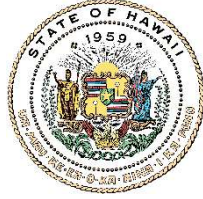
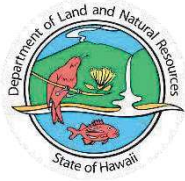


JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAII'
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA

P.O. BOX 621
HONOLULU, HAWAII 96809

DAWN N.S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE
MANAGEMENT
RYAN K.P. KANAKA'OLE
FIRST DEPUTY
CIARA W.K. KAHAHANE
DEPUTY DIRECTOR - WATER
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE
MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES
ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

October 15, 2024

Mary Alice Evans, Acting Director
Office of Planning and Sustainable Development
c/o Environmental Review Program
235 South Beretania Street, Room 702
Honolulu, Hawai'i 96813

SUBJECT: Publication of the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Kaheawa Wind 1 Continued Use Project Located in Lahaina, Maui, Hawai'i, Tax Map Keys: (2) 4-8-001:001, 48-001:010, 3-6-001:052, and 3-6-001:014

Dear Ms. Evans:

With this letter, we hereby submit the Environmental Impact Statement Preparation Notice (EISPN) for the Proposed Kaheawa Wind 1 Continued Use Project involving lands identified as Tax Map Keys (TMKs) (2) 4-8-001:001, 48-001:010, 3-6-001:052, and 3-6-001:014 in the Lahaina District on the island of Maui for publication in the next available edition of The Environmental Notice.

The DLNR has coordinated with the Applicant to determine the appropriate level of environmental review for the proposed action. So as to not overlook any potentially significant impacts to the natural and/or human environment, an Environmental Impact Statement will be prepared pursuant to Hawai'i Revised Statutes (HRS) §343-5(e) and Hawai'i Administrative Rules (HAR) §11-200.1-14(d)(2).

The required publication form and files have been provided electronically via the "Online Submittal Form" on the Office of Planning and Sustainable Development, Environmental Review Program website. The submittal includes a .pdf file of the EISPN and .zip file containing a shapefile of the project's location boundary.

Should you have any questions, please contact Lauren Yasaka at (808) 587-0431 or lauren.e.yasaka@hawaii.gov.

Sincerely,

A handwritten signature in black ink, appearing to be "Dawn N.S. Chang", written over a horizontal line.

Dawn N.S. Chang,
Chairperson *RT*

From: webmaster@hawaii.gov
To: [DBEDT OPSD Environmental Review Program](#)
Subject: New online submission for The Environmental Notice
Date: Tuesday, October 15, 2024 10:00:46 AM

Action Name

Kaheawa Wind 1 Continued Use Project

Type of Document/Determination

Environmental impact statement preparation notice (EISPN)

HRS §343-5(a) Trigger(s)

- (1) Propose the use of state or county lands or the use of state or county funds
- (2) Propose any use within any land classified as a conservation district

Judicial district

Lahaina, Maui

Tax Map Key(s) (TMK(s))

(2) 4-8-001:001, (2) 4-8-001:010, (2) 3-6-001:052, and (2) 3-6-001:014

Action type

Applicant

Other required permits and approvals

Board of Land and Natural Resources approval of state land lease; State Incidental Take License from Department of Land and Natural Resources/Division of Forestry and Wildlife and Federal Incidental Take Permit from U.S. Fish and Wildlife Service, see EISPN for more information

Discretionary consent required

Issuance of State Land Lease (by State of Hawai'i Board of Land and Natural Resources [BLNR])

Approving agency

State of Hawai'i Board of Land and Natural Resources

Agency contact name

Lauren Yasaka

Agency contact email (for info about the action)

lauren.e.yasaka@hawaii.gov

Email address for receiving comments

leslie.mcclain@tetrattech.com

Agency contact phone

(808) 587-0431

Agency address

Department of Land and Natural Resources, Land Division
1151 Punchbowl Street, Room 220

Honolulu, HI 96813
United States
[Map It](#)

Public Scoping Meeting information

October 29, 2024/5:30-7:30 pm Malcom Center, 1305 N. Holocono Street, Suite 5, Kihei, HI 96753

Accepting authority

State of Hawai'i Board of Land and Natural Resources

Applicant

Kaheawa Wind Power, LLC

Applicant contact name

Molly Stephenson

Applicant contact email

molly.stephenson@brookfieldrenewable.com

Applicant contact phone

(612) 240-9830

Applicant address

200 Liberty Street, 14th Floor
New York, NY 10281
United States
[Map It](#)

Is there a consultant for this action?

Yes

Consultant

Tetra Tech, Inc.

Consultant contact name

Leslie McClain

Consultant contact email

leslie.mcclain@tetrattech.com

Consultant contact phone

(503) 222-4536

Consultant address

737 Bishop Street, Suite 2000
Honolulu, HI 96813
United States
[Map It](#)

Action summary

Continue operation of the existing Kaheawa Wind 1 wind generation facility for an additional 20-year period to provide 30 MW of clean, renewable energy to the island of Maui. No construction or physical

improvements (beyond maintenance activities) are required as part of the proposed Project.

Attached documents (signed agency letter & EA/EIS)

- [EISPN_KWP1_Final_10-15-2024.pdf](#)
- [ERP-Transmittal-for-KWP1-EISPN-signed.pdf](#)

Action location map

- [KaheawaWindPower1_ProjectArea_20241015.zip](#)

Authorized individual

Leslie McClain

Authorization

- The above named authorized individual hereby certifies that he/she has the authority to make this submission.

**ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE
KAHEAWA WIND 1 CONTINUED USE PROJECT
MAUI, HAWAII**

October 2024

I. Project Overview

A. Applicant and Accepting Authority

APPLICANT:

Kaheawa Wind Power, LLC; Address: 200 Liberty Street, 14th Fl, New York, NY 10281;
Contact: Molly Stephenson

ACCEPTING AUTHORITY:

State of Hawai'i Board of Land and Natural Resources; Address: 1151 Punchbowl
Street, Honolulu, HI 96813; Contact: Lauren Yasaka, Planner, Department of Land and
Natural Resources Land Division, (808) 587-0431

B. Description of Proposed Action and Location:

Kaheawa Wind Power, LLC (Applicant) proposes the Kaheawa Wind 1 (KWP 1)
Continued Use Project (Project or Proposed Action) which involves continued operations
of the existing KWP 1 wind generation facility for an additional 20-year period.

KWP 1 is an existing 30-megawatt (MW) wind energy generation facility located in the
Kaheawa Pastures area of West Maui, Hawai'i. The wind generating turbines and
ancillary facilities (e.g., substation, maintenance facility, access roads, and transmission
interconnection) are located on approximately 200 acres of Tax Map Keys (TMK) (2) 4-
8-001:001, (2) 4-8-001:010, and (2) 3-6-001:052, and the internal access roads and a
parking/staging area are granted through access easements (20 feet wide centered on
an existing access road, for a total of 8.5 acres) within TMK (2) 3-6-001:014 (Project
area). Use of the Project area is secured through a long-term lease from the State of
Hawai'i Department of Land and Natural Resources (DLNR) (General Lease No. S-
5731). The Project location is shown in Figure 1 and the Project TMK boundaries and
lease areas are shown in Figure 2.

The existing KWP 1 wind energy generation facility consists of 20 GE 1.5-MW wind-
generating turbines, situated in a single articulated row at an elevation extending from
approximately 2,000 to 3,200 feet. The height of each turbine tower is 55 meters (180
feet), and the diameter of the rotors is 70.5 meters (231 feet), for a total structural height
(maximum blade tip height) of approximately 90 meters (296 feet). Each turbine is set on
an approximately 163-square meter (1,752-square foot) foundation. In addition to the
turbines the facility includes an operations and maintenance facility, a storage facility, a
substation and wind monitoring equipment, all situated in proximity to the turbines.
Located within the leased lands is also the substation for the adjacent Kaheawa Wind 2

(KWP 2) wind farm and the associated battery storage facility. The intra-turbine power collection system and connection to the substation are all located underground. Power generated by the facility interconnects with the Hawaiian Electric island-wide grid at the existing Hawaiian Electric switchyard and KWP 1 substation, which connects to the existing Hawaiian Electric 69- kilovolt transmission line that passes directly through the Project area to the south of the KWP 1 substation. KWP 1 is accessed by an existing four-wheel-drive roadway within TMK (2) 3-6-001:014 that leads from Honoapi'ilani Highway through the existing (separate) KWP 2 wind facility, mauka to the KWP 1 turbines.

The KWP 1 facility has been operating since 2006. The construction and operation of the KWP 1 facility were initially analyzed and described in an Environmental Impact Statement (EIS) which was approved by the Board of Land and Natural Resources (BLNR) on October 8, 1999 (WSB-Hawaii 1999). A subsequent Environmental Assessment (EA) was prepared to analyze proposed changes to the wind farm layout, including a decrease in wind turbines from 27 to 20 and an increase in turbine height. The Final EA was approved by the BLNR on November 8, 2004 (KWP 2004) and the KWP 1 facility was constructed in accordance with the description in the Final EA and began operations in 2006. As stated above, the Proposed Action for the current environmental review process is the continued use of the existing KWP 1 wind generation facility for an additional 20-year period. The Proposed Action would require no construction or physical improvements beyond maintenance activities.

The KWP 1 facility has been operating under a 20-year Power Purchase Agreement (PPA) that is set to expire in 2026. The KWP 1 Continued Use Project was selected by Hawaiian Electric as part of the Maui Stage 3 Request for Proposal (RFP), a competitive bidding process developed by Hawaiian Electric in coordination with the Public Utilities Commission (PUC) to procure renewable energy sources for Maui's electric grid in response to anticipated energy resource shortfalls identified by the PUC.¹ The KWP 1 Continued Use Project (Proposed Action) would continue to use the existing interconnection with Hawaiian Electric's island-wide grid and the power would be sold to Hawaiian Electric under a new 20-year PPA that must be approved by the PUC.

The Project/Proposed Action would deliver clean, locally generated energy at substantially less than the cost of fossil fuels, provide essential energy resource diversity, and establish a new community benefits program.

If the Project were to proceed, it would require approval of a new 20-year lease from BLNR as the current DLNR land lease will expire in January 2026. Additionally, KWP 1's current Incidental Take Permit (ITP) from the U.S. Fish and Wildlife Service (USFWS)

¹ PUC. "RE: Docket No. 2017-0352 - To Institute a Proceeding Relating to a Competitive Bidding Process to Acquire Dispatchable and Renewable Generation - Guidance for Development of Stage 3 Renewable and Dispatchable Generation Request for Proposals on Oahu and Maui." February 18, 2022. Available at: https://www.hawaiianelectric.com/documents/clean_energy_hawaii/selling_power_to_the_utility/competitive_bidding/04062022_cbre_rfp/20220218_docket_2017-0352.pdf

and Incidental Take License (ITL) from DLNR/Department of Forestry and Wildlife (DOFAW) are set to expire in January 2026; therefore, an amended ITP from USFWS and an amended ITL from DLNR/DOFAW covering the extended period of operations and approval of an associated Habitat Conservation Plan (HCP) are required for the Proposed Action's 20-year extended operation period. More information on the existing lease, permits, and approvals for KWP 1 is included in Section I.D below and a list of required permits and approvals is included in Section I.E below. Once the required environmental review is completed and required permits obtained, the Project could be implemented immediately to meet the anticipated electric grid demands. No construction is required to implement the Proposed Action.

C. Project Purpose and Need

The purpose of the Project is to utilize the existing wind energy infrastructure on land owned by DLNR to continue to provide 30-MW of clean, renewable energy to the island of Maui, thus contributing to the State of Hawai'i's Renewable Portfolio Standard (RPS) energy goals of generating 100 percent of the state's energy from renewable sources by 2045.

The need for the Project is established by Hawaiian Electric's competitive procurement process for locally produced renewable energy (Maui Stage 3 RFP) which responds to the Hawai'i Clean Energy Initiative (HCEI) and the State of Hawai'i's RPS which requires that electric utility companies use renewable energy for the equivalent of 100 percent of net electricity sales by 2045.

D. Background

The BLNR was the Accepting Authority for KWP 1's original 1999 EIS (WSB-Hawaii 1999) and subsequent 2004 EA (KWP 2004) due to the facility involving use of state land and use within a state conservation district. A Conservation District Use Permit (CDUP, MA-3103) was approved by the BLNR on January 24, 2003 and a modification to the permit was approved by the BLNR on June 24, 2005. A Special Management Area (SMA) minor permit was issued by the County of Maui in 2005 for construction of a driveway apron and parking lot improvements on TMK (2) 3-6-001:014 within the SMA (near Honoapi'ilani Highway) for the KWP 1 access road. Following completion of the Hawai'i Revised Statutes (HRS) 343 review process and issuance of the CDUP, the BLNR granted a 20-year lease for the use of state lands on February 22, 2005 (General Lease S-5731). In addition, KWP 1 was issued an ITP from the USFWS and an ITL from DLNR DOFAW on January 30, 2006. The ITP and ITL each have a term of 20 years and were most recently amended in 2016.

The KWP 1 facility began commercial operations on June 22, 2006 and based on the existing 20-year PPA approved by the PUC, is currently planned to operate until June 21, 2026.

E. Required Permits and Approvals

Although the Proposed Action would not require any physical changes to the existing KWP 1 facility, certain discretionary permits/approvals are anticipated to be required for implementation of the proposed project. The following is a preliminary list of permits and approvals anticipated to be required:

- Federal:
 - National Environmental Policy Act compliance by USFWS for the federal action of issuance of an ITP under Section 10(a)(1)(B) of the federal Endangered Species Act.
 - National Historic Preservation Act Section 106 compliance by USFWS for the federal action of issuance of an ITP.
 - Endangered Species Act compliance through USFWS issuance of an amended ITP and approval of a Habitat Conservation Plan (HCP) for the 20-year extended operational period.
- State:
 - BLNR approval of a land lease for approximately 20 years, coterminous with the KWP 1 Stage 3 PPA;
 - HRS Chapter 343 EIS to review the Applicant's use of State lands and land within the conservation district² for the proposed Project;
 - HRS Chapter 6E, Historic Preservation Compliance;
 - HRS Chapter 195D-21, HCP, including BLNR approval of a HCP and issuance of an amended ITL from the DLNR DOFAW for the 20-year extended operational period.
- County of Maui:
 - No permit identified³.

The Applicant is currently working with DOFAW and USFWS on the preparation of a Draft HCP to support their request for an amended and extended ITL and ITP, in parallel

² The KWP 1 facility is located within the state conservation district. However, the facility's existing CDUP does not have an expiration date and is not anticipated to require modifications for the Proposed Action.

³ The Project area is located in County Agriculture (AG) zone; however, as the Project area is within the State Conservation District, pursuant to HRS §205-5, land use is governed by DLNR therefore no county zoning permits are required. A portion of the Project's access road is located in the SMA. An existing SMA minor permit (SM2 2005/0029) was issued by the County of Maui in 2005 for construction of a driveway apron off Honoapi'ilani Highway for the KWP 1 access road on TMK (2) 3-6-001:014. As no changes to this access road and driveway are proposed, the Applicant does not anticipate an SMA permit modification or new SMA would be required. As no new structures or ground disturbance is proposed, no county building permits are anticipated.

with the HRS Chapter 343 EIS process. The Draft HCP will address four state and federal listed species that have the potential to be impacted by the Proposed Action during the 20-year extended operation of the Project (Covered Species). These are the same species covered by the existing ITL and ITP for the KWP 1 facility and include:

- ‘Ōpe‘ape‘a or Hawaiian hoary bat (*Lasiurus cinereus semotus*);
- Nēnē or Hawaiian goose (*Branta sandvicensis*);
- ‘A‘o or Newell’s shearwater (*Puffinus newelli*); and
- ‘Aa‘u or Hawaiian petrel (*Pterodroma sandwichensis*).

The Draft HCP will be published for public review. Based on the analysis conducted for the Draft HCP, the EIS will consider impacts to the Covered Species along with other potential impacts from the Proposed Action.

F. Determination and Reasons Supporting the Determination

The State of Hawai‘i DLNR has determined that the Applicant’s use of State lands and land within the conservation district for the Proposed Action is subject to review under HRS Chapter 343 and has further determined, through its judgement and experience, that an EIS is likely to be required. DLNR will be the accepting authority for the EIS, which will be prepared by the Applicant in compliance with HRS Chapter 343 and Hawai‘i Administrative Rules (HAR) Chapter 11-200.1. The authorizations that the Applicant is requesting have the potential to have significant effects on covered species because the requested authorizations would allow the incidental take of species listed as endangered or threatened under the federal Endangered Species Act and HRS Chapter 195D. Therefore, DLNR has authorized the Applicant to prepare an EIS without first preparing an EA.

II. Anticipated Scope of the Draft EIS

The Draft EIS will provide detailed information describing the purpose and need for the Project, a detailed description of the Proposed Action, a detailed description of the affected environment, a comprehensive analysis of the potential environmental consequences of the Proposed Action, and a detailed discussion of the alternatives to the Proposed Action. It will also disclose any significant short-term, long-term, and cumulative impacts on the human, natural, and built environment. The scope of the EIS will be informed by comments received on this Environmental Impact Statement Preparation Notice (EISPN) in accordance with HAR Chapter 11-200.1-23.

The following environmental resources have been tentatively identified for analysis in the Draft EIS:

- Air Quality
- Climate and Climate Change

- Geology and Topography
- Soils
- Surface and Ground Water
- Natural Hazards
- Hazardous Materials and Wastes
- Flora
- Fauna
- Historical and Archaeological Resources
- Cultural Resources
- Noise
- Visual Resources
- Land Use
- Transportation and Traffic
- Public Services and Utilities
- Socioeconomic Characteristics
- Secondary and Cumulative Impacts

Once prepared, the Draft EIS document will be reviewed by DLNR, published in the Office of Planning and Sustainable Development, Environmental Review Program's (ERP) *The Environmental Notice* bulletin and made available for a 45-day public review and comment period. Following this review process, the Applicant will prepare a Final EIS document responding to comments received on the Draft EIS.

III. Description of the Affected Environment and Scoping of Potential Impacts

The affected environment of many of these resources are anticipated to be commensurate with those described in the original 1999 EIS (WSP-Hawaii 1999) and 2004 EA (KWP 2004). However, some of these resources may have changed since the original environmental analysis and the Draft EIS for the Project will examine these pertinent features of the physical and natural environment. Existing data will be compiled from past environmental studies, and new studies will be completed to address the potential impacts within several resource areas, as needed. To inform the scoping process, this section provides a high-level description of the setting, or affected environment, in the Project vicinity. More detailed information and an analysis of potential impacts will be provided in the Draft EIS for each resource.

A. Air Quality

In general, the existing air quality in the vicinity of the Project area is good because of the low levels of development and automobile emissions and exposure to prevailing trade winds that help disperse the accumulation of emissions. The Project is not located within a Environmental Protection Agency designated non-attainment area. Sources of pollutant air emissions in the vicinity include vehicle exhaust from Honoapiʻilani Hwy/Hawaiʻi Route 30, dust from agricultural cultivation and construction, occasional smoke from wildfires, and emissions from the Maui Electric Company Ltd.'s Maʻalaea Generating Station located approximately 4 miles east-southeast of the Project area. The existing KWP 1 facilities does not contribute new air emissions, with the exception of vehicles driving to and from the facility for operations and maintenance.

The EIS for the Project will provide additional information and analyze potential impacts to air quality.

B. Climate and Climate Change

The Hawaiian Islands have a tropical climate, characterized by relatively mild temperatures and moderate humidity throughout the year (except at high elevations), persistent northeasterly trade winds, notable differences in rainfall across short distances, and infrequent, severe storms. Two primary seasons are recognized, including a 5-month summer season (May through September) when northeasterly trade winds are prevalent, and a winter period between October and April (Giambelluca and Schroeder 1998). Summer is typically warmer and drier than winter, with few storm events. Winter is characterized by more frequent cloud cover and rainfall as well as southerly and westerly winds (Giambelluca and Schroeder 1998). Due to the tempering influence of the surrounding Pacific Ocean and their low-latitude location, the Hawaiian Islands experience extremely small diurnal and seasonal variations in ambient temperature.

Local climate conditions in Hawaiʻi are influenced by its rugged, mountainous topography and the persistent flow of the trade winds (Giambelluca and Schroeder 1998). The proposed Project is located on the leeward side of the island of Maui. Mean annual rainfall in the Project area ranges from 14.23 inches to 71.91 inches, from lower elevation entrypoint off Honoapiʻilani Hwy to the uppermost portion of area, respectively (Giambelluca et al. 2014). Relatively higher rainfall typically occurs in winter months between November to March (Giambelluca et al. 2014).

In this vicinity, moisture zones are described as ranging from arid at the lowermost point of the Project area (i.e. the access road driveway) to very dry, dry, and seasonal mesic, in ascending order with increasing elevation throughout the Project area (Price et al. 2012). The daytime temperatures average in the 70s to 80s degrees Fahrenheit and nighttime temperatures in the 60s to 70s degrees Fahrenheit (Giambelluca et al. 2014). The prevailing wind direction is from the east.

The existing KWP 1 facility contributes a minor amount of greenhouse gases to the environment in the form of exhaust from vehicles traveling to and from the site. However, the continued operation of the KWP 1 facility would result in fewer greenhouse gas emissions than if the same energy were produced by fossil fuel power sources.

The EIS for the Project will provide additional information and analyze potential impacts to the climate and climate change.

C. Geology and Topography

The Project is located on the southwestern slope of the West Maui shield dome volcano on the dry leeward side of the island of Maui. The Project area and vicinity is underlain by basaltic and silicious rocks known as the Wailuku Volcanics (1.3 – 2.0 million years old) and Honolua Volcanics (1.1 – 1.3 million years old), respectively (Stearns and Gordon 1942). The Wailuku basalts are highly permeable and characterized by swarms of dikes that confine water at higher elevations. The Honolua rocks are relatively less porous and poor conductors of water (Stearns and Gordon 1942).

The Project is located on a narrow band of land running mauka to makai between Manawainui Gulch and Papalaua Gulch; the terrain within the Project area slopes downward, an average of 8-percent, toward the coastline (WSB-Hawaii 1999). Other notable topographic features in the vicinity of the Project area are Kealaloloa Ridge and two dome-shaped hills, or pu'u, located to the east (Pu'uuanu and Pu'umoe), Pu'uluau and Pōhakuloa downslope of the Project area, and the gulches and ridges of West Maui Forest Reserve to the west. Topography within the Project area has been modified from previous land uses including the construction and operation of the existing KWP 1 wind facility.

The EIS for the Project will provide additional information and analyze potential impacts to geology and topography.

D. Soils

Soils in the Project area are derived from the volcanic history of the island and subsequent erosional processes. According to the U.S. Department of Agriculture Web Soil Survey (NRCS 2019), there are six soil associations in the area of proposed Project facilities: Naiwa silty clay loam, 3 to 10 percent slopes (51%); Olelo silty clay, 3 to 15 percent slopes (13%); Oli silt loam, 3 to 10 percent slopes (23%); rock land (3%); rock outcrop (<1%); and rough broken and stony land (10%).

According to the Soil Survey of the State of Hawai'i (Foote et al. 1972), these soil types are generally not suited to mechanized production of common field crops without special management; hence their agricultural usefulness is limited to pasture and wildlife habitat. In addition, the lands in the Project area exhibit properties such as seasonal wetness, erodibility, limited rooting zone, slope, flooding, and drought that exclude them from being classified as prime or unique farmland.

Soils within the Project area have been disturbed from previous land uses including the construction and operation of the existing KWP 1 wind facility.

The EIS for the Project will provide additional information and analyze potential impacts to soils.

E. Surface and Ground Water

The Project area is primarily within the boundaries of the Island of Maui aquifer system area of Ukumehame (aquifer code 60206, as designated by the State of Hawai'i Commission on Water Resource Management [CWRM]) while the access road is within the Waikapū aquifer system (aquifer code 60101, as designated by CWRM). The Ukumehame aquifer system is located in the Lahaina Aquifer Sector which since 2022 has been designated by CWRM as a Ground Water Management Area (CWRM 2022).

There are no perennial streams or wetlands within the Project area. According to the National Hydrography Dataset and National Wetlands Inventory data, two surface water features intersect portions of the Project's access road (USFWS 2022a, USGS 2022a). Malalowaia'ole Gulch, an intermittent stream, parallels a portion of the Project's access road (east of the access road) and passes under the access road near the road's entry point off Honoapi'ilani Highway. An unnamed stream in Manawainui Gulch originates northeast of the Project area, parallels a portion of its eastern boundary and passes under the Project's access road, and continues southwest to the Pacific Ocean. NWI and NHD characterize both of these streams as intermittent and seasonally flooded (USFWS 2022a, USGS 2022a).

Relative to the coastline, the Project area is approximately 200-feet from the shoreline at its lowest elevation near McGregor Point, near the Project's entry point, and is approximately 4-miles distant from its uppermost elevation point. Near shore marine waters off the coast near McGregor Point are classified as class "A" by the Hawaii Department of Health (HDOH) (Office of Planning 2020). According to HDOH Water Quality Standards, Class "A" waters are described as "waters that their use for recreational purposes and aesthetic enjoyment be protected" (HAR 11-54-03).

The existing KWP 1 facility includes impervious and semi-impervious surfaces, which contributes to a minor increase in stormwater runoff and does not measurable reduce groundwater recharge. The impermeable surfaces are widely scattered and stormwater runoff from them is not concentrated and flows onto adjacent permeable areas. The KWP 1 facility employs stormwater best management practices (BMPs) and vegetation management to minimize erosion and sedimentation. Water needed for operations is periodically trucked into the Project area.

The EIS for the Project will provide additional information and analyze potential impacts to surface and ground water resources.

F. Natural Hazards

A natural hazard is a naturally occurring event that could negatively affect people, infrastructure, and/or the environment. Many natural hazards can be triggered by another event, though they may occur in different geographical locations; for example, an earthquake can trigger a tsunami in an entirely different geographic area. Natural hazards that can affect Hawai'i include tsunamis, flooding, hurricanes and tropical storms, earthquakes, volcanic eruptions, and wildfire.

Potential flood hazards are identified by the Federal Emergency Management Agency National Flood Insurance Program and are mapped on Flood Insurance Rate Maps. The maps classify land into zones depending on the potential for damage and inundation during flood events. The Project area is mapped by Flood Insurance Rate Maps as being located entirely within Zone X (FEMA 2021). Zone X includes areas determined to be outside the 0.2-percent-annual-chance (or 500-year) floodplain. No base flood elevations or depths are shown within this zone.

Tsunamis are large, rapidly moving ocean waves triggered both by disturbances around the Pacific Rim (i.e., teletsunamis) and by earthquakes and landslides near Hawai'i (i.e., local tsunamis). No portion of the proposed Project is in the Civil Defense Tsunami Evacuation Zone (NOAA 2015).

The Hawaiian Islands are seasonally affected by Pacific hurricanes from the late summer to early winter months. The Central Pacific Hurricane season runs from June 1 to November 30. Hurricanes are relatively rare in Hawai'i; only five hurricanes have caused serious damage to the main Hawaiian Islands since 1950 (NOAA 2023). No recorded hurricane has made landfall on the Island of Maui, although Hurricane Estelle (in 1986) affected Maui through high winds and surf (Businger 1998) and Hurricane Dora played an indirect meteorological role in the devastating wildfires on Maui in 2023 (NOAA 2023). Tropical storms are similar to hurricanes, except that the sustained winds are below 74 miles per hour (Businger 1998). These events can also produce torrential rains. Tropical storms occur more frequently in Hawai'i than hurricanes and typically pass sufficiently close to Hawai'i every 1 to 2 years to affect the weather and cause serious damage in some part of the islands.

Earthquakes in Hawai'i are often linked with volcanic activity and the majority occur on and around the Island of Hawai'i associated with its presently active volcanoes of Kīlauea, Hualālai, and Mauna Loa, and Kama'ehuakanaloa off the coast (USGS 2022b). Numerous small volcanic earthquakes are triggered by eruptions and magma movement within these active volcanoes. The entire island of Maui is in seismic zone 2B, in which a g-force of 0.15g to 0.20g is expected to occur once every 50 years (USGS 1997).

Emissions of volcanic gases, such as sulfur dioxide, can react with oxygen and atmospheric moisture to produce volcanic smog (also known as vog) and acid rain (USGS 2017). Volcanic gases are emitted not only during all types of eruptions, but can also be released by inactive eruptive vents and fumaroles. Volcanic smog can increase

air pollution, decrease visibility and pose a health hazard by aggravating pre-existing respiratory conditions. Emissions of volcanic sulfur dioxide can also combine with water to form sulfuric acid which poses hazards to human health and can harm structures made of metal and other materials (USGS 2017).

Wildfires have resulted in extensive damage to life and property and pose an ecological threat to endemic flora and fauna in the Hawaiian Islands (DLNR 2016). With the cessation of cattle-grazing in the West Maui Mountains, a number of grass and weed species have proliferated, creating a heightened fire hazard. Furthermore, high wind and low relative humidity can create Red Flag conditions⁴ that can set the stage for wildfire events, such as what happened with the Lahaina Fire in 2023 (Kerber and Alkonis 2024).

In the Project area vicinity, a large fire swept across the mountain in 1999 and again in 2006 (after the KWP 1 facility commenced operation), which affected a large portion of the West Maui Mountains from the coastal highway to the existing facility (Planning Solutions, Inc. 2010). The existing KWP 1 facility was not the cause of the fire, and the wind farm equipment was protected from damage by multiple firebreaks constructed by KWP 1 staff and by extensive watering. The roadways constructed for the KWP 1 project were instrumental in providing firefighting crews access to the fire line (Planning Solutions, Inc. 2010). On-site fire-fighting resources at the existing KWP 1 facility include fire extinguishers in the operations and maintenance (O&M) building, at the substation, and in all project vehicles, as well as shovels and backpack pumps in the O&M building and maintenance vehicles. The existing facility also maintains graveled, vegetation free buffers around the O&M building, the substation, and the WTG foundation pads. There is a minor risk of potential wildfires during operations due to the use of vehicles and electrical equipment. The turbines and other facilities that would be present for the operating life of the facility do not contain equipment or involve activities that represent an unusual fire hazard. If a fire does occur on (or spreads to) the KWP 1 facility, some equipment damage is possible but is not expected to be significant. The towers supporting the turbines are steel, mounted on concrete foundations; the interconnecting electrical systems are below ground. The auxiliary operations and maintenance facilities are constructed of noncombustible construction and exterior finishes.

The EIS for the Project will provide additional information and analyze potential impacts to and from natural hazards.

G. Hazardous Materials and Wastes

Phase I Environmental Site Assessments (ESA) for KWP 1 were completed in 2005 and again in 2007, once the facility was in operation (Vuich Environmental Consultants 2005, Malama Environmental, LLC 2007). The 2005 Phase I ESA identified a few products of

⁴ Red Flag Warnings are issued by the National Weather Service and mean warm temperatures, very low humidities, and stronger winds are expected to combine to produce an increased risk of fire danger.

concern relating to any future development project or land-clearing activity (Vuich Environmental Consultants 2005). These consisted of earthen material (silt), paints, oils, antifreezes, and other fluids from automobile or on-site machinery, or leaks from on-site stocked items. All of these were present in small quantities and were determined not to constrain use of the area.

Operation of the existing KWP 1 facility requires storage of small quantities of several materials that require special handling and storage. These include mineral oil, hydraulic oil, waste oil, and cleaner/degreaser. These materials are presently stored in three container areas on the site: (1) the existing O&M building, (2) the 20 wind turbine sites; and (3) the existing substation. A Spill Prevention, Countermeasure, and Control Plan is in place for the facility and is updated every five years. The 2007 Phase I ESA report noted that regulated wastes and petroleum products are effectively managed on-site, and that secondary containment of petroleum-based wastes and effective spill management have been implemented in the daily operations of the facility (Malama Environmental, LLC 2007). Further, it noted that petroleum-based wastes and all other regulated wastes generated on-site are being properly managed and disposed of by certified waste contractors.

The EIS for the Project will provide additional information and analyze potential impacts from hazardous materials and waste.

H. Flora

Vegetation at the Project location is dominated by non-native species and consists of primarily non-native grasslands and shrublands in the lower elevation areas, and a mixture of non-native grasslands and predominately native shrublands in the uppermost elevations above 915 meters (3,000 feet). Native shrubland vegetation consists of low stature 'ōhi'a lehua (*Metrosideros polymorpha*), 'a'ali'i (*Dodonaea viscosa*), 'ulei (*Osteomeles anthyllidifolia*), and uluhe fern (*Dicranopteris linearis*). Vegetation has been disturbed from historic grazing, particularly in the mid- to lower elevations of the Project area, and construction and operation of the existing wind facility; vegetation is currently managed within the wind facility and along access roads using mechanical and chemical methods (KWP 2024). Native vegetation appears to become increasingly more dominant mauka of the Project area toward the summit of Mauna Kahālāwai (Jacobi et al. 2017).

Listed Plant Species

No listed or otherwise rare plant species have been recorded in the Project area in previous surveys for the existing wind farm (Medeiros 1996, Medeiros 1998, Hobdy 2004a, Hobdy 2004b). Additionally, no listed plant species or rare plants have been observed at the existing wind farm during operations or post-construction monitoring over the last 16 years (DOFAW n.d.).

Critical Plant Habitat

Although no listed plant species are known to occur in the Project area, USFWS have designated critical habitat for 28 listed plant species within the Project area. Montane Mesic Unit 5 encompasses approximately 11 acres of the northernmost portion of the Project area and is designated critical habitat for 10 listed plant species. The unit was only occupied by two of the species, *Remya mauiensis* and *Santalum haleakalae* var. *lanaiense*, at the time of designation (USFWS 2016). None of the 10 listed species with critical habitat in Montane Mesic Unit 5 occur in the Project area.

Lowland Dry Unit 5 encompasses approximately 98 acres of the Project area and is designated critical habitat for 18 listed species. At the time of designation, this unit was occupied by nine of the species: *Asplenium dielerectum*, *Bidens campylotheca* subsp. *pentamera*, *Cenchrus agrimonioides*, *Gouania hillebrandii*, *Kadua coriacea*, *Remya mauiensis*, *Santalum haleakalae* var. *lanaiense*, *Spermolepis hawaiiensis*, and *Tetramolopium capillare* (USFWS 2016). However, none of the 18 listed species with critical habitat in Lowland Dry Unit 5 occur in the Project area. The DOFAW Manawainui Plant Sanctuary, which is situated in Lowland Dry Unit 5 and located adjacent to the upper eastern boundary of the Project area, harbored two listed plant species, *Remya mauiensis* and *Asplenium dielerectum*, at the time of critical habitat designation (USFWS 2016).

BMPs and minimization measures for vegetation currently occurring as part of the KWP 1 project operations include the following:

- Minimizing the introduction and spread of invasive species associated with Project operations through the implementation of standard BMPs, such as washing equipment prior to entering the site from other areas.
- Implementing a Vegetation Management Plan to prevent the establishment of weeds within the Project area, including vegetation maintenance around turbine pads and relevant areas to eliminate any nēnē foraging attractions of new growth.
- Implementing a Wildland Fire Prevention and Response Plan to minimize fire impacts to vegetation.

The EIS for the Project will provide additional information and analyze potential impacts to flora in the Project vicinity.

I. Fauna

The primary habitat in the Project area is non-native grassland and woody shrubs, with a mix of non-native grasslands and native shrublands in the uppermost elevations above 915 meters (3,000 feet). No unique habitats or ecosystems occur in the Project area. The natural resources and ecosystems in the Project area are mostly disturbed from past land use and, in part, due to the construction and operation of the existing wind

facility. Wildfires, including a recent fire in 2019, have further transformed the habitats and ecosystems in the area. The Project area does not support any perennial streams or wetlands (see Section III.E).

The Project area provides habitat for both native and introduced wildlife. On-site knowledge of these species is well-known given years of post-construction monitoring and other HCP compliance activities in the Project area vicinity (KWP 2024). The Project area includes an operating wind facility and much of the area around the turbine pads and the site access roads is disturbed from the ongoing use. Non-native species documented are those common in lowland and mid-elevation environments, including avian species Eurasian skylark (*Alauda arvensis*), ring-necked pheasant (*Phasianus colchicus*), black francolin (*Francolinus francolinus*), gray francolin (*Ortygornis pondicerianus*), African silverbill (*Euodice cantans*), and house finch (*Carpodacus mexicanus*), and mammals such as mice (*Mus musculus*), rats (*Rattus* spp.), mongoose (*Herpestes javanicus*), feral cats (*Felis catus*), dogs (*Canus familiaris*), and axis deer (*Axis axis*) (DOFAW n.d., KWP 2006, KWP 2024).

Several indigenous birds protected by the Migratory Bird Treaty Act (MBTA) are known to or have the potential to occur in or fly through the Project area; these include (but are not limited to) the Pacific golden plover/kōlea (*Pluvialis fulva*), wandering tattler/ūlili (*Heteroscelus incanus*), white-tailed tropicbird/koa'e kea (*Phaethon lepturus*), sooty tern/'ewa'ewa (*Sterna fuscata*), wedge-tailed shearwater/'ua'u kani (*Puffinus pacificus*), and the endemic Hawaiian short-eared owl/pueo (*Asio flammeus sandwichensis*) (Nishibayashi 1997, Nishibayashi 1998, KWP 2006, KWP 2024). The Hawaiian short-eared owl has the potential to forage in or traverse the Project area; it is not a listed species on Maui but is state listed as endangered on the island of O'ahu and has been found as a fatality at the Project. Additional MBTA-protected species that have been introduced to the Hawaiian islands and are known to occur in the Project Area include (but are not limited to) the barn owl (*Tyto alba*) and northern mockingbird (*Mimus polyglottos*).

Four federally and state-listed wildlife species have the potential to occur or use habitat in the Project area: the Hawaiian hoary bat/'ōpe'ape'a (*Lasiurus cinereus semotus*), Hawaiian goose/nēnē (*Branta sandvicensis*), Hawaiian petrel/'ua'u (*Pterodroma sandwichensis*), and Newell's shearwater/'a'o (*Puffinus newelli*) (KWP 2006). Additionally, based on the Project location, two other listed species have the potential to occur in or transit the Project area or its vicinity—the band-rumped storm-petrel/'akē'akē (*Oceanodroma castro*), and Blackburn's sphinx moth (*Manduca blackburni*). These listed species are discussed in further detail below.

Hawaiian hoary bat ('ōpe'ape'a)

The endangered Hawaiian hoary bat has been recorded in the Project area and vicinity. Acoustic monitoring using detectors has been on-going within the existing wind farm since 2008 and intensive fatality monitoring has occurred since operations began in

June 2006 (KWP 2024). Results of acoustic monitoring show a significant increasing trend in detection rates across years (2015 to 2024), with bat activity detected on 5.4 percent of detector nights sampled during the period from July 2023 through June 2024 (KWP 2024). The Hawaiian hoary bat roosts in both native and non-native trees over 15 feet tall and forages over a wide variety of habitats and elevational ranges (Bonaccorso et al. 2015, USFWS 2021). USFWS and DOFAW recognize all woody vegetation greater than 15 feet tall as potential bat roosting habitat (DOFAW 2015, USFWS 2022b). Although trees are not abundant within the Project area, trees over 15 feet are present (e.g., Christmas berry [*Schinus terebinthifolia*] and ironwood [*Casuarina equisetifolia*]) and have the potential to be used for roosting and foraging. A total of 13 Hawaiian hoary bats have been found as fatalities at the Project, and low-wind speed curtailment was implemented as a minimization measure in 2014 and is in place annually from February 15 through December 15. Cumulative take through June 2024 is estimated at less than or equal to 32 Hawaiian hoary bats (1.78 bats per year; KWP 2024). KWP 1 has mitigated for the take of up to 50 Hawaiian hoary bats. Updated Hawaiian hoary bat fatality modeling will be completed as part of the HCP process for continuing operations of the existing facility, using KWP 1 post-construction monitoring data.

Hawaiian goose (Nēnē)

Nēnē (*Branta sandvicensis*) is listed as threatened by the USFWS and endangered by DOFAW. Nēnē have been regularly observed and documented within the Project area (KWP 2024), and active breeding has been recorded on-site (Tetra Tech, Unpublished Data). The Hana'ula nēnē release pen (no longer in use by DOFAW) exists 0.34 miles to the northwest of the Project's highest elevation point (KWP 2006). Nēnē have been observed to seek cover and nest under on-site vegetation, and to fly through or within the vicinity of the Project area in transit to and from areas with known populations. In addition to having strong breeding site fidelity, nēnē appear to be attracted to habitat features that are within the site, such as woody vegetation. Nēnē is a Covered Species under the HCP of the existing KWP 1 wind farm and 37 nēnē have been detected as fatalities during regular downed wildlife monitoring that occurs at the wind farm as part of HCP compliance or incidentally (KWP 2006, KWP 2024). Cumulative take through June 2024 is estimated at less than or equal to 55 nēnē (3.06 nēnē per year; KWP 2024). KWP 1 has mitigated for 45.4 nēnē and is currently expanding its mitigation activities for this species. Updated nēnē fatality modeling will be completed as part of the HCP process for continuing operations of the existing facility, using KWP 1 post-construction monitoring data.

Listed Seabirds

The endangered Hawaiian petrel/ 'ua'u, the threatened Newell's shearwater/ 'a'o, and the endangered band-rumped storm-petrel/ 'akē'akē (collectively referred to as listed seabirds) have been observed within or transiting the Project area ('ua'u and 'a'o) or have the potential to occur ('āke'āke). Suitable nesting habitat does not exist in the Project area. However, because suitable nesting habitat exists in nearby areas at upper

elevations, it is possible these birds could fly over the Project area at night while transiting between nest sites and the ocean during the breeding season. Results from radar and night-visual surveys during the fledging period observed low numbers of both the Hawaiian petrel and Newell's shearwater regularly flying over the Project area to and from their nesting sites in the uplands of the West Maui mountains (Cooper and Day 2004). A total of eight Hawaiian petrel fatalities have also been detected during monitoring at the existing wind farm with an estimated cumulative take of 23 petrel (1.28 petrel per year) and has mitigated for more than 38 petrel (KWP 2024). No Newell's shearwater or band-rumped storm petrel have been observed as fatalities (KWP 2024).

There are an estimated 1,600 breeding pairs of Hawaiian petrel on the island of Maui, the majority of which may reside within Haleakalā National Park, which recorded 1,500 pairs by the 2010s with another 100 pairs in West Maui (as cited in Pyle and Pyle 2017). Newell's Shearwater have been documented breeding at the Makamaka'ole mitigation site in West Maui. Band-rumped storm petrel have not been observed at the site, and while suspected of breeding on Maui have not been confirmed (as cited in Pyle and Pyle 2017). Updated seabird fatality modeling for the Hawaiian petrel and Newell's shearwater will be completed as part of the HCP process for continuing operations of the existing facility, using KWP 1 post-construction monitoring data.

Blackburn's Sphinx Moth

The endangered Blackburn's sphinx moth occurs in dry to mesic areas on the islands of Maui, Hawai'i, and Kaho'olawe. Larvae of the Blackburn's sphinx moth feed on plants in the nightshade family (Solanaceae), including two listed 'aiea (*Nothoecstrum*) species and the non-native tree tobacco (*Nicotiana glauca*). (USFWS 2005). Larvae take 65 days to develop to adulthood, but pupae may remain in torpor in the soil for up to a year. Adult moths are believed to feed on several native plant species, including hala pepe (*Pleomele auwahiensis*), maiapilo (*Capparis sandwichiana*), 'ilie'e (*Plumbago zeylanica*), and koali'awa (*Ipomea indica*) (USFWS 2003, USFWS 2005).

The native, larval host plants for Blackburn's sphinx moth (which are considered primary constituent elements required by the moth larvae for foraging, sheltering, maturation, and dispersal [USFWS 2003]) do not occur in the Project area. The non-native tree tobacco, one of its host plants, is common in disturbed lowland dry areas on Maui. While the non-native tree tobacco has rarely been observed in the Project area, current operation staff remove tree tobacco under 3 feet (according to agency guidelines; USFWS 2022b) to prevent attracting Blackburn's sphinx moth. By implementing this avoidance and minimization measure provided by USFWS, Blackburn's sphinx moth is unlikely to occur in the Project area.

Wildlife Critical Habitat

Critical habitat has been designated by the USFWS within the Project area for two endangered forest bird species—the crested honeycreeper/'akohekohe (*Palmeria dolei*)

and Maui parrotbill/kiwikiu (*Pseudonestor xanthophrys*) (USFWS 2016). Montane Mesic – Unit 5 encompasses approximately 11 acres of the northernmost portion of the Project area, and is unoccupied critical habitat for the crested honeycreeper and Maui parrotbill. Neither of these forest bird species are known to occur within or near the Project area. Additional critical habitat for these two birds occurs in the vicinity of the Project area including in Lowland Mesic – Unit 3 to the northwest and Wet Cliff – Unit 6 and Montane Wet – Unit 7 to the north (USFWS 2016).

Habitat Conservation Plan and Avoidance, Minimization, Mitigation

The Project would utilize over 18 years of post-construction monitoring data from implementation of the HCP for the existing wind farm to assess risk to listed species. A new HCP is currently being prepared to address potential impacts to listed species in the Project area as part of the continued use of the KWP 1 wind project (i.e. the Proposed Action) and will include mitigation measures for any authorized take.

General BMPs that may be implemented to minimize and avoid impacts to listed wildlife species include avoiding the use of nighttime lighting that could attract seabirds, and the use of operational on-site lighting at Project facilities known to minimize attraction. The Project would continue to avoid creating areas with standing water and would continue to manage woody vegetation to minimize attracting the Hawaiian goose. The Project would avoid trimming or removal of vegetation taller than 15 feet (4.6 meters) between June 1 and September 15, when juvenile Hawaiian hoary bat that are not yet capable of flying may be roosting in the trees and fitting any fences that are erected as part of the Project with barbless top-strand wire to prevent entanglements of the Hawaiian hoary bat on barbed wire. Additionally, to minimize impacts on Hawaiian hoary bat the Project would continue to implement low wind speed curtailment, and would also explore bat deterrents or other new technologies that may be available during the life of the project. Additional measures are expected to include (but may not be limited to) contractor training and education, and stop work requirements if a listed species is observed on site during construction or operations.

The EIS for the Project will provide additional information and analyze potential impacts to fauna in the Project vicinity.

J. Historical and Archaeological Resources

HRS Chapter 6E, Historic Preservation, requires the identification, evaluation, and assessment of adverse effects of State and local undertakings on cultural resources. Implementation of these requirements is accomplished by HAR 13-198, the Hawai'i Register of Historic Places and National Register of Historic Places programs, and HAR 13-276, Rules Governing Standards for Archaeological Inventory Surveys and Reports.

An archaeological survey was performed as part of the final EIS (WSB-Hawaii 1999) by Archaeological Research Institute, Inc. (Tomonari-Tuggle 1998). The project site is located in the ahupua'a of Ukumehame, which is part of the Lāhainā moku (DTL 2023). As no changes to the existing KWP 1 infrastructure are proposed and no ground

disturbance is proposed, impacts to historic and archaeological resources are not anticipated.

The KWP 1 CDUA permit requires preservation of Heiau 5232, which is located in the general vicinity of the facility site but a notable distance from any development. The existing access roadway crosses the historic Lahaina Pali Trail. At its closest point, the Lahaina Pali Trail is situated approximately 3,000 feet (more than one-half mile) from the closest wind turbine.

The EIS for the Project will provide additional information on historic and archaeological resources and will analyze potential impacts to these resources.

K. Cultural Resources

A Cultural Impact Assessment is being conducted by the Applicant and will be incorporated into the Draft EIS. A cultural brief was prepared by DTL on behalf of the Applicant and is available on the Applicant's website for review (DTL 2023).

According to the cultural brief, the Project area's most significant cultural and historical resource is an ancient trail that formed part of a larger ancient roadway, sections of which were paved with stone, that was known as Ke Alaloa. Near its highest elevation point, the trail intersects with the ridge line along which the KWP 1 wind turbines are situated (DTL 2023). It's not clear whether the trail that traverses the project site predates Ke Alaloa, but it served as the most direct land route between Lāhainā and Wailuku and was colloquially referred to as the "pali trail" ("pali" is Hawaiian for cliff) (DTL 2023). In circa 1900, a one-way dirt road was built closer to the base of the cliffs, at which point the pali trail fell out of use (DTL 2023). Today, the trail serves as a recreational hiking trail and is managed by Nā Ala Hele, the State of Hawai'i's trail and access program.

Many species of birds and bats that occur in the vicinity of the Project are recognized as culturally important. The native animal species that have been impacted by the wind turbines at Kealaloloa are well documented. The four state and federally-listed species covered in the KWP 1 HCP approved in January 2006, the 'ōpe'ape'a (Hawaiian hoary bat or *Lasiurus cinereus semotus*), the 'ua'u (Hawaiian petrel or *Pterodroma sandwichensis*), the 'a'o (Hawaiian shearwater or *Puffinus newelli*), and the nēnē (Hawaiian goose or *Branta sandvicensis*), are culturally important natural resources.

The EIS for the Project will provide additional information on cultural resources and will analyze potential impacts to these resources.

L. Noise

The State of Hawai'i regulates noise through HAR, Title 11, Chapter 46, "Community Noise Control," and provides for the prevention, control, and abatement of noise pollution in the State. "Noise" is defined as "*any sound that may produce adverse physiological or psychological effects or interfere with individual or group activities, including but not limited to communication, work, rest, recreation and sleep.*" Under

certain conditions, noise can interfere with human activities at home or work and affect human health and well-being (HAR 11-46-2).

The HDOH regulates noise levels by imposing maximum allowable sound levels at property boundaries for various zoning districts (Table 1). These noise limits are absolute (i.e., not relative to ambient conditions), are prescribed by receiving zoning class and time period, and are enforceable at the facility property boundaries. Zoning districts are determined by ordinances adopted by the applicable local, county or state government agencies. For mixed zoning districts, the primary land use designation is used to determine the applicable zoning district class and maximum permissible sound level.

Table 1. Hawai'i Maximum Permissible Sound Levels by Zoning District

Receiving Zoning Class District	Maximum Permissible Sound Level (dBA)	
	Daytime (7:00 a.m. – 10:00 p.m.)	Nighttime (10:00 p.m. – 7:00 a.m.)
Class A Zoning districts include all areas equivalent to land zoned residential, conservation, preservation, public space, or similar type.	55	45
Class B Zoning districts include all areas equivalent to lands zoned for multi-family dwellings, apartment, business, commercial, hotel, resort, or similar type.	60	50
Class C Zoning districts include all areas equivalent to lands zoned agriculture, county, industrial, or similar type.	70	70
Source: HAR §11-46, "Community Noise Control."		

Because the KWP 1 site is in the State Conservation District, the Class A limits are applicable.

Noise levels may exceed the prescribed limits up to 10 percent of the time within any 20-minute period. The maximum permissible sound level for impulsive noise is 10 A-weighted decibels (dBA) above the maximum permissible sound levels for the given receiving zoning class district. HAR 11-46-5 provides further exemptions to these limits. Additionally, with issuance of a construction permit, noise produced by portable or movable equipment, such as construction equipment, are not subject to the 70 dBA limit under HDOH noise regulations. Instead, construction noise levels above these limits are regulated using a curfew system whereby noisy construction activities are not normally permitted during nighttime periods, on Sundays, and on holidays. Thus, with issuance of a construction permit, construction activities, which could typically exceed the sound level limit, are normally allowed during the normal daytime work hours on weekdays and on Saturdays. If construction activities exceeding the maximum permissible levels would

take place outside of these allowed construction hours, a community noise variance must be obtained from HDOH.

There are several ambient sound sources in the Project area. HAR defines “ambient or background noise” as the totality of sounds in a given place and time, independent of sound contribution of the specific source being measured. Ambient sound sources in the Project area include the turbines at the existing KWP 1 facility, vehicles traveling along the facility access road, rain, wind blowing through low brush and grass, insects, birds, and mammals.

The results of noise modeling for KWP 2, which is adjacent to KWP 1, suggest that the continued use of the KWP 1 facility would be in general compliance with the 55 dBA daytime limit but may exceed the Community Noise Rule, Class A nighttime property line sound level limit of 45 dBA during operations (Planning Solutions Inc. 2010). However, the only persons who would be in a position to hear the facility are (i) individuals working at the KWP 1 and II facilities, (ii) persons using the existing road to access the forest and conservation land above the KWP 1 and II facilities, and (iii) individuals and groups using the Lahaina Pali Trail. The first two categories of people are engaged in activities that would not be adversely affected by the forecast sound levels, either because they are present as part of their work on the wind farm itself or are simply briefly transiting the area (Planning Solutions Inc. 2010).

The EIS for the Project will provide additional information and analyze potential impacts from noise.

M. Visual Resources

The Project site is located on the upper slope of Ukumehame, above McGregor Point. The ridge and table lands afford sweeping panoramas of Haleakalā and Mā‘alaea Bay to the east, of Kaho‘olawe and Molokini Islands to the south, and of the West Maui Mountains to the west. The existing KWP 1 wind farm axillary facilities (e.g., substation, operation and maintenance building) are relatively low-lying; these structures are not visible/barely visible from the lowland areas where most people are present. However, the existing KWP 1 turbines approximately 90 meters (296 feet) and are visible from a substantial part of the island, including Mokulele Highway (at distances ranging from 5 to 8 miles) and the Kīhei and Wailea shorelines (at distances of 6 to 23 miles) to the east (Planning Solutions Inc. 2010). The existing KWP 1 turbines are also visible from portions of the Lahaina Pali Trail and from aircraft on approach to Kahului airport. The mountainous terrain obstructs most views of the KWP 1 facility from the north and west; the existing turbines are not visible from Kahului, from Honoapi‘ilani Highway or Highway 380 as they cross the Maui isthmus from Kahului to Mā‘alaea, or from Mā‘alaea Harbor (Planning Solutions, Inc. 2010). The existing turbines are also not visible from any points on West Maui except the mountainous area immediately surrounding the existing facilities.

HAR 11.200.1-13 requires applicants to identify potential adverse impacts on scenic vistas and view planes identified in county of state plans or studies. Neither the Maui Island Plan (County of Maui Planning Department 2012) nor the West Maui Community Plan (County of Maui Planning Department 2022) or Kihei-Makena Community Plan (County of Maui Planning Department 1998) identify scenic sites or visual plains within the Project area. However, it is the general policy of the Maui Island Plan and community plans to protect mauka-to-makai and makai-to mauka view planes and protection of views of significant geographic features and landforms including Mauna Kahalawai (West Maui Mountains) – especially as these views/view planes relate to public views from scenic roadways, parks, and other public access points.

Because the proposed Project is a continuation of the existing KWP 1 facility, the turbines do not represent a new feature on the mountainside. For viewers who have grown accustomed to the existing wind farm and have positive attitudes toward renewable energy, the continuation of the KWP 1 facility would tend to go largely unnoticed. For those who are already bothered by the intrusion of large structures into an area that is otherwise natural, the continued presence of the turbines would likely still be considered an imposition.

The EIS for the Project will provide additional information and analyze potential impacts to visual resources.

N. Land Use

The Project area is currently used for the existing 20-turbine, 30-MW KWP 1 wind farm including the turbines, ancillary facilities (e.g., substation, maintenance facility), internal access roads and a parking/staging area. Land within the Project area is within the State Conservation District, County Agricultural (AG) Zone and is located on the boundary of the West Maui and Kihei-Makena Community Plans. The very lower portion of the access road (approx. 1,200 ft) and the parking lot/staging area is within the SMA.

In addition to the KWP 1 wind farm facilities, a few low intensity uses are present near the area:

- The area *mauka* and west of the Project site is part of the West Maui Forest Reserve.
- The area makai and south of the Project site is the KWP 1I wind farm facility.
- The Lahaina Pali Trail traverses the hillside at an elevation of approximately 1,500 feet south of the Project area. The trail passes through the upper portion of the adjacent KWP 1I facility.
- Two Hawaiian Electric transmission line easements cross Kaheawa Pastures in a southwesterly direction from Mā'alaea. The first easement (with 2 power lines) crosses the existing KWP 1 facility at an elevation of approximately 2,300 feet;

the second easement (with 1 power line) crosses about 1,900 feet makai of the Project site.

Maalaea, the closest town located approximately 2.5 miles southeast of the Project area encompasses a diverse mix of land uses, including residential, business, and resort. The Project area is also located approximately 9 miles southwest of the Kahului International Airport and 12 miles southeast of Kapalua airport.

State Land Use District

The entire Project site is within state conservation district. HRS Chapter 205-5 specifies that conservation districts shall be governed by the State of Hawai'i DLNR pursuant to HRS Chapter 183C; uses in the Conservation District are regulated by the DLNR Office of Conservation and Coastal Lands under HAR Title 13, Chapter 5.

HAR 13-5 classifies conservation lands into five subzones: protective, limited, resource, general, and special. HAR 13-5 identifies the land uses that are allowed in each of the subzones and the specific type of permit required for those land uses, per the following designations: (A) requires no permit from the department or board, (B) requires a site plan approval by the department, (C) requires a departmental permit, or (D) requires a board permit and where indicated, a management plan.

The Project Site is within the general and protective subzones. KWP 1 currently operates under the terms and conditions of CDUP No. MA-3103 as approved by the Board on January 24, 2003, and amended on June 24, 2005. The facility's existing CDUP does not have an expiration date and as no construction or ground disturbance is proposed as part of the Project, the Applicant does not anticipate a modification to the CDUP would be required for the Proposed Action.

Maui County Zoning

Land use is also regulated by the county through zoning districts, within which district standards are specified according to different types of use. The County of Maui's Comprehensive Zoning Ordinance identifies the uses that are considered appropriate in each of the County's zoning districts and establishes the minimum standards and conditions that should be met if those uses are to be permitted.

The Project is located in County Zone (AG) Agriculture. As the Project is within the State Conservation District, pursuant to HRS §205-5, land use is governed by DLNR.

Maui County SMA

The SMA is a designated area extending inland from the shoreline (ranging from one hundred yards to several miles in width) and is regulated by the counties under the Hawai'i CZM program. Within the Project area, the very lower portion of the existing access road (approximately 1,200 ft) and the existing parking lot/staging area are within the SMA. Kaheawa Wind's intention is to utilize existing roads and staging areas and

avoid development in the SMA. Therefore, no SMA assessment or permit would be required.

West Maui and Kihei-Makena Community Plans

The Project site is located on the boundary of the West Maui and Kihei-Makena Community Plans. The Community Plans are vision plans and are not regulatory; however, the West Maui and Kihei-Makena Community Plans include policies in support of alternative energy.

The Project is not anticipated to impact the current land uses in the areas adjacent to the Project area and would not interfere with continuing recreational use of the Lahaina Pali trail. With the decommissioning and removal of Project facilities at the end of the Project's useful life (estimate 20 year) the land would be restored back to its previous use (open space). The EIS for the Project will provide additional information and analyze potential impacts to land use.

O. Transportation and Traffic

Roadways and Traffic

The existing KWP 1 wind farm facility is accessed by the Kaheawa Pastures access road that begins at Honoapi'ilani Highway and runs north to the conservation lands mauka of the KWP 1 facility. The existing Kaheawa Pastures access road is owned by the State of Hawai'i and was upgraded in conjunction with the development of KWP 1. Access is controlled by DLNR, which shares responsibility for the road's upkeep with KWP 1 LLC.

Honoapi'ilani Highway is one of Maui's major coastal roadways; the State-owned highway is heavily traveled by tourists and commuters, especially during daylight hours. The Hawaii Department of Transportation conducts regular traffic counts on Honoapi'ilani Highway, the annual average daily traffic count near the KWP access road (between MP 6.11 and 17.65) is 25,900 vehicles (HDOT 2022). It connects with other major highways and provides ready access to the harbor facilities at Kahului where the equipment and other construction materials needed for the proposed project would be landed.

Harbors

Kahului Harbor is the only harbor on Maui suitable for unloading heavy equipment and materials.

Airports

The Project site is located approximately 12 miles from the Kapalua Airport and about 9 miles from Kahului International Airport. Because of the height of the proposed replacement turbines, the Federal Aviation Administration reviewed the existing KWP 1 turbines and determined that, with proper lighting, they would not constitute a hazard to air navigation (Planning Solutions Inc. 2010).

The continued operation and maintenance of the KWP 1 facility would not generate significant amounts of passenger or cargo traffic on Maui's roads, harbors, or airports. Impacts on traffic during operations are expected to be negligible. The EIS for the Project will provide additional information and analyze potential impacts to transportation and traffic.

P. Public Services and Utilities

Electric

Hawaiian Electric provides electrical service to the Island of Maui. A Hawaiian Electric transmission line easement containing two 69-kilovolt transmission circuits cross the Project area in a southwesterly direction from Mā'alaea. The existing KWP 1 facility obtains the electrical power it needs for operational loads from the uppermost of the three circuits via step-down transformers located at the existing KWP 1 substation. Likewise, power generated by the KWP 1 facility is fed into the Hawaiian Electric grid via the same circuit.

Telecommunications

A number of operators provide telephone, wireless, and internet services on the island of Maui. Telephone, wireless, and internet services are available throughout the urbanized areas of the West Maui region with minimal gaps in service (Chris Hart & Partners, Inc. 2006). Telecommunications provided by Hawaiian Telcom exist at the KWP 1 substation.

Water and Wastewater

There are no Maui County wastewater or water systems that service the existing KWP 1 facility. All of the water needed for the facility is trucked up to the site.

Solid Waste

The County of Maui Solid Waste Division operates and maintains all solid waste collection and transfer stations on the island. The Central Maui Landfill services the Project area.

Gas

Hawaii Gas is the only company responsible for providing gas to the State and is regulated by the Hawaii PUC. The KWP 1 facility is not connected to the Hawaii Gas supply.

The Project is not expected to negatively impact the existing electric, telecommunication, water and wastewater system, solid waste and gas utilities. During operations, the proposed Project would consume only small amounts of electrical power, and this would be delivered through the existing substation and power distribution equipment. All of the water needed for the facility operations would be trucked up to the site as currently occurs; no new potable water service would be required. Similarly, no significant impacts on telecommunications or other utilities are anticipated. The proposed Project would

continue to provide a renewable source of electricity to the existing power grid. The EIS for the Project will provide additional information and analyze potential impacts to public services and utilities.

Q. Socioeconomic Characteristics

No one lives on the parcel of the existing KWP 1 facilities or on immediately adjoining parcels. The nearest settlements are Mā'alaea, which is approximately 2 miles to the southeast and Olowalu, which is approximately 5 miles to the west. Mā'alaea's population in 2020 was approximately 310 and approximately 100 in Olowalu (U.S. Census Bureau 2020). The median household income in Mā'alaea was \$91,250 in 2021 and \$95,313 in Olowalu, which is higher than the median household income in Maui County, which was estimated at \$88,249 in 2021 (U.S. Census Bureau 2021).

The existing KWP 1 facility contributes to the local economy by providing jobs to residents, expenditures for materials and outside services, and state revenues in the form of excise taxes, lease revenues, and other taxes.

The proposed Project is not expected to have an adverse impact on the existing population near the Project area and no persons would be displaced by the Project. Additionally, the Project is not anticipated to place unexpected demands or additional burdens on infrastructure, housing, or public services in the Project's vicinity.

Direct economic effects of the continued operation of the KWP 1 facility include: (1) ongoing employment of facility staff (which would be relatively limited); (2) ongoing expenditures for materials and outside services; and (3) State revenues in the form of excise taxes, lease revenues, and other taxes.

The EIS for the Project will provide additional information and analyze potential impacts to socioeconomics.

R. Secondary and Cumulative Impacts

Cumulative impacts are defined under HAR Chapter 11-200.1-2 as:

[T]he impact on the environment that 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 result from individually minor but collectively significant actions taking place over a period of time.

An assessment of the project's potential cumulative impacts will be included in the Draft EIS.

The Draft EIS will also take into account ongoing and reasonably foreseeable actions that would overlap in time and space with the effects of operation of the Project.

"Secondary impacts" or "indirect effects" are defined under HAR Chapter 11-200.1-2 as:

[A]n effect that is caused by the action and is later in time or farther removed in distance, but is still reasonably foreseeable. An indirect effect may include growth-inducing effect and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air, water, and other natural systems, including ecosystems.

Secondary impacts are those that are caused by the project, but occur later in time or farther removed in distance, but are still reasonably foreseeable. They can be viewed as actions of others that are taken because of the presence of the project. Secondary impacts from highway projects, for example, can occur because they can induce development by removing one of the impediments to growth. Secondary impacts can also be favorable, for example, for renewable energy projects, such as this one, it is expected that secondary impacts could include improved air quality or long-term reduction in impacts from climate change. An assessment of the project's potential secondary impacts will be included in the Draft EIS.

IV. Alternatives to the Proposed Action

The Draft EIS will include a No Action Alternative where the Proposed Action would not occur. Under this alternative, the existing KWP 1 facility would not continue operations for 20 years and would instead be decommissioned. Other reasonable alternatives that could meet the purpose and need for the action may be developed in response to scoping comments.

V. Scoping Process

The Applicant has prepared this EISPN pursuant to the State Environmental Review process, as required and defined by HRS Chapter 343 and HAR Chapter 11-200.1. As part of the HRS 343 process, the Applicant will consult with elected officials, agency representatives, community leaders and community members during the scoping period. Information obtained from this consultation is important to identify issues and provide guidance on the scope of the analysis for the Draft EIS.

Publication of this EISPN in the State of Hawai'i's ERP semi-monthly publication *The Environmental Notice* starts a 30-day public review and comment period, within which agencies, groups and individuals have an opportunity to provide written comments regarding potential environmental effects from the Project. Information collected during the scoping process will be incorporated into the Draft EIS to identify important issues and provide guidance. The Applicant will respond to substantive comments (defined as those pertaining to the scope of the EIS), with comments and applicable responses included in the Draft EIS.

HAR Chapter 11-200.1-23 requires a public scoping meeting to be held during the 30-day EISPN comment period. An in-person public scoping meeting will be held at the Malcolm Center, 1305 North Holocono Street, Suite 5, Kihei, Hawaii on Tuesday, October 29, 2024, from 5:30 – 7:30 PM. In addition to receiving oral and written comments at the EIS scoping meeting, written comments may also be submitted if received or postmarked on or before November 22, 2024. All comments received are a part of the public record. All personal identifying information (for example, name, address, etc.) voluntarily submitted by the commenter may be publicly accessible. Do not submit confidential business information or otherwise sensitive or protected information.

Please submit copies of your comments to both the DLNR and the EIS Consultant (Tetra Tech, Inc.). Please send comments with the subject line of “KWP 1 Continued Use Project EIS Preparation Notice” and include your email address if possible. Transmission of comments may be via email or U.S. Postal Service (USPS) mail. However, attachments to electronic comments will be accepted in Microsoft Word, Excel, or Adobe PDF file formats only.

DLNR email: Lauren.e.yasaka@hawaii.gov
(include KWP1 Continued Use EISPN in the subject line)

DLNR USPS mail: Attention: KWP 1 Continued Use EISPN
Department of Land and Natural Resources/Land Division
1151 Punchbowl Street, Room 220
Honolulu, HI 96813

Consultant email: Leslie.McClain@tetrattech.com
(include KWP1 Continued Use EISPN in the subject line)

Consultant USPS mail: Attention: KWP1 Continued Use EISPN
Tetra Tech, Inc.
737 Bishop St., Suite 2000
Honolulu, HI 96813

FOR FURTHER INFORMATION CONTACT:

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Kaheawa Wind Power, LLC
200 Liberty Street, 14th Fl, New York, NY 10281
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612-240-9830

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Kaheawa Wind 1 Continued Use Project

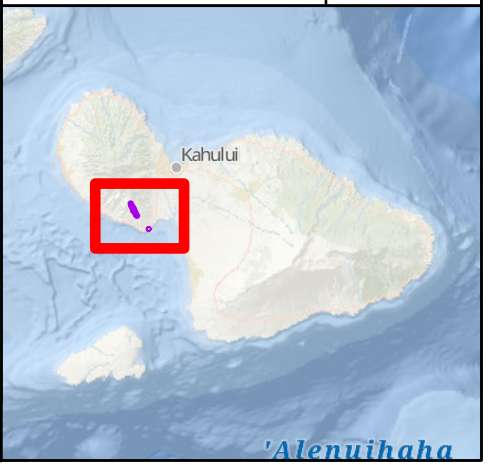
Figure 1 Project Vicinity

MAUI COUNTY, HI

-  Project Area
-  City/Town
-  State Highway



Reference Map

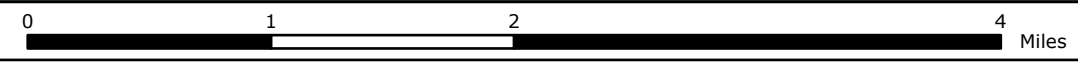


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NOT FOR CONSTRUCTION

Alenuihaha

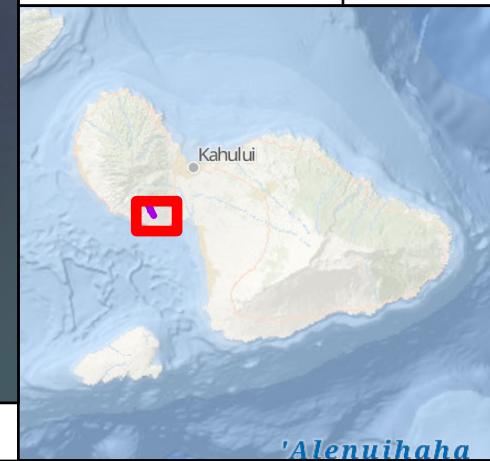
Kaheawa Wind 1 Continued Use Project

Figure 2 Site Plan

MAUI COUNTY, HI

- Project Area
- TMK Boundary
- State Highway
- Local Roads
- Existing Facilities**
 - KWP 1 Existing Wind Turbines
 - HECO Switchyard and KWP 1 Substation
 - HECO Switchyard and KWP 2 Substation
 - O&M Building and Yard
 - Warehouse Building and Yard
 - Battery Storage Facility
 - Hawaiian Electric Transmission Lines

Reference Map



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