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GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

December 2, 2013

Director
Office of Environmental Quality Control
Department of Health, State of Hawaii
235 S. Beretania Street, Room 702
Honolulu, Hawaii'i 96813

FILE COPY

DEC 23 2013

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

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FIRST DEPUTY

WILLIAM M. TAM
DEPUTY DIRECTOR - WATER

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BOATING AND OCEAN RECREATION
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COMMISSION ON WATER RESOURCE MANAGEMENT
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HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

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MFC OF ENVIRONMENTAL QUALITY CONTROL

Dear Director:

Under the provisions of Act 172, Session Laws of Hawaii 2012, the Department of Land and Natural Resources has determined at the outset that an environmental impact statement is required for the Na Pua Makani Wind Project being proposed by Champlin Hawaii Wind Holdings, LLC situated at TMK (1) 5-6-008:006 and TMK (1) 5-6-006:018, in the Koolauloa District in the City and County of Honolulu, on the island of Oahu. A completed Bulletin Publication Form and a summary of the proposed action are enclosed (with a copy of the same sent via electronic mail to oeqc@doh.hawaii.gov).

Pursuant to the requirements of Section 11-200-3, Hawaii Administrative Rules, and Section 11-200-15, Hawaii Administrative Rules, we request that you publish a public notice of this statutory determination in the next available periodic bulletin (Environmental Notice) for the public to submit comments to Champlin Hawaii Wind Holdings, LLC with copies of the approving agency during a thirty-day public comment period.

If there are any questions, please contact Ms. Leilani Pulmano at (808) 983-1233 or Ms. Brita Woeck at (425) 482-7645.

Very Truly Yours,

William J. Aila, Jr.
Chairperson

Copy: Champlin Hawaii Wind Holdings, LLC

Enclosures: (1) Completed OEQC Publication form
(2) Summary description of action in electronic format

**APPLICANT ACTIONS
SECTION 343-5(C), HRS
PUBLICATION FORM (JANUARY 2013 REVISION)**

Project Name: Na Pua Makani Wind Project

Island: Oahu

District: Koolauloa

TMK: 5-6-008:006, 5-6-006:018

Permits: Possible permits include:

1. Incidental Take Permit from the U.S. Fish and Wildlife Service
2. Incidental Take License from the State Department of Land and Natural Resources /Division of Forestry and Wildlife
3. Conditional Use Permit – Minor from City & County of Honolulu
4. National Pollution Discharge Elimination System Construction Permit from State Department of Health
5. Public Utilities Commission Approval
6. Federal Aviation Administration Clearance
7. Lease for or easement right from State Department of Land and Natural Resources for use of state land
8. Permit to Move Oversized/Overweight Load from State Department of Transportation and City & County of Honolulu
9. Community Noise Permit for Construction Activities from State Department of Health
10. Construction and Building permits from City & County of Honolulu

Approving Agency:

Board of Land and Natural Resources

Contact: William J. Aila, Jr., Chairperson, Department of Land and Natural Resources, Kalanimoku Building, 1151 Punchbowl Street, Honolulu, Hawaii 96813; (808) 587-0400

Applicant:

Champlin Hawaii Wind Holdings, LLC

Contact: Mike Cutbirth; 2020 Alameda Padre Serra, Suite 123, Santa Barbara, CA 93103; (805) 568-0300

Consultant:

Tetra Tech, Inc

Contact: Brita Woeck, Tetra Tech, Inc., 737 Bishop St., Suite 2340, Mauka Tower, Honolulu, HI 96813; (808) 441-6600

Status (check one only):

DEA-AFNSI

Submit the approving agency notice of determination/transmittal on agency letterhead, a hard copy of DEA, a completed OEQC publication form, along with an electronic word processing summary and a PDF copy (you may send both summary and PDF to oeqchawaii@doh.hawaii.gov; a 30-day comment period ensues upon publication in the periodic bulletin.

FEA-FONSI

Submit the approving agency notice of determination/transmittal on agency letterhead, a hard copy of the FEA, an OEQC publication form, along with an electronic word processing summary and a PDF copy (send both summary and PDF to oeqchawaii@doh.hawaii.gov; no comment period ensues upon publication in the periodic bulletin.

FEA-EISPN

Submit the approving agency notice of determination/transmittal on agency letterhead, a hard copy of the FEA, an OEQC publication form, along with an electronic word processing summary and

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- PDF copy (you may send both summary and PDF to oeqchawaii@doh.hawaii.gov; a 30-day consultation period ensues upon publication in the periodic bulletin.
- Act 172-12 EISPN Submit the approving agency notice of determination on agency letterhead, an OEQC publication form, and an electronic word processing summary (you may send the summary to oeqchawaii@doh.hawaii.gov. NO environmental assessment is required and a 30-day consultation period upon publication in the periodic bulletin.
- DEIS The applicant simultaneously transmits to both the OEQC and the approving agency, a hard copy of the DEIS, a completed OEQC publication form, a distribution list, along with an electronic word processing summary and PDF copy of the DEIS (you may send both the summary and PDF to oeqc@doh.hawaii.gov); a 45-day comment period ensues upon publication in the periodic bulletin.
- FEIS The applicant simultaneously transmits to both the OEQC and the approving agency, a hard copy of the FEIS, a completed OEQC publication form, a distribution list, along with an electronic word processing summary and PDF copy of the FEIS (you may send both the summary and PDF to oeqc@doh.hawaii.gov); no comment period ensues upon publication in the periodic bulletin.
- Section 11-200-23 Determination The approving agency simultaneously transmits its determination of acceptance or nonacceptance (pursuant to Section 11-200-23, HAR) of the FEIS to both OEQC and the applicant. No comment period ensues upon publication in the periodic bulletin.
- Statutory hammer Acceptance The approving agency simultaneously transmits its notice to both the applicant and the OEQC that it failed to timely make a determination on the acceptance or nonacceptance of the applicant's FEIS under Section 343-5(c), HRS, and that the applicant's FEIS is deemed accepted as a matter of law.
- Section 11-200-27 Determination The approving agency simultaneously transmits its notice to both the applicant and the OEQC that it has reviewed (pursuant to Section 11-200-27, HAR) the previously accepted FEIS and determines that a supplemental EIS is not required. No EA is required and no comment period ensues upon publication in the periodic bulletin.
- Withdrawal (explain)

Summary (Provide proposed action and purpose/need in less than 200 words. Please keep the summary brief and on this one page):

Champlin Hawaii Wind Holdings, LLC (Applicant) proposes to construct the Na Pua Makani Wind Project (Project) near Kahuku, Hawaii to provide up to 45 megawatts (MW) capacity of clean, renewable, wind energy to the Island of Oahu. The Project will be completed in two phases, resulting in the construction of up to 15 turbines. A portion of the Project is located on state lands, which triggers a Hawaii Revised Statutes (HRS) Chapter 343 review. A joint federal and state Habitat Conservation Plan is being prepared in anticipation of seeking an Incidental Take Permit (ITP) from the U.S. Fish and Wildlife Service (Service), and an Incidental Take License from the State Department of Land and Natural Resources (DLNR), Division of Forestry and Wildlife. The issuance of an ITP triggers the need for environmental compliance under the National Environmental Policy Act (NEPA). The Service and DLNR have determined that an Environmental Impact Statement (EIS) is warranted. By issuing this notice, the State process under HRS Chapter 343 and the federal process under NEPA will be aligned, and the EIS will be put forth as a single document that meets the requirements of both regulations.

Environmental Impact Statement Preparation Notice for the Proposed Na Pua Makani Wind Project, Kahuku, HI
Notice of Intent to Prepare an Environmental Impact Statement for the proposed Na Pua Makani Wind Project.

APPLICANT:

Champlin Hawaii Wind Holdings, LLC; Address: 2020 Alameda Padre Serra, Suite 123, Santa Barbara, CA 93103;
Contact: Mike Cutbirth

ACCEPTING AUTHORITY:

Department of Land and Natural Resources/Land Division; Address: 1151 Punchbowl Street, Honolulu, HI 96813;
Contact: Russell Tsuji, Administrator, (808) 587-0414

BRIEF DESCRIPTION OF PROPOSED ACTION:

Champlin Hawaii Wind Holdings, LLC (Applicant) has prepared this Environmental Impact Statement Preparation Notice (EISPN) pursuant to the State of Hawaii (State) Environmental review process, as required and defined by Chapter 343, Hawaii Revised Statutes (HRS) and Title 11, Chapter 200, Hawaii Administrative Rules (HAR), and Act 172-12. The purpose of this EISPN is to initiate the EIS scoping process under Chapter 343 and provide an opportunity for comment by reviewing agencies and the public to ensure the environmental concerns are given appropriate consideration in the decision making process along with economic and technical considerations.

The Na Pua Makani Wind Project (Project) is proposed as an up to 45 megawatt (MW) wind energy project located on public and private lands in Kahuku, Hawaii, adjacent to the existing Kahuku Wind Project. A portion of the Project site is located on land that is designated by the State of Hawaii as an agricultural district and is zoned by the City & County of Honolulu as AG-1 Restricted Agricultural District and AG-2 General Agricultural District. The portion of the Project located on public land is being leased from the Department of Land and Natural Resources (DLNR), who has been identified as the Accepting Authority for the purposes of complying with the Chapter 343 environmental review. The other portion of the Project is located on private land owned by Malaekahana Hui West LLC and is designated by the State of Hawaii as an agricultural district and is zoned by the City & County of Honolulu as AG-1. The location of the Project is indicated in Figure 1.

The Project will be completed in two phases, resulting in the construction of up to 15 turbines. Supporting infrastructure for the proposed Project currently includes met towers, access roads, wind turbine assembly lay down areas, overhead and underground transmission and collector lines, and may also include an on-site substation, and an operations and maintenance building. Construction of the Project is anticipated to begin in 2015.

The following describes the potential Project components. Note that dimensions, acreages, and other measures are subject to change based on refinement of the Project design and will be fully described in the draft joint National Environmental Policy Act/Hawaii Environmental Policy Act EIS.

Wind Turbines

The Applicant is currently considering 3.0 MW wind turbines but will select the most appropriate model based on the latest technology available. The Siemens 3.0-108 model meets current Project design criteria and will be used to analyze potential Project impacts. It has a hub height of 262 feet (ft; 80 meters [m]) and a rotor diameter of 354 ft (108 m); as a result, the maximum height to the top of the blade is 440 ft (134 m). Each turbine would be transported from the Honolulu Harbor via highways and assembled on site on a constructed foundation. After construction, a portion of the turbine pad area would be revegetated to minimize erosion, and a portion would be graveled to allow for operations and maintenance requirements and facilitate monitoring efforts.

Met towers

The Project would include at least one permanent lattice-frame (no guy wires) met towers. The tower would support weather instruments that measure and record weather data to measure performance and guide Project operation. The met tower would be approximately 262 ft (80 m) tall with base dimensions approximately 22 ft by 22 ft (7 m by 7 m) and reducing down to approximately 2 ft by 2 ft (1 m by 1 m) for the top 42 ft (13 m).

Access Roads

Internal access roads used for the Project will include portions of an existing road network plus the addition of new roads. Phase I may include 3.3 mi (5.4 km) of road and Phase II may include 1.2 mi (1.9 km) of road, depending on the final turbine layout. Existing roads would be improved, as needed, and expanded to meet construction and maintenance activity requirements.

Construction staging and equipment laydown area, operation and maintenance facility

This area would serve a variety of storage and support functions. During construction the area would be used as temporary storage and laydown area, refueling location, and waste collection area. It would also serve to provide

temporary parking, office space, and sanitary facilities. The permanent operations and maintenance building, storage, and parking area would be constructed in the same area, and these facilities would be used throughout the life of the Project.

Electrical Collection and Interconnect System

Power produced by the turbines would be collected through an electrical collection system. This would feed into an electrical substation, which steps-up the voltage and transmits the power to the point of interconnect with the island's general transmission system via a generator-tie line. To the extent practicable the collection system would be installed underground. Length below ground for the electrical collection system would be approximately 2.4 mi (3.9 km) for Phase I and approximately 1.7 mi (2.7 km) for Phase II.

The interconnection substation will be protected by a perimeter fence and would include the substation pad and below-grade electrical infrastructure. During construction, the substation area would be cleared and graded, and the substation pad would be compacted with well-graded material. Foundations would be installed for the components as required.

The generator-tie line will consist of an above ground power line mounted on monopoles. Pole dimensions, spacing, and locations will be determined based on detailed engineering that will take into account factors such as existing access, environmental constraints, and cost. Approximately 1.0 mi (1.6 km) of generator-tie line would be required for Phase II. Phase II would require reconductoring upgrades to approximately 20.5 mi (33 km) of existing overhead transmission line along the eastern shore of Oahu between the point of interconnect and the Waihee substation to support the increased load anticipated from the Project. This process would include a replacement of the electrical wires and reuse or replacement of existing power poles.

SUPPLEMENTARY INFORMATION

In 2009, Oahu Wind Partners, LLC (OWP) proposed to construct and operate a 25 MW wind farm, also called Na Pua Makani, on the DLNR-owned parcel. OWP prepared a draft Environmental Assessment (DEA) which was published in the OEQC Environmental Notice on September 8, 2009 for public comment. The OWP wind project did not move forward and the Chapter 343 analysis was not completed. Champlin's Na Pua Makani Project is a new project.

The U.S. Fish and Wildlife Service (Service), with the DLNR, intend to prepare a joint EIS to address the potential impacts associated with the construction, operation, maintenance, and decommissioning of the Project on state and private lands, and will also address the impacts of issuance of an Incidental Take Permit (ITP) under the federal Endangered Species Act of 1973, as amended, and an Incidental Take License (ITL) under the HRS Chapter 195D, and implementation of the associated joint Habitat Conservation Plan (HCP) prepared by the Applicant. The joint EIS will be prepared to comply with the requirements of the National Environmental Policy Act and the Hawaii Environmental Policy Act, and all necessary permits and approvals from other local, state, and federal agencies. The joint National Environmental Policy Act/Hawaii Environmental Policy Act EIS will describe the existing conditions and the potential environmental effects of the Project on resources of the physical, biological, and social environment.

The proposed joint HCP will cover potential take of federally-listed species that is incidental to activities associated with the construction, operation, maintenance, and decommissioning of the Project, and will include measures necessary to minimize and mitigate impacts to covered species and their habitats to the maximum extent practicable. We anticipate that the following five federally-listed endangered species will be included as covered species in the Applicant's proposed HCP:

- 'a'o or Newell's shearwater (*Puffinus auricularis newelli*);
- ʻōpeʻapeʻa or Hawaiian hoary bat (*Lasiurus cinereus semotus*);
- 'alae ke'oke'o or Hawaiian coot (*Fulica alai*);
- 'alae 'ula or Hawaiian common moorhen (*Hawaiian moorhen*; *Gallinula chloropus sandvicensis*); and
- ae'o or Hawaiian black-necked stilt (*Hawaiian stilt*; *Himantopus mexicanus knudseni*).

For these covered species, the Applicant would seek an ITP/ITL.

The following state-listed endangered species will also be included as a covered species in the Applicant's proposed HCP.

- pueo or Hawaiian short-eared owl (*Asio flammeus sandwichensis*).

The final list of covered species may include all of the above listed species, a subset, or additional species, based on the outcome of the planning process.

DATES:

- All comments on this notice will be considered if received between December 23, 2013, and January 22, 2014.
- A public scoping meeting will be held on January 10, 2014, at 6:30 p.m. in Kahuku, HI.

COMMENTS:

The primary purpose of this EISPN is to initiate the EIS scoping process under Chapter 343 and provide an opportunity for comment by reviewing agencies and the public to ensure the environmental concerns are given appropriate consideration in the decision making process along with economic and technical considerations. We request comments, suggestions, and data from all interested parties to ensure that a reasonable range of alternatives is presented and that all potentially significant issues are identified in the EIS. We will fully consider all comments received during the comment period. Comments and materials we receive will become part of the public record and will be available for public inspection, by appointment, during regular business hours.

We request data, comments, new information, or suggestions from the public, other concerned governmental agencies, the scientific community, native Hawaiian organizations, industry, or any other interested party on this notice. We will consider these comments in developing a draft EIS. We particularly seek comments on the following:

- The direct, indirect, and cumulative effects that implementation of any reasonable alternative could have on the biological, physical, social, and cultural environments;
- Other reasonable alternatives for consideration, and their associated effects;
- Relevant biological data and additional information concerning the proposed covered species;
- Current or planned activities in the subject area and their possible impacts on the biological, physical, social, and cultural environments;
- The presence of archaeological sites, buildings and structures, historic events, sacred and traditional areas, and other historic preservation concerns, which are required to be considered in project planning by the National Historic Preservation Act;
- Covered activities, including potential avoidance, minimization, and mitigation measures;
- Monitoring and adaptive management provisions; and
- Identification of any other environmental issues that should be considered with regard to the proposed Project and permit action.

Because this is a joint National Environmental Policy Act/Hawaii Environmental Policy Act document, all comments submitted in response to the USFWS Notice of Intent to Prepare an EIS and HCP issued in the Federal Register on November 5, 2013 (78 FR 214) and all comments subsequently submitted in response to this EISPN will be fully considered. Comments may be resubmitted in response to this notice; however, this is not required or necessary. A Draft EIS and Draft HCP will be published subsequently with a comment period to follow. Notice of these drafts will be made simultaneously in both the Federal Register and OEQC Bulletin.

ADDRESSES:

Please provide your email address with your electronic and written comments if possible. Electronic inquiries and comments are preferred and may be sent to: NaPuaMakanihcp@fws.gov.

All written inquiries and comments may be sent to: Mike Cutbirth, C/O Tetra Tech, Inc., 737 Bishop St., Suite 2340, Mauka Tower, Honolulu, HI 96813

A public scoping meeting will be held at Kahuku Village Association Community Center, 56576 Kamehameha Highway, Kahuku, Hawaii 96731.

FOR FURTHER INFORMATION CONTACT:

Brita Woeck, Tetra Tech, Inc., 737 Bishop St., Suite 2340, Mauka Tower, Honolulu, HI 96813; (808) 441-6600

DETERMINATION AND REASONS SUPPORTING DETERMINATION:

Pursuant to Section 11-200-12 of the Hawai'i Administrative Rules, the determination of whether an action would have a significant impact on the environment should be based on an evaluation of the expected consequences of the proposed action, including the cumulative and overall effects, using the listed significance criteria. Each of these significance criteria are presented below, and are discussed in the context of the proposed project.

Subparagraph B of HAR § 11-200-12 states that "in most instances, an action shall be determined to have a significant effect on the environment if it":

- Involves an irrevocable commitment to loss or destruction of any natural or cultural resource;
- Curtails the range of beneficial uses of the environment;

- Conflicts with the state’s long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revision thereof and amendments thereto, court decisions, or executive orders;
- Substantially affects the economic and social welfare of the community or state;
- Substantially affects public health;
- Involves substantial secondary impacts such as population changes or effects on public facilities;
- Involves a substantial degradation of environmental quality;
- Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions;
- Substantially affects a rare, threatened, or endangered species, or its habitat;
- Detrimentially affects air or water quality or ambient noise levels;
- Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters;
- Substantially affects scenic vistas and viewplanes identified in county or state plans or studies; or
- Requires substantial energy consumption

Based on the established significance criteria, the description of the proposed project provided above, and input received from the local community during preliminary outreach efforts it is anticipated that the proposed action may result in a significant impact to the human and/or natural environment. Therefore, under the provisions of Act 172 (12), the DLNR has determined from the outset that an EIS is required for the Na Pua Makani wind project.

Background

Existing Conditions

The Project lies on 685 ac (277 ha) of land in Kahuku, Oahu. The operational Kahuku Wind Power facility abuts the Project area to the northwest (Figure 1). It is surrounded by agricultural farm lands to the north; residential housing, community infrastructure, and agricultural farm lands to the east; a mixture of agricultural farm lands and undeveloped forest lands to the south; and undeveloped forest lands to the west. James Campbell National Wildlife Refuge (JCNWR) is approximately 0.75 miles to the north and Malaekahana State Recreation area is 0.1 miles to the east.

The Project area consists of steep, dissected ridges surrounding gently sloping valleys (Hobdy 2013). Elevations range from approximately 3 ft (1 m) above mean sea level (amsl) on the northern edge to 614 ft (187 m) amsl on the southern edge. Soils include Kaena Stony Clay, 12 – 20% slopes, Paumalu Badlands Complex which is highly dissected and steep, and with coral outcrops at elevations below 100 ft amsl (30 m; Foote et al. 1972, Hobdy 2013).

The Project area is located within the 7.1 square mi (18.5 square km) Malaekahana Stream watershed. There are three streams within the Project boundary include: `Ohi`a Stream on the northern border; Kea`aulu Stream which runs through the middle of the Project, and Malaekahana Stream is on the southern border. A preliminary wetlands/waters assessment was completed in June 2013, indicating that these streams qualify as Jurisdictional Waters of the U.S. (Hobdy 2013a). Should impacts to these streams be unavoidable, they may be subject to jurisdiction under Section 404 of the Clean Water Act.

The vegetation within the Project area is dominated by a mixture of aggressive non-native weedy species that took over following the abandonment of sugar cane (*Saccharum officinarum*) agriculture. Several common native species occupy some of the ridge tops. The most abundant species in the Project area is the common ironwood (*Casuarina equisetifolia*). Native species are largely intermixed with non-native species with the exception of a few ridge tops where the native `ulei (*Osteomeles anthyllidifolia*), forms large monotypic patches. Other common native species included `uhaloa (*Waltheria indica*) and `akia (*Wikstroemia oahuensis*). A general biological survey of the Project area was completed in June 2013 (Hobdy 2013b). No threatened, endangered, candidate, or proposed plant species were detected.

A preliminary archeological assessment, consisting of archival and background research and a brief field inspection of the Project area, was conducted in 2013 (Pacific Legacy 2013). The results of this assessment indicate that there appears to be a very low probability of encountering any significant cultural resources within the Project area, and that there is a low likelihood that the Project area contains potentially significant archaeological remains that would preclude wind farm development (Pacific Legacy 2013).

Community Outreach

Community outreach has included attendance at several Kahuku Community Association (KCA) Board meetings, KCA General membership meetings, meetings with individual stakeholders, meetings with organizations within Kahuku and Laie and distribution of a project fact sheet. A scoping meeting for the National Environmental Policy Act process was

held on November 13, 2013, at the Kahuku Community Center. The Applicant continues to engage the agencies, the public, and other stakeholders.

National Environmental Policy Act/Hawaii Environmental Policy Act EIS

The following issues will be addressed in the EIS:

Physical Environment

- Soils/Geology
- Water Quality
- Air quality/Climate

Biological Environment

- Wildlife
- Vegetation
- Threatened and Endangered Species

Social Environment

- Visual Resources
- Noise
- Health Impacts
- Traffic/Transportation
- Archaeological and Cultural Resources
- Socioeconomics/Environmental Justice

The following are additional studies that will be completed as part of the EIS:

- In compliance with the requirements of HAR § 13-276-4, a more detailed Archaeological Inventory Assessment, entailing a summary of the traditional and historic activities and uses of the area and field work (pedestrian survey of previously unsurveyed areas, selected backhoe trenching, and hand excavation of test units) will be completed for the project and submitted to the State Historic Preservation District (SHPD) for approval. The AIS will be incorporated into the EIS.
- Pursuant to HRS Chapter 6E, a cultural impact assessment will be conducted to identify the effects of the Project on the cultural practices of the community and State.
- Visual simulation analyses will be completed to demonstrate the visibility of the proposed turbines and other Project components.
- A noise analysis will be completed to compare the predicted noise levels associated with the turbines and the associated facilities to the applicable noise standards.
-

References

- Foote, D.E., E.L. Hill, S. Nakamura, and F. Stephens. 1972. Soil survey of the islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii. US Department of Agriculture. Washington, D.C.: U.S. Government Printing Office.
- Hobdy, R. 2013a. Wetlands and Waters of the U.S. Assessment and Determination for the Na Pua Makani Wind Project, Kahuku, Ko`olauloa, Oahu, Hawaii, Kokomo, Maui. Na Pua Makani Power, LLC.
- Hobdy, R. 2013b. Biological resources survey Na Pua Makani Wind Project, Kahuku, Ko`olauloa, Oahu, Hawaii. Kokomo, Maui. Na Pua Makani Power, LLC.
- Pacific Legacy. 2013. Archaeological Assessment for the Proposed Na Pua Makani Wind Farm in the lands of Kahuku, Island of Oahu. Prepared for Champlin/GEI Wind Holdings, LLC.

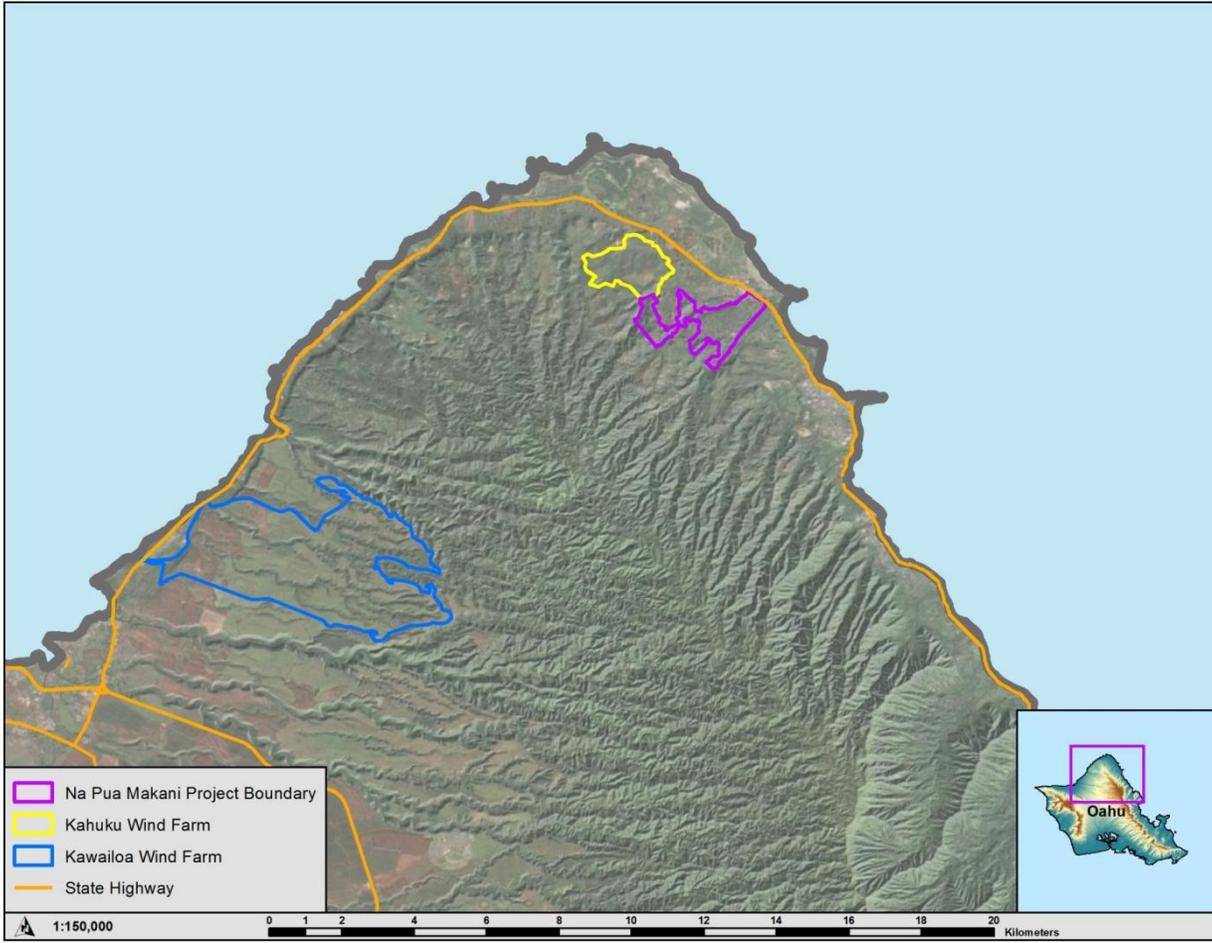


Figure 1. Napua Makani Project Vicinity Map