen Lili' uokalani did elsewhere.
4. My grandfather fished for 60 years and picked seaweed off of Ewa Beach and elsewhere. My first encounter fishing on the reef with my grandfather Kino was in 1963 off of Paul Pagan's property at Diamond Head. His old car smelled like limu. He always had jars filled with different limu—like limu kolu, lipoa and manaua in the refrigerator. My grandfather blessed canoes and kept an herb garden in the back of his house. He salted limu kolu to keep it longer. He taught me about limu, or Ke Akua, in the limu, which makes limu sacred.
5. In 1960, my grandfather identified on a map of O'ahu the areas where he picked seaweed. This document shows that my grandfather picked seaweed off of Ewa Beach.
6. Planting and gathering limu are long-standing Hawaiian traditions. The basis for gathering limu can be found in the *Kunulupou* chant.
7. Walter Kamana taught me about limu. He taught me over 280 Hawaiian names for the limu and the use of mixing them for medicine. He was taught by his grandmother, a kahuna, from Ni' ihani. He taught me how to place a seaweed lei on a canoe for protection.
8. I can identify approximately seventy different types of Hawaiian limu by sight.
9. I have lived in the Moku of Ewa for over 13 years. I have used the area of One' uia in Ewa to gather limu and teach others. I also perform cultural practices related to communicating and honoring my ancestors.
10. I am a *Papakihohokui* and a Native Hawaiian practitioner of limu medicine and a practitioner of the He.
11. My knowledge of He comes from Aunt Alice Holokai.
12. I possess knowledge of the 2,102 lines of the *Kunulupou*.
13. One' uia in Ewa is a royal burial area and a *Lena* a *ka' uha*me where souls ascend into the next world.
14. Other well known *alii' i* buried at One' uia, include, but are not limited to, Ka' eokilani, Kalamikapale, Kuali' i, Pele' ioholani, Keali' iahoumi, and others associated with the O' ahu line of ruling chiefs as well as Maui and Kaula' i.
15. On April 14, 2010, the O' ahu Island Burial Council (OIBC) voted unanimously to recognize an *alii' i* burial complex at One' uia and recommended to the State Historic Preservation Department that this area be identified and protected.
16. My father, Randolph Martin Lee Jr. is the eldest son of Randolph Martin Lee, Sr. who is the eldest son of Mary Ann Neuman who is the eldest daughter of Auntie Kahoi' owaha Kekuewa who is the eldest daughter of John Meek (Kahawai) who is the eldest son of Eliza Meek and Kamekaouli (Kamehameha the III), who is the biological son of Kamehameha the Great and Koanikeka' alumana Kamahakapu Leimakaali' i, who is the daughter of Kalola II (Kumukoa) and Ke' eamokupapa' ihihihi. Kalola is the daughter of po' oia fathers, Kahakelini' alumana (King of Maui) and Chief Kuumakoa (Molokai).

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- (L.C.A.'s) in the Ho'opili project site. MIKAHELA OR, MIRIAM KEKAUNOHIS L.C.A. SITE NUMBERS, L.C.A. 11216 Ap. in seven sites found in Honolulu Taro Land Showing Kuleana Owned by Dowsett & Co. Ltd., Ewa, Oahu, July 1923, H.H. Allen Surveyor.
30. The royal burial karst cave system in the Chant of Kane's sacred water starts at the Mountain of Waihole in Koolapoko and moves underground in the karst cave system in Honolulu.
31. The outlier of these underground aqueducts can be found in multiple written sources. See *Sites of Oahu*, p. 36, Honolulu in the "Legend of Naniakapaoo"; see also, H.H. Hodgson, Division Engineer A.O. Burkland, Topographic Engineer in Charge, U.S. Coast Geodetic Survey, Hawaiian Territorial Survey, U.S. Coast and Geodetic Survey and Air Corps U.S. Army Survey of 1927, 1928, and 1930, which shows the exit points of the karst cave system, complex, in water holes in relationship to the coastline at One'ula Beach. A second U.S.G.S survey map dated 1943 shows the same water holes, including the location of the Barbers Point Kalaeloa water holes, as well.
32. See also the article from the Annual Report of the Hawaiian Historical Society, Volume 1-21 by the Hawaiian Historical Society in 1893, p. 95, entitled, "BURIAL OF THE LAST PRINCE OF KAWAII" by W.D. Alexander tells of my 4th Great Aunt, Miriam Kekauonohi burying the remains of her husband Prince Keali'ohonui in the lime stone cave in the back of Pu'ulua in 1849.
33. Further, the Burial Treatment Plan Hawaii Burial Cave Situated at Estate of James Campbell Lands Honolulu, Ewa, Oahu (TMS 9-1-14-002) by Hallett H. Hamnatt, Ph.D. describes a canoe, artifacts and ancient Hawaiian human remains.
34. I am the only person recognized by the Oahu Island Burial Council and accepted by the State Historic Preservation Department as a cultural descendant of unidentified Native Hawaiian burials in the Ahupua'a of Honolulu, Ewa District, Island of O'ahu, at TMS: (19-1-011-001 thru 007-9-012-008,009,011,012,013,016,017 approved by the OIBC on April 14, 2010, LOG NO: 2010.0875, DOC NO: 1004A302
35. In October 17, 2011, the Hawaiian Historical Preservations Council advisory body for the OHA Board of Trustees passed a unanimous vote for the OHA Board of Trustees to approve a motion to support a study and mapping of the underground karst and lava tube system extending from Hala'auan Heiau Lihue on the Schofield Barracks, through Kukaniloko, and down to Onelua, utilizing the latest technology in seismic, Global Positioning System, Ground Penetrating Radar, physical exploration, cultural and archaeological surveying and any other prudent means to gauge the full extent of the cultural significance of area.
36. In December 2011, I was asked to provide input as a Native Hawaiian Cultural Practitioner through the Office of Hawaiian Affairs regarding the final draft of the US Navy lease with Hunt Development for a photovoltaic energy farm at the old Barbers point airfield.
37. Matt McDermott, the contracted archeologist for the City of Honolulu Rail Project, has found that the rail route overlaps and intersects the karst system under the proposed Ho'opili site. The Oahu Island Burial Council (OIBC) has receiver maps of the location of the Kulia karst cave system identified in the OIBC protection site of my family's iwakupuna.
38. In my opinion as a Hawaiian Native Cultural Practitioner, DR Horton's Final Environmental Impact Statement's findings regarding Hawaiian Cultural Resources are grossly incomplete and inadequate.
39. The FEIS provides in the Statement on Cultural Resources (pp. 49-51) that no impacts are expected

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and therefore no mitigation measures are planned. However, in fact, the development would severely threaten my cultural practice by disturbing the underground twin karst system where fresh water flows and where my family's iwakupuna of Maweke, Lakona, Lupe Clin are buried.

40. The fresh water in these underground karst cave aqueduct rivers flowing from Waialeale Mountain and Mana Kapu and surrounding Pua's and Waianae Mountain range is the source of nutrients that feed the foundation of our food chain. The fresh water contains the nourishment for the algae and limu to thrive at the seacoast. The algae and limu are the food for all mollusks ophi, haukiki, invertebrates, crabs, lobsters, shrimp, and the punamo or chiton, that Native Hawaiians use for the Mawewe ceremony for newborn babies. This fresh water karst system and ancient burial cave system is the foundation for the Hako'limu, or the house of limu, which supports large amounts of sea life, our primary source of protein.

41. I declare under penalty of perjury that the foregoing is true and correct.

DATED: Honolulu, Hawaii, January _____, 2011.

MICHAEL KUMUKAUOHA LEE

On this _____ day of _____, 2010, before me personally appeared Michael Kumukauoha Lee, to me known to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same as his free act and deed.

Witness my hand and seal.

Notary Public
 My commission expires: _____

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To: James Furuhashi, OPHEV2
From: Valerie Van der Veer, MilitaryStables.com & Section 106 Consultant KREP
Date: June 15, 2012

RE: COMMENTS ON DRAFT EA / KALAELOA RENEWABLE ENERGY PARK

The comments below relate specifically to the April 2012 Draft / Environmental Assessment for Kalaeloa Renewable Energy Park. Thank you for the opportunity to participate as a Section 106 Consultant.

Page 3-6
Lines 5-14: "The lands within the Proposed Action and alternatives are characterized as generally flat and overgrown by non-native vegetation, with most of the area having been highly altered by plantation, agricultural, and airfield development."

Comment: The term "highly altered" is very subjective.

Page 3-6
Lines 25-27: "A Battlefield Evaluation of Ewa Field and Inventory of Historic Contexts was also recently completed (AECOM and MAI 2011) to assess the historic integrity of Ewa Field as a battlefield site."

Comment 1: This document should not be referenced as it was presented as a PRELIMINARY evaluation. Page 1, paragraph 1, line 1 of the Battlefield Evaluation Report states, "This ~~evaluation~~ evaluation was prepared for the purpose of assessing the historical integrity of Ewa Field as a battlefield site."

Comment 2: In addition, paragraph 2 of the Battlefield Evaluation Report reads "AECOM was retained by Mission Architects (MAI) to prepare this evaluation for their client, Ford Island Ventures; the lessee of much of the former Ewa Field property from the Navy."

Comment 3: There have been many public comments and much discussion at several Section 106 meetings regarding the developer paying for an evaluation of land in the developer's possession.

Comment 4: The most pertinent comments on the preliminary Battlefield Evaluation Report were received by NPS on August 9, 2011. A copy of the complete comments made by NPS representatives Elaine Jackson-Retondo, Kristen McMaisters, Melia Lane-Kamahale, and Paul Deprey is attached.

NPS comments included, "The report is generally well written and straight forward; however, we believe that the findings of the evaluation are based on an incomplete analysis that does not include some of the standard methodology used by the American Battlefield Protection Program to evaluate battle fields. Given the need for additional study and evaluation, we cannot concur with the findings of AECOM's Battlefield Evaluation of Ewa Field."

Page 3-6
Line 36-37
Comment: I'm surprised that anyone anywhere can make the claim "ALL archaeological and historic sites have been identified."

Lines 40-44
"Pre-historic Hawaiian sites and non-military historic sites have not been found near the Proposed Action and alternatives..."

Comment 1: Results from specific surveys need to be provided in order to substantiate this claim. A reference for the documentation of said surveys needs to be provided.

Comment 2: Emailed Public Comments (as part of our Section 106) submitted on August 17, 2011 from Mr. Shad Kane, Section 106 consultant, are attached. The last five sentences in paragraph 2 of his comments read, "The point I am making is that in places such as former military bases there is a ~~possibility of finding remnants of cultural structures where you would least expect. An example yesterday I met with Navy Region Archaeologist Jeff Poncho and contractors involved in the cleanup of unexploded ordnance and mangrove from Ord Point. I showed them remnants of a unique ancient Hawaiian trail with upright stones and ahu built into the trail. It was found in a place that you would least expect. It was missed by all previous archeological survey."~~

Page 3-10
Lines 21-22
"It concludes that Ewa Field retains minimal integrity as a battlefield site."

Comment: The above statement is from the PRELIMINARY Battlefield Survey that was prepared for and paid by the Developer. Public comments from NPS are attached. The public comment below pertains specifically to Lines 21-22. "A concern with the report and the summary conclusion is the finding of "minimal" integrity (pg. 2 Summary of Findings). This conclusion is based on a misapplication of the FAR standards as applied to the Ewa Battlefield and is incorrect. For example there appears to be some confusion between the application of FAR standards for integrity and the concept of condition, as well as several contradictory statements pertaining to the FAR standards..."

Page 3-11
Line 26
Comment: Insert "Retained or Leased" so the sentence reads "With the exception of Retained or Leased Federal lands (e.g., Barber's Point Golf Course and nearby lands including the project site), HCDA has the authority to establish the land use..."

Page 3-15
Lines 10-17
Comment: These two roads are a HUGE issue. If these roads are built, they will intersect at the heart of Ewa Field. In addition, depending on which map you reference, the road currently called Kulaikai Parkway which runs north/south is shown running directly through the Remount District and Military Stables just south of Ewa Field. The specifics for these roads were glossed over during the Section 106 meetings for the Kalaeloa Renewable Energy Park.

Lines 21-23
Comment: Is there a study to substantiate the claim on Line 21 "would have a substantial effect on the traffic volumes on Franklin Roosevelt?"

Page 3-16
Figure 3-4
Comment: The map should include and identify the 1941 boundary for a better understanding and interpretation of where the power lines will run.

Page 4-4
Lines 21-27
Comment: Vegetation should be carefully removed after subsurface surveys have been completed.

Page 4-4
Lines 31-34
Comment: The adverse effects from the permanent power poles, HCDA's plans for a power corridor running through the Historic Area, and the roadway plans as outlined on Page 3-15 / Lines 10-17 (regarding the roads intersecting in the middle of Ewa Field) all indicate that the projects is of a much larger scope than previously understood. A series of other projects will result from this EA and the scope must be taken into consideration as impacts. **These Cumulative Impacts are the basis for my recommendation that an Environmental Impact Statement (EIS) be required for this proposed project.**

Page 4-5
Lines 11-13
"Based on the absence of known historic properties of Native Hawaiian origin with the project site, together with previous ground disturbing activities, the proposed action would not affect any Native Hawaiian archaeological resources."

Comment 1: Results from specific surveys need to be provided in order to substantiate this claim. A reference for the documentation of said surveys needs to be provided.

Comment 2: Emailed Public Comments submitted on August 17, 2011 from Mr. Shad Kane, a Section 106 consultant, are attached. The last five sentences in paragraph 2 of his comments read, "The point of an moking & that in places such as former military bases there is always a possibility of finding remnants of cultural structures where you would least expect. An example yesterday I met with Navy Region Archaeologist Jeff Pantalone and contractors involved in the cleanup of unexploded ordnance and an airplane from Oahu Pond. I showed them remnants of a unique ancient Hawaiian trail with upright stones and the built into the trail. It was found in a place that you would least expect. It was missed by all previous archaeological survey."

Page 4-13
Lines 8-9
Comment: Include representatives from interested non-profit / affiliate groups to participate in this process.

Lines 15-16
Comment: Include representatives from interested non-profit / affiliate groups to participate in this process.

END

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To: Commander,
Navy Region Hawaii
850 Ticonderoga St, Suite 110
Pearl Harbor, Hawaii 96860-5101

Dear Sir,

The undersigned hereby request, after reviewing the Navy Environmental Assessment (EA) that was prepared for public review and comment regarding the Kalaeloa Renewable Energy Park – Ewa Field site, that an Environmental Impact Statement (EIS) is warranted and required as specified in NEPA statutes (Sec. 2 [42 USC § 4321], Sec. 101 [42 USC § 4331], etc.)

The entire former MCAS Ewa was designated as National Register eligible during the BRAC transfer process and significant historic sites have already been discovered since the original BRAC 1999 surveys were done. Therefore, we as a concerned community do not believe we have enough valid current information about this project area which will cause significant primary, cumulative and secondary alternations of the cultural and historic environment.

We believe that the overall primary, cumulative and secondary project impacts to cultural and historic sites significantly affects the quality of the human environment in the former lands of MCAS Ewa-Kanehili – and particularly underground resources such as widely documented karst systems known to contain Hawaiian Iwi, pre-historic remains and rare aquatic native shrimp.

We currently have absolutely no documented knowledge as to what actually exists directly below the planned PV site and major East Kalaeloa Energy Corridor that HECO and HCDA will be constructing, but do know that National Register eligible cultural and burial sites already exist in this same area as well as many additional recent casual discoveries of underground karst caves and sinkholes very near the PV project area. Certainly more exists there and the MCAS Ewa command history states that large karst caves were found in this same approximate area as well as anecdotal stories of vehicles falling into underground caves and sinkholes over a period of many decades, including up until very recently.

The underground water that is known by hydrological documents and traditional Hawaiian cultural observation flows below ground in a myriad of karst channels and networks, which major power line poles and other site construction may impact. In this karst system water from the upper lands and mountains directly impacts the propagation and sustainability of rare forms of Hawaiian Iimu along the Ewa Onekua shoreline which is an important cultural and medicinal resource practice protected for native Hawaiians under Hawaii State Law.

We believe that an EIS will promote a much better informed decision-making process by the Navy, Hunt Development, HECO, HCDA, SHPD and the local community by making documented and better detailed information available concerning significant human environmental impacts and underground caves that may contain human and animal remains as well as still existing native Hawaiian aquatic life forms such as shrimp, etc.

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This letter serves as notice of our combined intentions for requesting an Environmental Impact Statement under NEPA. We will also follow up with our own joint and/or separate documents to further substantiate our concerns about the project as described in the Navy EA.

Each person will send in this letter from their own email account stating that they approved this letter and can provide additional proof as needed for this EIS request.

Signed and agreed by 106 community representatives:

Rick Ferris - Museum Historian, Naval Air Museum Barbers Point

Scott Gier - Hawaii Aviation Preservation Society

Glenn Oamilda - President, Ewa Beach Community Association

Mike Lee - Hawaiian Cultural Practitioner

Tom Berg, City Councilman Dist.1

Marissa Capelouto - Kapolei community representative

John Bond, Director, Save Ewa Field

Valerie Van de Veer, Director, Military Stables.Com

Thomas Reese, Documentarian, Save Ewa Field

REVIEW COMMENTS

PROJECT: "Kalaeloa Renewable Energy Park Project" and "Battlefield Evaluation of Ewa Field and Inventory of Historic Contexts,"
 DATE: August 9, 2011
 REVIEWERS: Elaine Jackson-Retondo, Kristen McMasters, Mella Lane-Kamahele, Paul DePrey
 AGENCY: National Park Service (NPS)

No.	Page	Topic	Comment
1.	General	Battlefield Evaluation	The report is generally well written and straight forward; however, we believe that the findings of the evaluation are based on an incomplete analysis that does not include some of the standard methodology used by the American Battlefield Protection Program to evaluate battle fields. Given the need for additional study and evaluation, we cannot concur with the findings of AECOM's battlefield evaluation of Ewa Field.
2.	p. 7, paragraph 2	Battlefield Evaluation	Our American Battlefield Protection Program staff would happily work with the contractor to remove some of the inconsistent references to the core area versus the historic extent of the battlefield, the supporting assertions, the role of the avenue of approach and egress on all battlefields and a detailed analysis of the report.
3.	p. 2 (summary of findings) paragraph 2 p. 18 paragraph 2 p. 17 paragraph 1 p. 20	Battlefield Evaluation	The AECOM report included "character" defining features rather than battlefield defining features, something that the ABPP does not generally do. This is not an issue as AECOM's intent was to define all physical battlefield features of the landscape as they related to the five aspects of Military Terrain Analysis. A concern with the report and the summary conclusion is the finding of "minimal" integrity (pg. 2 Summary of Findings). This conclusion is based on a misapplication of the NR (pg. 2 Summary of Findings) to the battlefield. For example the finding appears to be some confusion about the application of NR standards. The NR standards are based on condition as well as several contradictory statements pertaining to the NR standards: a) is the defining features (pg. 19, second paragraph, first and last sentence) (compare to page 17, first paragraph, last sentence and paragraph (definition of Materials), last sentence).
4.	General	Battlefield Evaluation	In addition, the battlefield integrity conclusions for the standards of Association and Feeling are incorrect (pg. 20). In short, the Ewa Battlefield retains quite a bit of integrity based on the NR standards as set out in NR Bulletin 40 We do not consider the boundaries adequate for consideration since this study was commissioned to represent the battlefield resources for this portion of the Pearl Harbor engagement.

5.	General	Battlefield Evaluation	One key to creating more accurate boundaries is to include all the cultural resource information. The evaluation is missing a presentation of the archeological battlefield resources (especially field of fire) which might expand the boundary significantly. There is no visual or view shed (observation) analysis, which would certainly include more area than depicted. We recommend that the study be revised to include archeological battlefield resources as well as view shed analysis.
6.	General	Battlefield Evaluation	The avenues of approach/egress were not considered in the evaluation. We recommend consideration of the avenues of approach/egress as standard methodology for battlefield evaluations and recommend that the AECOM evaluation of Ewa Field be revised to include this type of analysis.
7.	General	Battlefield Evaluation	Only a defensive posture is considered rather than both sides of the conflict. It is standard battlefield evaluation methodology to consider the battle vantage point of both combatants. In an air assault where the planes may have been as low as 20 feet from the ground, the view sheds (both attack and defense) becomes critical to the understanding of the site. We recommend that the evaluation be revised to include an analysis of both vantage points.
8.	General	Battlefield Evaluation	The accompanying "Inventory and Contexts" report by Mason Architects is equally well written and comprehensive, but primarily deals with post-battle structures.
9.	General	Renewable Energy Park Proposal	Recommend defining the APE based on visual impacts from the poles and not by district or base boundaries that are independent of the proposed project. Without a project-specific APE, the determination of adequate effort to identify battlefield resources is difficult.
10.	General	Renewable Energy Park Proposal	Recommend exploring options that would place the photovoltaic array away from the runway
11.	General	Renewable Energy Park Proposal	Recommend exploring the possibility of flat and/or amorphous photovoltaic panels.
12.	General	Renewable Energy Park Proposal	Recommend providing renderings and plans that clearly show power poles and other ancillary equipment structures associated with the projects.
13.	General	Renewable Energy Park Proposal	Recommend providing maps that show the location of all historic and archeological resources within the APE.

KANEHILI –MCAS EWA COMMENTS FROM
O'AHU CITY COUNCIL DISTRICT 1

TOM BERG
COUNCILMEMBER
HONOLULU CITY COUNCIL • DISTRICT 1
PH: (808) 768-5001
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June 11, 2012

Commander,
Navy Region Hawaii
850 Triconderoga St, Suite 110
Pearl Harbor, Hawaii 96860-5101

Dear Sir,

Thank you very much for allowing comments on the Draft Environmental Assessment for the Kalaeloa Renewable Energy Park as proposed by Hunt Corp-FIV. I live near the former naval air station and have personally followed this entire process for the past eleven years with great interest. This property is especially important to our Ewa community because within the former navy lands was Marine Corps Air Station Ewa, MCAS Ewa, or Ewa Mooring Mast Field, which was attacked by Japanese warplanes on December 7, 1941, and is today eligible and under consideration to become a National Battlefield and National Landmark.

My greatest concerns are that the Hawaii Community Development Authority take care of the historic base properties, conservation areas and open spaces that the Ewa Community wants preserved, and not have them wind up in the hands of interests that don't share these community preservation values. HCDA's 2006 KMP appears to want to limit and exclude sites which it does not want to be included as culturally or historically important, such as the former Ewa Field airfield and battlefield, and bulldoze two unnecessary roads through the center of it.

The strength of this HCDA planning document to supersede the provisions of the City and County of Honolulu land use ordinance, the provisions of the Ewa development plan, and the provisions of the Naval Air Station Barbers Point community redevelopment plan is somewhat questionable and does not appear to follow along the intent of the Navy land transfer to HCDA. The planners of Kalaeloa should recognize that this area was actually two distinct military bases with distinctly different histories.

MCAS Ewa has its own unique history that ties in directly with the Ewa Plantation Community and the nearby O.R. & L. Railway, going back to the 1920's when it was Ewa Mooring Mast airfield, built for a Navy airship program. It was a base that started very small, saw renewed development as a US Marine Corps airfield in 1940-41, and

Comments on Navy Environmental
Assessment for PV Energy Parks and
HCDA HECO Major East Kalaeloa
Energy Corridor Powerline Plan
By City Councilman Tom Berg, District 1

Historic MCAS Ewa –NAS Barbers Point - Kalaeloa should use only the existing historic base roads and right-of-ways, which when logically analyzed, provide all of the necessary North-South and East-West arterial connections needed to serve the entire area very well. NAS BP and MCAS EWA are really TWO DISTINCT base properties with different planning use and roadway needs and need to be seen as entirely separate projects within Kalaeloa.

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then exploded outward once the Pacific War began on December 7, 1941. It was a continuous work in progress as more runways, buildings, hangers and taxiways were needed to handle large-scale WW-II fighter aircraft training and Pacific air logistics that supported the successful Pacific Island Campaigns.

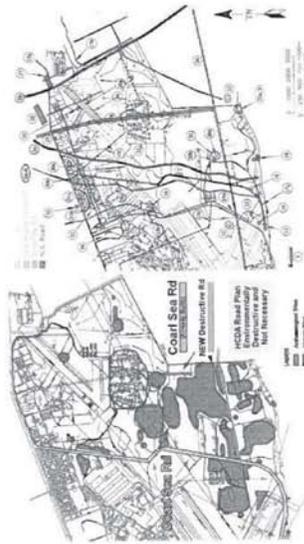
NAS Barbers Point also has its own unique history, and was completely designed from scratch, before the Pacific War even started, to be in a much larger and permanent diamond pattern design with two massive runways, with heavy fortified concrete buildings and huge Alfred Kahn aircraft hangers. It was the sudden start of WW-II that caused NAS Barbers Point construction to be delayed and all efforts put into making MCAS Ewa fully operational. By 1942, SeaBee Construction units, based in a large community on MCAS Ewa, and using Coral Sea Road as their major North-south transit highway, and Roosevelt Road as their major East-West transit highway, built NAS Barbers Point. These two distinctly different base histories should be factored into all Kalaeloa planning schemes with the realization that one area is better suited for open space and recreational use, while the other area was intentional designed to be an urban community with major airport, from the very beginning.

I strongly agree with the January 21, 2011 comments submitted by Brian Turner, Esq. Regional Attorney, Western Office, National Trust for Historic Preservation (NTHP) on the Draft Kalaeloa Administrative Rules.

The National Trust for Historic Preservation was chartered by Congress in 1949 as a private nonprofit organization for the purpose of furthering the historic preservation policies of the United States and facilitating public participation in the preservation of our nation's heritage. 16 U.S.C. § 468. With the support of NTHP members nationwide, the National Trust works to protect significant historic sites and to advocate historic preservation as a fundamental value in programs and policies at all levels of government. The Trust has nine regional offices around the country, including a Western Office in San Francisco which is specifically responsive to preservation issues in Hawaii.

The Kalaeloa Community Development District consists of 3,700 acres west of Honolulu on the Ewa plain and includes a host of historically important sites. The draft rules replace current rules that govern development within the existing state law with respect to future development that occurs in the district. I believe the rules must further strengthen and not weaken protections for historic properties in Kalaeloa.

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This section contains numerous inconsistencies and apparent misstatements as to what the law requires.

- (a) Subsection (a) states that the "authority" is the sole arbiter of what is historically and culturally significant. However, subsection (d) states that SHPD has the authority to make this determination. Subsection (a) should be revised to ensure that the judgments as to what is and is not historic are made by qualified preservation experts, such as SHPD staff.
- (b) Subsection (a) refers to compliance with the implementing regulations of section 106 of the National Historic Preservation Act (NHPA), but it is not clear why compliance with this federal law is required. The draft rules should be amended to indicate why section 106 review is required by explaining, for instance, that this is a condition in the agreement transferring the land from the Navy. Moreover, it should be clear that any application for development must go through this review as the existing cultural resource surveys of the land at Kalaeloa is outdated and did not include a thorough identification effort. Subsection (c) appears to make this clear to potential applicants by stating that a letter of SHPD concurrence is required prior to project eligibility review. But subsection (a) is contradictory as it is more limiting, stating that state law applies only to properties that the authority has deemed historically and culturally significant.
- (c) Subsection (d) contains a clear misstatement of the requirements of Section 106 of NHPA when projects will impact culturally or historically significant properties. It refers only to "mitigation" for impacts when properties will have adverse effects. This section should refer to the ultimate goals of avoiding and minimizing impacts and refer to mitigation only as a last resort. (See 36 C.F.R. § 600.1(a)). The SHPD's authority should not be limited solely to approving mitigation measures.

III. Section 1.20 15-215-20 must be clarified to adequately reflect the requirement to consult with SHPD.

According to comments by Historic Hawaii Foundation, Section 1.20 15-215-20 states that a historic or culturally significant property within the district may be put to any use, subject to the requirements of section 15-215-19. This appears to be a typo as section 15-215-19

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Below I suggest several recommendations, based upon advice of the National Trust for Historic Preservation, to make the permitting process more predictable for applicants and ensure that Hawaii's heritage is adequately protected in the development process.

I would like to note that HCDA earlier this year **rejected** these NTHP comments and refused to include them in their final Kalaeloa Draft Rules document. I find this very disturbing that they don't want to strengthen the weak and questionable historic and cultural aspects defined in the Kalaeloa Master Plan, as suggested by the NTHP attorney.

I. Impacts to Culturally Significant Properties must be explicitly disclosed in applications for Project Eligibility Review.

I am pleased to see that any application for a project eligibility review will require, among other factors, a review of project impacts on historic and archaeological properties (1.12 15-215-12(a)). However, they do not appear to require the applicant to provide any analysis of impacts to culturally significant properties in a subsequent section that enumerates the required components of an application for project eligibility review (1.12 15-215-12(e)).

This creates internal inconsistency in the rules as to what information will and will not be required from applicants. I strongly concur with the NTHP and recommend that the rules specifically require applicants to provide information regarding culturally significant properties in its application for project eligibility review.

Further, the development application requirements improperly omit any requirement for applicants to provide information related to culturally significant properties (1.13 15-215-13). This section must be revised to include such a specific requirement to ensure development within the Kalaeloa boundaries is sensitive and respectful of the cultural resources within the district.

In addition, the draft rules do not give the authority reviewing the application the explicit power to consider the project's impacts to cultural properties (1.16 15-215-16). In contrast, the criteria do include many other considerations in the public interest such as impacts to vehicle and pedestrian circulation and existing uses of the land in the area. I recommend that the rules highlight the specific authority for the permit review authority to deny an application in the event the development would adversely impact on cultural and historic properties.

II. The requirement to consult with the State Historic Preservation Division (SHPD) must be strengthened and made consistent. Section 1.18 15-215-18(f) requires that applicants consult with the SHPD prior to project eligibility review for impacts to properties that the authority determines to be historically and culturally significant.

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refers only to the designation of such sites (The entirety of the section states: "Properties deemed historic or culturally significant and listed on the State and National Historic Register are so designated in the KMP.") Presumably this section should refer to 1.18.15-215-18 which relates to consultation with the "state historic preservation district." (Note: the use of the word "district" in the heading of 1.18.15-215-18 also appears to be in error and should read "division").

I strongly support SHPD's ability to place conditions on the otherwise free use of historic properties within Kalaeloa. However, this section should be revised and expanded to also give deference to the views of consulting parties and the local Ewa public which have an essential role in the Section 106 review process.

IV. The definitions of "culturally significant" and "historically significant property" must be amended to include properties eligible for the National and Hawai'i Registers

I strongly concur with the NTHP attorneys concern that the definition of "culturally significant" or "historically significant property" is far too limited in both the definitions section of the rules (1.2.15-215-2) and the section related to the designation of sites (1.19.15-215-19). The draft definition currently includes on resources that are listed on the National or Hawaii Registers of Historic Places or designated in the Kalaeloa Master Plan as significant. The definition should be expanded to include properties that are eligible for the National or Hawai'i Register in addition to listed properties.

V. General concerns with respect to impacts to Ewa Field proposed in Kalaeloa Master Plan

I am particularly concerned, along with NTHP attorneys concurrence, that the HCDA Kalaeloa Master Plan indicates that an extension of the Kualaka'i Parkway is slated to run directly through historic Ewa Field which is located within the Kalaeloa District. This former runway was the site of intense fighting on December 7, 1941, where American Marines fought back against Japanese warplanes. Tangible evidence of the battle in the form of strafing marks is still apparent in concrete pavers on the airfield and a battlefield survey is currently underway. I strongly urge, along with NTHP attorneys advice and consultation, that HCDA reconsider the proposed placement of the Parkway and plan to participate in the Federal and State review process to ensure that adverse impacts to the site are avoided.

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The Hawaii State Legislature passed a resolution in 2009 advocating a preservation and heritage tourism concept for MCAS Ewa Field. The HCDA Kalaeloa Administrative master plan doesn't take any note or makes mention of this widespread local Ewa community neighborhood board and Hawaii state legislative statement of public concern.

The Ewa Field Resolution 49 was passed by the Hawaii State Legislative session on Wednesday, May 6, 2009

[LEGISLATIVE FULL PRESERVATION OF UNITED STATES MARINE CORPS AIR STATION EWA AS A NATIONAL MONUMENT, MUSEUM, AND RESTORED PARK FOR THE STATE OF HAWAII.](http://www.capitol.hawaii.gov/session/2009/legislation/measure_individual.asp?billtype=HCR&billnumber=49)

http://www.capitol.hawaii.gov/session/2009/lists/measure_individual.asp?billtype=HCR&billnumber=49

The State Legislature got behind the Preservation of the MCAS Ewa Field with the goal to expedite the listing of the December 7, 1941, battlefield as a National Monument, National Landmark and recognized National American Battlefield.

Nearly identical resolutions were also passed in 2009 on Oahu by three Neighborhood Boards- Ewa Beach NB, Waipahu NB and Kailua-Windward NB.

This is the expressed will of the Ewa-West Oahu community. It couldn't be stated any clearer what the Ewa West Oahu Community wants to see at for MCAS Ewa Field.

I would also like to include in my comments the Known Ewa Sites & Structures list provided by Elizabeth S. Merritt, Deputy General Counsel, National Trust for Historic Preservation, 1785 Massachusetts Ave. NW, Washington, DC 20036. These are shown below:

Known Ewa Sites & Structures in NAVY BRAC Transfer. Note: These areas have only received low level Phase II archaeology surveys and additional site surveys need to be done as well as historic battlefield survey done by professional battlefield analysis experts beyond the "preliminary" report generated earlier this year by AECOM and Mason Architects for the Hunt Corporation plans for a Photo-Voltaic solar power farm on the Ewa Field runway.

EWA FIELD (1925-1942)

- o (Includes Approximately 2/3 of the FAA Site)
- o Perimeter Property Line / Former Fence Line (1925 -1942)
- o Southwest Extension to Main Ewa Field Runway (1941)
- o Former Main Hangar, 123 Bldg. Platform (1941)
- o Hawaiian Habitation Complex (State No. 3721) (Just inside Perimeter Line)

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- o Sisa Walls Remnant (State No. 3722) [Just outside the Perimeter Line]
- o MCAS EWA (1942-1952)
 - o (Includes Approx. 1/3 of the FAA Site)
 - o Perimeter Property Line / Former Fence Line
 - o Bldg. 137, Former Communications Splinter-proof Structure (ca. 1943)
 - o Bldg. 1545, Operational Storage, Quonset hut) (ca. 1943)
 - o Bldg. 1146 Hangar (1944)
 - o Bldg. 1546 Operational Storage & Electrical Shop, Quonset hut) (ca 1943)
 - o Anti-Aircraft Battery WWN (State No. 5096)
 - o Anti-Aircraft Complex Remnants (State No. 5097)
 - o WWII Housing Complex Remnants (State No. 5099)
 - o Potential Former 5th Anti-Aircraft Gun Site, (Location South of Runway)
 - o Sinkhole Complex, near and along Coral Rd. (State No. 5094)
 - o Sinkhole Complex (State No. 5198) -- NAS Barbers Point (1942-1999)
 - o Bldg. 92, Bombproof Substation (ca 1942)
 - o Hawaiian Dune Burial Site Near Shoreline (State No. 5126)
 - o Sinkhole Complex (State Site No. 5108)
- NAS Barbers Point Cold War Era Structures (1962-1999)
- Pride baseball field -- MCAS Ewa and later NASBP (1941-1999)

The National Park Service comments on the Hunt Corporation AECOM and Mason Architects 2011 Ewa Field battlefield survey report are somewhat critical and states:

We do not consider the boundaries adequate for consideration since this study was commissioned to represent the battlefield resources for this portion of the Pearl Harbor engagement.

The evaluation is missing a presentation of the archeological battlefield resources (especially field of fire) which might expand the boundary significantly. There is no visual or view shed (observational) analysis, which would certainly include more area than depicted. We recommend that the study be revised to include archeological battlefield resources as well as view shed analysis.

The report is generally well written and straight forward; however, we believe that the findings of the evaluation are based on an incomplete analysis that does not include some of the standard methodology used by the American Battlefield Protection Program to evaluate battle fields. Given the need for additional study and evaluation, we cannot concur with the findings of AECOM's battlefield evaluation of Ewa Field.

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Our American Battlefield Protection Program staff would happily work with the contractor to remove some of the inconsistent references to the core area versus the historic extent of the battlefield, the supporting assertions, the role of the avenue of approach and egress on all battlefields and a detailed analysis of the report.

A concern with the report and the summary conclusion is the finding of minimal integrity.

This conclusion is based on a misapplication of the NR (National Register) standards as applied to the Ewa Battlefield and is incorrect. For example, there appears to be some confusion between the application of NR standards for integrity and the concept of condition, as well as several contradictory statements pertaining to the NR standards vis a vis the defining features.

In addition, the battlefield integrity conclusions for the standards of Association and Feeling are incorrect (pg. 20). In short, the Ewa Battlefield retains quite a bit of integrity based on the NR standards as set out in NR Bulletin 40

Only a defensive posture is considered rather than both sides of the conflict. It is standard battlefield evaluation methodology to consider the battle vantage point of both combatants. In an air assault where the planes may have been as low as 20 feet from the ground, the view sheds (both attack and defense) becomes critical to the understanding of the site. We recommend that the evaluation be revised to include an analysis of both vantage points.

* End of NPS Comments *

1925 Ewa Mooring Mast Field is one of the very oldest historic aviation sites and airfields in the State of Hawaii.

National Park Historian Daniel Martinez calls the December 7, 1941 Ewa Field "Sacred Ground."

The National Park Service is considering officially making MCAS Ewa Field part of the new WW-II "Valor in the Pacific" National Monument.

Significant oral history testimony has been collected from Ewa Village residents, many of whom are still alive, detailing the extensive air and ground battle over and around Ewa Field and Ewa Village on December 7, 1941.

In 1944 FDR toured MCAS Ewa Field in a convertible sedan, also carrying General Douglas MacArthur and Admiral Chester Nimitz. They turned off Fort Weaver Rd, came down Genger Rd and onto then North Hanson Road (to be named Roosevelt in the late 1950's) and visited the base. They also visited NAS Barbers Point, before returning back the same route to Honolulu.

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My office also notes that the North-South Road (Kualakā'i Parkway) and a major electrical transmission line as currently designed would bisect the Hawaiian Railway Society baseyard, Ewa Field, and the aircraft revetments just west of the Navy Golf Course. SHPD's letter of April 20, 2010 notes that the boundaries of Site 5127 (Ewa Field) should be expanded to include the entire former

MCAS. The Navy's Historic Preservation Covenants include language declaring "Actions that would affect views, including adding new structure site elements such as towers, fences, or obtrusive signs, may also be considered to materially affect the Historic Properties". This same type of covenant should cover the seventy-five aircraft revetments located west of the Navy's golf course currently used by the Barbers Point Riding Club.

1.19 15-215-19 Designation of historic and cultural sites

The Kalaeloa Draft rules, according to the Historic Hawaii Foundation, further limit the protection of historic and cultural resources by creating a narrow definition of historic and cultural resources. They would only allow those listed on the State and National Registers to be deemed historic or culturally significant and would use this new criteria to replace the earlier protections in the 2006 Kalaeloa Master Plan. The process of nominating historic properties is ongoing and never complete; and it is improper to assume that properties need to be on both State and federal registers. Draft rules 15-215-18, -19, -20, -21 deal with historic preservation. Historic Hawaii Foundation has a concern that these sections intend to limit and restrict the existing legal processes and protections for historic and cultural resources, rather than reinforce or strengthen them.

The HCDA Kalaeloa Plan is very selective about what is defined as "cultural" and it is only defined basically as what is Hawaiian culture ONLY. Two Hawaiian organizations are the only HCDA Kalaeloa cultural consultants and one else was apparently ever asked or allowed into this definition of cultural correctness for Kalaeloa.

The only "Heritage Park" is one that HCDA has designed as being officially recognized and supported with large amounts of public land, including Navy BRAC land that was originally going to the city. This large amount of land could have also been used in a possible land swap with FIP Hunt Corporation regarding the Ewa Field Battlefield site, but despite years of being aware of this issue no action was ever taken, despite many recommendations.

Despite being intended for full preservation, the "Heritage Park" in published articles makes mention of commercial development, etc. It seems this is almost an "insider deal" of certain parties obtaining Navy BRAC land intended for conservation and recreation and using it for financial profit. The relationship between the HCDA Kalaeloa administration and the people selected to manage this property seems extremely close

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Former MCAS Ewa is located by historic Ewa Village Plantation, on the State Historic Register, with the nearby Oahu Railway and Museum, on the National Historic Register, and with a likely National WW-II Battlefield designation, is destined to always have a more rural open space and historic character. Note too that developers of the Navy golf course, the Geiger Road realignment and the installation of the FAA navigation beacon all carefully avoided infringing upon the original 1941 December 7th airfield. This was

because all of the land use planners and civil engineers knew then the site was very historic and important to save. This was not a coincidence, it was by design.

In December of 2010 a Face Book CAUSE was set up to advocate preservation of the Ewa Field battlefield and object to a roadway through the area. Within two weeks, over 1000 people had joined the Save Ewa Field cause nationwide. This is an indication that American battlefields are considered as "Sacred Ground" to most mainland US residents, who are by the way, major visitors to Hawaii, and any construction through MCAS Ewa will be met with significant amounts of bad national publicity and public rancor among veterans groups.

1.18 15-215-18 Preliminary consultation with state historic preservation

Further Historic Adjudgment has been sought from the State Historic Preservation Division, Department of Land and Natural Resources under Chairman William Aila.

I have been so advised in correspondence of April 28, 2011 by the State Historic Preservation Division, Ross W. Stephenson, SHPD Historian, and Pua Aiu, Administrator, about concerns related to the former MCAS Ewa and NAS Barbers Point lands that have been part of the intended NAVY BRAC transfer to the City of 388 acres of land, including vacant property and a mixture of abandoned runways, warehouses, roads, Quonset huts, and other structures. This area includes the boundaries of Site 5127 (Ewa Field).

SHPD and the National Advisory Council on Historic Preservation have engaged in several discussions with the Navy and property grantees about historic resources on the former base. The Navy on October 28, 1998 (Ser 233/3957) agreed to include protective covenants to ensure preservation and appropriate treatments of historic properties. A December 12, 1998 letter from SHPD identified sites needing preservation or data recovery. A March 11, 2010 communication from the Navy BRAC office clarified that lot 13058-B would go to the City and County of Honolulu for park use. On April 20, 2010 SHPD recommended a conditional no effect determination that included recognition of eligibility for the National Register of Historic Places and protective covenants for the former Marine Corps Air Station (MCAS) Ewa (often referred to as "Ewa Field").

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and somewhat begs a possible ethics investigation, as well as a review by the City and the Navy BRAC office.

2.3.15-215-34 Special districts

An MCAS Ewa Historic District has been proposed in a Navy contracted cultural resource survey. This district comprising 75 aircraft revetments built in 1942, should be incorporated into all future Kalaeloa planning. The exact boundaries and historic significance are available through SHPD files and documents.

Two historic districts have been proposed in Navy contracted cultural resource surveys for M/S Barbers Point - A WW-II Housing Area and Central Core Historic District. These two districts should be incorporated into all future Kalaeloa planning. The exact boundaries and historic significance are available through SHPD files and documents.

15-215.5 Thoroughfares

The Kalaeloa Master Plan should intelligently use the existing historic MCAS Ewa base arterial roadways, expand them to four lanes and keep interior traffic LOCAL, which better fits the great descriptions of what Kalaeloa is supposed to be- a community encouraging slower 25 mph speeds, bikeways, etc. There is absolutely no reason to create a new roadway connection with the existing Saratoga Avenue and extend it across historic MCAS Ewa land and connect it with Geiger Road as the 2006 KMP states it will do.

The extension of Geiger Road directly across and through the historic Ewa Field December 7 battlefield is completely unnecessary and will never be needed as a transit route because Geiger Road was aligned and connected to today's Roosevelt Avenue in the 1940's during the original design of the base. Traffic has flowed very smoothly on this same existing right-of-way for six decades since, allowing transit from Ewa all the way down Roosevelt to today's Kalaeloa Blvd- which is currently blocked off and should be reopened.

When the traffic eventually does increase, the answer is to make Geiger and Roosevelt four lanes- and not create a totally unneeded parallel roadway a couple of hundreds yards away in an important historic battlefield site which will only invite future lawsuits.

There is also a major North-South historic right-of-way- Coral Sea Road, which could be expanded to be a significant four lane parkway and North-South connector- which it was in fact originally designed to be, and which could well satisfy the transit needs to reach the Ewa Coast beach parks and also serve as a second access roadway to the Haseko development allowing connection to Keoneula Blvd.

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Currently, the segment of Kapolei Parkway between Kamokila Boulevard and Fort Barrette Road is not yet completed but will be constructed by the City & County of Honolulu. When this Kapolei Parkway segment is in place it will provide a continuous connection between Kalaeloa Boulevard and Geiger Road. The completion of the missing segment of Kapolei Parkway will have a substantial effect on the traffic volumes on Franklin D. Roosevelt Avenue, as some Ewa-Diamond Head traffic would divert from the existing two-lane road to the six-lane parkway. Kapolei Parkway is the preferred East-West commuter route while Franklin D. Roosevelt Avenue will serve well as an additional future four lane East-West transit route within Kalaeloa-Barbers Point communities.

Also noted from my office's research on historic preservation is the fact that the Department of Transportation Act (DOT Act) of 1966 includes a special provision - Section 4(f) - which stipulates that the Federal Highway Administration (FHWA) and other DOT agencies cannot approve the use of land from publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historical sites unless the following conditions apply:

There is no feasible and prudent alternative to the use of land. The action includes all possible planning to minimize harm to the property resulting from use.

Section 4(f) of the Department of Transportation (DOT) Act of 1966 was set forth in Title 49 United States Code (U.S.C.), Section 1653(f). A similar provision was added to Title 23 U.S.C. Section 138, which applies only to the Federal-Aid Highway Program.

In addition, the historic MCAS Ewa areas are also nesting grounds for the endangered Puaiohi (Asio flammeus sandwicensis) - considered sacred by many Hawaiians. It is a widely recognized Hawaiian ancestral guardian known as *aumakua*. These birds are believed to protect individuals from harm, and even death. Disturbing their favored nesting areas would be extremely controversial and a subject of great public concern in the Ewa Community.

Use Coral Sea Road, yet to be funded for improvement- that once improved- to be the route as the main thoroughfare extension for Kalaeloa Parkway (makai/south of Roosevelt Avenue to connect to Keoneula Boulevard). This will preserve the ball fields and riding stables in Kalaeloa in order for them to maintain operations without further disturbance. Please do not use the current configuration in this plan to extend Kalaeloa Parkway that abuts the ball fields and riding stables. Please open and advance Essex Road as a pedestrian thoroughfare (currently closed around the golf course) as well to connect to the Leeward Bypass. All military sites must undergo Section 106 prior to any development.

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May 9, 2011
 Mr. Anthony J. H. Ching
 Executive Director
 Hawai'i Community Development Authority
 461 Cooke Street
 Honolulu, Hawaii 96813
 Attention: Techa Mahama, Kalaeloa Office

Thank you very much for allowing comments on the Kalaeloa Draft Administrative Rules. There were 122 comments made on the draft early this year. However I have since learned that addressing the comments and their legitimate concerns will not be done until later this year, and well after the downtown May 18 final hearing at the HCDA Kakaako office. This does not seem like HCDA is actually intending to incorporate these public comments in their final rules, but is only doing this comment process as a formality before approving only what HCDA wants included.

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The strength of this document to supersede the provisions of the city and county of Honolulu land use ordinance, the provisions of the Ewa development plan, and the provisions of the Naval Air Station Barbers Point community redevelopment plan is questionable and does not appear to follow along the intent of the transfer to HCDA. It seems ambitious to plan for such a variety of mixed use (perhaps spot zoning) with a mandate to preserve the cultural history, protect the environment and its inhabitants in a regional park. The characteristics here do not describe anything to the mind's eye or give me a feel for the ambience of a mixed use neighborhood.

It seems like HCDA is doing the work of City Department of Planning & Permitting in many cases, and since much of this Kalaeloa public area will ultimately be transferred to the City, HCDA should be using City guidelines.

In closing, there still remains a question of HCDA adequately addressing public input and not just being a vehicle for what developers want. This is public land, not private land, and significant development in Ewa West Oahu requires transparency and an honest public hearing process and honest and timely addressing of public comments before final decisions are made.

Mahalo and thank you for allowing me to comment on this very important Council District 1 development project involving former naval air station lands.

Aloha,

TOM BERG
 Councilmember - District 1
 Ewa Beach, Kapolei, Waianae Coast

TB:gc

Also, holding a downtown meeting during morning business hours about this significant, large scale West Oahu development, as well as a public hearing about crossing the West Oahu community a full hearing during a convenient evening time, does not seem to be a very transparent hearing process. Hopefully my comment will not just something that will be deposited into a file cabinet with a thank you note sent later this year after all the development deals are made without any real public review.

1.5 15-215-5 Purpose and Intent

The strength of this HCDA planning document to supersede the provisions of the City and County of Honolulu land use ordinance, the provisions of the Ewa development plan, and the provisions of the Naval Air Station Barbers Point community redevelopment plan is somewhat questionable and does not appear to follow along the intent of the Navy land transfer to HDCA. The planners of Kalaeloa should recognize that this area was actually two distinct military bases with distinctly different histories.

MCAS Ewa has it's own unique history that ties in directly with the Ewa Plantation Community and the nearby D.R. & L. Railway, going back to the 1920's when it was Ewa Army Airfield, built for a Navy airship program. It was a base that started very small, saw it's first development as a US Marine Corps airfield in 1940-41, and then expanded outward once the Pacific War began on December 7, 1941. It was a continuous work in progress as new runways, buildings, hangars and taxiways were needed to handle large-scale P-51 fighter aircraft training and Pacific air logistics that supported the successful Pacific Island Campaign.

NAS Barbers Point also has it's own unique history, and was completely designed from scratch, before the Pacific War even started, to be in a much larger and permanent diamond pattern design than the other runways, with heavy fortified concrete buildings and huge Alford Kahn aircraft hangars. It was the sudden start of WW-II that caused NAS Barbers Point construction to be delayed and all efforts put into making MCAS Ewa fully operational. By 1942, Seabee Construction units, based in a large community on MCAS Ewa, and using Coral Sea Road as their major North-South transit highway, and Roosevelt Road as their major East-West transit highway, built NAS Barbers Point. These two distinctly different base histories should be factored into all Kalaeloa planning schemes with the realization that one area is better suited for open space and recreational use, while the other area was intentional designed to be an urban community with major airport, from the very beginning.

I strongly agree with the January 21, 2011 comments submitted by Brian Turner, Esq. Regional Attorney, Western Office, National Trust for Historic Preservation (NTHP) on the Draft Kalaeloa Administrative Rules.

The National Trust for Historic Preservation was chartered by Congress in 1949 as a private nonprofit organization for the purpose of furthering the preservation of our nation's heritage. 16 U.S.C. § 468. With the support of NTHP and the National Trust for Historic Preservation, the National Trust works to protect significant historic landmarks and sites, and to advocate historic preservation as a fundamental value in programs and policies of all levels of government. The Trust has nine regional offices around the country, including a Western Office in San Francisco which is specifically responsive to preservation issues in Hawaii.

The Kalaeloa Community Development District consists of 3,700 acres west of Honolulu on the Ewa plain and includes a host of historically important sites. The draft rules replace current rules that

govern development within the existing state law with respect to future development that occurs in the district. I believe the rules must further strengthen and not weaken protections for historic properties in Kalaeloa.

Below I suggest several recommendations, based upon advice of the National Trust for Historic Preservation, to make the permitting process more predictable for applicants and ensure that Hawaii's heritage is adequately protected in the development process.

I. Impacts to Culturally Significant Properties must be explicitly disclosed in applications for Project Eligibility Review

I am pleased to see that any application for a project eligibility review will require, among other factors, a review of project impacts on historic and archaeological properties (1.12 15-215-12(e)). However, they do not appear to require the applicant to provide any analysis of impacts to culturally significant properties in a subsequent section that enumerates the required components of an application for project eligibility review (1.12 15-215-12(f)).

This creates internal inconsistency in the rules as to what information will and will not be required from applicants. I strongly concur with the NTHP and recommend that the rules specifically require applicants to provide information regarding culturally significant properties in its application for project eligibility review.

Further, the development application requirements improperly omit any requirement for applicants to provide information related to culturally significant properties (1.13 15-215-13). This section must be revised to include such a specific requirement to ensure development within the Kalaeloa boundaries is sensitive and respectful of the cultural resources within the district.

In addition, the draft rules do not give the authority reviewing the application the explicit power to consider the project's impacts to cultural properties (1.16 15-215-16). In contrast, the criteria do include many other considerations in the public interest such as impacts to vehicle and pedestrian circulation and existing uses of the land in the area. I recommend that the rules highlight the specific authority for the permit review authority to deny an application in the event the development would adversely impact on cultural and historic properties.

II. The requirement to consult with the State Historic Preservation Division must be strengthened and made consistent.

Section 1.18 15-215-18(1) requires that applicants consult with the State Historic Preservation Division prior to project eligibility review for impacts to properties that the authority determines to be historically and culturally significant. This section contains numerous inconsistencies and apparent misstatements as to what the law requires.

- (a) Subsection (a) states that the "authority" is the sole arbiter of what is historically and culturally significant. However, subsection (d) states that SHPD has the authority to make this determination. Subsection (a) should be revised to ensure that the judgments as to what is and is not historic are made by qualified preservation experts, such as SHPD staff.
- (b) Subsection (a) refers to compliance with the implementing regulations of section 106 of the National Historic Preservation Act (NHPA), but it is not clear why compliance with this federal law is required. The draft

rules should be amended to indicate why section 106 review is required by explaining, for instance, that this condition to the agreement transferring the land from the State to the developer. Moreover, it should be clear that any application for a permit must go through this review as the end result of the resource surveys of the land at Kalaeloa is outdated and did not include a thorough identification effort. Subsection (c) appears to make this clear to potential applicants by stating that a letter of SHPD concurrence is required prior to project eligibility review. But subsection (c) is contradictory as it is more limiting, stating that state law applies only to properties that the authority has deemed historically and culturally significant.

(c) Subsection (d) contains a clear misstatement of the requirements of Section 106 of NHPA when projects will impact culturally or historically significant properties. It refers only to "mitigation" for impacts when properties will have adverse effects. This section should refer to the ultimate goals of avoiding and minimizing impacts and refer to mitigation only as a last resort. (See 36 C.F.R. § 800.1(b)). The SHPD's authority should not be limited solely to approving mitigation measures.

III. Section 1.20 15-215-20 must be clarified to adequately reflect the requirement to consult with SHPD

According to comments by Historic Hawaii Foundation, Section 1.20 15-215-20 states that a historic or culturally significant property within the district may be put to any use, subject to the requirements of 15-215-19. This appears to be a typo as section 15-215-19 refers only to culturally significant sites (The entirety of the section states: "Properties deemed historic or culturally significant and listed on the State and National Historic Register are so designated in the KMP.") Presumably this section should refer to 1.18 15-215-18 which relates in consultation with the "state historic preservation district." (Note: the use of the word "district" in the heading of 1.18 15-215-18 also appears to be in error and should read "division").

I strongly support SHPD's ability to place conditions on the otherwise free use of historic properties within Kalaeloa. However, this section should be revised and expanded to also give deference to the views of consulting parties and the local Ewa public which have an essential role in the Section 106 review process.

IV. The definitions of "culturally significant" and "historically significant property" must be amended to include properties eligible for the National and Hawaii Registers

I strongly concur with the NTHP attorneys concern that the definition of "culturally significant" or "historically significant property" is far too limited in both the definition and section of the rules (1.2 15-215-2) and the section related to the designations (1.19 15-215-19). The draft definition currently includes no resource that are on the National or Hawaii Registers of Historic Places or designated in the Kalaeloa Master Plan as significant. The definition should be expanded to include properties that are eligible for the National or Hawaii Register in addition to listed properties.

Y. General concerns with respect to impacts to Ewa Field proposed in Kalaeloa Master Plan

I am particularly concerned, along with NTHP attorneys' concurrence, that the HCDA Kalaeloa Master Plan includes a portion of the Kuaikoko Parkway is slated to run directly through historic sites which is located within the Kalaeloa District. This former runway was the site of intense fighting on December 7, 1941 where American Marines fought back against Japanese warplanes. Tangible evidence of the battle in the form of strafing marks is still apparent in concrete pavers on the airfield and a battlefield survey is currently underway. I strongly urge, along with NTHP attorneys' advice and consultation, that HCDA reconsider the proposed placement of the Parkway and plan to participate in the Federal and State review process to ensure that adverse impacts to the site are avoided.

In 2009, three Oahu neighborhood boards passed resolutions urging full preservation of historic McGAS Ewa Field as a park and museum to attract visitors to the location to benefit the local economy of Ewa West Oahu. The Hawaii State Legislature also passed a very similar resolution advocating the same preservation and heritage tourism concept for Ewa West Oahu. It does not appear that the HCDA Kalaeloa Administrative plan takes any note or makes mention of this widespread local community neighborhood board and state legislative concern and intent.

I would also like to include in my comments the known Ewa Sites & Structures list provided by Elizabeth S. Morrill, Deputy General Counsel, National Trust for Historic Preservation, 1785 Massachusetts Ave. NW, Washington, DC 20036. These are shown below:

Known Ewa Sites & Structures in NAVY BRAC Transfer. Note: These areas have only received low level Phase I archeological surveys and additional site surveys need to be done as well as Section 106 and an historic battlefield survey done by professional battlefield analysis experts.

- EWA FIELD (1925-1942)
 - o (Includes Approximately 2/3 of the FAA Site)
 - o Perimeter Property Line / Former Fence Line (1925 -1942)
 - o Southwest Extension to Main Ewa Field Runway (1941)
 - o Former Main Hangar 123 Bldg. Platform (1941)
 - o Hawaiian Habitation Complex (State No. 3721) [Just inside Perimeter Line]
 - o Sisa Walls Remnant (State No. 3722) [Just outside the Perimeter Line]
- McGAS EWA (1942-1952)
 - o (Includes Approx. 1/3 of the FAA Site)
 - o Perimeter Property Line / Former Fence Line
 - o Bldg. 137, Former Communications Splinter-proof Structure (ca. 1943)
 - o Bldg. 1545 Operational Storage, Quonset hut] (ca 1943)
 - o Bldg. 1146 Hangar (1944)
 - o Bldg. 1546 Operational Storage & Electrical Shop, Quonset hut] (ca 1943)
 - o Anti-Aircraft Battery WWII (State No. 5096, 5097)
 - o Anti-Aircraft Complex Remnants (State No. 5099)
 - o WWII Housing Camp Remnants (State No. 5099)
 - o Structural Framework of Post-Aircraft Gun Site (Location South of Runway)
 - o Shikibu Complex, near and along Corral Rd. (State No. 5094)
 - o Shikibu Complex (State No. 5198)
- NAS Barbours Point (1942-1999)
 - o Bldg. 92, Bombproof Substation (ca 1942)
 - o Hawaiian Dune Burial Site Near Shoreline (State No. 5126)

0 Sinkhole Complex (State Site No. S108)

-- MAS Barbers Point Cold War Era Structures (1962-1999)

-- Pride Baseball Field -- MCAS Ewa and later MASBP (1941-1999)

1925 Ewa Mooring Mast Field is one of the very oldest historic aviation sites and airfields in the State of Hawaii.

National Park Historian Daniel Martinez calls the December 7, 1941 Ewa Field "Sacred Ground."

"The National Park Service is considering officially making MCAS Ewa Field part of the new WW-II "Valor in the Pacific" National Monument.

Significant oral history testimony has been collected from Ewa Village residents, many of whom are still alive, detailing the extensive air and ground battle over and around Ewa Field and Ewa Village on December 7, 1941.

In 1944 FDR toured MCAS Ewa Field in a convertible sedan, also carrying General Douglas MacArthur and Admiral Chester Nimitz. They turned off Peleher Rd, came down Geiger Rd, and onto then North Hansen Road (to be named Roosevelt in the 1950's) and visited the base. They also visited NAS Barbers Point, before returning back the same route to Honolulu.

Former MCAS Ewa is located by historic Ewa Village Plantation, on the State Historic Register, with the nearby Peleher Rd and Museum, on the National Historic Register; and with a likely National WW-II Battlefield Designation, is destined to always have a more rural open space and historic character.

Note: use that developers of the Navy golf course, the Geiger Road re-alignment and the installation of the FAA navigation beacon all carefully avoided infringing upon the original 1941 December 7th airfield. This was because all of the land use planners and civil engineers knew then the site was very historic and important to save. This was not a coincidence, it was by design.

In December of 2010 a Face Book CAUSE was set up to advocate preservation of the Ewa Field battlefield and object to a roadway through the area. Within two weeks, over 1000 people had joined the Save Ewa Field cause nationwide. This is an indication, not always understood locally in Hawaii, that American Battlefields are considered as "Sacred Ground" to most mainland US residents, who are by the way, major visitors to Hawaii, and any construction through MCAS Ewa will be meet with significant amounts of bad national publicity and public outcry among veterans groups.

1.18 15-215-18 Preliminary consultation with state historic preservation

Further Historic Advice/ment has been sought from the State Historic Preservation Division, Department of Land and Natural Resources under Chairman William Aila.

I have been so advised in correspondence of April 28, 2011 by the State Historic Preservation Division, Ross W. Stone, SHPD Historian, and Pua Ali, Administrator, about concerns related to the proposed MCAS Ewa and MAS Barbers Point lands that have been part of the intended NAVY BRAC (confer to the City of 388 acres of land, including vacant property and a mixture of abandoned runways, warehouses, roads, Quonset huts, and other structures. This area includes the boundaries of Site 5127 (Ewa Field).

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SHPD and the National Advisory Council on Historic Preservation have engaged in several discussions with the Navy and property trustees about historic resources on the former base. The Navy and property trustees agreed to include protective covenants to ensure preservation and appropriate treatments of historic properties. A December 12, 1998 letter from SHPD identified sites needing preservation or data recovery. A March 11, 2010 communication from the Navy BRAC office clarified that lot 13058-B would go to the City and County of Honolulu for park use. On April 20, 2010 SHPD recommended a conditional no effect determination that included recognition of eligibility for the National Register of Historic Places and protective covenants for the former Marine Corps Air Station (MCAS) Ewa (often referred to as "Ewa Field").

SHPD is currently awaiting a battlefield survey report on Ewa Field that has been completed by Mason Architects but not yet released by Hunt Development Group. We note that the North-South Road (Kualaka'i Parkway) and a major electrical transmission line as currently designed would bisect the Hawaiian Railway Society baseyard, Ewa Field, and the aircraft revetments just west of the Navy Golf Course. SHPD's letter of April 20, 2010 notes that the boundaries of Site 5127 (Ewa Field) should be expanded to include the entire former MCAS. The Navy's Historic Preservation Covenants include language declaring "Actions that would affect views, including sightlines, or structure site elements such as towers, fences, or obtrusive signs, may be considered to materially affect the Historic Properties". This same type of covenant should cover the seventy five aircraft revetments located west of the Navy's golf course currently used by the Barbers Point Riding Club.

1.19 15-215-19 Designation of historic and cultural sites

The Kalaeloa Draft rules, according to the Historic Hawaii Foundation, further limit the protection of historic and cultural resources by creating a narrow definition of historic and cultural resources. They would only allow those listed on the State and National Registers to be deemed historic or culturally significant and would use this new criteria to replace the earlier protections in the 2006 Kalaeloa Master Plan. The process of nominating historic properties is ongoing and never complete; and it is improper to assume that properties need to be on both State and federal registers. Draft rules 15-215-18, -19, -20, -21 deal with historic preservation. Historic Hawaii Foundation has a concern that these section intend to limit and restrict the existing legal processes and protections for historic and cultural resources, rather than reinforce or strengthen them.

The HCDA Kalaeloa Plan is very selective about what is defined as "cultural" and it is only defined basically as what is Hawaiian culture ONLY. Two Hawaiian organizations are the ONLY HCDA Kalaeloa cultural consultants and one else was apparently ever asked or allowed into this definition of cultural correctness for Kalaeloa.

The only "Heritage Park" is one that HCDA has designed as being officially recognized and supported with large amounts of public funds. Navy BRAC land that was originally going to the City. This large amount of land has also been used in a possible land swap with FIP Hunt Corporation regarding the Ewa Field Battlefield site, but despite years of being aware of this issue no action was ever taken, despite many recommendations.

Despite being intended for full preservation, the "Heritage Park" in published articles makes mention of housing development, etc. down the road. It seems this is almost an "insider deal" of certain parties obtaining Navy BRAC land intended for conservation and recreation and using it for financial profit. The relationship between the HCDA Kalaeloa administration and the people

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Also noted from my research on historic preservation is the fact that the Department of Transportation Act (DOT Act) of 1966 includes a special provision - Section 4(f) which stipulates that the Federal Highway Administration (FHWA) and other DOT agencies cannot approve the use of land from publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historical sites unless the following conditions apply:

There is no feasible and prudent alternative to the use of land. The action includes all possible planning to minimize harm to the property resulting from use.

Section 4(f) of the Department of Transportation (DOT) Act of 1966 was set forth in Title 49 United States Code (U.S.C.) Section 1653(f). A similar provision was added to Title 23 U.S.C. Section 138, which applies only to the Federal-Aid Highway Program.

In addition the historic MGS Ewa areas are also nesting grounds for the endangered Puae, (Asto flammescens sandwicensis) - considered sacred by many Hawaiians. It is a widely recognized Hawaiian ancestral guardian known as aumakua. These birds are believed to protect individuals from harm, and even death. Disturbing their favored nesting areas would be extremely controversial and a subject of great public concern in the Ewa Community.

I have reviewed City comments on the Draft Kalaeloa Administrative Rules and concur with City DPP as listed below:

15-215.5(3) Thoroughfares

Suggest consistency with Act 54, SLH 2009, "serve the needs of pedestrians, bicyclists, transit users, motorists and persons of all ages and abilities equitably and efficiently."

15-215-37 Thoroughfare Standards

The proposed HCDA rights-of-way and associated sidewalk areas and median standards would be below current City standards, in particular Roosevelt Avenue and Kualaka'i Parkway extension. These roadways should be considered as arterial class roadways and should meet City standards.

15-215-37(f) Sidewalk Materials

The sidewalks should use City materials standards and there should not be any exceptions.

15-215-48 Street Trees

It is not clear who is responsible for maintenance and uplift problems with trees in rights-of-way. Ficus Benjaminia trees are not allowed within City streets because of root damage to sidewalks and roadways.

15-215-51 (a and c) Exterior Lighting and Utility Standards

In recognition of environmental impact uplighting may have on the night sky relative to wildlife and human health, no portion of light emitted from a light source should extend above 180 degrees of its lowest point or above 70 degrees of its nadir.

selected to manage this property seems extremely close and somewhat begs a possible ethics investigation, as well as a review by the City and the Navy BRAC office.

2.3.15-215-34 Special districts

An MGS Ewa Historic District has been proposed in a Navy contracted cultural resource survey. This district comprising 75 aircraft remnants built in 1942, should be incorporated into all future Kalaeloa planning. The exact boundaries and historic significance are available through SHPD files and documents.

Two Historic Districts have been proposed in Navy contracted cultural resource surveys for MGS Barbers Point - A WW-II Housing Area and Central Core Historic District. These two districts should be incorporated into all future Kalaeloa planning. The exact boundaries and historic significance are available through SHPD files and documents.

15-215.5 Thoroughfares

The Kalaeloa Master Plan should intelligently use the existing historic MGS Ewa base arterial roadways, expand them to four lanes and keep interior traffic LOCAL, which better fits the great descriptions of what Kalaeloa is supposed to be- a community encouraging slower 25 mph speeds, bikeways, etc. There is absolutely no reason to create a new roadway connection with the existing Saratoga Avenue and extend it across historic MGS Ewa land and connect it with Geiger Road.

The extension of Geiger Road directly across and through the historic Ewa Field December 7 battlefield is completely unnecessary and would merely be used as a transit route because Geiger Road was intelligently designed and built as a transit route in the 1940's during the original planning of the site. Traffic has flowed very smoothly on this same existing right-of-way for several decades since, allowing transit from Ewa all the way down Roosevelt to today's Kalaeloa Blvd- which is currently blocked off and should be reopened.

When the traffic eventually does increase, the answer is to make Geiger and Roosevelt four lanes- and not create a totally unneeded parallel roadway a couple of hundreds yards away in an important historic site which will only invite lawsuits.

There is also a major North-South historic right-of-way- Coral Sea Road, which could be expanded to be a significant four lane parkway and North-South connector- which it was in fact originally designed to be, and which could well satisfy the transit needs to reach the Ewa Coast beach parks and also serve as a second access roadway to the Haseko development allowing connection to Keoneka Blvd.

Currently, the segment of Kapolei Parkway between Kamokila Boulevard and Fort Barrette Road is not yet completed but will be constructed by the City & County of Honolulu. When this Kapolei Parkway segment is in place it will provide a continuous connection between Kalaeloa Boulevard and Geiger Road. The completion of the missing segment of Kapolei Parkway will have a substantial effect on the traffic volumes on Franklin D. Roosevelt Avenue, the Ewa Coast Parkway, and Heald Traffic would divert from the existing two-lane Ewa Coast Parkway. Kapolei Parkway is the preferred East-West connector from Heald to Franklin D. Roosevelt Avenue will serve well as an additional future four lane East-West transit route within Kalaeloa-Barbers Point communities.

In closing there still remains a question of HCDA adequately addressing public input and not just being a vehicle for what developers want. This is public land, not private land, and significant development in Ewa West Oahu requires transparency and an honest public hearing process and honest and timely addressing of public comments before final decisions are made. Mahalo and thank you for allowing me to comment on this very important Council District 1 development project.

Sincerely,

CM Tom Berg



Councilmember - District 1
Ewa Beach, Kapolei, Waianai Coast

It is also of great importance, according to advice of the RTIP attorneys, that there be no electrical or communication lines above or near the historical Ewa fields/battlefield site which would obstruct view planes and future historic interpretation (the December 7, 1941 battlefield). All such electrical or communication lines should be placed underground in keeping with the Kalaeloa Master Plan.

15.215-59 Recreation Space

With respect for park space for dwellings, HCDA should use City park standards or better to require recreation space as well as landscaping and utilities to serve the facility.

Use Coral Sea Road - yet to be funded for improvement - that once improved - to be the route as the main thoroughfare extension for Kualaka'i Parkway makai/south of Roosevelt Avenue to connect to Keoneula Boulevard. This will preserve the ball fields and riding stables in Kalaeloa in order for them to maintain operations without further disturbance. Do not use the current configuration in this plan to extend Kualaka'i Parkway that abuts the ball fields and riding stables. Please open and advance Essex Road as a pedestrian thoroughfare (currently closed around the golf course) as well to connect to the Leeward Bikeway. All military sites must undergo Section 106 prior to being disposed of or liquidated.

The strength of this document to supersede the provisions of the city and county of Honolulu land use ordinance, the provisions of the Ewa development plan, and the provisions of the naval air station barbers point community redevelopment plan is questionable and does not appear to follow along the intent of the transfer to HDCA. It seems as if the intent is to plan for such a variety of mixed use (perhaps spot zoning) with a mixed use residential plan. The observations here do not describe the environment and its inhabitants in a regional context. The observations here do not describe anything to the mind's eye or give me a feel for the ambience of a mixed use neighborhood.

Please re-consider the ratio of parking to occupancy rate. In Hawaii, even for apartment dwellers, there are numerous cases (see Waikiki on the Ala Wai Blvd. side) where more parking is needed than is normally provided within residential buildings. Also, with the occupancy rates for rooms on the West Side of the island, it is not uncommon to have more than the "normal" occupancy rate to accommodate for larger family sizes. It would be unfortunate to not consider the reality of living accommodations on the West Side

Native willow trees should also be allowed within the area. It is not only a native species but the seeds may be a resource for those who work with the seeds to make leis, etc. Also, as the trees are trimmed, the wood can be re-used for various native Hawaiian products.

It seems like HCDA is doing the work of City DPP in many cases, and since much of this Kalaeloa public area will ultimately be transferred to the City, HCDA should be using City guidelines.

From: MERRYL TOLLESON
To: "WENDY TOLLESON" <WENDY.TOLLESON@HAWAIIANLIFE.COM>
Subject: Ewa Field PA
Date: Sunday, May 20, 2012 12:12:33

Dear Jim,

I would like to comment on the proceeding for the PA amendment that is proposed by Dr. Au. The SHPD is so poorly managed that Dr. Au (who is not even eligible to make historic preservation decisions due to her lack of training—see the Dept. of Interior Standards for Signing off on Section 106 compliance documentation) that she is likely to do anything the Navy wants to do to “keep everyone happy.” I am a kama'oa and I grew up on Ford Island. I hated to see what was going on there, and I think the CDP of that historic place was developed poorly and has been mismanaged. I used to work at the former camp site as an archaeologist and I was always aware of the need to “reimpose” by the military in Hawaii. This has been not a mission site, but an enterprise, but one where the Navy got stuck with 488 acres they couldn't get rid of (the Guard didn't want it because of the history, the environmental clean up, and the CDP responsibility of managing the historic property, which by the way, would have fallen under my watch) and want instead to make as much money from the leasing of the property to corporate interests who have no stake in the preservation process, and who don't care to get involved with the process. I am the daughter of a Navy Captain who flew in WWII, Korea and worked for the space program. I grew up in Hawaii and have lived here for 30 years, and I am ashamed and appalled at the way the Navy has handled this.

I fervently oppose any modification or impacts to the airfield, and the archaeological site that is located nearby. The site is important for the following reasons: almost all the other arch sites in the Barber's Point area have been destroyed through military and/or commercial activity, and this site can provide more information regarding settlement in the prehistoric period for the Ewa Plain. Also the historic trail that borders the property is one of the only complete segments of a pre-proto-historic trail remaining on Oahu. All the rest are under the freeways or will be destroyed by the rail system.

I urge the Navy to preserve, protect and manage the historic Ewa Field where military men died during the attack on Ford Harbor on Dec. 7, 1941!

Sincerely,

Wendy Tolleson, M.A.
Archaeologist and Historian

APPENDIX E2
COMMENT RESPONSE FORM

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Comment Response Form
Draft Environmental Assessment (EA), April 2012
Kalaeloa Renewable Energy Park (KREP)

Reviewer Name: John Bond
Reviewer Organization: Kanehili Cultural Hui

Comments are taken from a letter to Commander Navy Region Hawaii received June 15, 2012.

Comment #	Page #	Line #	Comment	Response to Comment
1			The entire former MCAS Ewa was designated as National Register eligible during the BRAC transfer process and significant historic sites have already been discovered since the original BRAC 1999 surveys were done. Therefore, we as a concerned community do not believe we have enough valid current information about this project area which will cause significant primary, cumulative and secondary alternations of the cultural and historic environment.	No known archaeological sites were previously identified in the current APE. Archaeological monitoring will be conducted during all ground-disturbing activities to ensure that any unanticipated cultural remains/deposits are properly identified and documented according to standard archaeological practices and procedures. In the event subsurface cultural remains are exposed, all work in the immediate vicinity shall be halted, and SHPD and NHO's will be consulted.
2			We believe that the overall primary, cumulative and secondary project impacts to cultural and historic sites significantly affects the quality of the human environment in the former lands of MCAS Ewa-Kanehili –and particularly underground resources such as widely documented karst systems known to contain Hawaiian Iwi, pre-historic remains and rare aquatic native shrimp.	Please see the response to Comment #1.
3			We currently have absolutely no documented knowledge as to	The East Kalaeloa Energy Corridor is not a part of this EA's Proposed

Comment #	Page #	Line #	Comment	Response to Comment
			<p>what actually exists directly below the planned PV site and major East Kalaeloa Energy Corridor that HECO and HCDA will be constructing, but do know that National Register eligible cultural and burial sites already exist in this same area as well as many additional recent casual discoveries of underground karst caves and sinkholes very near the PV project area. Certainly more exists there and the MCAS Ewa command history states that large karst caves were found in this same approximate area as well as anecdotal stories of vehicles falling into underground caves and sinkholes over a period of many decades, including up until very recently.</p>	<p>Action or Alternatives. The Navy is not the action proponent for the energy corridor. Any environmental impacts related to the HCDA East Kalaeloa Energy Corridor would need to be addressed by the project proponent (HCDA and/or HECO).</p>

**Comment Response Form
 Draft Environmental Assessment (EA), April 2012
 Kalaeloa Renewable Energy Park (KREP)**

Reviewer Name: John Bond
Reviewer Organization: Kanehili Cultural Hui

Comments are taken from response entitled *Hunt PV Park combined with Major HCDA East Kalaeloa Energy Corridor will cause significant Cultural and Environmental Impacts, Kanehili and MCAS Ewa Impacts, Response to Navy Environmental Assessment, June 15, 2012*. Received June 17, 2012.

Comment #	Page #	Line #	Comment	Response to Comment
1			<p>The Draft Environmental Assessment fails to address the fact that the Navy's development partner Hawaii Community Development Association (HCDA) plans to use</p>	<p>The Draft EA does not address HCDA's Kalaeloa East Energy Corridor because it is not related to the Proposed Action or Alternatives. The Navy and KV are not proposing to construct the</p>

Comment #	Page #	Line #	Comment	Response to Comment
			<p>this exact same out for a major power utility corridor.</p>	<p>Kalaeloa East Energy Corridor. If the Kalaeloa East Energy Corridor was to be constructed HCDA and/or HECO would be the action proponent and would presumably prepare appropriate environmental documentation in accordance with Hawaii Revised Statutes (HRS) Chapter 343.</p> <p>There seems to be a misunderstanding that KV intends to allow HCDA to connect to the end of the KREP power line. The source of the misunderstanding appears to originate from an email from Tesha Malama dated February 10, 2012 indicating that HCDA and HECO intend to coordinate their Kalaeloa East Energy Corridor with the KREP power line.</p> <p>The Navy understands that HCDA intends to use Essex Road as the route for the Kalaeloa East Energy Corridor. If HCDA wished to connect to the KREP power line the logical connection point would be at the intersection of Essex Road and Roosevelt Avenue (see attached map). It has never been the Navy's understanding that the Kalaeloa East Energy Corridor would connect to the southern end of the KREP power line.</p> <p>Please note: HCDA and HECO have never submitted a request to KV to connect to the KREP power line. Previously HECO did request for the ability to extend an easement for the Kalaeloa East Energy</p>

Comment #	Page #	Line #	Comment	Response to Comment
				<p>Corridor through the KREP project area. That request was denied by KV.</p> <p>Also, please note that the HCDA is a State agency that was established to supplement traditional community renewal methods by promoting and coordinating public and private sector community development. While HCDA has the authority to establish the land use and zoning to facilitate redevelopment 28 activities at the Kalaeloa Community Development District (KCDD) they are not considered a "development partner."</p>
2			<p>The EA fails to address what HECO's actual plans are and why they were never included in any consultations or discussions as they are in fact a major part of this entire project.</p>	<p>Please see the Response to Comment #1.</p>
3			<p>The alternative power line routes were never seriously considered and there has always been the intention for this project to be part of a front for a major HECO HCDA utility corridor as HCDA has already publically stated and was confirmed through a conversation with State Senator Gabbards office in March 2012.</p>	<p>The alternative power line routes in the EA were seriously considered. The analysis of the alternate routes in the EA is part of the decision making process. As stated in the response to comment 1, the HCDA power line is not a part of this project.</p>
4			<p>The Kanehili Cultural Hui and other members of the participating Section 106 community doesn't consider an EA to be adequate and seeks an EIS due to the scale of the East Kalaeloa Energy Corridor, which will be multi- 46 kV bifurcated</p>	<p>As stated in the Response to Comment #1, the "East Kalaeloa Energy Corridor" is not a part of the Proposed Action or Alternatives. Considering the Proposed Action, Alternatives, and environmental impacts analyzed in the EA, we do not believe an EIS is</p>

Comment #	Page #	Line #	Comment	Response to Comment
			lines and also carrying high volume Telecom and CATV to the USCG Station- meaning an electrical system over twice as big as we were told in Section 106 meetings and over three times the amount of other utility (Telecom & CATV) traffic than stated in the original 106 meetings.	required. If and/or when HCDA moves forward with a power line corridor they would need to comply with HRS 343 and assess the level of environmental documentation required.
5			We also don't believe that the Coral Sea Road alternative has been fairly assessed - as it will do the least amount of environmental damage and APE to historic and important Hawaiian cultural sites and will in fact be a much SHORTER route to the USCG Station, still allowing Hunt's PV site a connection via Bismarck Sea Road which runs west to Coral Sea Road.	The Coral Sea Road alternative (Alternative 2 in the EA) was given serious consideration. While this alternative would have reduced impacts to historic properties, it is a longer route to the REP (1.9 miles compared to 0.7 miles for the power line under the Proposed Action), and would cost 300% more than the power line under the Proposed Action.
6			SOLAR SCAMS COSTING HAWAII TAX-PAYERS HUNDREDS OF MILLIONS ARE ALSO A MAJOR US DEFENSE "BACK DOOR" FOR CHINA	Thank you for your comments. However, the comments under this subject heading are beyond the scope of the EA.
7			Ewa Field Hunt HCDA KREP East Kalaeloa Energy Corridor "Information" The site will be cleared in the most expeditious way and then aluminum rails will be set up on concrete pads for row after row of out of the box PV panels. This may take a few weeks maybe. Then those people leave and some electricians come in and wire up the PV panels to inverter boxes. The PV system are then connected to a	Please note: as stated in the Response to Comment #1, the East Kalaeloa Energy Corridor is not a part of the Proposed Action or Alternatives. It is anticipated that approximately 20-30 construction jobs will be created for a period of 6 months for construction of the Proposed Action. Comments under this subject heading regarding HECO rates, LLC's, and taxes are beyond the

Comment #	Page #	Line #	Comment	Response to Comment
			<p>computer control system and monitored REMOTELY. A fence company will come in a run a high security fence around the property taking a few weeks. Bottom line: Some temporary light jobs for a few weeks. 20 long-term jobs...? Where- downtown? In California? In Texas? Most likely a few low paid security guard jobs in Kalaleoa... IN FACT: Hunt KREP FIV FV has stated in the current EA that just TWO permanent jobs will be created for Their entire 30 acre system. These farms are all monitored and administered remotely so these are just basic low paying maintenance jobs.</p>	scope of the EA.
8			<p>The Shortest Distance Between Two REQUIRED Points - Coral Sea Road</p> <p>The land Hunt-HCDA want to run their power lines through is loaded with historic Hawaiian sites, Hawaiian Iwi Kupuna, Karst sink holes, WW-II sites- all National Register eligible.</p>	<p>Please see Response to Comment #5.</p> <p>There are no known archaeological sites in the APE. Mitigation measures are included in the PA to minimize impacts to historic properties affected by the Proposed Action. Archaeological monitoring will be conducted to ensure that any unanticipated cultural remains exposed during all ground-disturbing activities are properly documented.</p>
9	Table 3-1		Does not show 1943 Building 1545 Quonset Hut.	Feature is outside of the Area of Potential Effect (APE).
10	Table 3-1		Does not include historic WW-II Baseball Field, show in original 1941 airfield plans.	Feature is outside of the APE. Currently, playing fields. Open space of the feature will remain.
11	Table		Does not show site of 1943	The Squadron Wall was removed

Comment #	Page #	Line #	Comment	Response to Comment
	3-1		Squadron Wall which was destroyed just before start of Section 106 meetings.	as part of separate undertaking, and will likely be reconstructed at later date. However, this reconstruction is not related to the Proposed Action or Alternatives.
12			Not mentioned- major overhead air battles and navy SBD's shot down...	The Section 106 review focused on extant historic resources within the APE. History of the site will be considered as part of the Determination of Effect (DOE) to be developed as stipulated in the Section 106 Programmatic Agreement.
13			Woefully INCOMPLETE and "preliminary survey" Hunt Corp Contractor paid for "Battlefield Survey" says "It concludes that Ewa Field retains minimal integrity as a battlefield site." - This is NOT what the National Park Service concluded- as well as most other involved in the Section 106 process. This is a CONTRACTOR PAID FOR conclusion- not a FACT...	The Navy will prepare a DOE as stipulated in the Section 106 PA (refer to Appendix A: Section 106 Correspondence, Kalaeloa Renewable Energy Park Programmatic Agreement, Stipulation 1B). The DOE will be prepared by the Navy or its consultants and evaluated by the Keeper of the National Register (Keeper) .
14			"Though certain battlefield defining features such as the swimming pool and the strafing on the concrete (1941) Warm-up Platform survive as physical evidence of the battle, other features have been lost or are in poor condition. The loss of the camp area, a key battlefield defining feature, and the deteriorated condition of many of the surviving features have contributed to the minimal integrity of the site." In FACT- the entire camp area is all still there.	Please see Response to Comment #13.
15			Yes, and a huge amount of that	Please see Response to Comment

Comment #	Page #	Line #	Comment	Response to Comment
			history has been neglected to be told- but the Navy BRAC office and SHPD did conclude at the time of land transfers that the ENTIRE MCAS EWA was national register eligible considering the range of historic events and famous people associated with the base during its operational life.	#13.
16			An HONEST and PROFESSIONAL Battlefield Survey has yet to be done and has to include the larger overhead air battles with Army P-40's, Vals, Zeros and Navy SBD's shot down over and around Ewa Field, as well as major strafing of Ewa Plantation Village and anti-aircraft fire from nearby Camp Malakole, Fort Weaver and strafing of nearby Fort Barrette, killing an Army railway engineer.	Please see Response to Comment #13.
17			The EA roads are a perfect example of how completely FLAWED The Kalaeloa Master Plan is...	The comments under this subject heading are beyond the scope of the EA. The roads proposed under the Kalaeloa Master Development Plan are not being proposed by the Navy and are not part of the Proposed Action or Alternatives for the REP.
18			HCDA is EXTREMELY HOSTILE to Historic Preservation Draft Kalaeloa Rules – Public Hearing Comments by NTHP - NOT ADDRESSED	The comments under this subject heading are beyond the scope of the EA. The EA is being prepared to assess the environmental impacts of the Proposed Action and Alternatives.

**Comment Response Form
 Draft Environmental Assessment (EA), April 2012
 Kalaeloa Renewable Energy Park (KREP)**

Reviewer Name: Valerie Van der Veer

Reviewer Organization: Military Stables

Comment #	Page #	Line #	Comment	Response to Comment
1	3-6	5-14	<p><i>“The lands within the Proposed Action and alternatives are characterized as generally flat and overgrown by non-native vegetation, with most of the area having been highly altered by plantation, agricultural, and airfield development.”</i></p> <p>Comment: The term “highly altered” is very subjective.</p>	<p>The sentence has been revised. The word “highly” has been removed.</p>
2	3-6	25-27	<p><i>“A Battlefield Evaluation of Ewa Field and inventory of Historic Contexts was also recently completed (AECIN and MAI 2011) to assess the historic integrity of Ewa Field as a battlefield site.”</i></p> <p>Comment 1: This document should not be referenced as it was presented as a PRELIMINARY evaluation. Page 1, paragraph 1, line 1 of the Battlefield Evaluation Report states, <i>“This preliminary evaluation was prepared for the purpose of assessing the historical integrity of Ewa Field as a battlefield site.”</i></p> <p>Comment 2: In addition, paragraph 2 of the Battlefield Evaluation Report reads <i>“AECOM was retained by Mason Architects (MAI) to prepare this evaluation for their client, Ford Island Ventures, the lessee of much of the former Ewa Field property from the Navy.”</i></p> <p>Comment 3: There have been many public comments and much discussion at several Section 106 meetings regarding</p>	<p>Comment 1: Reference to the ‘preliminary’ evaluation, the formal submittal will be a Determination of Eligibility (DOE) to be submitted to the Keeper of the National Register (Keeper) for an official determination of eligibility.</p> <p>Comment 2 & 3: The preparation of the DOE will be done by the Navy or its consultants and evaluated by the Keeper.</p> <p>Comment 4: For Section 106 purposes, the project site has been treated as eligible for the National Register. The NPS comments on the battlefield survey will be discussed further with NPS reviewers as part of DOE preparation.</p>

Comment #	Page #	Line #	Comment	Response to Comment
			<p>the developer paying for an evaluation of land in the developer’s possession.</p> <p>Comment 4: The most pertinent comments on the preliminary Battlefield Evaluation Report were received by the NPS on August 9, 2011. A copy of the complete comments made by NPS representatives Elaine Jackson-Retondo, Kristen McMasters, Melia Lane-Kamahele, and Paul Deprey is attached.</p> <p>NPS comments included, <i>“The report is generally well written and straight forward; however, we believe that the findings of the evaluation are based on an incomplete analysis that does not include some of the standard methodology used by the American Battlefield Protection Program to evaluate battle fields, Given the need for additional study and evaluation, we cannot concur with the findings of AECOM’s Battlefield Evaluation of Ewa Field.”</i></p>	
3	3-6	36-37	<p>I’m surprised that anyone anywhere can make the claim <i>“ALL archaeological and historic sites have been identified.”</i></p>	<p>“With the exception of the O’ahu Rail and Land Company (OR&L) Railroad Right of Way, all archaeological and historic sites that have been identified in the vicinity of the Proposed Action and alternatives relate to military activities associated with MCAS Ewa and the former Ewa Field.”</p> <p>The intent of this sentence was not to imply that all sites had been identified. The intent is to state</p>

Comment #	Page #	Line #	Comment	Response to Comment
				<p>that, to date, the sites that have been identified all relate to military activities.</p> <p>The sentence has been revised to the following:</p> <p>“With the exception of the O’ahu Rail and Land Company (OR&L) Railroad Right of Way, the archaeological sites that have been identified in the vicinity of the Proposed Action and alternatives all relate to military activities associated with MCAS Ewa and the former Ewa Field.”</p>
4	3-6	40-44	<p><i>“Pre-historic Hawaiian sites and non-military historic sites have not been found near the Proposed Action and alternatives...”</i></p> <p>Comment 1: Results from specific surveys need to be provided in order to substantiate this claim. A reference for the documentation of said surveys needs to be provided.</p> <p>Comment 2: Emailed Public Comments (as part of our Section 106) submitted on August 17, 2011 from Mr. Shad Kane, Section 106 consultant, are attached. The last five sentences in paragraph 2 of his comments read, <i>“The point I am making is that in places such as former military bases there is always a possibility of finding remnants of cultural structures where you would least expect. An example yesterday I met with Navy Region Archaeologist Jeff</i></p>	<p>No surface archaeological sites were identified during previous archaeological surveys in the APE. Per the PA archaeological monitoring will be conducted during all subsurface construction activities to ensure that subsurface cultural remains/deposits exposed during construction are properly documented.</p> <p>The following will be added: <i>“Archaeological site survey results are included in Table 3-1.”</i></p> <p>References are provided in this table as well as within the text in Section 3.3</p>

Comment #	Page #	Line #	Comment	Response to Comment
			<p><i>Pantaleo and contractors involved in the cleanup of unexploded ordinance and mangrove from Ordy Pond. I showed them remnants of a unique ancient Hawaiian trail with upright stones and ahu built into the trail. It was found in a place that you would least expect. It was missed by all previous archeological survey.”</i></p>	
5	3-10	21-22	<p><i>“It concludes that Ewa Field retains minimal integrity as a battlefield site.”</i> Comment: The above statement is from the PRELIMINARY Battlefield Survey that was prepared for and paid by the Developer. Public comments from NPS are attached. The public comment below pertains specifically to Lines 21-22. <i>“A concern with the report and the summary conclusion is the finding of “minimal” integrity (pg. 2 Summary of Findings). This conclusion is based on a misapplication of the NR standards as applied to the Ewa Battlefield and is incorrect. For example there appears to be some confusion between the application of NR standards for integrity and the concept of condition, as well as several contradictory statements pertaining to the NR standards...”</i></p>	<p>The Navy will prepare a DOE as stipulated in the Section 106 PA (refer to Appendix A: Section 106 Correspondence, Kalaeloa Renewable Energy Park Programmatic Agreement, Stipulation 1B).</p>
6	3-11	26	<p>Insert “Retained or Leased” so the sentence reads <i>“With the exception of Retained or Leased federal lands (e.g., Barbers Point</i></p>	<p>The text has been revised to include “retained or leased.”</p>

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			<i>Golf Course and nearby lands including the project site), HCDA has the authority to establish the land use ..."</i>	
7	3-15	10-17	These two roads are a HUGE issue. If these roads are built, they will intersect at the heart of Ewa Field. In addition, depending on which map you reference, the road currently called Kualaka'i Parkway which runs north / south is shown running directly through the Revetment District and Historic Stables just south of Ewa Field. The specifics for these roads were glossed over during the Section 106 meetings for the Kalaeloa Renewable Energy Park.	<p>Please note: these roads are beyond the scope of this EA. The roads proposed under the Kalaeloa Master Plan are not a part of this EA's Proposed Action (Kalaeloa REP) or Alternatives. The Navy is not proposing to construct these roads.</p> <p>The EA is simply noting that the Kalaeloa Master Plan contains future roads proposed near the project area.</p>
8	3-15	21-23	Is there a study to substantiate the claim on Line 21 " <i>would have a substantial effect on the traffic volumes on Franklin Roosevelt.</i> "	<p>The text will be revised to read: "According to 2030 traffic volume projections, the completion of Kapolei Parkway between Kamokila Boulevard and Kama`aha Avenue would have a substantial effect on reducing the traffic volumes on Franklin D. Roosevelt Avenue..."</p> <p>The finding was from Fehr & Peers, author of the Kalaeloa Roadway Master Plan Study, incorporated into the reference already cited in the text (Ford Island Ventures; LLC & HCDA 2010).</p>
9	3-16	Fig. 3-4	The map should include and identify the 1941 boundary for a better understanding and interpretation of where the power lines will run.	Concur. Figure 3-4 will more clearly identify the 1941 Ewa Airfield boundary.
10	4-4	21-27	Vegetation should be carefully removed after subsurface	Vegetation will be removed in accordance with a clearing plan as

Comment #	Page #	Line #	Comment	Response to Comment
11	4-4	31-34	<p>surveys have been completed.</p> <p>The adverse effects from the permanent power poles, HCDA's plans for a power corridor running through the Historic Area, and the roadway plans as outlined on Page 3-15 / Lines 10-17 (regarding the roads intersecting in the middle of Ewa Field) all indicate that the project is of a much larger scope than previously understood. A series of other projects will result from this EA and these projects must be taken into consideration as Impacts. These Cumulative Impacts are the basis for my recommendation that an Environmental Impact Statement (EIS) be required for this proposed project.</p>	<p>stated in Stipulation I.E of the PA.</p> <p>Adverse effects resulting from the installation of power poles under the Proposed Action have been addressed by the mitigation measures in the PA.</p> <p>HCDA's proposed Kalaeloa East Energy Corridor is not related to the Proposed Action (Kalaeloa REP) or Alternatives. The Navy and KV are not proposing to construct the Kalaeloa East Energy Corridor. If the Kalaeloa East Energy Corridor was to be constructed HCDA and/or HECO would be the action proponent and would presumably prepare appropriate environmental documentation in accordance with Hawaii Revised Statutes (HRS) Chapter 343.</p> <p>There seems to be a misunderstanding that KV intends to allow HCDA to connect to the end of the KREP power line. The source of the misunderstanding appears to originate from an email from Tesha Malama dated February 10, 2012 indicating that HCDA and HECO intend to coordinate their Kalaeloa East Energy Corridor with the KREP power line.</p> <p>The Navy understands that HCDA intends to use Essex Road as the route for the Kalaeloa East Energy Corridor. If HCDA wished to connect to the KREP power line the logical connection point would be at the intersection of Essex Road and Roosevelt Avenue (see</p>

Comment #	Page #	Line #	Comment	Response to Comment
				<p>attached map). It has never been the Navy’s understanding that the Kalaeloa East Energy Corridor would connect to the southern end of the KREP power line.</p> <p>With regards to future roads planned by HCDA please see the response to Comment #7.</p> <p>The only project that would result from this EA is the Proposed Action (Kalaeloa REP) or one of the Alternatives. This EA does not cover implementation of HCDA’s proposed power corridor or the roads proposed in the Kalaeloa Master Plan.</p> <p>Considering the Proposed Action, Alternatives, and environmental impacts analyzed in the EA, we do not believe an EIS is required.</p>
12	4-5	11-13	<p><i>“Based on the absence of known historic properties of Native Hawaiian origin with the project site, together with previous ground disturbing activities, the proposed action would not affect any Native Hawaiian archaeological resources.”</i></p> <p>Comment 1: Results from specific surveys need to be provided in order to substantiate this claim. A reference for the documentation of said surveys needs to be provided.</p> <p>Comment 2: Emailed Public Comments submitted on August 17, 2011 from Mr. Shad Kane, a Section 106 consultant, are attached. The last five sentences</p>	<p>Please see the response to Comment #4.</p> <p>The following text will be added: “see Table 3-1 for archaeological site survey results.”</p> <p>References are provided in this table as well as within the text in Section 3.3.</p>

Comment #	Page #	Line #	Comment	Response to Comment
			<p>in paragraph 2 of his comments read, <i>“The point I am making is that in places such as former military bases there is always a possibility of finding remnants of cultural structures where you would least expect. An example yesterday I met with Navy Region Archaeologist Jeff Pantaleo and contractors involved in the cleanup of unexploded ordinance and mangrove from Ordy Pond. I showed them remnants of a unique ancient Hawaiian trail with upright stones and ahu built into the trail. It was found in a place that you would least expect. It was missed by all previous archeological survey.”</i></p>	
13	4-13	8-9	<p>Include representatives from interested non-profit / affiliate groups to participate in this process.</p>	<p>Section 4.13 of the EA (Means of Mitigating Adverse Effects on Cultural Resources [per in-progress Final Programmatic Agreement dated 7 February 2012]) simply summarizes the stipulations in the PA. The PA would need to be modified to include this as a stipulation.</p> <p>The National Historic Preservation Act Section 106 process is a separate prescribed process from NEPA. The PA that resulted from the Section 106 consultation reflects the common understanding, commitment, and requirements of the action proponent, SHPD, and consulting parties.</p>
14	4-13	15-16	<p>Include representatives from interested non-profit / affiliate groups to participate in this</p>	<p>Please see the response to Comment #13.</p>

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			process.	

**Comment Response Form
 Draft Environmental Assessment (EA), April 2012
 Kalaeloa Renewable Energy Park (KREP)**

Reviewer Name: Tom Berg
Reviewer Organization: Councilmember District 1, Ewa Beach, Kapolei, Waianae Coast

Comments are taken from response entitled *Kanehili – MCAS Ewa Comments from O’ahu City Council District 1, Comments on Navy Environmental Assessment for PV Energy Parks and HCDA HECO Major East Kalaeloa Energy Corridor Powerline Plan by City Councilman Tom Berg, District.,* Received June 15, 2012.

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1			<p>The strength of this document [HCDA Master Development Plan] to supersede the provisions of the city and county of Honolulu land use ordinance, the provisions of the Ewa development plan, and the provisions of the Naval Air Station Barbers Point community redevelopment plan is questionable and does not appear to follow along the intent of the transfer to HCDA. It seems ambitious to plan for such a variety of mixed use (perhaps spot zoning) with a mandate to preserve the cultural history, protect the environment and its inhabitants in a regional park. The characteristics here do not describe anything to the mind’s eye or give me a feel for the ambiance of a mixed use neighborhood.</p> <p>It seems HCDA is doing the work</p>	<p>The majority of the comments in the subject document appear to relate to HCDA’s administrative rules, master development plan, and permit process. Thank you for your comments. However, these issues are beyond the scope of this EA. The EA is being prepared to assess the environmental impacts of the Proposed Action (Kalaeloa REP) and Alternatives.</p> <p>We will share your comments with HCDA. The proposed undertaking is consistent with the current HCDA Master Plan for Kalaeloa. The Navy will continue to work with HCDA and other stakeholders on issues concerning Navy retained/leased lands at Kalaeloa.</p>

Comment #	Page #	Line #	Comment	Response to Comment
			<p>of City Department of Planning & Permitting in many cases, and since much of this Kalaeloa public area will ultimately be transferred to the City, HCDA should be using City guidelines.</p> <p>In closing, there still remains a question of HCDA adequately addressing public input and not just being a vehicle for what developers want. This is public land, not private land, and significant development in Ewa West Oahu requires transparency and an honest public hearing process and honest and timely addressing of public comments before final decisions are made.</p>	
2			<p>Known Ewa Sites & Structures in NAVY BRAC Transfer. Note: These areas have only received low level Phase II archaeology surveys and additional site surveys need to be done as well as historic battlefield survey done by professional battlefield analysis experts beyond the "preliminary" report generated earlier this year by AECOM and Mason Architects for the Hunt Corporation plans for a Photo-Voltaic solar power farm on the Ewa Field runway.</p>	<p>There are no known archeological resources within the APE. Monitoring would be conducted during all ground-disturbing activities. A historic battlefield survey will be completed as part of the Navy's preparation of a Determination of Effect (DOE), as stipulated in the Section 106 PA (refer to Appendix A: Section 106 Correspondence, Kalaeloa Renewable Energy Park Programmatic Agreement, Stipulation I.B).</p>
3			<p>The National Park Service comments on the Hunt Corporation AECOM and Mason Architects 2011 Ewa Field battlefield survey report are somewhat critical...</p>	<p>For Section 106 purposes, the project site has been treated as eligible for the National Register. The NPS comments on the battlefield survey will be discussed further with NPS reviewers as part</p>

Comment #	Page #	Line #	Comment	Response to Comment
				of DOE preparation (refer to Item #2 above).
4			<p>Former MCAS Ewa is located by historic Ewa Village Plantation, on the State Historic Register, with the nearby Oahu Railway and Museum, on the National Historic Register, and with a likely National WW-II Battlefield designation, is destined to always have a more rural open space and historic character. Note too that developers of the Navy golf course, the Geiger Road realignment and the installation of the FAA navigation beacon all carefully avoided infringing upon the original 1941 December 7th airfield. This was because all of the land use planners and civil engineers knew then the site was very historic and important to save. This was not a coincidence, it was by design.</p> <p>In December of 2010 a Face Book CAUSE was set up to advocate preservation of the Ewa Field battlefield and object to a roadway through the area. Within two weeks, over 1000 people had joined the Save Ewa Field cause nationwide. This is an indication that American Battlefields are considered as “Sacred Ground” to most mainland US residents, who are by the way, major visitors to Hawaii, and any construction through MCAS Ewa will be meet with significant amounts of bad national publicity and public</p>	<p>Please note Chapter 2; Alternatives including the Proposed Action, 2.1.5 Alternatives Considered but Dismissed from Further Consideration. The “Runway Alternative” “was dismissed through the NHPA Section 106 consultation process because of its adverse impacts to historic properties.”</p> <p>The Panhandle site was selected because it is nearly 99% outside the 1941 Ewa Airfield boundary.</p>

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			rancor among veterans groups.	
5			1.18 15-215-18 Preliminary consultation with state historic preservation	The paragraphs under this subject heading relate to Navy BRAC actions, roads and electrical transmission lines proposed under the HCDA master development plan, and the aircraft revetments used by the Barbers Point Riding Club. Thank you for your comments. However, these issues are beyond the scope of this EA. The EA is being prepared to assess the environmental impacts of the Proposed Action (Kalaeloa REP) and Alternatives.
6			1.19 15-215-19 Designation of historic and cultural sites	The paragraphs under this subject heading primarily relate to "Kalaeloa Draft rules", the "HCDA Kalaeloa Plan", and the "relationship between the HCDA Kalaeloa administration and people selected to manage this property." Thank you for your comments. However, these issues are beyond the scope of the EA. The EA is being prepared to assess the environmental impacts of the Proposed Action (Kalaeloa REP) and Alternatives.
7			2.3 15-215-34 Special districts	The Navy will comply with National Historic Preservation Act (NHPA) regulations for undertakings on Navy lands, including Section 106 consultation and Section 110 surveys.
8			15-215.5 Thoroughfares	The paragraphs under this subject heading primarily relate to proposed roads under the Kalaeloa Master Plan. Please note: the roads proposed under the Kalaeloa Master Development Plan are not a part of the Proposed Action or Alternatives. The Navy is not proposing to construct these roads.

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				The description of the roads is provided for information only.

**Comment Response Form
 Draft Environmental Assessment (EA), April 2012
 Kalaeloa Renewable Energy Park (KREP)**

Reviewer Name: Wendy Tolleson
Reviewer Organization:

Comment #	Page #	Line #	Comment	Response to Comment
1			I would like to comment on the proceeding for the PA amendment that is proposed by Dr. Aiu. The SHPD is so poorly managed that Dr. Aiu (who is not even eligible to make historic preservation decisions due to her lack of training--see the Dept. of Interior Standards for signing off on Section 106 compliance documentation) that she is likely to do anything the Navy wants to do to "keep everyone happy."	Thank you for your comment. The Navy is following the National Historic Preservation Act Section 106 process and is working with the SHPD and other consulting parties to resolve any cultural resource issues associated with the project.
2			I am a kama'aina and I grew up on Ford Island. I hated to see what was going on there, and I think the CRM of that historic place was developed poorly and has been mismanaged. I used to work for the National Guard as their CRM, and the SHPD as the Oahu Archaeologist, and thus I am aware of the need to meet the "mission" by the military in Hawaii. This, however, is not a mission driven enterprise, but one where the Navy got stuck with 488 acres they couldn't get rid of (the Guard didn't want it because of	Thank you for your interest in cultural resources in Hawaii and for your father's service to our country. With regards to the land leased to Ford Island Ventures (now known as Kalaeloa Ventures), the approximate 499 acres were leased to FIV pursuant to a special provision of law (10 U.S.C § 2814), which allowed the Navy to use the proceeds of the sale or leasing of certain military properties to fund the construction and maintenance of facilities at Ford Island, Oahu, Hawaii. A subsequent provision

Comment #	Page #	Line #	Comment	Response to Comment
			<p>the historicity, the environmental clean up, and the CRM responsibility of managing the historic property, which by the way, would have fallen under my watch) and want instead to make as much money from the leasing of the property to corporate interests who have no stake in the preservation process, and who don't care to get involved with the process. I am the daughter of a Navy Captain who flew in WWII, Korea and worked for the space program, I grew up in Hawaii and have lived here for 50 years, and I am ashamed and appalled at the way the Navy has handled this.</p>	<p>(Public Law 109-364, Section 2843) required the Navy to enter into an agreement to convey - by sale, lease, or combination thereof - the approximate 499 acres of land still held at the closed Naval Air Station Barbers Point (NASBP) to a private developer or public entity by September 30, 2008.</p>
3			<p>I fervently oppose any modification or impacts to the airfield, and the archaeological site that is located nearby. The site is important for the following reasons: almost all the other arch. sites in the Barber's Point area have been destroyed through military and/or commercial activity, and this site can provide more information regarding settlement in the prehistoric period for the Ewa Plain. Also the historic trail that borders the property is one of the only complete segments of a pre-proto-historic trail remaining on Oahu. All the rest are under the freeways or will be destroyed by the rail system.</p>	<p>Please note the proposed site for the REP is south of the runway in an area currently overgrown with vegetation. In addition there are no known archaeological sites with the area of potential effect. However, in accordance with the PA, archaeological monitoring will be done during all ground - disturbing activities to ensure that any unanticipated cultural remains/deposits exposed are properly documented. We would also like to note that in addition to the SHPD, Mike Lee, Shad Kane, and OHA are consulting parties and have been involved in the Section 106 consultation and development of the PA.</p> <p>Impacts by existing freeways or the proposed Honolulu Rail Transit Project are beyond the scope of</p>

Comment #	Page #	Line #	Comment	Response to Comment
				this EA. This EA is being prepared to assess the environmental impacts of the Proposed Action (Kalaeloa REP) and Alternatives.
4			I urge the Navy to preserve, protect and manage the historic Ewa Field where military men died during the attack on Pearl Harbor on Dec. 7, 1941!	The Navy will follow the National Historic Preservation Act Section 106 process for projects with the potential to affect historic properties.