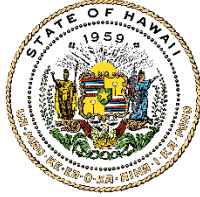
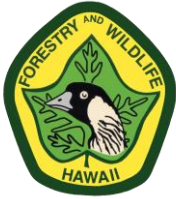


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MANAGEMENT

RYAN K.P. KANAKA'OLE

September 27, 2024

Endangered Species Recovery Committee  
State of Hawai'i  
Honolulu, Hawai'i

**SUBJECT:** Division of Forestry and Wildlife Summary of the Kaheawa Wind I Power Key Concepts of New Habitat Conservation Plan in the Ahupua'a of Auwahi on the island of Maui

Dear Committee Members,

The Department of Land and Natural Resources, Division of Forestry and Wildlife (DOFAW) is respectfully requesting the Endangered Species Recovery Committee (ESRC) to review and provide recommendations regarding the Kaheawa Wind I Power Key Concepts of New Habitat Conservation Plan ("KWP I HCP Concept"). The KWP I Amendment Concept details the proposed amendments to the Kaheawa Wind Power I Habitat Conservation Plan dated January 2006 ("KWP I HCP") and Incidental Take Licenses (ITL-08) by increasing the permitted incidental take limit for four Covered Species, updating corresponding mitigation, and extending the license term to an unspecified period of time.<sup>1</sup>

The KWP I HCP Concept was prepared by Terraform on behalf of Kaheawa I Wind Farm, LLC (licensee) and represents the initial concepts for the amending the KWP I HCP and ITL-08. The State Incidental Take Licenses for Kaheawa Wind Farm I (ITL;) DOFAW responded to receipt of the KWP I HCP Concept and provided comments in conjunction with USFWS, and met with both Terraform and Tetra Tech, a consultant for Terraform, to discuss these comments. DOFAW requests the ESRC review and provide recommendations on the KWP I HCP Concept.

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<sup>1</sup> The licensee was selected to enter into a new Power Purchase Agreement with Hawai'i Electric for 20 years. ITL-08 expires January 2026. The licensee seeks to extend ITL-08 for Covered Species beyond the current expiration date.

**Summary of Kaheawa Wind I Power Key Concepts of New Habitat Conservation Plan dated July 2024**

**I. Background**

Kaheawa Wind Power LLC constructed the Kaheawa Wind Power I Project (KWP I) in 2005 and 2006, and the project became commercially operational on June 22, 2006. The project is a 30-megawatt (MW) commercial wind energy generation facility consisting of 20 wind turbines which sells electricity to the Hawaiian Electric Company (Hawaiian Electric). An Incidental Take License and associated Habitat Conservation Plan (HCP) was approved by Board of Land and Natural Resources on January 13, 2006 for the project. The current ITL covers the incidental take of four (4) species, collectively referred to as the Covered Species: ‘ōpe‘ape‘a, nēnē, ‘ua‘u, and ‘a‘o and expires January 2026 (Table 1). Mitigation has been completed for ‘ōpe‘ape‘a and a‘o.

Table 1: Summary of permitted Covered Species from ITL-08. This table also includes the status of mitigation for these species through FY2024.

| Covered Species   | Permitted level of Take |                      |   | Number detected <sup>3</sup> | Total Adjusted Take through FY 2024 (80% UCL) <sup>4</sup> | Mitigation  |
|---|-------------------------|----------------------|---|------------------------------|--|---|
|   | Baseline Tier (Tier 1)  | Higher Tier (Tier 2) | Notably Higher Tier (Tier 3) <sup>2</sup> |                              |  |   |
| ‘Ōpe‘ape‘a (Hawaiian hoary bat; <i>Lasiurus semotus</i> ) | 20                      | 50                   | 100-200                                   | 13                           | ≤32  | Completed through Tier 2                              |
| Nēnē (Hawaiian goose; <i>Branta sandvicensis</i> )        | 60                      | 80-100 <sup>1</sup>  | 100-200                                   | 35                           | ≤54  | On-going  |
| ‘Ua‘u (Hawaiian petrel; <i>Pterodroma sandwichensis</i> ) | 25                      | 38                   | n/a                                       | 8                            | ≤23  | Completed through Tier 2 (awaiting DOFAW concurrence) |
| ‘A‘o (Newell’s shearwater; <i>Puffinus auricularis</i> )  | 4                       | 8                    | n/a                                       | 0                            | No take observed   | Completed through Tier 1                              |

|   |  |  |  |  |  |  |
|---|--|--|--|--|--|--|
| <i>newelli</i> )  |  |  |  |  |  |  |
| <sup>1</sup> Although identified in the HCP and the federal Incidental Take Permit (ITP), the ITL does not explicitly identify higher level of take for nēnē.<br><sup>2</sup> Although identified in the HCP and ITP, the ITL does not explicitly identify notably higher level of take for any species.<br><sup>3</sup> Includes standardized finds and incidental finds<br><sup>4</sup> Includes indirect take; based on preliminary data analysis to be updated as needed after annual reporting |  |  |  |  |  |  |

## II. Proposed Incidental Take, Avoidance, Minimization, Mitigation, and Adaptive Management Actions

- A. The licensee is requesting to extend the term of license ITL-08 beyond 2026, but the term is not specified in the KWP I HCP Concept. The licensee is requesting permitted incidental take for all four Covered Species currently on ITL-08.

KWP is requesting to amend ITL-08 for the four Covered Species, for take that would cover take that may occur beyond January 2026, as well as increasing the permitted amounts of take accordingly to account for the longer permit term (Table 2).

Table 2: Requested permitted incidental take limits for Covered Species.

| Covered Species   | Requested incidental take   |
|---|---|
| ‘Ōpe‘ape‘a<br>(Hawaiian hoary bat; <i>Lasiurus semotus</i> )        | Based on a projected direct take of 67 ‘ōpe‘ape‘a and indirect take of 5 adult equivalent ‘ōpe‘ape‘a (rounded up to the nearest whole ‘ōpe‘ape‘a), the requested take limit is <b>72</b> . This falls within the notably higher take scenario in the current HCP.   |
| Nēnē<br>(Hawaiian goose; <i>Branta sandvicensis</i> )               | Based on a projected direct take of 127 nēnē and indirect take of another 5 adult equivalents (rounded up to the nearest whole nēnē), the total requested permitted take is <b>132</b> . This is above the currently permitted ITL limit of 60 nēnē, but within the notably higher take scenario considered in the current HCP and that permitted in the ITP. |
| ‘Ua‘u<br>(Hawaiian petrel; <i>Pterodroma sandwichensis</i> )        | The total indirect take at the Project is predicted to be the equivalent of up to 8.38 additional ‘ua‘u adult equivalents. Combined with the direct take of 37 ‘ua‘u, this results in a requested take limit of <b>46</b> (rounded up to the nearest whole ‘ua‘u).  |
| ‘A‘o<br>(Newell’s shearwater; <i>Puffinus auricularis newelli</i> ) | Based on a projected direct take of 1 ‘a‘o, and an indirect take of 1 ‘a‘o (rounded up to the nearest whole ‘a‘o), the projected take is 2 ‘a‘o. However, KWP is currently permitted for <b>4 at the baseline level, and requests to remain permitted for that amount.</b>  |

Note that for ‘ōpe‘ape‘a, nēnē, and ‘a‘o, the requested take limits still fall within the higher or notably higher tiers contemplated in the current HCP. The need for an HCP and ITL

amendment is largely driven by the potential life extension of the project. KWP I was recently selected by Hawai'i Electric's Stage 3 Request for Proposals (RFP) for a new 20-year term. Therefore, KWP I requires ongoing incidental take coverage beyond the current license terms which expires in January 2026. In addition, take of the nēnē is approaching the Tier 1 limit (60 nēnē), and, as noted in Table 1, ITL-08 did not include any of the higher tiers that were included in the KWP I HCP and federal Incidental Take Permit.

- B. The licensee proposes to continue current low wind speed curtailment regimes and explore redistributing low wind speed curtailment throughout the night based on site specific acoustic data to avoid and minimize take of 'Ōpe'ape'a. The licensee proposes to implement an updated vegetation management plan to minimize nēnē nesting on the project site.

Currently, the licensee uses low wind speed curtailment from sunset to sunrise from February 15 through December 15 as an adaptive management measure. The licensee plans to explore redistributing the curtailment throughout the night based on site-specific acoustic data.

The licensee proposes to implement an updated vegetation management plan developed with concurrence from the agencies reducing the amount of woody vegetation on site. The goal is to minimize the attractiveness of onsite habitat to the nēnē. The licensee is currently discussing the possibility of banding the on-site nēnē population to allow for potential studies of the on-site population. The goal of any potential study would be to determine if the on-site population is comprised of the same individuals year over year, or if there is recruitment to the site.

- C. The licensee proposes to continue post-construction monitoring using the same methods used in the KWP I HCP which includes searching 70 m radius circle plots below each turbine.

The licensee implemented a year-round fatality monitoring program to document downed wildlife, including the Covered Species, beginning in 2006. In 2006, search plots were 180 m by 200 m rectangles centered on the project's wind turbine generators (WTG). In 2010, search plots were reduced to 73 m radius circular plots centered on each WTG. Beginning in April 2015, the downed wildlife search area was reduced relative to the previous 10 years and now consists of graded access roads and 70 m WTG pads found within a 70-meter radius circle centered on each turbine. Vegetation is removed from the search plots using various methods including hand management tools, herbicides, and power tools depending on the time of year, to reduce the potential for nēnē nesting within the project site. The licensee conducts predator control biweekly and quarterly (intensive control) at the project site. Beginning in October 2015, canine-assisted searching was implemented, with visual searching as a secondary method if conditions were not favorable for the use of dogs. In FY 2024, all searches were performed by a canine-assisted team. In FY2024, all 20 WTGs were searched for fatalities once per week. Searchers conduct carcass persistence and searcher efficiency trials using surrogates for the Covered Species.

- D. The licensee proposes to continue annual acoustic monitoring on the project site for 'ōpe'ape'a.

The licensee proposes to continue annual acoustic monitoring, which currently occurs at five (5) locations (turbines 1, 5, 13, 15, and 20), and are in process of being updated this year to

using Song Meter SM4BAT-FS and SMM-U2 microphones, incorporating the most updated technology for acoustic monitoring.

E. The licensee proposes to mitigate for 22 ‘Ōpe‘ape‘a.

Some potential mitigation action for ‘ōpe‘ape‘a include, reforestation and restoration of foraging and roosting habitats, installation of water features, and removal of invasive species that degrade water sources, roosting, and foraging habitat for the bats; conducting high-priority research, and/or land acquisition of suitable habitat and protection of that land in perpetuity.

G. The licensee proposes to continue mitigation for nēnē at Haleakalā Ranch on Maui and/or Pu‘u O Hoku Ranch on Moloka‘i.

The licensee is working with Pu‘u o Hoku Ranch on Moloka‘i and DOFAW-Maui to develop a mitigation plan involving management of the nēnē release pen on Moloka‘i following a planned translocation. The license proposes to continue to manage the Haleakalā Ranch release pen and plans are to improve the current pen as well as expand the pen, doubling the current size and potential to increase fledgling production.

F. The licensee proposes to fund mitigation with Pūlama Lāna‘i for ‘ua‘u.

The licensee is reaching out to Pūlama Lāna‘i to engage in additional mitigation work at that site. The licensee proposes to re-initiate funding of the same project for additional mitigation credits under the permit extensions. There was an excess of 8.72 credits previously achieved here that could cover the additional eight (8) ‘ua‘u requested, but because take has occurred KWP wants to continue mitigation.

G. The licensee does not propose any new mitigation for ‘a‘o because the licensee has fulfilled mitigation obligations for this species under ITL-08.

Take limits are within the amount already mitigated for, and therefore, no additional mitigation for ‘a‘o is proposed. However, KWP I and KWP II are currently working with DOFAW to resume management of the Makamaka‘ole seabird pens.

H. The licensee proposes adaptive management for mitigation of the four Covered Species.

Adaptive management measures may include the following by species:

1. **‘Ōpe‘ape‘a:** Changes to curtailment regime, increase to the cut-in speed, and addition of deterrents.
2. **Nēnē:** this may include additional/alternative vegetation management if decreasing suitability of onsite site habitat is deemed necessary. In addition, if the mitigation efforts are not producing nēnē credits at the needed levels, additional/alternative release pens or other mitigation may be implemented.
3. **‘Ua‘u:** KWP will coordinate with the USFWS and DOFAW on additional mitigation opportunities that may exist at Pūlama Lāna‘i or in other locations of interest, and work towards permit amendments as needed.
4. **A‘o:** KWP will coordinate with the agencies.

### III. DOFAW Recommendations

Research shows that effective population size of Hawaiian Hoary bats on Maui is low and there are few mitigation options on Maui for 'ōpe'ape'a, therefore DOFAW recommends the licensee implement effective avoidance and minimization measures before requesting additional take of 'ōpe'ape'a. These recommendations include the use of deterrents on every turbine paired with thermal imaging and the appropriate curtailment regime.

For mitigation of 'ōpe'ape'a, DOFAW recommends following the Hawaiian Hoary Bat Guidance for Wind Energy Projects updated in January 2021. Acreage proxy is but a minimum and should be used in conjunction with actions reflecting high quality habitat restoration that will enhance roosting habitat, edge habitat, foraging areas and habitat.

Since tiers are not being proposed, ESRC and agencies will need to ensure that the mitigation plan for any of the Covered Species that is included in the HCP amendment at the time of voting is fully developed and adequate to provide a net environmental benefit, and that there adequate adaptive management measures HCP goals are not achieved. Mitigation should be done in advance of incidental take to ensure no net loss of the Covered Species. If mitigation occurs after incidental take occurs then there is a temporary decrease in the overall population for that Covered Species.

DOFAW recommends the licensee reevaluate their post-construction monitoring methods with the best available science.

DOFAW recommends coordination with our staff regarding management of Makamaka'ole Seabird Enclosure.

If you have any questions, please contact Kinsley McEachern, Protected Species Habitat Conservation Planning Associate at [laurinda.k.mceachern.researcher@hawaii.gov](mailto:laurinda.k.mceachern.researcher@hawaii.gov).

Respectfully submitted,

for DGS   
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Administrator