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STATE OF HAWAIʻI | KA MOKUʻĀINA ʻO HAWAIʻI
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA ʻOIHANA KUMUWAIWAI ʻĀINA

P.O. BOX 621
HONOLULU, HAWAII 96809

December 2, 2025

The Honorable Ronald D. Kouchi,
President
and Members of the Senate
Thirty- Third State Legislature
State Capitol, Room 409
Honolulu, Hawaii 96813

The Honorable Nadine K. Nakamura, Speaker
and Members of the House of
Representatives
Thirty-Third State Legislature
State Capitol, Room 431
Honolulu, Hawaii 96813

Dear President Kouchi, Speaker Nakamura, and Members of the Legislature:

For your information and consideration, I am transmitting a copy of Status of the Issuance of Incidental Take Licenses for Endangered, Threatened, Proposed, and Candidate Species and The Condition of the Endangered Species Trust Fund for the Period July 1, 2024 - June 30, 2025, and Safe Harbor Agreements Summary reports as required by Section 195D-26, Hawaii Revised Statutes (HRS) and Act 37, Session Laws of Hawaii 2016. In accordance with Section 93-16, HRS, a copy of this report has been transmitted to the Legislative Reference Bureau and the report may be viewed electronically at https://files.hawaii.gov/dlnr/reports-to-the-legislature/2026/FW26-Endangered-Species-Rpt-FY25.pdf

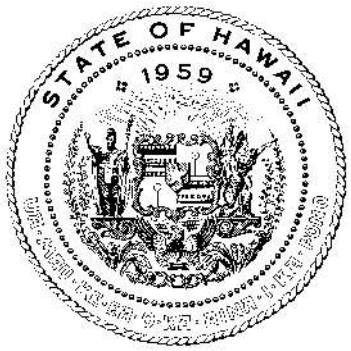
Sincerely,

DAWN N.S. CHANG
Chairperson

Enclosure

REPORT TO THE THIRTY-THIRD LEGISLATURE
STATE OF HAWAII
2026 REGULAR SESSION

STATUS OF THE ISSUANCE OF INCIDENTAL TAKE LICENSES FOR ENDANGERED, THREATENED, PROPOSED, AND CANDIDATE SPECIES AND THE CONDITION OF THE ENDANGERED SPECIES TRUST FUND FOR THE PERIOD JULY 1, 2024 – JUNE 30, 2025 AND SAFE HARBOR AGREEMENTS SUMMARY



Prepared by

THE STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE

In response to Section 195D-26, Hawaii Revised Statutes
and
Act 37, Session Laws Hawaii 2016

Honolulu, Hawaii
September 2025

STATUS OF THE ISSUANCE OF INCIDENTAL TAKE LICENSES FOR ENDANGERED, THREATENED, PROPOSED, AND CANDIDATE SPECIES AND THE CONDITION OF THE ENDANGERED SPECIES TRUST FUND FOR THE PERIOD JULY 1, 2024 – JUNE 30, 2025 AND SAFE HARBOR AGREEMENTS SUMMARY

PURPOSE

Act 380, Session Laws of Hawai‘i (SLH) 1997, amended the State Endangered Species Law, Chapter 195D, Hawai‘i Revised Statutes (HRS), to provide for the preparation and implementation of Habitat Conservation Plans (HCPs) and Safe Harbor Agreements (SHAs) and to provide additional incentives for private landowners to recover and protect threatened and endangered species on their lands. Specifically, Section 195D-26, HRS, requires that an annual report be prepared by the Department of Land and Natural Resources (DLNR) on:

- The effectiveness of HCPs and SHAs issued under Chapter 195D, HRS, and the status of all species for which incidental take licenses have been issued;
- A description of the condition of the Endangered Species Trust Fund (ESTF) established under Section 195D-31, HRS; and
- Recommendations to further the purposes of Chapter 195D, HRS.

Incidental Take Licenses (ITLs) are issued in conjunction with an approved HCP or SHA for the legal take[1] of threatened or endangered species if such take is incidental to an otherwise lawful activity. Habitat Conservation Plans and Safe Harbor Agreements are important management tools in the State of Hawai‘i and accomplish the following:

- Resolve conflicts between endangered species protection and legitimate use of natural resources;
- Contribute to endangered species recovery efforts through partnerships and proactive planning; and
- Provide essential ecological information for Hawai‘i’s resource managers by requiring a strong monitoring component in all HCPs.

This annual report is submitted to fulfill the reporting requirement for Fiscal Year (FY) 2025 and provides detailed information for nine HCPs and four SHAs for which ITLs have been issued. The report is organized by HCP project type, provides an overview of SHAs, describes the condition of the ESTF, and concludes with recommendations to further the purposes of Chapter 195D, HRS.

[1] “Take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect endangered or threatened species of aquatic life or wildlife, or to cut, collect, uproot, destroy, injure, or possess endangered or threatened species of aquatic life or land plants, or to attempt to engage in any such conduct (§195D-2, HRS).

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SUMMARY OF INCIDENTAL TAKE STATUS FOR ENDANGERED WILDLIFE SPECIES COVERED BY HABITAT CONSERVATION PLANS

General locations for the permitted HCPs and SHAs are shown in **Figure 1**. There are currently eight active habitat conservation plans (HCPs) and four active safe harbor agreements across the state. Several HCPs are in development and will be included in subsequent reports.

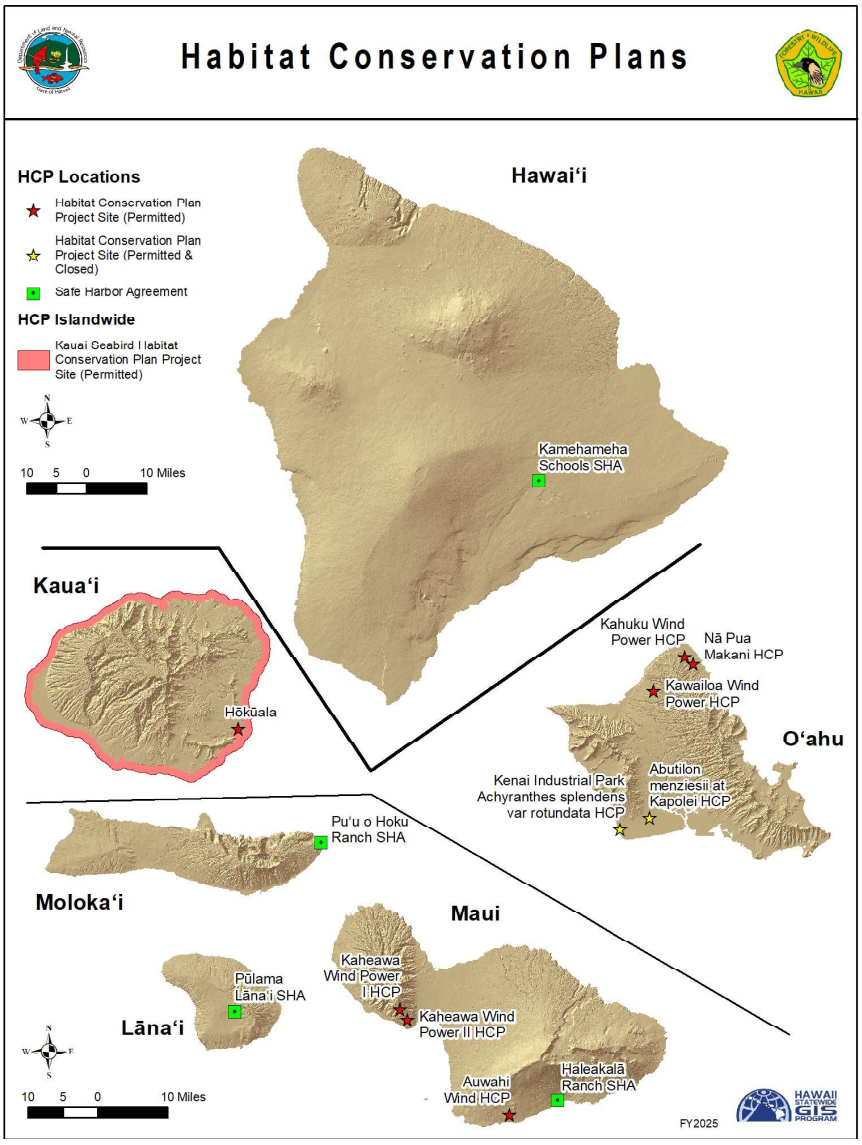


Figure 1: Habitat Conservation Plan & Safe Harbor Agreement locations across the state.

Figure 2a. Total permitted take, observed take, and estimated take (includes indirect take and, for wind energy sites, modeled unobserved take at the 80% upper confidence level) of HCP-covered wildlife species for all approved HCPs as of June 30, 2025. (Note: Includes take from Kaua'i Seabird HCP which licensed a total take of 1,920 Newell Shearwaters across 8 different licensees).

A summary of permit status combining take of all Covered Species of wildlife since ITLs were issued is depicted in Figure 2a. The incidental take shown combines observed, modeled, and indirect take to estimate a total take as of the end of FY 2025. This summary shows that for all Covered Species the total estimated take is below the total permitted take level. The permitted take of all covered plant species since ITLs were issued includes 3 round-leaved chaff flower (*Achyranthes splendens* var. *rotundata*) individuals and their associated seed bank as part of the Kenai Industrial Park Project. The take occurred during a limited previous timeframe. There was no FY 2025 take of plant species.

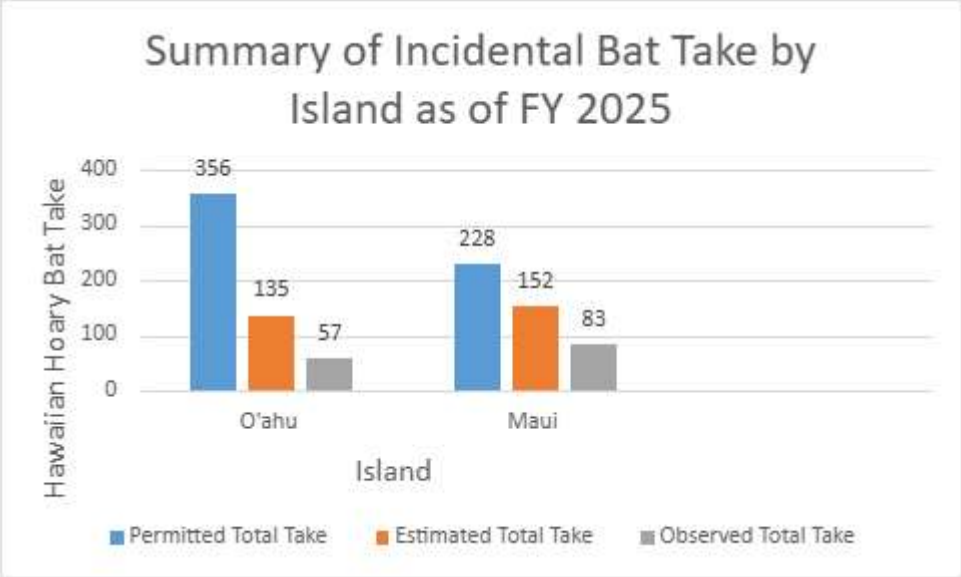


Figure 2b. Total permitted take, observed take (includes systematic observations only), and estimated take (includes indirect take and, for wind energy sites, modeled unobserved take at the 80% upper confidence level) for the Hawaiian hoary bat for approved HCPs on O‘ahu and Maui as of June 30, 2025.

SUMMARY OF HABITAT CONSERVATION PLANS AND ASSOCIATED INCIDENTAL TAKE LICENSES BY PROJECT TYPE

Wind Energy Facilities and Structures

Kaheawa Pastures Wind Energy Generation Facility (KWP I) Habitat Conservation Plan, Maui, Hawai‘i. Approved 2006.

Kaheawa Wind Power project in West Maui above Ma‘alaea.

ITL Licensee: Kaheawa Wind Power, LLC (ITL-08) (Terraform Power is the current owner and operator of KWP, LLC)

Project: Twenty wind turbine generators (WTGs) with a total 30-megawatt (MW) energy generating capacity

ITL Duration: January 30, 2006 – January 30, 2026 (as of end of FY 2025, 19.5 years (97.5.5%) through the permit term)

Take Authorization Over 20-year Term:

Table 1: Take authorization of covered species for KWP I.

Common Name	Scientific Name	Baseline Limit (Tier 1)[1]	Higher Limit (Tier 2)[1]
‘Ua‘u or Hawaiian petrel	*Pterodroma*	25	38
‘A‘o or Newell’s shearwater	*Puffinus auricularis*	4	8
Nēnē or Hawaiian goose	*Branta sandvicensis*	60	n/a
‘Ōpe‘ape‘a or Hawaiian hoary	*Lasiurus cinereus*	20	50[2]

[1] Take authorization is delineated by Baseline and Higher Limits (Tiers). Upon reaching Higher Limits additional mitigation measures or funding are triggered to ensure that mitigation keeps pace with take.
[2]This higher limit for the Hawaiian hoary bat was approved by minor amendment in 2016.

Status of ITL: No fatalities of Covered Species were detected in FY 2025.

Table 2: Total observed fatalities and estimated total take since ITL issuance under the KWP I ITL as of June 30, 2025.

Common Name		Total Observed Take[1]	Estimated Unobserved Take[2]	Indirect Take using HCP multipliers	Total Estimated Take
‘Ua‘u or Hawaiian petrel		8	11	5	24
Nēnē or Hawaiian goose		35	19	2	56

ʻŌpeʻapeʻa or Hawaiian hoary bat		13	15	4	32

[1] Excludes takes that were incidental and not observed during systematic monitoring (incidental takes are evaluated as part of the EoA modeling software and therefore accounted for in the unobserved take).
[2] Based on the 80% credible maximum using the following model: Dalthorp, D., M. M. P. Huso, and D. Dail. 2017. Evidence of absence (v 2.0) software user guide: U.S. Geological Survey Data Series 1055.

Table 2 provides an estimate of the overall total adjusted take that has occurred since KWP I ITL issuance.

In addition to the total estimated take, accrued lost productivity from mortality of individuals due to the lag in mitigation are also evaluated and mitigated for, but are not counted against permitted take levels. Accrued lost productivity calculations for the Nēnē is currently estimated at 12.15 juvenile, or 6.22 adult equivalents. Accrued lost productivity calculations for Hawaiian Petrel was not provided in this report. Although not listed as endangered on Maui it is noteworthy that 17 fatalities of the Hawaiian short-eared owl of Pueo (*Asio flammeus sandwichensis*) have been reported in the KWP I project vicinity since the ITL was issued.

Monitoring, Avoidance, and Minimization Methods Used at the Project Site

The licensee implemented a year-round fatality monitoring program to document downed wildlife, including the Covered Species, beginning in 2006. In 2006, search plots were180 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 and now consists of graded access roads and 70 m WTG pads. 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. Wildlife fatality monitoring in FY 2025 continued within all 20 turbine search plots limited to cleared areas within 70 meters of each Wind Turbine Generator (WTG). Canine-handler teams searched each of the fatality monitoring search plots once per week year-round. Vegetation is removed from the search plots using methods various methods including hand management tools, herbicides, and power tools depending on the time of year, to avoid nēnē nesting. The licensee conducts predator control biweekly and quarterly (intensive control) at the project site. In FY 2025, all searches were performed by a canine-assisted team. Searchers conduct carcass persistence and searcher efficiency trials using surrogates for the Covered Species.

KWP I tracks observations of live nēnē on site when they overlap with the timing of fatality searches. A total of 45 observations of 97 (non-distinct) individual adult nēnē and 44 (non-distinct) fledglings were made over 28 days between September 2024 and June 2025, with observations made in every month of this timeframe. Furthermore, the Project has previously implemented a variety of actions to minimize risk to the nēnē, which continued in FY 2025. Scavenger trapping efforts implemented at the Project to improve persistence of carcasses during fatality monitoring have contributed to reducing the risk of predation of the nēnē, and safety measures to avoid interactions between nēnē and canine search teams have been identified and are implemented as needed. In

response to the current projections of potential take of the nēnē at the Project, KWP I has taken practicable actions to minimize the threats to the nēnē. In FY 2023, KWP I implemented a vegetation management plan developed with concurrence from the agencies reducing the amount of woody vegetation on site. The goal was to minimize the attractiveness of onsite habitat to the nēnē. The vegetation management program implemented at the Project in FY 2025 consisted of one herbicide application in October 2024, and an as-needed weed-whacking program. Herbicide was applied to the cleared areas within each search plot outside of the nēnē breeding season, as wind and weather conditions allowed. Remaining vegetation was trimmed by weed whacking to maintain annual consistency of the graded roads and pads (cleared area) within 70 meters of each turbine. Additionally, in May 2025, ironwoods encroaching on turbine pads were removed to further limit nēnē nesting opportunity and ensure the full extent of the cleared area could be successfully searched. Because nēnē have a continued breeding presence at the site, KWP I will continue to reduce the amount of woody vegetation on site in FY 2026 in conjunction with agency approval. KWP I will continue to monitor nēnē activity on site to inform vegetation management success, and continue to work with USFWS, DOFAW, and technical experts to further reduce risk to the species.

In accordance with the HCP, the Project began implementing Low Wind Speed Curtailment (LWSC) at all WTGs up to wind speeds of 5 meters per second (m/s) on July 29, 2014. LWSC is expected to reduce risk of bat take. LWSC was increased to 5.5 m/s on August 4, 2014, in response to bat take occurring at the Project and at KWP II on March 13, 2013, and February 26, 2014. Curtailment at 5.5 m/s is in effect from sunset to sunrise, annually, from February 15 through December 15. The Project continues site-wide bat activity assessment via acoustic monitoring after the initial HCP-required 12-month monitoring period. An object of bat acoustic monitoring is to better understand the annual and seasonal variation in bat activity at the project site. As a voluntary measure (not required in the HCP), acoustic monitoring for bat activity at the Project has been conducted continuously since August 2008. In October 2013 (FY 2014) nine Song Meter SM2BAT+ ultrasonic recorders (SM2) were deployed, replacing the previously used Anabat SD2 bat detectors (Titley Electronics, Brendale, QLD, Australia). Each SM2 was equipped with one SMX-U1 ultrasonic microphone (Wildlife Acoustics, Maynard, MA, USA) positioned horizontally, facing southwest (away from the prevailing northeast trade winds), 6.5 meters above ground level. In October 2019 (FY 2020), the Pali brush fires burned across most of the Project destroying four SM2 units. In order to continue with the objectives of the monitoring program and address gaps in the spatial coverage of SM2's introduced by the brush fire; the monitoring regime was redesigned in July 2020 with the deployment of five SM2 units (WTGs 1, 5, 13, 15, and 20). This type of unit has been continuously used since October 2013. Additionally, because of differences in the equipment used prior to FY 2014, data collected in FY 2024 is only comparable to data collected between FY 2014 and FY 2023. In FY 2025, detection rates fluctuated seasonally and were similar to the seasonal trends observed in previous monitoring years. Detections increased during times when bats are known to lactate and post-lactation periods, during the months of August and September, with the largest peak (0.26) in detection rates occurring during the month of October. Detections decreased during times when bats are known to continue post-lactation and pre-pregnancy. Over the course of the FY 2025 monitoring period (July 2024 to June 2025),

Hawaiian hoary bats were detected on 111 nights out of 1,350 detector-nights sampled (8.2 percent).

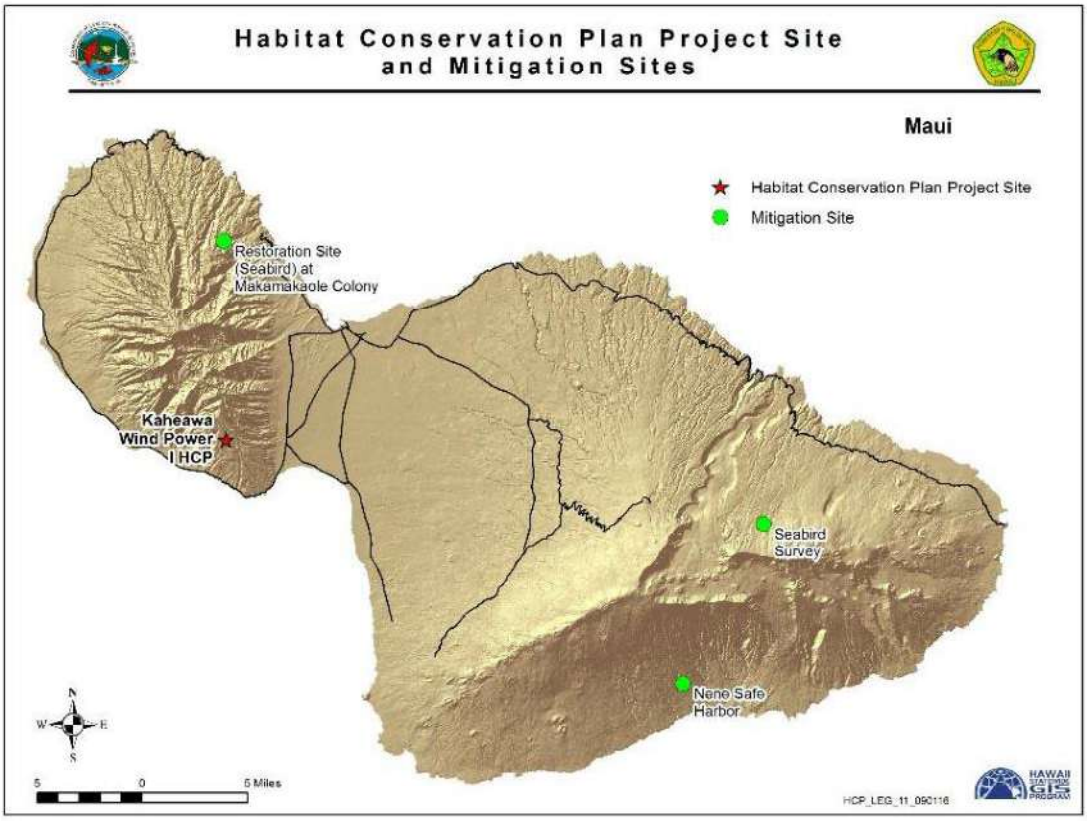


Figure 3: Location of Kaheawa Wind Power I HCP and mitigation sites on the island of Maui.

Mitigation Status:

Hawaiian petrel & Newell's shearwater. Mitigation for the two covered seabird species has been completed.

On December 5, 2022, DOFAW determined after the 2022 breeding season at Makamakaʻole, the licensee obtained 8.53 Newell's shearwater credits, fulfilling the mitigation obligations for KWP I and KWP II. No Hawaiian petrel nesting activity was detected at burrows within the Makamakaʻole enclosures during management, so the licensee provided funding to Pūlama Lānaʻi to supplement Hawaiian petrel breeding colony protection efforts on Lānaʻi in 2018. On March 27, 2023, USFWS provided a letter assessing that the total mitigation benefit achieved across mitigation projects is 89.72 adult ʻuaʻu or Hawaiian petrel for both KWPs. KWP I's Tier 2 ʻuaʻu mitigation obligation in the federal Incidental Take Permit (ITP) is 38 ʻuaʻu (including adults, subadults, fledglings, nestlings, and eggs). In the March 27 letter, USFWS acknowledged that KWP I met its ʻuaʻu mitigation obligation. In March of 2025, DOFAW issued a credit letter for Hawaiian Petrel credits accrued by KWP I and II's mitigation work at Makamakaʻole from 2015-2022.

In January of 2023, Terraform (formerly Brookfield), emailed DOFAW saying they were stopping management at Makamakaʻole and were leaving the site. In March of 2023 DOFAW conducted a site visit at Makamakaʻole and discovered the predator proof fence at the mitigation site that was managed by Terraform was in disrepair in several sections and not functional. DOFAW notified Terraform in April of 2024, and over the course of FY 2024 initiated communication and requests for funds to repair the damaged fence. In April and May 2024, DOFAW staff documented two Newell's shearwater who were killed by mongoose entering the failing predator proof fence. With no progress being made on this issue for over 9 months, DOFAW HCP further consulted a DLNR Deputy AG on this matter to seek out remediation for the derelict predator proof fence. The Deputy AG was able to meet with Terraform's attorney several times in Spring of 2024 and a formal memorandum of agreement with Terraform regarding funding fence repairs at the site, and continuing monitoring and management at the site per the HCP, was approved and signed. In October of 2024, Terraform issued a check of $750,000 to DOFAW for the major fence repairs. KWP continues to fund management of Makamakaʻole including fence maintenance and predator control through calendar year 2025.

Hawaiian goose. In 2009, the Project provided $264,000 to DOFAW to fund construction and management of the Haleakalā Ranch nēnē release pen as part of the Project's nēnē mitigation. DOFAW constructed the release pen three years later. Funding has been used by DOFAW to perform fence maintenance, predator control, vegetation management, and monitoring at the Haleakalā Ranch pen. Nēnē have been translocated from Kauaʻi to the Haleakalā Ranch pen since 2011, and several benefits have accrued based on the effects of these actions including production of fledglings and increases adult survival rates. Eight nēnē were produced and successfully fledged at the pen during the 2024 – 2025 breeding season. These fledglings, and the opportunity for increased adult survival for the thirty-one banded and eleven unbanded occupants of the pen will contribute to mitigation credits. Mitigation credits accrued with the 2024 – 2025 breeding year will be attributed to KWP I in FY 2025 to address lagging mitigation. Credit allocation from FY 2025 is still awaiting agency concurrence. An MOU for continued management of the release pen was fully executed by KWP I and II, DOFAW, and Haleakalā Ranch on March 4th, 2025.

KWP I acknowledges the Project is still lagging in mitigation credits with 45.65 credits formally acknowledged by DOFAW achieved out of the 60 plus delayed reproductivity necessary mitigation credits. Cumulatively, the increases in adult and juvenile survival and productivity achieved by KWP I's mitigation project have not been sufficient to fully offset the mitigation obligations.

KWP I continues to adaptively manage the nēnē mitigation program to address lagging mitigation through release pen management at the Puʻu O Hōkū Ranch on the island of Molokaʻi. On April 4, 2025, DOFAW translocated 24 nēnē to the pen, with a translocation plan outlining the continued release of approximately 25 breeding nēnē pairs and their young over a five-year timeframe. KWP I, DOFAW and the Puʻu O Hōkū Ranch signed an MOU in early FY 2026 and began implementing the Scope of Work (SOW) to manage the release pen supporting nēnē translocated to the island (as well

as the existing population on the island) in August of 2025 to further offset the take accrued from KWP I.

Hawaiian hoary bat. Baseline mitigation for 20 bats was funded in 2006 and is complete. A mitigation project accounting for take of an additional 15 bats was completed in FY 2020 for a total contract cost of $750,000. This mitigation project consisted of Hawaiian hoary bat ecological research in East Maui, contracted to H.T. Harvey Ecological Consultants, and evaluated the species' habitat preferences, prey availability, foraging ranges, core use areas, and diet over 84,574 acres on Haleakalā. Bat detectors were installed at 45 sites in nine habitat types for a total of 315 deployments. To radio tag bats, mist netting occurred from June 2017 through September 2018 in three general areas: Haleakalā National Park, Olinda Road, and Lower Kula. H.T. Harvey researchers radio-tracked 16 bats on 109 nights during the mist netting period, and sampled insects in the nine habitat types for seven sampling periods from August 2017 through August 2018. From the acoustic data it was determined bats spent more time foraging in gulch, low-density developed, and grassland habitats, although differences existed between months.

The study showed bats were much less likely to call on nights with rainfall. The mean core use area used by the bats for foraging was 9,143 acres, but there was a wide range of values among individual bats. Most guano samples were collected from adult males, adult females, and subadult females, and showed bats ate primarily moths (68%), as well as flies (12%), termites (9%), crickets and katydids (5%), beetles (4%), and true bugs (2%). Insects eaten were both native and non-native, and the dietary data suggested the bats were somewhat selective in their prey choices when compared to the abundance of insect species available in the insect samples. Finally, the results demonstrated the Hawaiian hoary bats on Maui were able to forage in different habitats during different seasons.

Mitigation funding for the remaining 15 bats in Tier 2 was provided to the U.S. Geological Survey Hawaiian hoary bat Research Group starting in FY 2018 to conduct bat ecological research on Hawai'i Island to better inform future bat conservation. The funding obligation was completed in FY 2022, with research published in 2023 (available online at https://peerj.com/articles/14365/).The Project, in combination with KWP II, had a total funding obligation of $1.7M to allocate to portions of each Project's mitigation requirement. KWP I, in combination with KWP II exceeded this funding obligation by $131,500 over the original cost, for a total combined expenditure of $1,831,500.

Kaheawa Wind Power II Wind Energy Generation Facility (KWP II) Habitat Conservation Plan, Maui, Hawai‘i. Approved 2012.

ITL Licensee (ITL-15): Kaheawa Wind Power II, LLC (Terraform Power owns and operates KWP II, LLC)

Project: Fourteen WTGs with a total 21-MW energy generating capacity. Project is adjacent and downslope of KWP I

ITL Duration: January 5, 2012 – January 30, 2032 (as of end of FY 2025, 13.5 years (67.5 %) through the permit term)

Kaheawa Wind Power II project in West Maui above Ma‘alaea.

Take Authorization Over 20-year Term:

Table 3: Take Authorization for KWP II.

Common Name	**Scientific Name**	**Level of Take[1]**	**5-year Limit**	**20-year Limit**
‘Ua‘u or Hawaiian petrel	*Pterodroma sandwichensis*	Tier 1	8 adults/ juveniles & 4 chicks/eggs	19 adults/ juveniles & 9 chicks/eggs
		Tier 2	16 adults/ juveniles & 8 chicks/eggs	29 adults/ juveniles & 14 chicks/eggs
‘A‘o or Newell’s shearwater	*Puffinus auricularis newelli*	Tier 1	2 adults/ juveniles & 2 chicks/eggs	2 adults/ juveniles & 2 chicks/eggs
		Tier 2	5 adults/ juveniles & 3 chicks/eggs	5 adults/ juveniles & 3 chicks/eggs
Nēnē or Hawaiian goose	*Branta sandvicensis*	Tier 1	8 adults/ juveniles & 1 fledgling	18 adults/ juveniles & 3 fledglings
		Tier 2	12 adults/ juveniles & 3 fledgling	27 adults/ juveniles & 3 fledgling
		Tier 3[3]	Not applicable	44 adults
‘Ōpe‘ape‘a or Hawaiian hoary bat[2]	*Lasiurus semotus*	Tier 1	7 individuals	7 bats
		Tier 2	11 individuals	11 bats
		Tier 3[3]	Not applicable	30 bats
		Tier 4[3]	Not applicable	38 bats

[1] Take authorization is delineated by Tiers. Upon reaching higher Tiers additional mitigation measures or funding are triggered to ensure that mitigation keeps pace with take.
[2] Minor amendment to clarify permitted bat take processed on November 26, 2014.
[3] New tier approved in a major amendment on November 8, 2019.

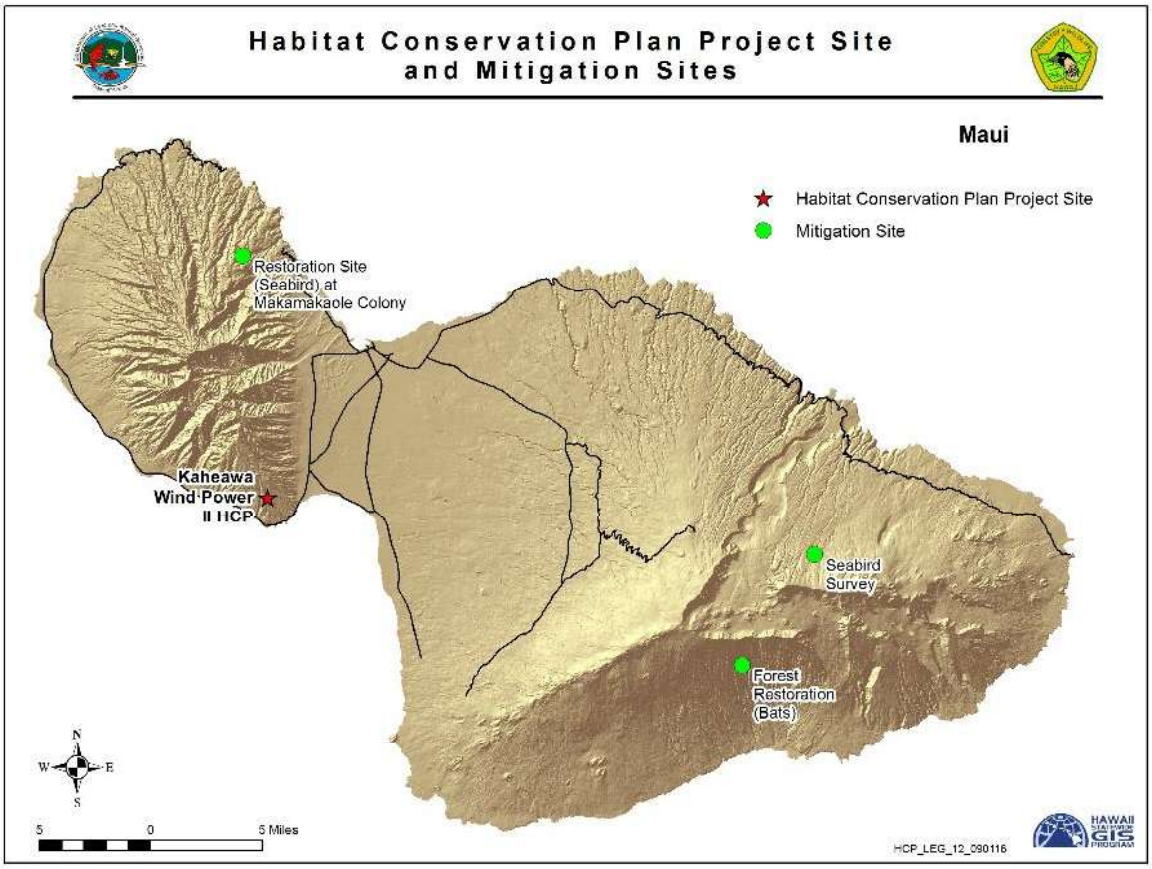


Figure 4: Location of Kaheawa Wind Power II HCP and mitigation sites on the island of Maui.

Table 3 provides the licensed take of the covered species. The incidental take authorized includes both observed and unobserved take, including indirect take that occurs when an adult individual is taken during its respective breeding season.

Status of ITL: No fatalities of Covered Species were found at KWP II during FY 2025.

Table 4 provides an estimate of the overall total adjusted take that has occurred since KWP II ITL issuance. In addition to the total estimated take, accrued lost productivity from mortality of individuals due to the lag in mitigation are also evaluated and mitigated for, but are not counted against permitted take levels. Accrued lost productivity calculation for the nēnē is currently estimated at 20.70 juvenile, or 10.6 adult equivalents.

Beginning in July 2015 the search plot areas were reduced in size relative to the size of plots searched prior to July 2015. The reduced search area includes only roads and graded WTG pads found within a 70-meter circle of radius centered on each WTG.

Canine-assisted searching accounted for 100% of the downed wildlife monitoring searches in FY 2025, once per week for the entire year.

Additionally, KWP II tracks observations of live nēnē on site when they overlap with the timing of fatality searches. A total of 20 observations of 39 (non-distinct) individual adult nēnē and 22 (non-distinct) fledglings were made over 16 days between September 2024 and June 2025 with observations made in every month of this timeframe. Three nēnē nest locations were observed on February 12th and 25th, 2025. The Project has previously implemented a variety of actions to minimize risk to the nēnē, which continued in FY 2024. Scavenger trapping efforts implemented at the Project to improve persistence of carcasses during fatality monitoring have likely reduced the risk of predation of the resident nēnē and safety measures to avoid interactions between nēnē and canine search teams have been identified and are implemented as needed. In response to the current projections of potential take of the nēnē at the Project, KWP II has taken practicable actions to minimize the threats to the nēnē. In FY 2023, KWP II implemented a vegetation management plan developed with concurrence from the agencies reducing the amount of woody vegetation on site. The goal was to minimize the attractiveness of onsite habitat to the nēnē. Because nēnē have a continued breeding presence at the site, KWP II will continue to reduce the amount of woody vegetation on site in FY 2025 in conjunction with agency approval. Additionally, KWP II will continue to monitor nēnē activity on site to inform vegetation management successes and needs, and continue to work with USFWS, DOFAW, and technical experts to further reduce risk to the species.

In October 2019 wildfires destroyed bat monitoring equipment at the wind turbines. For the remainder of the FY 2020 (October 2019 to June 2020) only two sites (WTGs 9 and 11) were monitored for acoustic bat activity. In order to continue with the objectives of the monitoring program and address gaps in the spatial coverage of SM2 units resulting from the brush fire, the monitoring regime was redesigned in July 2020 with the deployment of five SM2 units (WTGs 2, 5, 9, 11, and 14) Additionally, because of differences in the equipment used prior to FY 2014, data collected in FY 2024 is only comparable to data collected between FY 2014 and FY 2023. In FY 2025, Hawaiian hoary bats were detected on 96 nights out of 1,494 detector-nights sampled (6.4 percent). The annual detection rate in FY 2025 (6.4 percent) was marginally lower than the annual detection rate in FY 2024 (9.0 percent). The seasonal pattern of detection rates was similar to previous years, and similar to the detection rate observed at the adjacent Kaheawa I Wind Project (KWP I) in FY 2025. In accordance with the HCP, low wind speed curtailment (LWSC) was implemented from the start of Project operations at wind speeds of up to 5 meters per second at all WTGs for the months of April through November. This curtailment period was extended to begin mid-February and continue through December 15 in response to bat fatalities documented at the Project on March 13, 2013, and February 26, 2014, and a fatality at the KWP I Project on December 14, 2013. On June 6, 2014, the Project proposed an additional adaptive management measure to the USFWS and DOFAW, increasing the LWSC cut-in speed. On July 29, 2014, the LWSC was raised to 5.5 m/s between February 15 and December 15 from sunset to sunrise. The Project continues its site-wide bat activity assessment as committed to in the approved HCP Amendment.

Table 4: Total observed fatalities and estimated total take since ITL issuance covered under the KWP II ITL as of June 30, 2025.

Common Name	Total Observed Take[1]	Estimated Unobserved Take[2]	Indirect Take using HCP multipliers	Total Estimated Take
Nēnē or Hawaiian	10	17	1	28
ʻŌpeʻapeʻa or	3	8	1	12

[1] Excludes takes that were incidental and not observed during systematic monitoring (incidental takes are evaluated as part of the EoA modeling software and therefore accounted for in the unobserved take).
[2] Based on the 80% credible maximum using the following model: Dalthorp, D., M. M. P. Huso, and D. Dail. 2017. Evidence of absence (v 2.0) software user guide: U.S. Geological Survey Data Series 1055

Mitigation Status:

Hawaiian petrel & Newell's shearwater. Mitigation for the two covered seabird speciess has been completed.

On December 5, 2022, DOFAW determined after the 2022 breeding season at Makamakaʻole, the licensee obtained 8.53 Newell's shearwater credits, fulfilling the mitigation obligations for KWP I and KWP II. No Hawaiian petrel nesting activity was detected at burrows within the Makamakaʻole enclosures during initial management, so the licensee provided funding to Pūlama Lānaʻi to supplement Hawaiian petrel breeding colony protection efforts on Lānaʻi in 2018. On March 27, 2023, USFWS provided a letter assessing that the total mitigation benefit achieved across mitigation projects is 89.72 adult ʻuaʻu or Hawaiian petrel for both KWPs. In the March 27 letter, USFWS acknowledged that KWP I met its ʻuaʻu mitigation obligation. In March of 2025, DOFAW issued a credit letter for Hawaiian Petrel credits accrued by KWP I and II's mitigation work at Makamakaʻole from 2015-2022, acknowledging KWP I and II had fulfilled their mitigation credits for this species.

In January of 2023, Terraform (formerly Brookfield), emailed DOFAW saying they were stopping management at Makamakaʻole and were leaving the site. In March of 2023 DOFAW conducted a site visit at Makamakaʻole and discovered the predator proof fence at the mitigation site that was managed by Terraform was in disrepair in several sections and not functional. DOFAW notified Terraform in April of 2024, and over the course of FY 2024 initiated communication and requests for funds to repair the damaged fence. In April and May 2024, DOFAW staff documented two Newell's shearwater who were killed by mongoose entering the failing predator proof fence. With no progress being made on this issue for over 9 months, DOFAW HCP further consulted a DLNR Deputy AG on this matter to seek out remediation for the derelict predator proof fence. The Deputy AG was able to meet with Terraform's attorney several times in Spring of 2024 and a formal memorandum of agreement with Terraform regarding funding fence repairs at the site, and continuing monitoring and management at the site per the HCP, was approved and signed. In October of 2024, Terraform issued a check of $750,000 to DOFAW for the major fence repairs. KWP continues to fund management of Makamakaʻole including fence maintenance and predator control through calendar year 2025.

Hawaiian goose. The Project provided funds to DOFAW in FY 2017 for management of Maui-based nēnē release pens with significant activity or nesting. Specifically, the funding supported predator control, fence maintenance, vegetation management and monitoring of a nēnē release pen at Piʻiholo Ranch in FY 2017, FY 2018, and part of FY 2019. The Project also provided
funding for a technician at the Haleakalā Ranch release pen from October 2018 through February 2019. In May 2020, the Project provided $112,682 to fund nēnē mitigation activities performed by DOFAW at the Piʻiholo Ranch release pen. DOFAW was unable to process these funds in May 2020 when they were received due to internal limitations. During FY 2024, KWP II
worked closely with DOFAW to allocate $107,316 of the unspent funding to mitigation work that was previously completed: at Piʻiholo Ranch in FY 2021 and at Haleakalā Ranch in FY 2023. In 2021, the Piʻiholo Ranch was sold and the release pen was no longer available for mitigation opportunities. An MOU for continued management of the release pen was fully executed by KWP I and II, DOFAW and Haleakalā Ranch on March 4th, 2025.

Nēnē credit allocation through FY 2025 is 12.59 credits out of the 44 plus lost productivity needed creditss. It is important to note that the cumulative increases in adult and juvenile survival and productivity achieved by KWP II's mitigation projects have not been sufficient to fully offset the mitigation obligations.

KWP II continues to adaptively manage the nēnē mitigation program to address lagging mitigation through release pen management at the Puʻu O Hōkū Ranch on the island of Molokaʻi. On April 4, 2025, DOFAW translocated 24 nēnē to the pen, with a translocation plan outlining the continued release of approximately 25 breeding nēnē pairs and their young over a five-year timeframe. KWP I, DOFAW and the Puʻu O Hōkū Ranch signed an MOU in early FY 2026 and began implementing the Scope of Work (SOW) to manage the release pen supporting nēnē translocated to the island (as well as the existing population on the island) in August of 2025 to further offset the take accrued from KWP I and KWP II.

Hawaiian hoary bat. Mitigation for Tier 1 and Tier 2 estimated bat take has been completely funded at Kahikinui State Forest Reserve (KWP II 2018). The habitat management program founded through Project mitigation funding continues under DOFAW management (DOFAW 2021). Mitigation for Tier 3 estimated take (19 bats within Tier 3) was contracted to the U.S. Geological Survey (USGS) Hawaiian Hoary Bat Research Group. Bat ecological research on Hawaiʻi Island began in FY 2018 and is intended to better inform future bat habitat restoration and conservation. KWP II's contract with USGS was completely funded in FY 2021. The funding obligation was completed in FY 2022; the funded research was published in FY 2024 (available online at https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0288280). The Project in combination with Brookfield's Kaheawa I Wind Project (KWP I) had a total funding obligation of $1.7M to allocate to portions of each Project's mitigation requirement. KWP II, in combination with KWP I, exceeded its funding obligation by $131,500 over the original cost, for a total combined expenditure of $1,831,500. Assuming the current take rate and search conditions remain unchanged through the remainder of the permit term, Tier 4 mitigation will not be necessary.

Hawaiian short-eared owl. Although the Pueo is not a listed species on Maui, KWP II included Pueo in their HCP and provided mitigation compensation in the form of $25,000 paid to DOFAW in FY 2013 to be directed toward Pueo research efforts on O‘ahu. With these and other funds DOFAW funded a Pueo research project in 2017 on O‘ahu which was completed in FY 2018 and can be viewed at https://www.pueoproject.com.

Auwahi Wind Energy Habitat Conservation Plan, Maui, Hawai‘i. Approved 2012.

Auwahi Wind Power, Maui

ITL Licensee: Auwahi Wind Energy, LLC (as of 8/15/2023 American Electric Power Energy Supply (AEP Energy) has sold its interest in Auwahi Wind Energy, LLC. to IRG Acquisition Holdings, LLC)

Project: Eight WTGs with a total 21-MW energy generating capacity

ITL Duration: February 9, 2012 – February 9, 2037 (as of end of FY 2025, 13.5 years (54%) through the permit term)

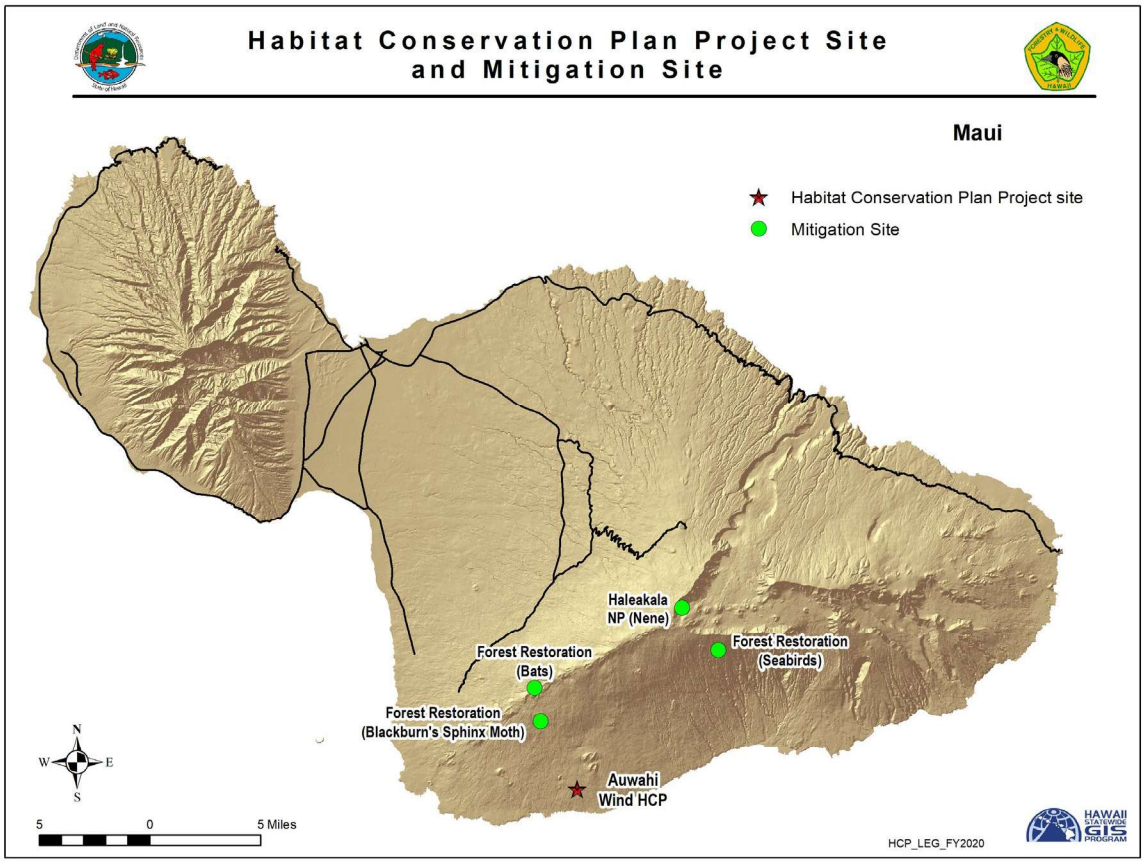


Figure 5: Location of Auwahi HCP and mitigation sites on the island of Maui.

Take Authorization Over 25-year Term:

Table 5: Take Authorization for Auwahi Wind HCP.

Common Name	Scientific Name	Level of Take	25-year Limit
ʻUaʻu or Hawaiian petrel	*Pterodroma sandwichensis*	Tier 1	19 adults/ immatures & 7 chicks/eggs
		Tier 2	32 adults/ immatures & 12 chicks/eggs
		Tier 3	64 adults/ immatures & 23 chicks/eggs
Nēnē or Hawaiian goose	*Branta sandvicensis*	Length of permit	5 adults/ immatures
ʻŌpeʻapeʻa or Hawaiian hoary bat[1]	*Lasiurus semotus*	Tier 1	5 bats
		Tier 2	11 bats
		Tier 3	21 bats
		Tier 4[2]	81 bats
		Tier 5[2]	115 bats
		Tier 6[2]	140 bats
Blackburn's sphinx moth	*Manduca blackburni*	Not applicable	28-acres permanently disturbed habitat is an index of take

[1] Take authorization for bats are converted to adult bats based on HCP and clarified by email from J. Charier of USFWS to Marie VanZandt of Auwahi on March 2, 2015.
[2] New tier approved in a major amendment on August 23, 2019.

Status of ITL: Take of three Hawaiian hoary bats was reported at the Auwahi Wind Energy facility in FY 2025 (Table 6). No take was reported for other HCP covered species at the facility.

Table 6: Documented fatalities of HCP covered species and species of concern at Auwahi during the reporting period.

Common Name	FY2025 Fatalities
ʻŌpeʻapeʻa or Hawaiian hoary bat	3

In FY 2025, a canine search team performed weekly searches to search for downed wildlife along all pads and roads within a 100-meter radius of each turbine. All searches were conducted as scheduled. Based on carcass fall distributions compiled by Tetra Tech, Inc. from 25 publicly available studies at other wind facilities, the areas searched at the project represented a total of 54 percent of the large bird fall distribution and 77 percent of the bat fall distribution.

The total estimated take of bats exceeded the total permitted take for bats on the original ITL by June 2016 and Auwahi Wind submitted an amended HCP and associated ITL to the agencies for review in FY 2019, which added an additional three tiers of bat take and implemented low wind speed curtailment at 6.9 m/s. The amended HCP was approved in FY 2020 and the adjusted take authorization can be found in

Table 5. During FY 2020 the rate of bat take exceeded the projected threshold required to be met in order to remain within the amended take limit over the remainder of the 25-year permit term. Auwahi Wind implemented its adaptive management plan and installed acoustic deterrents on all eight turbines in June and July 2020 and continued their use through FY 2025. The project has continued to update the Adaptive Management Plan to
incorporate additional minimization measures.

Table 7 provides an estimate of the overall total adjusted take that has occurred since Auwahi Wind ITL issuance.

Table 7: Total observed fatalities since ITL issuance and estimated total adjusted take covered under the Auwahi Wind Energy ITL as of June 30, 2025.

Common Name	Total Observed Take[1,3]	Estimated Unobserved Take[2]	Indirect Take	Total Estimated Take
ʻŌpeʻapeʻa or Hawaiian hoary bat	66	32	10	108
ʻUaʻu or Hawaiian petrel	2	1	2	5
ʻAkēʻakē or Band-rumped storm petrel	1	ND	ND	ND

[1] Excludes takes that were incidental and not observed during systematic monitoring (incidental takes are evaluated as part of the EoA modeling software and therefore accounted for in the unobserved take).
[2] Based on the 80% credible maximum using the following model: Dalthorp, D., M. M. P. Huso, and D. Dail. 2017. Evidence of absence (v 2.0) software user guide: U.S. Geological Survey Data Series 1055.
[3] Includes observed take of one injured bat rehabilitated in FY 2020.
ND - Not determined.

In FY 2022, Auwahi Wind addressed removing the meteorological tower, which the agencies approved. The tower's demolition was completed in February 2023. Auwahi Wind also supplied acoustic detectors to test the acoustic bat deterrent function at a wind farm in Minnesota, following monitoring results on Maui that showed no difference between deterrent and non-deterrent turbines. In FY 2025, Auwahi facilitated feral ungulate removal on site, along with emptying water troughs near turbines during periods of high bat activity. The estimated Baseline Fatality Rate calculated by EoA for FY 2025 is 7.36, which currently exceeds the Threshold Value of 6.45, as specified in the HCP. The bat fatality rate will be reassessed in February 2027. Auwahi Wind continues to explore additional minimization measures, including implementing an 8 m/s Low Wind Speed Curtailment regime starting 30 minutes before and ending 30 minutes after sunset from August through October this year, while conducting acoustic monitoring to enable an algorithm-based smart curtailment strategy based on bat activity levels during specific times of day, year, and varying wind speeds.

During FY 2025, 70 tree tobacco plants were removed from the project, most of which were in the immature vegetative state. The removal of the plants followed USFWS guidance for take avoidance and minimization. Auwahi continued monthly field surveys for Blackburn Sphinx Moth (BSM) in FY 2025. The presence of BSM was detected

during monthly surveys at the project in FY 2025, but no translocations of BSM was necessary, as they were not in areas impacted by project operations.

Mitigation Status:

Hawaiian petrel. Monthly visits to monitor burrow activity started on January 23, 2024. Monitoring of active burrows ended on December 19, 2024, when all the burrows were no longer active. Of the 79 petrel burrows monitored, 41 showed signs of activity during the breeding season, and 26 were active throughout the entire season. By the end of the breeding season, 26 burrows successfully fledged chicks. The remaining 15 active burrows either failed or showed signs of occupation or prospecting by non-breeders. The number of consistently active burrows has stayed relatively stable over the years, with total active burrows ranging from 25 to 41.

One Hawaiian petrel was incidentally taken at Kahikinui during the 2024 management season. On April 22, 2024, an adult Hawaiian petrel was found dead in a foothold trap. This fatality is linked to the management of the petrel colony and not due to turbine operations. As noted in the ITP, up to seven (7) Hawaiian petrels (adults, subadults, fledglings, nestlings) may be incidentally taken over the 25-year permit period due to interactions with predator capture systems. This was the first fatality caused by this predator capture system, and due to this take, all foothold traps within Kahikinui will be discontinued. This marks the second fatality due to interactions with predator capture systems at Kahikinui.

Hawaiian goose. Auwahi Wind provided a one-time payment of $25,000 to the Haleakalā National Park on April 17, 2012, to cover mitigation expenses for the Hawaiian Goose.

Hawaiian hoary bat. Tier 1 mitigation for the Hawaiian Hoary Bat involves restoring about 132 acres of pastureland in the Waihou Mitigation Area (the Puʻu Makua parcel) to provide roosting and foraging habitat for the Hawaiian hoary bat. The fence was inspected quarterly in FY 2023 and repaired after storm damage; the parcel remained free of ungulates at the end of the fiscal year. Control of invasive plant species continued to meet success criteria, and supplemental outplanting of native Hawaiian plants carried on in FY 2024. Additional native plant species were planted in the grasslands and koa (*Acacia koa*) plots. Through the Maui Plant Extinction program, Auwahi Wind assisted with collecting plant information within the fenced area, particularly for naio (*Myoporum degeneri* & *Myoporum sandwicense* subsp. *sandwicense*).

Year five monitoring of percent vegetative cover along all transects in FY 2020 showed an overall native woody vegetation cover of 27.7 percent and non-native vegetation cover of 23.9 percent. Additional vegetation monitoring in FY 2021 included collecting data on tree height and leaf area index. Results indicated that plots planted with koa (*Acacia koa*) 20 years earlier at 3 x 3-meter densities had an average leaf area index (LAI) of 0.69 and an average height of 7.7 meters. Additional native plants, including

ʻōhiʻa (*Metrosideros polymorpha*) and aʻaliʻi (*Dodonaea viscosa*), were outplanted in the existing koa plots in FY 2022.

As part of Tier 1 mitigation, habitat restoration efforts were expanded to include the surrounding Tier 4 mitigation lands in FY 2022, adding additional ungulate barriers to this parcel. Cattle grazing by the landowner continues on the surrounding ranch lands, including the Tier 4 mitigation lands.

Tier 2 mitigation is complete. Auwahi collaborated with Frank Bonaccorso from the U.S. Geological Survey (USGS) to develop a research project that combines radio telemetry and acoustic monitoring. The goal was to track the effectiveness of mitigation efforts at Waihou and to gain more insights into the ecology of the Hawaiian hoary bat. The implementation of the plan began in March 2015 with the deployment of six acoustic detectors. Monitoring under Tier 2 lasted for one year, and the results have been reported previously.

The Tier 3 bat mitigation study by the U.S. Geological Survey in the Puʻu Makua Restoration Area within the Waihou mitigation area is finished, and results were reported in FY 2019.

Tier 4 mitigation for the bat involves protecting, managing, and enhancing 1752 acres of bat foraging and roosting habitat at ʻUlupalakua Ranch. Planning work began in FY 2020. The land will be placed in a conservation easement held by the Hawaiian Islands Land Trust, with the final easement fully executed on December 7, 2020. As part of management activities, Auwahi Wind started fence construction in FY 2021, fencing off a total of 109 acres from cattle. Additionally, about 74 acres were planted with approximately 10,000 koa trees within the new hedgerow areas. Quarterly fence inspections also began in FY 2021, along with the construction of two 50,000-gallon capacity ponds.

In FY 2022, Auwahi Wind finished building the next 100-acre parcel. Maintenance and fence upgrades took place in FY 2024. Inside the fenced area, 115 acres were planted with about 3,000 native seedlings.

Insect and acoustic bat monitoring was initiated by the Project throughout the mitigation site in FY 2020 and continued into FY 2024. Three malaise traps were set—one at a pond, one at a pasture, and one at a hedgerow—and sampling occurred semi-annually. The final monitoring results showed only insects in the order Lepidoptera. A significant median insect capture rate was observed between July and August, with a higher median capture rate in the pasture habitat when data were pooled for the entire year. Insect sampling was scheduled to continue twice per year in FY 2024. Results from future sampling years will be compared to baseline values established in FY 2021 to help guide adaptive mitigation measures if needed.

Regarding acoustic monitoring for Tier 4 mitigation, the average detections across the study area were 11.85 ± 0.68 calls per detector night in FY 2021. The highest detection rate occurred at two upper elevation detector sites located within mesic land cover types, one of which was near a pond. The second year of acoustic monitoring was

completed in FY 2022, and in FY 2023, it was observed that the average number of Hawaiian hoary bat detections remained stable across the study area and increased during the second year of monitoring. The third year of acoustic monitoring was conducted in FY 2023 and FY 2024. Due to microphone malfunctions, bat detections were low to nonexistent for most of Year 3 monitoring.

As required in the approved HCP amendment, Auwahi Wind began funding a one-year occupancy study of the Hawaiian Hoary Bat on Leeward Haleakalā during the reporting period. The study area extends from Ahihi-Kinau Natural Area Reserve to the Kaupō gap, and from Haleakalā's summit to the coast. The results, available in FY 2021, indicate that overall bat detection and occupancy rates were significantly higher than those in a similar three-year study conducted on Oʻahu. Bat activity rates were 80 percent at the Leeward Haleakalā study site over one year, compared to 3 percent over three years on Oʻahu.

In preparation for the expected Tier 5 mitigation needs, Auwahi Wind deployed acoustic detectors in May 2021 to collect baseline data on bat acoustic activity at the proposed mitigation area at Kamehamenui. These detectors were checked regularly in FY 2024. During the first year of monitoring from May 11 to September 17, 2021, the total call abundance (bat calls per detector-night) was 39.04 ± 3.81, and the nightly detection rate (nights bats were detected per total detector-nights) was 0.98.

In February 2025, Auwahi Wind finalized the Tier 5 mitigation plan for the Hawaiian hoary bat with DOFAW and USFWS. A memorandum of understanding (MOU) with DLNR was signed by Auwahi Wind and DLNR on July 29, 2025. Following the signing of the MOU, Auwahi Wind began implementing mitigation actions in August 2025. Auwahi is also collaborating with Haleakalā Ranch to establish legal agreements and contracts for constructing a new above-ground water feature.

Based on the Auwahi Wind Amended HCP and confirmed by DOFAW and USFWS, Tier 6 mitigation planning begins when the estimated bat take exceeds 106 bats. Tier 6 mitigation was triggered at the end of FY 2025. Auwahi had already started internal coordination for Tier 6 mitigation and is actively drafting a Tier 6 mitigation plan for the Hawaiian hoary bat.

Blackburn's sphinx moth. Baseline mitigation for Blackburn's Sphinx Moth (BSM) involved a $144,000 contribution to the Leeward Haleakalā Watershed Restoration Partnership in 2012, aimed at restoring dryland forest by planting the equivalent of six acres of native endangered ʻAiea (*Nothocestrum latifolium*) throughout the Auwahi Forest Restoration Project. ʻAiea is known to act as a host plant for the endangered BSM. In FY 2019, the goal of planting 1,500 ʻAiea plants on 11 acres was achieved, and the Auwahi Forest Restoration Project fulfilled the MOU requirements.

Kahuku Wind Power Habitat Conservation Plan, O‘ahu, Hawai‘i. Approved 2010.

ITL Licensee: Kahuku Wind Power, LLC
(Note that Terraform Power owns Kahuku, LLC)

Project: Twelve WTGs with a total 30-MW energy generating capacity

ITL Duration: June 7, 2010 – June 7, 2030 (as of end of FY 2025, 15 years (83%) through the permit term)

Kahuku facility on the North Shore of O‘ahu.

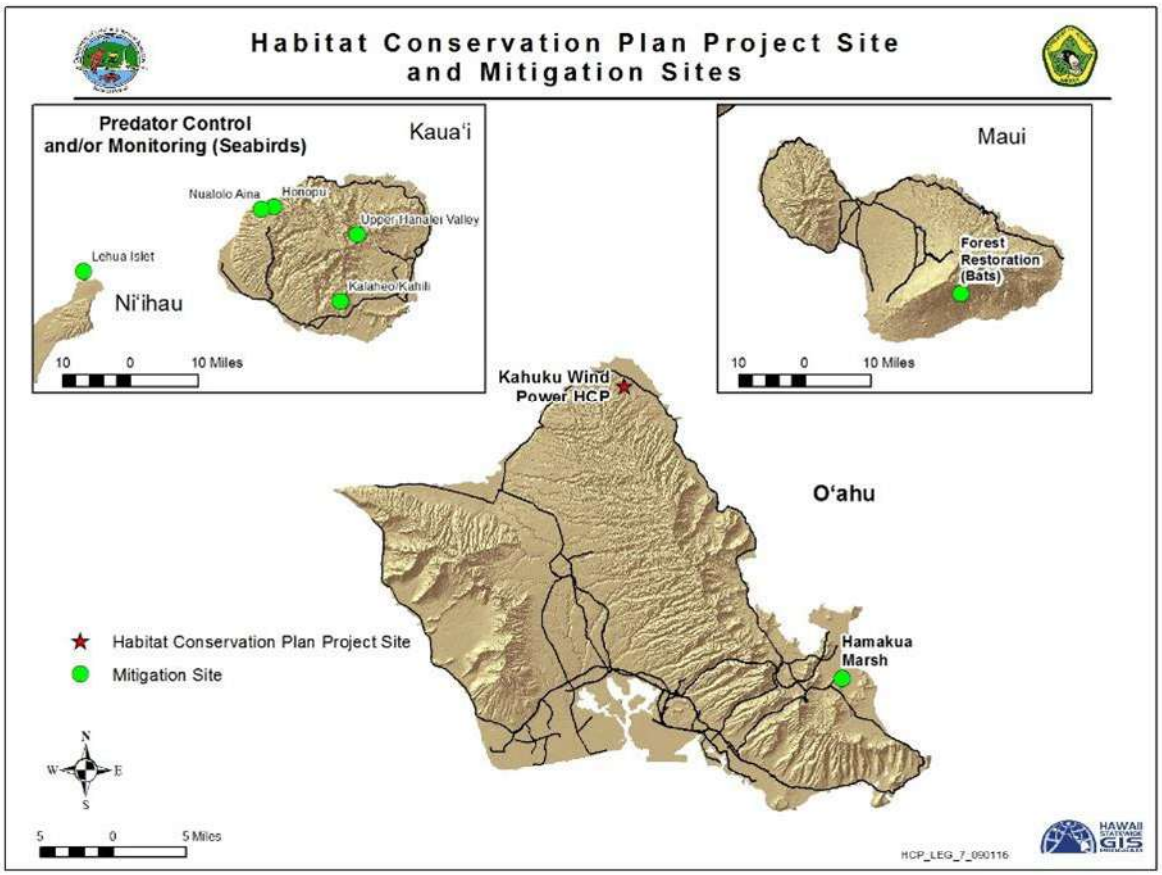


Figure 6: Location of Kahuku HCP (O‘ahu) and mitigation sites on the islands of Kaua‘i, Maui, & O‘ahu.

Take Authorization Over 20-year Term:

Table 8: Take Authorization for Kahuku Wind HCP.

Common Name	Scientific Name	Level of Take[1]	Annual Take Limit[2]	5-year Take Limit[3]	20-year Take Limit[3]
ʻUaʻu or Hawaiian petrel	*Pterodroma sandwichensis*	Baseline	4	8 adults/ juveniles	8 adults/ juveniles
		Higher	8	12 adults/ juveniles	12 adults/ juveniles
ʻAʻo or Newell's shearwater	*Puffinus auricularis newelli*	Baseline	3	9 adults/ juveniles	12 adults/ juveniles
		Higher	6	12 adults/ juveniles	18 adults/ juveniles
Koloa maoli or Hawaiian duck	*Anas wyvilliana*	Baseline	4	12 adults/ juveniles	16 adults/ juveniles
		Higher	8	16 adults/ juveniles	24 adults/ juveniles
Aeʻo or Hawaiian stilt	*Himantopus mexicanus knudseni*	Baseline	3	9 adults/ juveniles	12 adults/ juveniles
		Higher	6	12 adults/ juveniles	18 adults/ juveniles
ʻAlae keʻokeʻo or Hawaiian coot	*Fulica alai*	Baseline	3	9 adults/ juveniles	12 adults/ juveniles
		Higher	6	12 adults/ juveniles	18 adults/ juveniles
ʻAlae ʻula or Hawaiian moorhen	*Gallinula chloropus sandvicensis*	Baseline	4	10 adults/ juveniles	14 adults/ juveniles
		Higher	7	14 adults/ juveniles	20 adults/ juveniles
ʻŌpeʻapeʻa or Hawaiian hoary bat[4]	*Lasiurus cinereus semotus*	Baseline	7	14 individuals	16 individuals
		Higher	14	16 individuals	23 individuals
Pueo or Hawaiian short-eared owl	*Asio flammeus sandwichensis*	Baseline	4	12 adults	16 adults
		Higher	8	16 adults	24 adults

[1] Take authorization is delineated by Baseline and Higher Limits (Tiers). Upon reaching Higher Limits additional mitigation measures or funding are triggered to ensure that mitigation keeps pace with take.
[2] Exceeding the Annual Take Limit (including observed and unobserved take) will require one or more of the following: adaptive management, increased mitigation, or a major ITL amendment.
[3] "5-Year" and "20-year" take limits are cumulative for the respective period of years.
[4] Minor amendment to clarify permitted bat take was not processed on November 26, 2014 so take limit is 23 adults individuals

Status of ITL: There was documented take of two female Hawaiian hoary bats but no other HCP covered species at Kahuku Wind Power during FY 2025 reporting period (Table 9).

Table 9: Documented fatalities of HCP covered species during the reporting period.

Common Name	FY2025 Fatalities
ʻŌpeʻapeʻa or Hawaiian hoary bat	2

Table 10 provides an estimate of the overall total adjusted take that has occurred since Kahuku Wind ITL issuance.

Table 10: Total observed fatalities and estimated total take since ITL issuance under the Kahuku Wind Power ITL as of June 30, 2023.

Common Name	Total Observed Take	Estimated Unobserved Take[1]	Indirect Take using HCP multipliers[2]	Total Estimated Take
ʻŌpeʻapeʻa or Hawaiian hoary bat	12	12	3	27

[1] Based on the 80% credible maximum using the following model: Dalthorp, D., M. M. P. Huso, and D. Dail. 2017. Evidence of absence (v 2.0) software user guide: U.S. Geological Survey Data Series 1055.
[2] DNA results have identified the sex of five of the eight bat fatalities detected at the Project, confirming that three of the fatalities were female. Sex identification of one carcass did not yield a confirmed sex, and the sex of the remaining two bat fatalities will be incorporated once confirmed by genetic testing.

Weekly searches of the 35-meter radius plots (search area) were completed throughout FY 2025, totaling 52 weekly searches. The plots were searched by trained detector dogs and their handlers (canine search teams). These weekly searches typically took place over two consecutive days, with searches conducted at six of the 12 WTGs each day. The average search interval in FY 2025 was 6.91 days, with a standard deviation of 0.6 days. All searches during FY 2025 were carried out by canine teams; if conditions prevented the use of dogs (such as weather, injury, or the availability of canine search teams), a qualified biologist would perform transect-based visual searches within the search plots as an alternative.

Kahuku also monitors bat activity at the project site using four ground-based acoustic detectors located at each WTG. In FY 2025, ʼōpeʻapeʻa were detected on 119 out of 1,385 detector-nights (8.6 percent) across the four monitoring locations. This was the highest detection rate recorded since the start of monitoring with the Song Meters, increasing from 6.3 percent in FY 2024; however, this difference is not statistically significant (Tukey's HSD: P = 1.00). Annual detection rates across all monitoring years consistently remained below 9.0 percent. The detection rates over the past three monitoring years (FY 2023 – FY 2025) were significantly higher than those recorded before FY 2022, excluding FY 2019. Although the increases in detection rates from FY 2023 through FY 2025 are likely due to updated microphone sensitivity, the annual detection rates across all years appear stable with no significant upward or downward trend, regardless of variations in sampling effort or microphone model.

Kahuku continues to implement adaptive management measures, including adjustments to vegetation management and scavenger control efforts at the project site. Low Wind

Speed Curtailment (LWSC) of all turbines at wind speeds up to 5 meters per second began on April 27, 2012, and is currently enforced between sunset and sunrise from April through November. Curtailment is achieved by feathering blades to reduce rotation. The project operates under the LWSC regime described above, and Kahuku conducts regular inspections to ensure the LWSC programming functions as intended.

Moreover, in FY 2025, Kahuku collaborated with NRG Systems to install 12 tower-mounted ultrasonic acoustic deterrent systems across the project, with one system (each consisting of four deterrent units) at each turbine. Aimed at collecting data on ʻōpeʻapeʻa behavior near turbines with deterrents and supplementing acoustic monitoring data, Kahuku deployed thermal imaging cameras at the same turbines where acoustic monitoring has been ongoing (WTGs 2, 5, 9, and 12) in March 2025. Data analysis is currently underway, and the results will be included in the FY 2026 annual report.

Mitigation Status:

Hawaiian Petrel & Newell's Shearwater. In accordance with the Kahuku Wind HCP, the seabird mitigation plan for Newell's Shearwater and Hawaiian Petrel requires the ITL holder to fund seabird colony-based protection and management measures on the island of Kauaʻi. Kahuku Wind also funded the Kauaʻi Endangered Seabird Recovery Project to deploy and analyze data from Wildlife Acoustics SM2TM Songmeters at multiple locations in the remote mountains of Kauaʻi to monitor nesting colonies of Newell's Shearwater and Hawaiian Petrel. All seabird mitigation work was completed before FY 2021.

Hawaiian stilt, Hawaiian coot, Hawaiian moorhen, and Hawaiian duck. Baseline mitigation for the four waterbird species covered under the ITL involved payments to DOFAW to carry out predator control and wetland restoration at Hāmākua Marsh, part of the State's Kawainui-Hāmākua Marsh Complex, for four years from FY 2012-2015. All waterbird mitigation work was completed before FY 2021.

ʻAlae ʻUla or Hawaiian Moorhen swimming at Hāmākua Marsh

Hawaiian hoary bat. In accordance with the Kahuku Wind Power HCP, baseline bat mitigation involved a $150,000 payment to DOFAW (procured on May 31, 2012) for preserving or enhancing foraging and/or roosting habitat by building an ungulate-proof fence around approximately 280 acres of the State Kahikinui Forest Reserve and State Nakula Natural Area Reserve. In FY 2015, about 2,500 meters of fence were installed to enclose the area. In FY 2020, Kahuku Wind Power, LLC started mitigation planning for a higher level of take and provided funding to the U.S. Geological Survey for future Hawaiian Hoary Bat ecological research.

Kahuku is collaborating with DOFAW O‘ahu to implement management actions that benefit bats at one of DOFAW’s recent property acquisitions for bat mitigation, located in the Helemano Section of the ‘Ewa Forest Reserve (Helemano Mitigation Area). Tier 2 Hawaiian Hoary Bat Mitigation is being carried out across 176 acres within four fenced cattle grazing parcels at the Helemano Section of the ‘Ewa Forest Reserve (Helemano Mitigation Area) on O‘ahu. The mitigation planning began in FY 2020, and the Tier 2 mitigation plan was approved in FY 2024. In FY 2025, KAH and DOFAW signed a memorandum of understanding (MOU), and DOFAW issued a Forest Reserve Special Use Permit (SUP), allowing Kahuku to start implementation. Activities in FY 2025 included developing an Implementation Plan, continuing to obtain permits and ensure compliance, creating additional bat foraging corridors by clearing vegetation and re-clearing within existing corridors, and maintaining vegetation within these corridors. Opportunities for habitat modification within this area are expected to provide the necessary benefits for bats. Baseline acoustic monitoring for bat activity began in March 2023, using 12 SM4BAT-FS detector units, each with an SMM-U2 microphone, placed at and moved to randomly selected locations within the mitigation area monthly. This monitoring was completed in July 2024. Insect sampling started in August 2023 and was completed in July 2024.

Hawaiian short-eared owl. Obligations for Pueo mitigation were completed before FY 2016. These included payments of $50,000 for Pueo research on O‘ahu to determine population status and management priorities. Using these and other funds, DOFAW funded a Pueo research project in 2017 on O‘ahu, which was completed in FY 2018 and can be viewed at https://www.pueoproject.com. Additionally, $25,000 was provided to the Hawaii Wildlife Center before FY 2021.

Kawailoa Wind Power Habitat Conservation Plan, O‘ahu, Hawai‘i. Approved 2012.

ITL Licensee: Kawailoa Wind Power, LLC
(Note that DESRI IV, LLC now owns Kawailoa Wind Power, LLC; it is an investment fund managed by D.E. Shaw Renewable Investments, LLC)

Project: Thirty WTGs with a total 69-MW energy generating capacity

ITL Duration: January 6, 2012 – January 6, 2032 (as of end of FY 2025 13.5 years (67.5 %) through the permit term)

Kawailoa Wind Power, O‘ahu

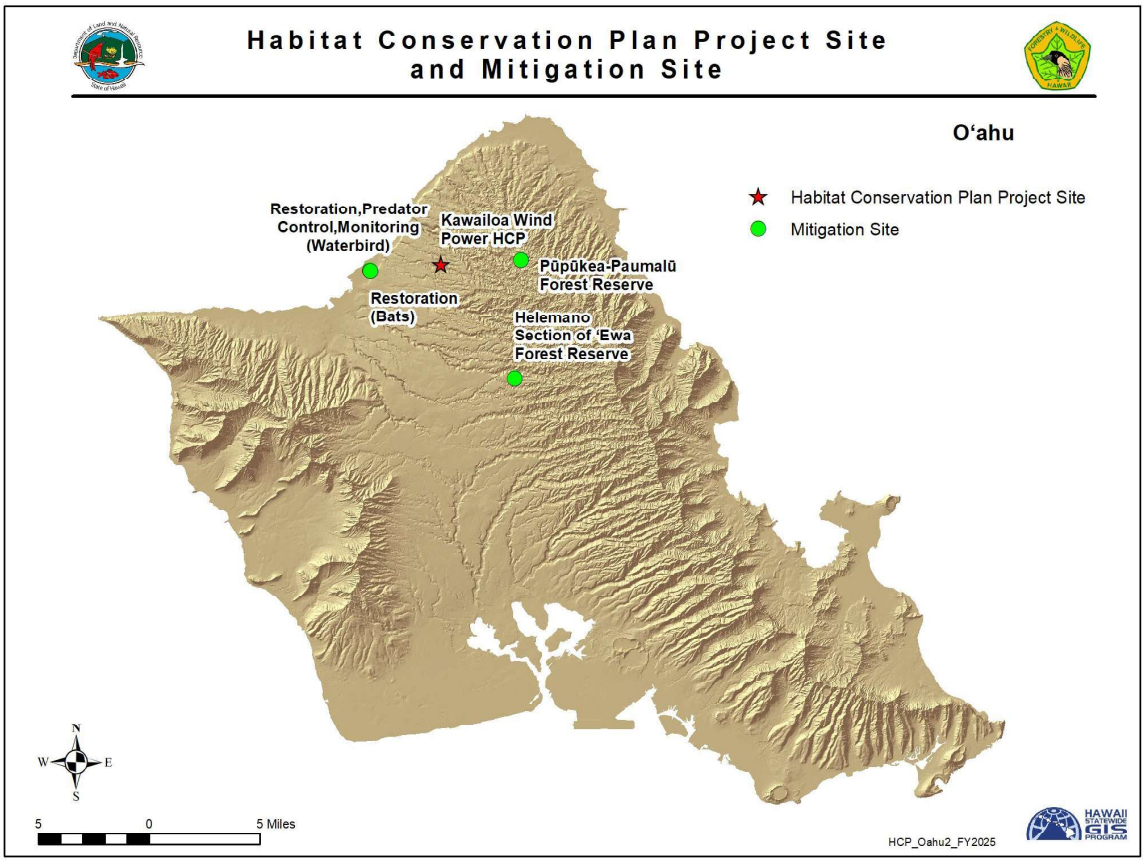


Figure 7: Location of Kawailoa HCP and mitigation sites on the island of O‘ahu.

Take Authorization Over 20-year Term:

Table 11: Take Authorization for Kawailoa Wind HCP.

Common Name	Scientific Name	Level of Take[1]	5-year Take Limit[2]	20-year Take Limit
ʻAʻo or Newell's shearwater	*Puffinus auricularis newelli*	Tier 1	3 adults/ juveniles & 2 chicks/eggs	3 adults/ juveniles & 2 chicks/eggs
		Tier 2	6 adults/ juveniles & 3 chicks/eggs	6 adults/ juveniles & 3 chicks/eggs
Koloa maoli or Hawaiian duck	*Anas wyvilliana*	Tier 1	4 adults/ juveniles & 4 ducklings	4 adults/ juveniles & 4 ducklings
		Tier 2	6 adults/ juveniles & 6 ducklings	6 adults/ juveniles & 6 ducklings
Aeʻo or Hawaiian stilt	*Himantopus mexicanus knudseni*	Tier 1	6 adults/ juveniles & 3 fledglings	8 adults/ juveniles & 4 fledglings
		Tier 2	8 adults/ juveniles & 4 fledglings	12 adults/ juveniles & 6 fledglings
ʻAlae keʻokeʻo or Hawaiian coot	*Fulica alai*	Tier 1	6 adults/ juveniles & 3 fledglings	8 adults/ juveniles & 4 fledglings
		Tier 2	8 adults/ juveniles & 4 fledglings	12 adults/ juveniles & 6 fledglings
ʻAlae ʻula or Hawaiian moorhen	*Gallinula chloropus sandvicensis*	Tier 1	6 adults/ juveniles & 3 fledglings	8 adults/ juveniles & 4 fledglings
		Tier 2	8 adults/ juveniles & 4 fledglings	8 adults/ juveniles & 4 fledglings
Pueo or Hawaiian short-eared owl	*Asio flammeus sandwichensis*	Tier 1	4 adults & 4 owlets	4 adults & 4 owlets
		Tier 2	6 adults & 6 owlets	6 adults & 6 owlets
ʻŌpeʻapeʻa or Hawaiian hoary bat[3]	*Lasiurus semotus*	Tier 1	20 individuals	20 individuals
		Tier 2	40 individuals	40 individuals
		Tier 3	60 individuals	60 individuals

Common Name	Scientific Name	Level of Take[1]	5-year Take Limit[2]	20-year Take Limit
		Tier 4	Not applicable	55 individuals
		Tier 5	Not applicable	85 individuals
		Tier 6	Not applicable	20 individuals
ʻUaʻu or Hawaiian petrel	*Pterodroma sandwichensis*	Not Applicable	Not Applicable	19 adults/fledglings and 5 chicks/eggs

[1] Take authorization is delineated by Baseline and Higher Limits (Tiers). Upon reaching Higher Limits additional mitigation measures or funding are triggered to ensure that mitigation keeps pace with take.
[2] Exceeding the 5-year Take Limit (including observed and unobserved take) will require one or more of the following: adaptive management, increased mitigation, or a major ITL amendment.
[3] Minor amendment to clarify permitted bat take processed on November 26, 2014.

Status of ITL: There was no documented take of any covered species at the Kawailoa Wind Power facility during FY 2025.

Table 12 provides an estimate of the overall total adjusted take that has occurred since Kawailoa Wind ITL issuance.

Table 12: Total observed fatalities and estimated total take since ITL issuance under the Kawailoa Wind Power ITL as of June 30, 2025.

Common Name	Total Observed Take[1]	Estimated Unobserved Take[2]	Indirect Take using HCP multipliers	Total Estimated Take
ʻŌpeʻapeʻa or Hawaiian hoary	41	47	9	97
ʻUaʻu or Hawaiian petrel	0	2 adults	2 chicks/eggs	2 adults and 2 chicks/eggs

[1] Excludes hoary bat takes that were incidental and not observed during systematic monitoring (incidental takes are evaluated as part of the EoA modeling software and therefore accounted for in the unobserved take).
[2] Based on the 80% credible maximum using the following model: Dalthorp, D., M. M. P. Huso, and D. Dail. 2017. Evidence of absence (v 2.0) software user guide: U.S. Geological Survey Data Series 1055.
ND - Not determined.

Fatality monitoring at the Project continued throughout FY 2025 at all wind turbine generators (WTG). In FY 2025, search areas included 55-meter-radius circles centered on each turbine and roads extending out to 75 meters from each turbine. For the two un-guyed meteorological towers, the search area was a 50-meter-radius circle centered on each tower. The average search interval for both turbines and meteorological towers in FY 2024 was 7.0 days. In previous years, when conditions limited the use of dogs (such as weather, injury, or the availability of canine search teams), search plots were

visually surveyed by Project staff; however, in FY 2025, canine teams conducted 100 percent of the WTG searches.

The estimated total take of 97 Hawaiian hoary bats (with 80% statistical certainty and indirect take) falls within the Tier 4 bat take request for the species outlined in the amended HCP. Kawailoa submitted an application and an amended HCP to the Agencies for review and approval in FY 2019 to increase the amount of Hawaiian hoary bat take and to include the Hawaiian petrel in their ITL. After the contested case hearing for this amendment was dismissed in January 2021, the BLNR unanimously approved the HCP amendment in February 2021. The amended ITL was issued by DOFAW on February 26, 2021, and signed by Kawailoa Wind on March 30, 2021.

To reduce Hawaiian hoary bat take, Kawailoa Wind decreased the number of turbine stop/start events per night during FY 2019 by increasing the rolling average time from 10 to 20 minutes. However, the 20-minute rolling average caused unexpected wind turbine behavior, leading the project to revert to a 10-minute rolling average in FY 2020. In FY 2021, the rolling average was again changed to 20 minutes in January, but after review of Tetra Tech's analysis, Kawailoa switched back to a 10-minute average in April 2021, where it remained through the end of FY 2022. The project continued to operate under the 10-minute rolling average LWSC regime throughout FY 2024. Additionally, acoustic deterrents were installed at all 30 turbines in May and June 2019.

Mitigation Status:

Newell's shearwater. Tier 1 mitigation for Newell's shearwater as described in the HCP included (1) providing funding to adapt a resetting trap for use in Hawai'i, (2) field testing traps at a suitable location where predators are known to occur, and (3) supporting a one-year pilot study for localized predator control in an area where Newell's shearwater are known to breed. Item number three was completed for a project on Kaua'i. Projects that met these requirements were finished by the end of FY 2015.

Hawaiian petrel. To mitigate impacts on this species, Kawailoa funded one year of monitoring and predator control at the Hanakāpī'ai and Hanakoa seabird colonies within the Hono O Nā Pali Natural Area Reserve on Kaua'i in 2020. Final reports from Kaua'i Endangered Seabird Recovery Project (KESRP) and Hallux Ecosystem Restoration LLC for this mitigation project were included in the FY 2021 Annual Report, which confirmed Kawailoa Wind's completion of its mitigation obligations for the Hawaiian Petrel.

In response to a contested case settlement, Kawailoa Wind provided $250,000 to Pacific Rim Conservation in October 2021 (FY 2022) to conduct research on Hawaiian petrels on O'ahu. The objective of this project is to determine whether Hawaiian petrels identified in previous surveys were prospecting or breeding on O'ahu. Pacific Rim Conservation's research related to Hawaiian petrels on O'ahu continued throughout FY 2025 with funds supplied by Kawailoa Wind. The organization is performing ground searches, auditory surveys, and deploying automated acoustic recording units to achieve this goal. The funds from Kawailoa Wind will also support activities during the 2025 to 2026 breeding seasons (L. Young/Pacific Rim, per. comm., July 2022).

Hawaiian duck, Hawaiian stilt, Hawaiian moorhen, and Hawaiian coot. The ʻUkoʻa Wetland mitigation program for Tier 1 mitigation continued for waterbirds during FY 2024. In FY 2016, USFWS and DOFAW provided written confirmation permitting adaptive management for the original waterbird mitigation. Some activities completed for waterbird mitigation at ʻUkoʻa Wetland (such as invasive vegetation removal, predator control, and fence maintenance) overlap with bat mitigation requirements. In FY 2024, waterbird surveys were conducted weekly from July 2023 through August 2023, and then again from December 2023 through June 2024. A total of 39 waterbird surveys were completed in FY 2024. In addition to the weekly surveys, a biologist conducts waterbird surveys prior to any invasive vegetation control. The purpose of these surveys is to identify if listed waterbird nests or chicks are present in the vicinity of the planned work area. If present, control work is modified to avoid and minimize impacts to endangered Hawaiian waterbirds.

Water hyacinth within removal area before removal work was initiated (Top), and after removal was complete (Bottom).

In FY 2025, ʻalae ʻula, or Hawaiian moorhen (including adults, chicks, or fledglings), were observed on every survey date and recorded at eight of the nine PC stations. No breeding events took place in FY 2025. Since monitoring began following management, a total of 17 ʻalae ʻula (*Gallinula chloropus sandvicensis*) fledglings have been documented at ʻUkoʻa.

In FY 2025, aeʻo or Hawaiian stilts were observed on 23 of the 40 survey dates. Their detections have increased compared to previous fiscal years, but individual Hawaiian stilt numbers remain low. Due to the recent increase in stilt detections, the project removed invasive pluchea (primarily *Pluchea indica*) within roughly 1 acre near PC 4 in FY 2023 to enhance stilt nesting habitat. In FY 2025, no aeʻo (*Himantopus mexicanus knudseni*) nests were seen at ʻUkoʻa Wetland; however, a juvenile stilt (between 5 to 8 weeks old) was observed near PC 4 on August 8, 2024. This is the first juvenile spotted in this wetland since surveys began in January 2017. The juvenile most likely fledged from ʻUkoʻa Wetland, supported by the following data: 1) the bird's age; 2) the habitat present; and 3) the consistent territorial behavior shown by the adult pair of Hawaiian stilts over the previous two months.

Another success at this wetland was the first observation of ʻalae keʻokeʻo, or Hawaii coot, since 2017. Individuals were seen on 27 of the 40 survey dates, all in open water areas near PC stations 1, 3, and 8. Note that there were two observations of this species throughout FY 2025. A single individual was first seen in August 2024 and then again from December 2024 through March 2025. A second individual was observed at ʻUkoʻa Wetland in April 2025. A nest was found near PC 3 in bulrush (*Schoenoplectus sp.*) on May 29, 2025. On June 9, 2025, 3 eggs and 2 coot chicks were seen in the nest, and three chicks were observed on June 17, 2025. By the end of FY 2025, two Hawaiian coot chicks remained with their parents at ʻUkoʻa Wetland. The final outcome

of this breeding effort will be monitored weekly until the chicks fledge or it is confirmed that they did not survive.

Since no waterbirds have been taken at this facility, or any wind facility across the state, except for Kaheawa Wind Power on Maui, the Agencies and the Endangered Species Recovery Committee (ESRC) have encouraged the licensee to decrease their take request for these species. Discussions with the licensee, Agencies, and the landowner (Kamehameha Schools) are ongoing to develop projects that increase waterbird production while meeting landscape-level conservation goals—such as invasive species management and habitat restoration.

Hawaiian hoary bat. During FY 2025, acoustic bat surveys continued at the Project, along with management activities and acoustic bat surveys for Tier 1 mitigation at ʻUkoʻa Wetland. At the Project, using permanent acoustic detectors stationed at WTGs 1, 10, 21, and 25, Hawaiian hoary bats were detected on 337 of 1392 FY 25 Bat Sampling Periods (June 2024 – May 2025). There has been a gradual, steady increase in bat detections at this site. A similar trend has been observed at other Oʻahu wind facilities. During the 2025 Bat Sampling Period, elevated detection rates occurred during the lactation reproductive period (mid-June through August), reaching an initial peak during the early post-lactation (September) reproductive period. A decline in detection rates followed the initial peak in September as the transition to the post-lactation (September to mid-December) reproductive period occurred. In FY 2025, Tier 1 bat mitigation activities at ʻUkoʻa Wetland included invasive vegetation removal, predator control and monitoring, fence maintenance, bat acoustic monitoring, bat lane maintenance, and insect sampling analysis.

Female Hawaiian Hoary Bat caught at ʻUʻkoa Wetland, Oahu.

In FY 2025, quarterly maintenance was conducted to remove invasive vegetation from the previously cleared, open water area of ʻUkoʻa Wetland. The targeted plant species included water hyacinth (*Eichhornia crassipes*), California grass (*Urochloa mutica*), ʻakaʻakai or bulrush (*Schoenoplectus* spp.), and broadleaf cattail (*Typha latifolia*). This work was performed by either Hapa Landscaping or Kuahiwi Fencing and Wildlife Services.

Grey Boar Wildlife Services, LLC (Grey Boar) conducts predator and ungulate removal at ʻUkoʻa Wetland, along with fencing monitoring and repairs. In FY 2025, a total of 171 predators were removed from ʻUkoʻa Wetland, including 40 pigs, 105 mongoose, and 26 rats (Grey Boar 2024a, Grey Boar 2024b, Grey Boar 2025a, Grey Boar 2025b). Tracking tunnel data show a consistent overall decrease in predator presence since management actions began in 2014.

A follow-up insect assessment was approved by both agencies in April and May 2021 to compare bat prey availability before and after management activities at ʻUkoʻa Wetland. Insect sampling was conducted from June to September 2021, and nearly 17,700 insect taxa were collected. This insect assessment meets the insect monitoring requirement outlined in the Kawailoa Wind HCP for Tier 1 mitigation for the Hawaiian hoary bat. The results show that Lepidoptera and Coleoptera are present at ʻUkoʻa Wetland. Overall, Lepidoptera may be more abundant at ʻUkoʻa Wetland compared to other insects, with a total of 29,482 moths collected during the study. Other insects known to be eaten by the Hawaiian hoary bat, such as Diptera (flies) and Blattodea (termites) (Jacobs 1999, Todd 2012, Pinzari et al. 2019), are also present at ʻUkoʻa Wetland. The study also found that light traps were the most effective method for collecting insects at ʻUkoʻa Wetland. This result is expected because light traps actively attract insects. They were especially effective at collecting Lepidopterans compared to other trap types. In contrast, aquatic emergence traps generally had the lowest capture rates among all trap types. Acoustic detectors at ʻUkoʻa Wetland have documented year-round use of the area by Hawaiian hoary bats. Insect sampling coincided with the Hawaiian hoary bat's lactation and early post-lactation reproductive periods, when higher detection rates were recorded at ʻUkoʻa Wetland compared to other times of the year (Tetra Tech 2022). Feeding buzzes have also been recorded at every detector location throughout ʻUkoʻa Wetland. Additional dietary studies are needed to determine what prey items are being consumed by Hawaiian hoary bats at ʻUkoʻa Wetland. However, since known and potential Hawaiian hoary bat prey are present and feeding buzzes have been recorded, it is assumed that ʻUkoʻa Wetland provides foraging habitat for the Hawaiian hoary bat.

Mitigation for Tiers 2 through 4 has been completed. USFWS- and DOFAW-approved bat research projects for Tiers 2/3 mitigation were finalized in FY 2022. WEST conducted a multi-year Hawaiian hoary bat acoustic survey to examine the distribution and seasonal presence of the Hawaiian hoary bat on Oʻahu. Although Kawailoa Wind settled the remaining funding obligations for this project in FY 2022, they contributed an additional $10,000 to WEST in FY 2023 to support continued monitoring of some deployed detectors during a fifth year. This funding was outside the Tier 2/3 mitigation obligations, which concluded in FY 2022.

Tier 4 Hawaiian hoary bat mitigation was completed in FY 2019 through the acquisition and ongoing protection of the Halemano/Helemano Wilderness Area.

Tier 5 bat mitigation will include one or a combination of the following: 1) funding to purchase property that will protect bat roosting and foraging habitat indefinitely, and/or 2) managing or restoring bat habitat to improve foraging and roosting areas at the Central Koʻolau region, Halemano/Helemano Wilderness Area, Waimea Native Forest, or similar locations. In accordance with the mitigation planning requirements under the HCP Amendment, a Site-Specific Mitigation Implementation Plan for Tier 5 mitigation was submitted to USFWS and DOFAW on May 1, 2020. Kawailoa Wind has continued planning for Tier 5 mitigation and is exploring new options for potential sites based on recent research and other management and restoration projects.

Pueo. A $12,500 contribution was made to the Hawaiʻi Wildlife Center for Pueo rehabilitation in FY 2012. An additional $12,500 was allocated to DOFAW to fulfill the

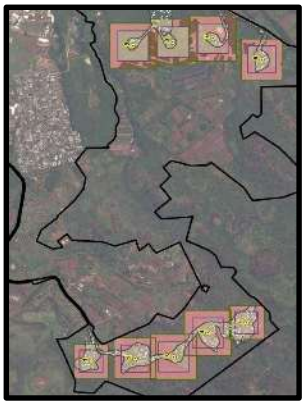
mitigation obligation in the second quarter of FY 2017. Using these and other funds, DOFAW funded a Pueo research project on O‘ahu in 2017, completed in FY 2018, which can be viewed at https://dlnr.hawaii.gov/wp-content/uploads/2017/10/FW18-Pueo-Rpt.pdf.

Nā Pua Makani Wind Energy Project Habitat Conservation Plan, Oʻahu, Hawaiʻi. Approved 2019.

ITL Licensee: Nā Pua Makani Power Partners, LLC
(Note that AES Corporation owns Na Pua Makani Power Partners, LLC)

Project: Eight WTGs with a total 24-MW energy generating capacity

ITL Duration: April 30, 2019 – April 30, 2040 (as of end of FY 2025, 7 years (33.3%) through the permit term)



Na Pua Makani Wind Energy Project, Oʻahu

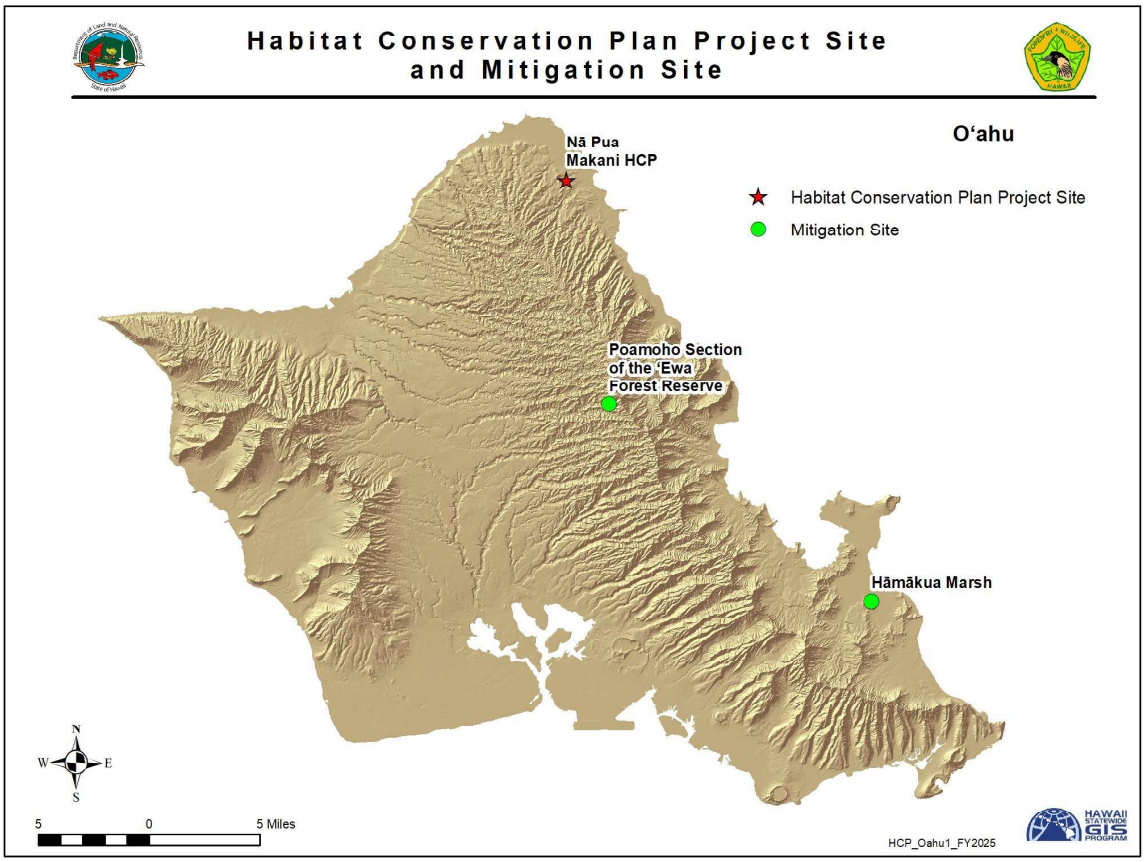


Figure 8: Location of Nā Pua Makani HCP and mitigation sites on the island of Oʻahu.

Take Authorization Over 21-year Term:

Table 13: Take Authorization for Nā Pua Makani Wind Energy Project HCP.

Common Name	Scientific Name	Level of Take	21-year Take Limit
ʻŌpeʻapeʻa or Hawaiian hoary bat	*Lasiurus semotus*	Tier 1	34 bats
		Tier 2	51 bats
ʻAʻo or Newell's shearwater	*Puffinus newelli*	Length of permit	4 adults/immatures and fledglings & 2 chicks/eggs
Nēnē or Hawaiian goose	*Branta sandvicensis*	Length of permit	6 birds
Koloa maoli or Hawaiian duck	*Anas wyvilliana*	Length of permit	4 birds
Aeʻo or Hawaiian stilt	*Himantopus mexicanus*	Length of permit	4 birds
ʻAlae keʻokeʻo or Hawaiian coot	*Fulica alai*	Length of permit	8 birds
ʻAlae ʻula or Hawaiian moorhen	*Gallinula chloropus*	Length of permit	8 birds
Pueo or Hawaiian short-eared owl	*Asio flammeus sandwichensis*	Length of permit	4 adults/fledged young & 4 chicks/eggs

Status of ITL: There was an observed take of three ʻōpeʻapeʻa or Hawaiian hoary bats during FY 2025. Additionally, one ʻōuʻu or Hawaiian petrel was observed at the facility. While this species is not currently included on the licensee's ITL, they are working towards developing a major amendment to add it to the license.

In FY 2019, the Project began construction, which continued throughout FY 2020; the project started commercial operations in December 2020. In FY 2021, one endangered ʻuaʻu or Hawaiian petrel was found near a wind turbine before facility operation. This take was attributed to likely attraction by security lights. There was an observed take of a Hawaiian petrel on November 4th, 2024, that is attributed to the operation of this facility. Nā Pua Makani is working with the Agencies to amend its HCP and ITL to include the Hawaiian petrel as a covered species. A draft with a proposed take request of 24 individuals has been recently submitted to the Agencies for their review. Approval for this amendment and reissuance of the ITL is forecasted to occur in late FY 2026.

As of FY 2025, the project has an estimated total take of 11 ʻōpeʻapeʻa or Hawaiian hoary bats, with 80% statistical confidence, including indirect take (see Table 14). No nighttime work involving lights that could attract wildlife occurred in FY 2025. Throughout FY 2025, wildlife monitoring at the project site consisted of standardized fatality surveys conducted according to the project's Post Construction Monitoring (PCMM) Implementation Plan (Tetra Tech 2022b) and a revised plan submitted in December 2023 after an agency site visit (Tetra Tech 2023). The PCMM Implementation Plan details how the project implements the PCMM program specified in the HCP, considering the project's construction footprint, land use patterns, and

topography. During FY 2024, Nā Pua Makani performed weekly searches with trained canine search teams within systematic search zones. These zones include sections that were cleared and graded during construction at each of the project's eight turbines and can be maintained with low-growing vegetation through mowing. When site conditions allowed, additional searches were carried out within active agricultural areas. All areas searched consistently during any fiscal quarter are included in the fatality estimates. Nā Pua Makani Wind Energy also conducted bias correction trials and searches throughout FY 2025 and incorporated these results into the take estimate analysis.

Table 14: Total observed fatalities and estimated total take since ITL issuance under the Nā Pua Makani Wind Energy ITL as of June 30, 2025.

Common Name	Total Observed Take[1]	Estimated Unobserved Take[2]	Indirect Take using HCP multipliers	Total Estimated Take
ʻŌpeʻapeʻa or Hawaiian hoary bat	4	10	1	11

[1] Excludes hoary bat takes that were incidental and not observed during systematic monitoring (incidental takes are evaluated as part of the EoA modeling software and therefore accounted for in the unobserved take).
[2] Based on the 80% credible maximum using the following model: Dalthorp, D., M. M. P. Huso, and D. Dail. 2017. Evidence of absence (v 2.0) software user guide: U.S. Geological Survey Data Series 1055.

Mitigation Status:

Newell's shearwater. In FY 2021, Nā Pua Makani provided the required mitigation funds to the National Fish and Wildlife Foundation (NFWF). Although no programs have yet been funded with these funds, mitigation status and results for Newell's shearwater will be reported when NFWF identifies an appropriate mitigation project.

Hawaiian hoary bat. The mitigation plan for the Hawaiian hoary bat in the HCP includes developing and implementing research and management plans to improve and protect bat habitat in the Poamoho Management Area. It also involves studying the effectiveness of habitat restoration activities on enhancing bat food resources, increasing bat activity, or other relevant variables. Several revisions to the related research and management plans were submitted and reviewed by DOFAW and USFWS in FY 2024. In Q3, revised versions of the plans were submitted to the Endangered Species Recovery Committee (ESRC) for review. In Q4, the agencies and ESRC approved the plans with amendments to include close coordination with all stakeholders involved in managing the Poamoho Management Area. By the end of Quarter 4, NPMPP met with stakeholders and updated the mitigation plan. Nā Pua Makani received final approval for these plans in Q1 FY 2026.

In Q2 FY 2024, Nā Pua Makani and Tetra Tech submitted a revised bat deterrent research plan for review, in accordance with Special Condition eight of their ITL. In Q4, Tetra Tech presented the plan for review by the ESRC. The ESRC recommended creating an additional revised plan that more directly assesses deterrent effectiveness. After receiving further input from DOFAW on potential research sites, Nā Pua Makani

will update the plan accordingly and submit it for ESRC review. Nā Pua Makani then submitted a finalized plan and obtained approval from DOFAW in Q4 FY 2025. This plan will investigate bat behavior around turbines (WTGs) using thermal camera recordings and acoustic data. A final report is expected to be submitted to DOFAW by Q4 FY 2026.

Post-construction monitoring for bat activity started in September 2020 and is now in its fourth year. Monitoring was carried out at four locations (turbines 1, 4, 6, and 9) using ground-based recording units. During FY 2024 (June 2022 – May 2023), Hawaiian hoary bats were detected on 169 nights out of 1,280 sampled detector-nights, representing 13.2 percent. This shows a slight increase from the previous fiscal year at this site. Similar gradual increases in bat activity have also been observed at other wind facilities on Oʻahu. Detection rates were highest from July through October, during the lactation and post-lactation reproductive periods, peaking at 0.23 in August and September. After November, bat activity declined through the pre-pregnancy reproductive period, reaching its lowest detection rate of 0.01 in February. Detection rates rose again in April and May during the reproductive period.

Hawaiian short-eared owl. Nā Pua Makani provided the necessary mitigation funds to DOFAW's Endangered Species Trust Fund in September 2020. An MOU was finalized between Nā Pua Makani and DOFAW in February 2021 to outline fund usage and reporting requirements. DOFAW utilized these funds to support a University of Hawaiʻi graduate research project on the Hawaiian short-eared owl's breeding ecology, including nest site selection, nesting success, and the timing of courtship and nesting. A preliminary report for the first year of the study was submitted to DOFAW in July 2022. DOFAW reported that a final report was being prepared (pers. comm. M. Giral-Perez, July 2023). The report can be found in the FY 2023 annual report.

Hawaiian goose. The nēnē or Hawaiian goose was extirpated from Oʻahu before the construction and operation of the Project. DOFAW and Nā Pua Makani agree that the Project currently poses no risk to the species. However, DOFAW may consider translocating this species in the future, and the Division encourages preparation for this possibility. The wind farm will therefore update the mitigation plan for the Hawaiian goose through a major amendment to the HCP, most likely removing the Hawaiian goose from the HCP and incidental take license. A draft of this amendment has recently been received and is under review by DOFAW HCP staff. The licensee is also proposing to donate funds to a wildlife rehabilitation facility. Currently, NPMPP has requested a two-tiered take authorization for this species—one individual in the first tier and three in the second. Approval for this amendment is expected by late FY 2026.

Hawaiian Waterbirds. DOFAW and Nā Pua Makani agreed that a modified program at Hāmākua Marsh, which reduces fatalities or increases the productivity of resident waterbird species, serves as appropriate mitigation for take at the facility (the fencing, public outreach, and staffing program outlined in the HCP was deemed no longer viable). Due to this need, Nā Pua Makani has submitted and received agency feedback on multiple drafts of an updated Hawaiian waterbird mitigation plan, including two in FY 2023 (Quarter 1 and Quarter 4). Nā Pua Makani secured USFWS and DOFAW

approval for the updated Hawaiian waterbird mitigation plan in FY 2024, with implementation starting in Q2 FY 2025.

Transportation Projects

Relocation of *Abutilon menziesii* Habitat Conservation Plan, Kapolei, O‘ahu. Approved 2004.

ITL Licensee: Hawai‘i Department of Transportation (HDOT)

Project: Development of 1,381-acre East Kapolei Master Plan project and construction of the North-South Road arterial highway bisecting the property

ITL Duration: March 18, 2005 – July 31, 2021 (100% through the permit term)

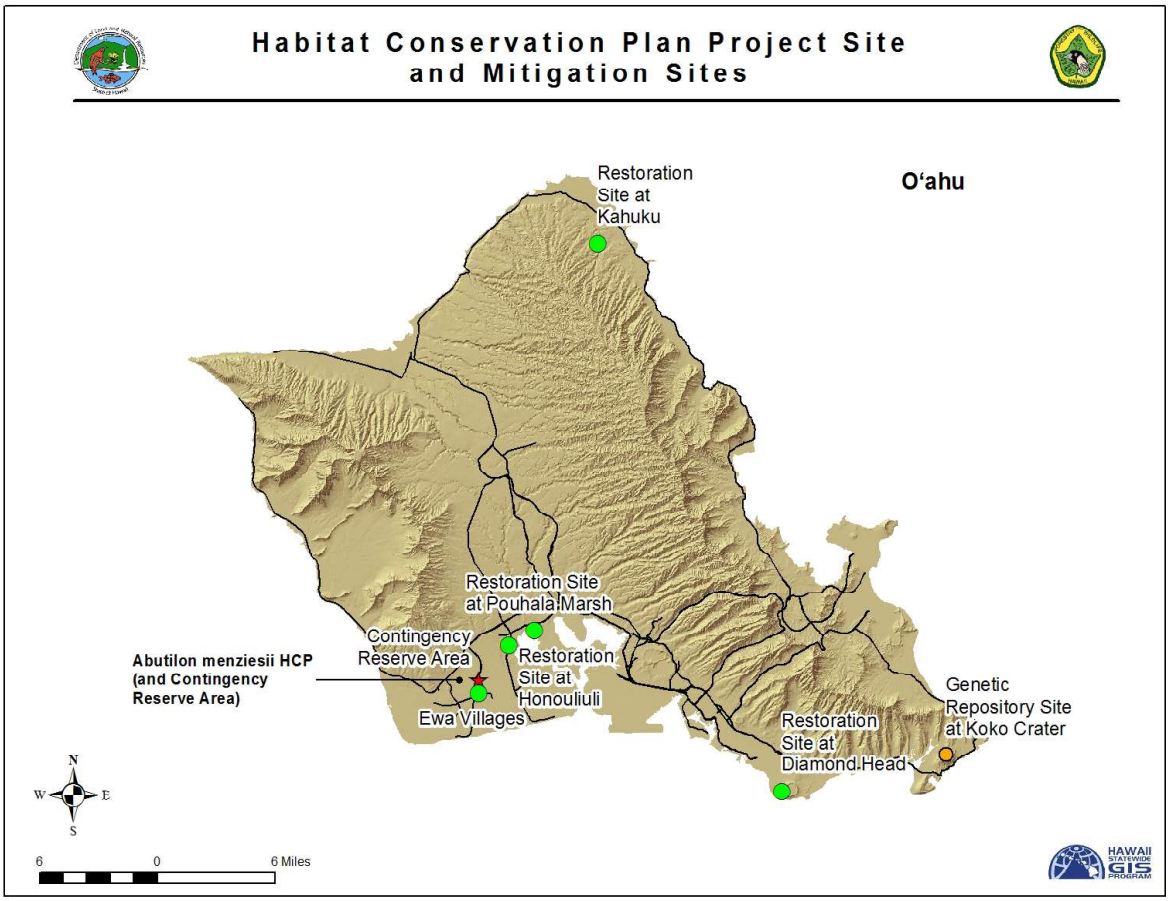


Figure 9: Location of Abutilon HCP and mitigation sites on the island of Oʻahu

Take Authorization:

Table 15: Take Authorization for Abutilon HCP.

Common	Scientific	Total Authorized Over ITL Duration
Koʻoloaʻula	*Abutilon*	All individual plants within the 1,381-acre

Status of ITL: Five mitigation sites were established, and a genetic repository contains plants representing the genetics of the translocated plants. A Contingency Reserve Area (CRA) was created where additional plantings would remain until the success criteria were met at the three mitigation sites. The HCP officially ended a month after the conclusion of FY 2021, on July 31, 2021, without meeting the success criteria. No changes or updates occurred in FY 2025.

Sub-permittees under this HCP, including the Department of Hawaiian Homelands (DHHL), HART, UH West Oʻahu, and the City and County of Honolulu, were interested in obtaining continued take coverage of Abutilon on their properties. They were unable to secure coverage under the now expired HCP because HDOT was unwilling to extend the HCP and ITL terms. In February of FY 2022, DHHL initiated discussions with DOFAW to explore the development of a potential new HCP for *A. menziesii*. At the beginning of FY 2024, DOFAW met again with DHHL and other interested parties to revisit this potential. No further progress has been made toward creating a new HCP.

The parcel remains owned by DLNR Land Division. Due to prior agreements between DLNR Land Division and DHHL, DLNR Land Division must provide DHHL with a developable parcel. DHHL claims the CRA is undevelopable because of the presence of endangered plants on site, yet they have not proposed a new HCP/ITL. Meanwhile, DOFAW is working with DLNR Land Division to prepare the CRA parcel for transfer to DHHL, which involves relocating the remaining four plants to a suitable site.

Mitigation Status:

The goal of the HCP was to initiate and maintain a program that results in an overall net increase in the number of endangered Koʻoloaʻula individuals on Oʻahu. The goal was to establish three protected, self-sustaining wild sites of *A. menziesii*, originating from the single degraded Kapolei population. Wild populations of *A. menziesii* have been successfully established at the following sites: 1) Diamond Head State Park; 2) Honouliuli Refuge—part of the U.S. Fish and Wildlife Service Oʻahu National Wildlife Refuge Complex; and 3) Pouhala Marsh on City and County property in Waipahu. In FY 2018, three additional sites were established to integrate this species' conservation into current DOFAW projects, with long-term investment by the DOFAW Oʻahu Branch. These sites are: Hāmakua Marsh in Kailua, Makua Keaʻau Forest Reserve in western Oʻahu, and a Waiʻanae Mountains Watershed Partnership restoration site in Waiʻanae Kai. These efforts incorporate the species into existing projects to promote long-term progress with minimal additional costs for expansion and maintenance. Additionally, some outplanting occurred at ʻEwa Villages Golf Course, where 39 individuals have been successfully maintained; however, due to irrigation, it is not considered a wild site. The primary genetic reserve site at Koko Crater Botanical Garden currently holds 139 mature (reproductive) plants, representing 63% of the genetic diversity.

The success criteria were not met by the end of the first month of FY 2022, when the ITL expired. Therefore, the Contingency Reserve Area (1,381-acre project area) cannot be developed. As of early 2021, the Contingency Reserve Area population included 22 individual plants, a decrease from 29 mature *A. menziesii* plants in FY 2020 and 35 mature plants in FY 2019. Due to the lack of funding from HDOT for mitigation work, the last survey of the Contingency Reserve Area for remaining plants was conducted by the Oʻahu Branch on July 28, 2020. Originally, 133 plants were established on the project site in 2002, and outplanting efforts have resulted in 107 genetically represented founder plants across all sites. The last surveys in FY 2020 recorded 628 mature *A. menziesii* plants across all the HCP populations at the targeted wild sites, genetic reserve sites, and the Contingency Reserve Area. No new plants were outplanted during the FY 2021 reporting period, nor by the expiration of the ITL.

In FY 2020, DOFAW completed a comprehensive monitoring survey of all management sites. This data indicated that the long-term criteria have not been met, and additional management efforts are needed. The main reason for the lack of seedling recruitment and survival may be insufficient moisture on a regular basis, which could be caused by various factors. However, the expansion of populations through clonal growth (such as rooting of overhanging branches) has been observed and might have warranted a revision of the success measures in the HCP.

Funding Source and Status: Funding for mitigation activities was provided to DOFAW by HDOT and was exhausted in January 2020. DOFAW committed to managing the project through the remaining ITL term, and during FY 2021, continued to seek discussions with HDOT on meeting the HCP's success criteria. However, by the end of FY 2021, HDOT did not respond to requests to continue funding the project to meet these criteria.

Other Development Projects

Cyanotech Aquaculture Facility Habitat Conservation Plan, Keahole Point, Hawai'i.

ITL Licensee: Cyanotech Corporation

Project: Commercial microalgae farming operation

ITL Duration: Original Endangered Species Permit: April 2002 (short term); Subsequent ITL December 24, 2003 – March 17, 2016;

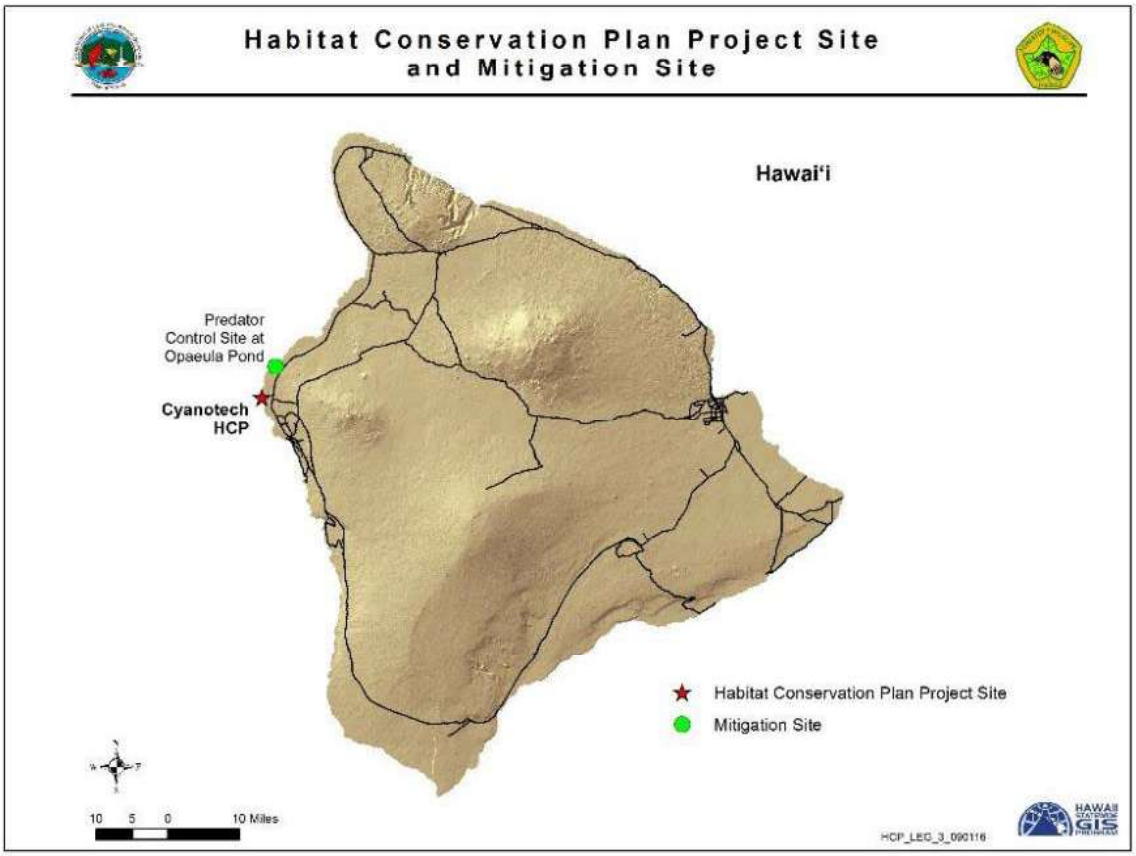


Figure 10: Location of Cyanotech HCP on the island of Hawai'i.

Take Authorization Over 13-year Term:

Table 16: Take Authorization for Cyanotech HCP.

Permit Period	Common Name	Scientific Name	Total Authorized Over ITL Duration
2002-2016	Ae'o or Hawaiian stilt	*Himantopus mexicanus knudseni*	The greater of, 45, or the number of chicks produced to offset losses
2016-2035* (requested renewal)	Ae'o or Hawaiian stilt	*Himantopus mexicanus knudseni*	38 (requested)

*not yet approved

Status of ITL: Cyanotech's Incidental Take License (ITL) expired in March 2016. There was no reported take by Cyanotech of Hawaiian Stilts for FY 2024. In early FY 2024, DOFAW HCP, in conjunction with USFWS, met with Cyanotech's leadership to discuss the need for a new State ITL and an amended Federal ITP. The agencies prepared a presentation outlining the next steps Cyanotech needs to take. They are now waiting for Cyanotech's further action.

During FY 2024, the site was surveyed once a month (September 2023 to February 2024, six surveys) during the Hawaiian stilt non-breeding season, and once a week (every Wednesday;

March to August 2024, 27 surveys) during the nesting season. No hazing was performed at the site. As of now, no FY 2025 report has been submitted.

September 2023 - February 2024
An average of 56.7 Hawaiian stilts were counted per survey (monthly) during the fall-winter seasons. A high count of 90 was recorded on January 17, 2024.

March - May 2024
An average of 17.7 Hawaiian stilts were counted each week during the spring season, with a high count of 30 Hawaiian stilts on March 13, 2024.

June - August 2024
An average of 12.5 Hawaiian stilts were observed per weekly survey during the summer season. The highest count was 26 Hawaiian stilts on July 17, 2024.

Two nests were documented, with one and two hatchlings respectively, but no fledglings were reported.

Table 17 shows an estimate of the total adjusted take since Cyanotech ITL was issued.

Table 17: Total observed fatalities since ITL issuance and estimated total adjusted take covered under the Cyanotech ITL as of June 30, 2016.

Common Name	Total Observed Take	Total Adjusted
Hawaiian stilt	18 adults, 7 chicks	43 fledglings

[1] Total adjusted take represented as number of fledglings, based on the survival rate of 2.17 fledglings with respect to incidental take of adult as described in the 2006 Cyanotech Amendment.

Mitigation Status:

Hawaiian stilt. Before the HCP, onsite mitigation took place at a lake managed as nesting and foraging habitat for stilts. Concerns about the lake's closeness to the airport led to the site being closed in 2002, with hazing used to prevent further nesting. Before closing, the lake produced 237 fledglings, with 48 fledging in 2002 and being counted towards the HCP's first year of permit coverage. According to a 2006 minor amendment, Cyanotech mitigation was to be fulfilled through funding and implementing predator control at an off-site location. ʻŌpaeʻula (now Kapoʻikai) pond, a 3.24-hectare coastal wetland in North Kona on Hawaiʻi Island, was identified as a suitable site for predator control efforts. Cyanotech collaborated with the private landowner to fund predator control at ʻŌpaeʻula pond to meet mitigation requirements and fulfill the HCP.

Renewal: In June 2016, Cyanotech requested a renewal of their ITL and HCP, with a proposed take of 38 Hawaiian Stilts over the next 19 years (2016-2035). Cyanotech is required to propose an appropriate mitigation project within one year of approval. They are working on an agreement with the County of Hawaii to provide predator control at the Kealakehe Wastewater Treatment Plant as part of their off-site mitigation.

***Hōkūala* (formerly known as Kauaʻi Lagoons) Habitat Conservation Plan, Kauaʻi, Hawaiʻi. Approved 2012.**

ITL Licensee: Hōkūala, Kauaʻi Lagoons, LLC
(Note that Tower Kauaʻi Lagoons, LLC is the current name of the entity holding the license)

Project: Oceanfront resort encompassing approximately 600 acres

ITL Duration: April 11, 2012 – April 11, 2042 (as of end of FY 2025, 13 years (43.3%) through the permit term)

Kauaʻi Lagoons, Kauaʻi.

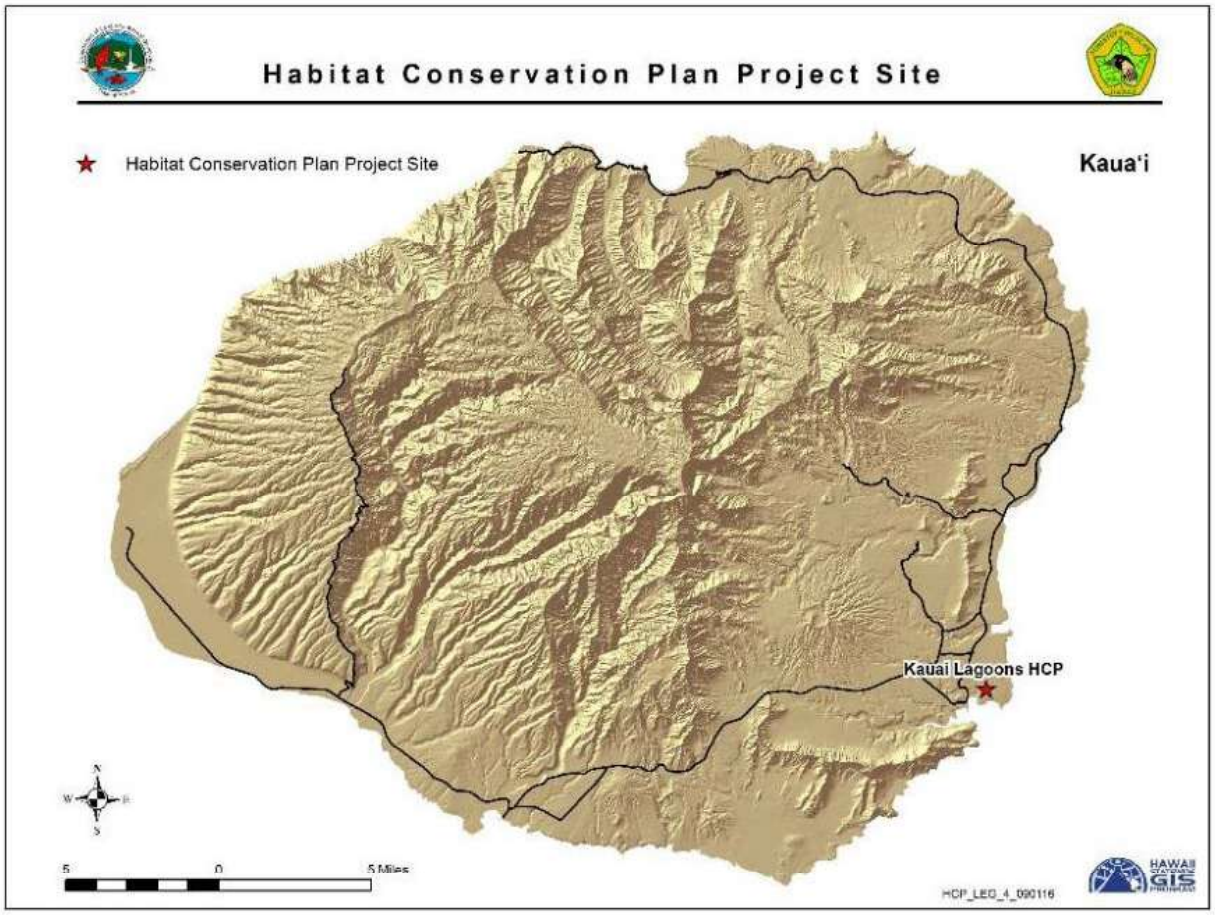


Figure 11: Location of Hōkūala HCP on the island of Kauaʻi.

Take Authorization Over 30-year Term:

Table 18: Take Authorization for Hōkūala HCP.

Common Name	Scientific Name	Type of Take	Total Authorized Over ITL Duration
ʻAʻo or Newell's shearwater	*Puffinus auricularis newelli*	Life of permit	29[a]
Koloa maoli or Hawaiian duck	*Anas wyvilliana*	Mortality or Non-Lethal	36
Aeʻo or Hawaiian stilt	*Himantopus mexicanus knudseni*	Mortality or Non-Lethal	38
ʻAlae keʻokeʻo or Hawaiian coot	*Fulica alai*	Mortality	110
		Non-Lethal	180
ʻAlae ʻula or Hawaiian gallinule	*Gallinula chloropus sandvicensis*	Mortality	40
		Non-Lethal	30
Nēnē or Hawaiian goose	*Branta sandvicensis*	Mortality or Non-Lethal	17
ʻUaʻu or Hawaiian petrel	*Pterodroma sandwichensis*	Life of Permit	1
ʻAkēʻakē or Band-rumped storm petrel	*Oceanodroma castro*	Life of Permit	<1

[a] Authorized level of take changed from 27 to 29 as processed under the September 2013 minor amendment.

Status of ITL:

Table 19 provides a listing of all notified documented incidental take during FY 2025.

Table 19: Documented incidental take of Covered Species at the Hōkūala site during the FY2025 reporting period.

Common Name	FY 2025 Fatalities
ʻAʻo or Newell's shearwater	1 non-lethal
Koloa maoli or Hawaiian duck	0
Aeʻo or Hawaiian stilt	0
ʻAlae keʻokeʻo or Hawaiian coot	15.25 lethal
ʻAlae ʻula or Hawaiian gallinule	3.65 lethal
Nēnē or Hawaiian goose	11

ʻUaʻu or Hawaiian petrel	0
ʻAkēʻakē or Band-rumped storm petrel	0

Table 20 shows tentative observed mortalities since the issuance of Hōkūala ITL. At the end of FY 2022, DOFAW identified disparities in the licensee-reported observed take for the Hawaiian gallinule and Hawaiian coot that had not been corrected before this report. The licensee is working with the agencies to resolve these disparities. Although only 43% of the license term has passed, the permitted lethal take of the Hawaiian gallinule has already been exceeded by the end of FY 2025 (and this number might be higher once the reporting disparities are fixed), and the permitted lethal take of the Hawaiian goose is at 82% of the allowed limit. There is a need for adaptive management and an amendment to increase the take limits for both the Hawaiian gallinule and Hawaiian goose.

Table 20: Total incidental take since ITL issuance under the Hōkūala ITL as of June 30, 2025.

Common Name	**Total Incidental Take** [a]
ʻAʻo or Newell's shearwater	11
Koloa maoli or Hawaiian duck	7.225
Aeʻo or Hawaiian stilt	0
ʻAlae keʻokeʻo or Hawaiian coot	56.5 lethal / 0 non-lethal
ʻAlae ʻula or Hawaiian gallinule	45.5 lethal / 1 non-lethal
Nēnē or Hawaiian goose	23
ʻUaʻu or Hawaiian petrel	0
ʻAkēʻakē or Band-rumped storm petrel	0

[a] Only includes take that was considered caused by project operations.

In accordance with the Hōkūala HCP Hōkūala (Resort) continued to implement the following minimization measures during this reporting period:

- On-site predator control.
- Provide comprehensive endangered species awareness training to all Resort employees, including updated modules and retraining for all staff and contractors after the new owners took over.

- Deploy construction and biological monitors during operations to prevent harm to ITL covered species.
- Education program to inform golfers about endangered species and implement measures to prevent harm to these species while golfing.
- Program to minimize light-induced attraction of seabirds to resort facilities by installing suitable lighting fixtures and implementing seasonal restrictions and best practices.
- Maintenance of on-site nesting areas.

In FY 2020, the ITL-holder submitted an HCP amendment request to update the property's current name, implementing entity, and financial assurances. The amendment is still being processed and will continue into FY 2026.

Mitigation Status:

Hawaiian goose, Hawaiian stilt, Hawaiian coot, Hawaiian moorhen, and Hawaiian duck. Baseline mitigation for waterbirds involves providing and maintaining about 35 acres of lagoons on the property, which serve as important habitat for endangered waterbird species, including predator control trapping and wildlife monitoring. During FY 2025, predator control efforts included deploying 14 chicken traps, ten cat/mongoose traps, two pig traps, 15 pig snares, three bullfrog traps, two bullfrog tadpole traps, and two dog traps around the property; traps were checked daily. These efforts led to the removal of 23 cats and 12 bullfrogs. Additionally, 1,487 chickens were removed using live traps or air rifles. Hōkūala also provided mitigation funding of $85,000 to DOFAW in May 2012 to support predator control and/or nēnē (Hawaiian goose) management at a translocation site(s) after the State's five-year translocation project concluded in 2016.

Newell's shearwater, Hawaiian petrel, and Band-rumped storm petrel. The minor amendment in 2013 increased the contribution of mitigation funding for seabird take with a specified amount of $10,000 annually to the National Fish and Wildlife Foundation (NFWF) account. This amount was to be held until a Kauaʻi island-wide seabird HCP was finalized and approved, which occurred in FY2020. On November 22, 2024, $10,000 was provided to NFWF to cover the FY2025 season.

Kauaʻi Seabird Habitat Conservation Plan, Kauaʻi Island, Hawaiʻi. Approved 2020.

Newell's Shearwater (Puffinus auricularis newelli)

ITL Licensees:
1. Alexander & Baldwin, Inc.
2. County of Kauaʻi
3. Hawaiʻi Department of Transportation
4. Royal Sonesta Resort (Essex House Condominium Corporation)
5. Kauaʻi Coffee Company, LLC
6. NCL (Bahamas) Ltd.
7. 1 Hotel Hanalei (XI Kauaʻi PV Hotel) (formerly known as Princeville Resort)
8. Sheraton Kauaʻi (Kauai Blue, Inc)

Project: The Kauaʻi Seabird Habitat Conservation Plan (KSHCP) is an island-wide conservation strategy approved in FY 2020, targeting threats from artificial nighttime light attraction affecting covered seabirds and the Hawaiian green sea turtle (*Chelonia mydas*).

ITL Duration: June 12, 2020 – June 12, 2050

Take Authorization Over 30-year Term:

Table 21: Take Authorization for All Participating Entities.

	Authorized Take over Permit Term			
	Lethal / Non-lethal fledglings			
Participant	Newell's Shearwater (ʻAʻo)	Hawaiian Petrel (ʻUaʻu)	Band-rumped Storm Petrel (ʻAkēʻakē)	Green Sea Turtle (Honu)
Kauaʻi Marriott Resort (Royal Sonesta Resort)	33 / 21	1 / 1	1 / 1	0
Kauaʻi Coffee	34 / 26	-	-	0
Sheraton Kauaʻi	81 / 64	1 / 0	3 / 1	0

NCL	30 / 30	6 / 6	6 / 6	0
Princeville Resort (1 Hotel Hanalei)	125 / 474	6 / 6	1 / 1	0
County of Kauaʻi	276 / 217	17 / 4	4 / 0	0
Hawaiʻi Dept. of Transportation	88 / 159	5 / 12	1 / 2	0
Alexander & Baldwin	104 / 80	3 / 3	1 / 1	0
Total	771 / 1071	39 / 32	17 / 12	0

Status of ITL: The Kauaʻi Seabird Habitat Conservation Plan (KSHCP) was approved in FY 2020 and addresses artificial nighttime lighting threats and light attraction on covered seabirds and the Hawaiian Green Sea Turtle (*Chelonia mydas*).

Table 22: Calculated seabird take for all Participants in 2024.

	Newell's Shearwater		**Hawaiian Petrel**		**Band-rumped Storm Petrel**	
Property or Facility	**Lethal**	**Non-lethal**	**Lethal**	**Non-lethal**	**Lethal**	**Non-lethal**
A&B- Multiple	4	4	0	0	0	0
Kauai County-Multiple	1	1	0	0	0	0
HDOT-Lihue Airport	0.33	1	.33	1	0	0
HDOT-Nawiliwili	0.11	1	0	0	0	0
HDOT-Port Allen	0	0	0	0	0	0
Kauai Coffee	1	1	0	0	0	
Royal Sonesta	1	1	0	0	0	0
NCL	0	0	1	1	0	0
1 Hotel Hanalei	3.33	30	1.11	0	0	0
Sheraton Kauai Resort	2	2	0	0	0	0
Take in 2024	12.78	41	2.44	2	0	0
Cumulative Take thru Dec 2024	78.11	123	4.67	4	2	2

A total of 43 seabirds were found grounded at KSHCP participant facilities during the 2024 seabird fallout season, including 40 Newell's shearwaters and three Hawaiian petrels. Of the Newell's shearwaters, 39 were found alive and released, while two of the

Hawaiian petrels were found alive and released and the third was found alive but died within 24 hours. No band-rumped storm petrels were observed during the 2024 season.

Facility changes: There were no ownership changes during the 2023 seabird season; however, one A&B facility (Waipouli Town Center) was sold before the 2024 season and is no longer part of the KSHCP.

Minimization status: Under the KSHCP, participants reduce their impact on the covered species by ensuring lighting complies with guidelines established in the KSHCP, searching for grounded fledgling seabirds during fledgling season, performing predator control to lower grounded seabird predation, and conducting training and outreach for employees and guests.

Overall, the participants in the KSHCP worked to ensure that lighting at their facilities was reduced and modified in compliance with the guidelines set forth in the KSHCP. DOFAW staff participated in lighting audits at select facilities, and lighting reductions are ongoing. All participants except for NCL and some County sites regularly conducted seabird searches throughout the fledgling season. Predator control was carried out at 37 of the required 47 facilities. It was sufficient at most sites, except for ten County of Kaua‘i sites where predator control was insufficient. Each participant also conducted annual outreach and training to help employees locate downed seabirds and respond properly. Overall, outreach at each participant property was adequate and professionally presented.

Mitigation Status: *Hawaiian Petrel, Newell's Shearwater, and Band-rumped Storm Petrel.* The funding structure of the KSHCP involves shared costs. Total costs, including implementation, mitigation, monitoring, adaptive management as needed, and reporting, are distributed among permit recipients based on the proportion of take authorized.

Under the KSHCP, participants will mitigate their take partly by enhancing, protecting, and managing suitable seabird breeding habitats on Kaua‘i to support the successful reproduction of covered seabirds. This will be achieved through 1) constructing and maintaining a predator-proof enclosure, 2) providing long-term maintenance of social attraction equipment within the enclosure, and 3) eradicating predators from inside the enclosure and implementing ongoing predator control at the site. The KSHCP identified the Kahuama‘a Flats within Kōke‘e State Park as an appropriate location for the mitigation and social attraction site.

Biological monitoring of forest birds, seabirds, and habitat at the preserve site was completed prior to the start of construction in FY 2020 and continued into FY 2021. In FY 2021, the construction of the 9.2-acre seabird reserve was finished. Predators were eradicated from the fenced area shortly after the fence was completed, although there have been occasional incursions of rats and mice inside the fence. Predator control continues at the site with 22 live traps along Kalalau Rim near the Kahuama'a Preserve and an additional 16 live traps along the Alaka'i Swamp Trail. In 2024, 11 feral cats were caught during a total of 3,734 trap-nights, and a total of 37 cats have been removed from 2021 to 2024. A social attraction program, including artificial nest boxes and a solar-powered sound system that broadcasts Newell's shearwater calls, has been

operated at the Kahuama'a seabird preserve during the seabird breeding season since 2021. Auditory surveys were conducted on six dates in 2024: May 21-22, June 19-20, and August 22-23. There were a total of 242 Newell's Shearwater detections and 99 Hawaiian petrel detections, with average call rates per hour of 15.1 and 6.2, respectively. Single Hawaiian petrels were documented visiting the social attraction site on multiple nights in 2023 and again in 2024 using trail cameras. No seabirds have nested at the site yet.

Figure 13. Photographs of completed artificial nest boxes installed at Kahuama'a Seabird Preserve

SUMMARY OF SAFE HARBOR AGREEMENTS AND ASSOCIATED INCIDENTAL TAKE LICENSES

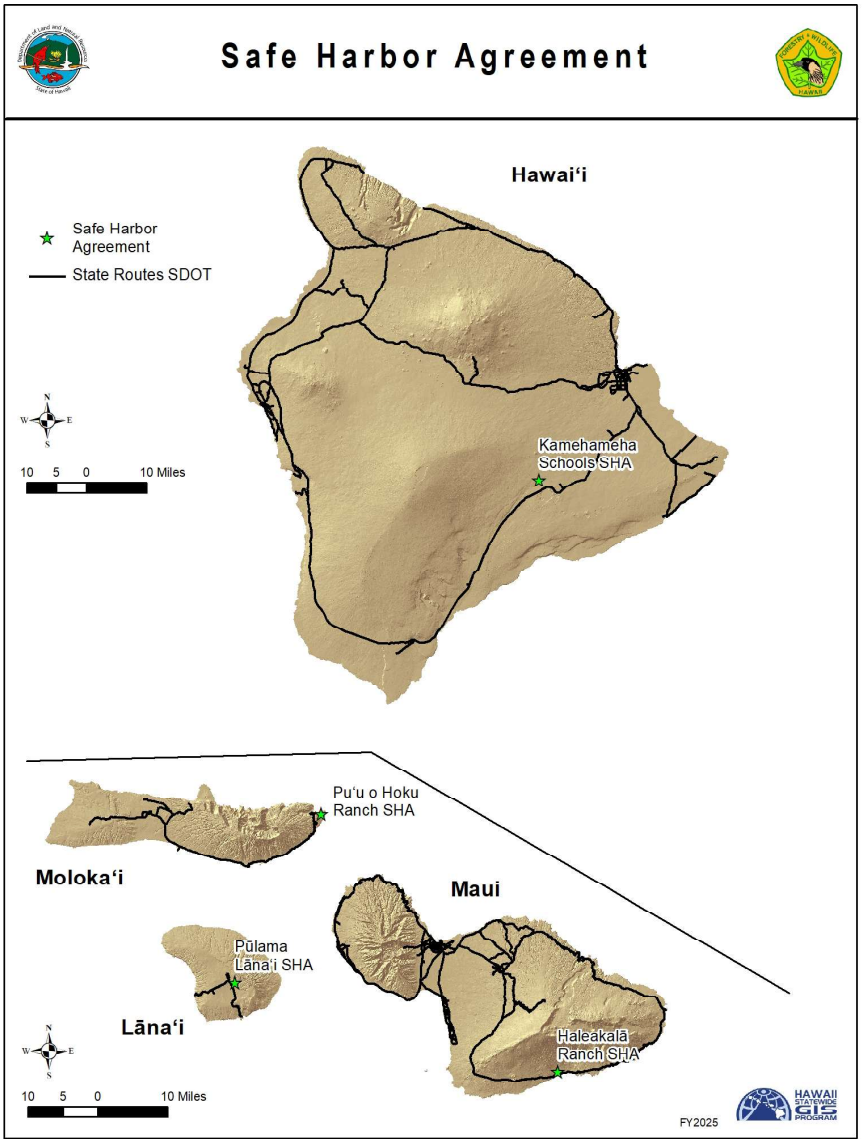


Figure 1: Location of Safe Harbor Agreements across the state.

Safe Harbor Agreement for the Introduction of Endangered Orangeblack Hawaiian Damselfly (Megalagrion xanthomelas), Lānaʻi

ITL Licensee: Pūlama Lānaʻi, LLC dba Pūlama Lānaʻi

Project: Reintroduce pinapinao back into a conservation area on the island of Lānaʻi

ITL and SHA: ITL-32; Issued on June 13, 2025. Expires 50 years from the date of issue.

Take Authorization: Three aeʻo or Hawaiian stilt, three ʻalae keʻokeʻo or Hawaiian coot, any individual above baseline of nalo meli maoli or Assimulans yellow-faced bee, and any individual pinapinao or orangeblack Hawaiian damselfly habitat above baseline with the designated conservation area.

Baseline Condition: The project area is located in the Kalulu ahupuaʻa. Currently, there are no pinapinao, ʻalae keʻokeʻo, aeʻo, or nalo meli maoli in the conservation area, and no habitat for the covered species exists. The land was previously used for pineapple farming and has been fallow for the past 30 years. Vegetation mainly consists of invasive Formosan koa *(Acacia confusa*). The SHA will facilitate the creation of an artificial pond or ponds and the reintroduction of pinapinao. These artificial ponds and pinapinao habitat might also serve as potential habitat, nesting, and foraging areas for the ʻalae keʻokeʻo, aeʻo, and nalo meli maoli.

Status of ITL and SHA:
This project is a partnership between Pūlama Lānaʻi, DLNR DOFAW, and the U.S. Fish and Wildlife Service. A draft of the Safe Harbor Agreement was shared with the Endangered Species Recovery Committee (ESRC) in December 2024. A site visit from the public and ESRC took place at the project site on January 17, 2025. Additionally, a public hearing was held on Lānaʻi on the evening of January 17, 2025. The final draft of the SHA was presented to the ESRC on February 21, 2025, and afterward, the ESRC recommended that the BLNR approve the SHA. The Board approved the SHA during the BLNR meeting on May 23, 2025.

This translocation project was recently granted a 3-year Competitive State Wildlife Grant, and logistical planning has started.

Safe Harbor Agreement for Pu‘u o Hōkū Ranch, Moloka‘i.

ITL Licensee: Pu‘u o Hōkū Ranch, Limited.

Project: Reintroduce Nēnē (*Branta sandvicensis*) to Pu‘u o Hōkū Ranch, Moloka‘i.

ITL and SHA Duration: ITL has no specific expiration and is valid unless rescinded; SHA period was from September 4, 2001, to September 3, 2008.

Nēnē, official bird of the State of Hawai‘i, resting in the foreground.

Take Authorization: Incidental take of Nēnē on lands owned or otherwise controlled by Pu‘u o Hōkū Ranch, Limited.

Baseline Condition: At the time of agreement execution, there were no wild Nēnē on Moloka‘i. Therefore, the baseline condition is zero wild Nēnē on Pu‘u o Hōkū Ranch property. The SHA allowed for the reintroduction of Nēnē on Pu‘u o Hōkū Ranch property, the construction of a release pen, the provision of habitat for Nēnē grazing and breeding, and the control of predators in the release pen and breeding areas.

Status of ITL and SHA:
Moloka’i DOFAW staff continues to monitor the nēnē (Hawaiian Goose) population at Pu’u o Hōkū Ranch. This past year, four adult nēnē and two fledglings were regularly observed; the population estimate for Moloka’i is four adults and two fledglings.

There was a nest found in the pen that produced three goslings; however, one gosling was found dead in February. On February 19, 2025, the remaining two goslings were sexed, weighed, and banded at Pu‘u O Hōkū’s open-top release pen. Additional birds translocated from Kaua‘i were banded on April 4, 2025.

During this period, Pu‘u O Hōkū’s open-top pen was rebuilt with new posts, aqua mesh fencing, wire hoods, gates, and rubber skirting along the fence. A 30’ x 30’ holding pen was also constructed inside the pen to temporarily hold translocated birds. Water troughs and feeders were also replaced throughout the pen.

A total of one acre of invasive vegetation, including lantana, haole koa, and Christmas berry, was removed from the open-top release pen. During this period, twelve acres within the pen were mowed, and an additional twelve acres surrounding the pen and the lower pasture nearby were also mowed by Ranch personnel. No out-planting occurred during this time. Fourteen live traps and fourteen A24 traps were set around the open-top release pen. During this period, DOFAW staff removed a total of nine mongooses, two cats, and one rat.

On April 4, 2025, twenty-four nēnē were loaded onto a helicopter at Lihue Airport in crates and translocated to Pu‘u O Hōkū Ranch, where they were released into the holding pens of the open-top release pen. Of the twenty-four birds, eight were adults

and sixteen were fledglings. Groups one and two were released into the open-top pens during April and May. Transmitters on 065 and 072 (adult males) were removed on April 30, 2025, and sent back to CTT Technology due to issues with data reception. New transmitters were later placed on these birds and additional birds after this reporting period.

Table 1: Observations of Nēnē translocated to Puʻu o Hōkū Ranch.

Year	No. of Birds Translocated	Total Birds Translocated	No. of Known Fatalities	No. of Birds Sighted	Percentage (%) of Translocated Birds Sighted (excluding known fatalities)
2025	24	98	0	24	100
2024	0	74	0	0	0
2023	0	74	0	0	0
2022	0	74	0	0	0
2021	0	74	0	0	0
2020	0	74	0	0	0
2019	0	74	0	1	2
2018	0	74	0	1	2
2017	0	74	0	1	2
2016	0	74	0	2	3
2015	0	74	0	4	5
2014	0	74	0	6	9
2013	0	74	0	6	9
2012	0	74	0	6	9
2011	0	74	0	7	11
2010	0	74	0	8	13
2009	0	74	0	18	28
2008	0	74	1	33	52
2007	0	74	0	38	58
2006	0	74	5	29	45
2005	11	74	2	47	67
2004	8	63	1	42	69
2003	41	55	1	54	100
2002	14	11	0	14	100

Programmatic Safe Harbor Agreement for Nēnē, Molokaʻi.

ITL Licensee: DOFAW to issue Certificates of Inclusion under the authority of §195D-22, HRS, to landowners signing Cooperative Agreements.

Project: Promote private landowner management activities to support Nēnē and offer regulatory assurances if Nēnē occupy or breed on their property.

ITL Duration: April 7, 2003 – April 6, 2053.

Take Authorization: Any Nēnē or Nēnē habitat above Baseline Conditions, as defined in respective landowner Cooperative Agreements.

Baseline Condition: To be specified in each landowner cooperative agreement.

Status of ITL and SHA: During the reporting period and to date, no landowners are enrolled under this SHA; discussions with interested landowners will continue.

Safe Harbor Agreement for the Introduction of Nēnē to Piʻiholo Ranch, Maui.

ITL Licensee: Piʻiholo Ranch, LLC.

Project: Establish a Nēnē population on Piʻiholo Ranch.

ITL Duration: The ITL is valid for 50 years from September 21, 2004, to September 20, 2054; the SHA is currently expired. The original period was from September 21, 2004, to September 20, 2014.

Piʻiholo Ranch on Maui.

Take Authorization: Incidental take of Nēnē on lands owned or otherwise controlled by Piʻiholo Ranch, LLC.

Baseline Condition: After Nēnē reintroduction efforts on Maui that started at Haleakalā National Park in 1962, DOFAW began establishing a population in west Maui through a reintroduction program at Hanaʻula in 1995. However, before the development of the SHA, there had been no known Nēnē sightings at Piʻiholo Ranch premises by DOFAW staff or Ranch personnel. The baseline condition, therefore, was set at zero. Under the SHA, Piʻiholo Ranch was to maintain or improve about 600 acres of Nēnē habitat for 10 years.

Status of ITL and SHA:

Maui DOFAW staff manages and monitors the Piʻiholo Ranch Pen throughout the year. Due to a staffing vacancy, maintenance activities were limited. A total of thirty-five

banded individuals were observed at Pi‘iholo Ranch pen and surrounding property, along with an additional twelve unbanded ones.

A total of twelve nests were recorded within the pen, with eight successful nests. A total of fourteen eggs hatched, and zero goslings were fledged.

Four nests failed. Four gosling carcasses were found inside the pen, with two discovered dead in a water bowl and two deceased from unknown causes. Two goslings were never found, but their parents were seen without them, and eight goslings along with their parents were not seen again.

Three birds were banded this past season, all of which were unbanded adults. Two of the banded adults were released at the pen after sustaining injuries elsewhere. DOFAW staff removed six mongoose and two cats from the pen area using a total of sixteen live cage traps.

The entire fence perimeter was checked monthly. The fenceline was weed-whacked twice a year. The interior of the pen was mowed twelve times annually. During the summer months, the pen was very dry, so less mowing was necessary.

DOFAW staff removed six mongoose and two cats from the pen area out of a total of sixteen live cage traps.

Table 2 shows survey data for the original 48 birds released at the Ranch. The percentage of these birds that were re-sighted depends on survey effort and does not account for any unknown mortality or emigration from the Ranch, so it may not necessarily reflect release success.

Table 2: Observations of Nēnē translocated to Piʻiholo Ranch.

Year	No. of Birds Translocated	Total Birds Translocated	No. of Known Fatalities	No. of Translocated Birds Sighted	Percentage (%) of Translocated Birds Sighted (excluding known fatalities)
2025	0	48	0	0	0
2024	0	48	0	1	2.1
2023	0	48	0	0	0
202	0	48	0	0	0
202	0	48	0	0	0
202	0	48	0	1	2
201	0	48	0	3	6
201	0	48	0	3	6
201	0	48	0	4	9
201	0	48	0	9	20
201	0	48	0	10	23
201	0	48	0	10	23
201	0	48	0	11	25
201	0	48	0	11	25
201	0	48	1	16	36
201	0	48	0	23	51
200	0	48	1	26	58
200	10	48	0	30	65
200	25	38	2	26	72
200	8	13	0	12	92
200	5	5	0	5	100

Safe Harbor Agreement for the Reintroduction of Nēnē to Haleakalā Ranch, Maui.

ITL Licensee: Haleakalā Ranch Company.

Project: Establish a Nēnē population on Haleakalā Ranch, Maui.

ITL Duration: The ITL is valid for 50 years from May 22, 2012, to May 21, 2062; the SHA has been finalized as of August 2019.

Take Authorization: Incidental take of nēnē on lands owned or otherwise controlled by Haleakalā Ranch.

Baseline Condition: There were no nēnē sightings at Haleakalā Ranch by DOFAW staff or ranch personnel prior to the execution of the SHA, so the baseline condition was determined to be zero.

Status of ITL and SHA:
Management of the Haleakalā Ranch pen was transferred to KWP/TetraTech and is now managed by a local contractor as of January 2023. This includes mowing, weed control, fence maintenance, water management, predator control, trapping, and road upkeep. DOFAW conducts monthly nēnē monitoring surveys, tracks nesting success, and banding.

During this period, a total of forty-three banded adult birds were observed at the pen, along with eleven unbanded adults.

A total of ten nests were found inside the open-top release pen, and one was in the Koa enclosure. Twenty-four eggs hatched, eight fledged, and five were banded.

A total of eleven individuals were banded at the Haleakalā Ranch pen this past season, including six adults and five fledglings. Of the adults banded, three were rebanded.

Maintenance is performed by the contractor, AES, year-round. The one-acre pen was mowed 30 times over the past year. The electric fence, grounding stakes, and batteries were maintained throughout this period. The storage shed was painted, and a new hinge for the pen's entrance was fabricated and installed.

Approximately 1 acre of invasive vegetation was mechanically removed, including lantana, strawberry guava, Bocconia, fireweed, and burdock. Predator control conducted by AES maintained ten Tomahawk live traps, twenty DOC200 traps, ten A24 traps, one trapinator body grip, and two AT220 traps. Of these traps, four mongoose, two cats, and seven rats were removed.

Fifteen goslings were preyed upon by aerial predators or possibly mongoose; no carcasses were found nearby. Four goslings died of natural causes, and their bodies were collected and placed in the DOFAW freezer.

Table 3: Observations of nēnē translocated to Haleakalā Ranch.

Year	No. of Birds Translocated	Total Birds Translocated	No. of Known Fatalities	No. of Birds Sighted	Percentage (%) of Translocated Birds Sighted (excluding known fatalities)
2025	0	56	0	0	0
2024	0	56	0	3	5.4
2023	3	56	0	Pending	Pending
2022	0	53	0	2	4
2021	0	53	1	8	15
2020	0	53	0	10	19
2019	0	53	0	10	19
2018	0	53	0	13	25
2017	0	53	0	19	40
2016	8	53	0	28	60
2015	8	45	1	25	64
2014	0	37	2	23	84
2013	7	37	1	31	91
2012	20	30	2	30	100
2011	10	10	0	10	100

Safe Harbor Agreement for Kamehameha Schools, Keauhou and Kīlauea Forest Lands, *Hawai'i Island*

ITL Licensee: Trustees of the Estate of Bernice P. Bishop, DBA Kamehameha Schools.

Project: Restoration and enhancement of habitat for native plants and animals.

ITL Duration: The ITL is valid from June 22, 2018, to June 21, 2068.

Example species in the Kamehameha Schools SHA.

Take Authorization and Baseline Condition:

Table 4: Take Authorization for Kamehameha Schools SHA.

Common Name	**Scientific Name**	**Incidental Take Permitted No. of Individuals or Habitat**	**Baseline Individuals or Habitat**
Forest Birds: ʻAkiapōlāʻau, Hawaiʻi Creeper Hawaiʻi ʻĀkepa ʻIʻiwi	*Hemignathus wilsoni* *Loxops mana* *Loxops coccineus* *Vestiaria coccinea*	Any habitat for the four forest birds above the baseline identified on the Enrolled Property	Approximately 4,162 acres of habitat in Forest Bird Stratum 1 on the Enrolled Property
Hawaiian hawk, ʻIo	*Buteo solitarius*	Any habitat for the ʻIo above the baseline identified on the Enrolled Property	Approximately 18,517 acres of habitat on the Enrolled Property
Hawaiian crow, ʻAlalā	*Corvus hawaiiensis*	Any individual on or at the Enrolled Property	Zero Individuals
Hawaiian goose, Nēnē	*Branta sandvicensis*	Any individual on or at the Enrolled Property	Zero Individuals
Hawaiian hoary bat, ʻŌpeʻapeʻa	*Lasiurus semotus*	Any habitat for the ʻŌpeʻapeʻa above the baseline identified on the Enrolled Property	Approximately 18,517 acres of habitat on the Enrolled Property
None	*Asplenium peruvianum* var. *insulare*	Any individual on or at the Enrolled Property	128 Individuals
ʻŌhā wai	*Clermontia lindseyana*	Any individual above the baseline on the Enrolled Property	24 Individuals
Hāhā	*Cyanea shipmanii*	Any individual above the baseline on the Enrolled Property	463 Individuals
Hāhā	*Cyanea stictophylla*	Any individual above the baseline on the Enrolled Property	104 Individuals
Kīponapona	*Phyllostegia racemosa*	Any individual above the baseline on the Enrolled Property	4 Individuals
None	*Phyllostegia velutina*	Any individual above the baseline on the Enrolled Property	38 Individuals
None	*Plantago hawaiensis*	Any individual above the baseline on the Enrolled Property	1 Individual

Common Name	**Scientific Name**	**Incidental Take Permitted No. of Individuals or Habitat**	**Baseline Individuals or Habitat**
None	*Vicia menziesii*	Any individual above the baseline on the Enrolled Property	27 Individuals
ʻĀhinahina	*Argyroxiphium kauense*	Any individual above the baseline on the Enrolled Property	Zero Individuals
ʻŌha	*Clermontia peleana*	Any individual above the baseline on the Enrolled Property	Zero Individuals
ʻAkū	*Cyanea tritomantha*	Any individual above the baseline on the Enrolled Property	Zero Individuals
Haʻiwale	*Cyrtandra giffardii*	Any individual above the baseline on the Enrolled Property	Zero Individuals
Haʻiwale	*Cyrtandra tintinnabula*	Any individual above the baseline on the Enrolled Property	Zero Individuals
Hau kuahiwi	*Hibiscadelphus giffardianus*	Any individual above the baseline on the Enrolled Property	Zero Individuals
ʻOhe	*Joinvillea ascendens*	Any individual above the baseline on the Enrolled Property	Zero Individuals
Alani	*Melicope zahlbruckneri*	Any individual above the baseline on the Enrolled Property	Zero Individuals
None	*Neraudia ovata*	Any individual above the baseline on the Enrolled Property	Zero Individuals
ʻAiea	*Nothocestrum breviflorum*	Any individual above the baseline on the Enrolled Property	Zero Individuals
None	*Phyllostegia floribunda*	Any individual above the baseline on the Enrolled Property	Zero Individuals
None	*Phyllostegia parviflora*	Any individual above the baseline on the Enrolled Property	Zero Individuals
Makou	*Ranunculus hawaiiensis*	Any individual above the baseline on the Enrolled Property	Zero Individuals

Common Name	Scientific Name	Incidental Take Permitted No. of Individuals or Habitat	Baseline Individuals or Habitat
ʻĀnunu	*Sicyos alba*	Any individual above the baseline on the Enrolled Property	Zero Individuals
ʻĀnunu	*Sicyos macrophyllus*	Any individual above the baseline on the Enrolled Property	Zero Individuals
None	*Silene hawaiiensis*	Any individual above the baseline on the Enrolled Property	Zero Individuals
None	*Stenogyne angustifolia*	Any individual above the baseline on the Enrolled Property	Zero Individuals

Status of ITL: Kamehameha Schools (KS) first presented a baseline revision request to wildlife agency staff during a meeting on May 1, 2020, and submitted a draft written request on June 10, 2021. In FY22, DOFAW staff notified KS that since the written report on the comprehensive survey of outplants had not been submitted to DOFAW by the second anniversary of the agreement (June 22, 2020), the Attorney General had determined that DOFAW could not follow the specific baseline revision process outlined in Section 5 of the Agreement. KS will therefore propose an amendment to the Agreement. The proposed amendment will include: revision of the covered plant species baselines to account for outplant mortality during the first two years of the agreement, and the addition of nine new covered plant species—four of which are present on the property: Heau (*Exocarpos menziesii)* - Endangered, *Sanicula sandwicensis* - Endangered, *Phyllostegia ambigua* - Unlisted, and *Phyllostegia macrophylla* - Unlisted PEPP; and five species not confirmed to be present but with habitat on the property: Haʻiwale (*Cyrtandra wagneri*) - Endangered PEPP, *Phyllostegia stachyoides* - Endangered PEPP, Hōʻawa (*Pittosporum hawaiiense*) - Endangered, *Schidea diffusa* ssp. *macraei* - Endangered, and *Stenogyne cranwelliae* - Endangered PEPP. This proposed amendment was revisited at the end of FY 2024, and DOFAW HCP, along with USFWS, met with Kamehameha Schools to discuss details and next steps. DOFAW is awaiting a draft from Kamehameha Schools. The amendment will not include revisions to the baseline for ʻio and ʻōpeʻapeʻa habitat due to the 2018 wildfire. Although this was a *force majeure* event, KS silviculture and restoration activities in this area are showing success, and the wildfire is not expected to cause long-term impacts on ʻio and ʻōpeʻapeʻa habitat. DOFAW HCP is awaiting the FY 2024 SHA annual report from Kamehameha Schools. The FY 2025 report has been received.

In FY25, 14,808 native plants, including 6,512 koa seedlings, were planted on the Enrolled Property, bringing the total to 101,459 native plants of 51 species over the first seven years of the Agreement. All restoration outplanting occurred outside of Forest Bird Stratum 1 in FY25. Planting areas were focused on the lower parts of the Enrolled Property. Outplanting was carried out by partners and vendors and included 33 educational group plantings for local schools and community members.

In FY25, silviculture activities did not take place within Forest Bird Stratum 1. Outside of that area, 112 acres of new koa stands were planted, bringing the total to 660 acres of koa planted over the first seven years of the Agreement. By FY23, all open pasture areas with deep soils had been outplanted, and planting in FY24 shifted to a spot cultivation method within pastures that had a higher density of native canopy and natural regeneration of native species. In these areas, koa was planted at a wider spacing of 40' x 40' (approximately 54 trees per acre). As of FY25, all suitable areas have been planted.

In FY25, all Keauhou fencelines (approximately 48 miles) were inspected at least semi-annually, with most fences inspected 3-4 times per year. Fence inspection frequency depends on fence location, condition, potential risk of damage, and animal pressure. Units near areas with ungulates, which are under continuous animal pressure, are checked monthly when possible. Additionally, fence sections in heavily forested areas, which are more susceptible to tree falls, are checked at least monthly. Minor repairs and routine maintenance, such as adding pins or skirting and fixing damage from tree falls, are performed as needed.

Ungulate control activities in the new fenced area of the Lower Ranch included trapping and hunting. A total of 37 pigs were removed from the unit in FY25, and surveys showed low levels of pig sign. It is anticipated that this area could be reduced to near zero levels in FY26.

In Lower Keahuou, 113 pigs were removed in FY25, and hunting and trapping will continue to reduce the pig population to near zero within 2 years (by FY27). No pig sign was observed in Kīlauea Forest, Puʻu Lālāʻau, or upper Keauhou in FY25. Pig sign was seen in late FY24 near upper Keauhou outside the southwest corner of the Puʻu Lālāʻau fence, but no additional signs were found in later surveys to the northwest, indicating that pig ingress remains limited to lower Keauhou. Replacement of non-standard and/or damaged wire will continue in FY26 to prevent piglets from entering. Suspected piglet ingress and egress along the lower Palakea fenceline was confirmed by a remote camera in FY25. Palakea fenceline replacement will be prioritized in FY26, and the planned installation of a new interior fence along Powerline Road, scheduled for FY26, will likely be deferred until FY27 due to funding and procurement delays.

In FY25, KS inspected and maintained all water sources (4 catchments, 12 tanks, and 3 reservoirs), access routes (27.5 miles of primary roads and 3.5 miles of secondary roads), and the fire break installed in FY19 (see Figure 10). Water source maintenance involved spraying vegetation around catchments and tanks, as well as removing debris from gutters. Access routes were maintained by removing fallen trees and encroaching vegetation. Accessibility was also preserved on selected tertiary roads. The firebreak was maintained through semiannual vegetation spraying.

In FY25, KS suppressed weed species across 2,126 acres on the Enrolled Property. Suppression activities took place on 148 acres within Forest Bird Stratum 1 and 1,978 acres on the rest of the Enrolled Property. Along with the four priority weed species, suppression efforts also targeted blackberry (*Rubus argutus*), banana poka (*Passiflora tarminiana*), firethorn (Pyracantha sp.), and Australian tree fern (*Sphaeropteris cooperi*).

For many years, there has been increasing non-ROD-related dieback of ʻōhiʻa in lower Keauhou, specifically in the Lower Ranch unit. Symptoms include browning, thinning crowns with sparse foliage, complete canopy wilt, and mortality; affecting trees of all size classes. Of five dead trees sampled by U.S. Forest Service pathologists in FY23, none tested positive for ROD. Three exhibited wood symptoms such as staining and discoloration, and all three trees tested positive for *Neopestalotiopsis rosae* and/or *Neopestalotiopsis clavispora*, also showing minor stem swelling and/or vertical bark cracking. Some samples also tested positive for *Pezicula melanigena* (2 of 3 trees), *Umbelopsis* sp. (1 of 3 trees), *Nigrospora zimmermanii* or *oryzae* (1 of 3 trees), and *Cytospora pruinose* (1 of 3 trees). These fungi are considered endophytes or secondary pathogens, and combined with unfavorable environmental conditions, could contribute to the decline and mortality observed. Additional sampling is planned in FY26 to better understand the ʻōhiʻa decline occurring in lower Keauhou.

Forest bird surveys were carried out in late February 2025. The surveys were organized by TMA, with help from DOFAW and support from various agency and community volunteers. Observers employed the variable circular plot method to record all bird detections, both seen and heard. All four forest bird species covered by the Agreement were detected. Survey findings are presented in Table 5.

Because of high mortality among ʻAlalā released at Puʻu Makaʻala Natural Area Reserve, the AWG recaptured the remaining released birds in fall 2020 and brought them back into captivity to reassess the release site and causes of death. Currently, there are no released birds in the wild on Hawaiʻi Island.

Table 5: Forest Bird survey results for the Kamehameha SHA in FY 2025

Common Name	Scientific Name	# Detected	Stations Occupied
ʻIʻiwi	*Drepanis coccinea*	361	161/237
ʻAkiapōlāʻau	*Hemiganthus wilsoni*	36	32/237
ʻĀkepa	*Loxops coccineus*	4	3/237
ʻAlawī	*Loxops mana*	51	36/237
ʻIo	*Buteo solitarius*	2	2/237

Baseline monitoring for ʻio involves canopy assessments every 10 years and species occupancy checks every 5 years. Occupancy is determined using circular variable plot count methodology and will be carried out by the Agencies or cooperating parties agreeable to KS. Canopy assessments and occupancy surveys will take place in FY28. Surveys conducted by KS and DOFAW in FY23, along with ʻio detected during annual forest bird surveys, indicate that ʻio remain present at Keauhou.

Surveys during nēnē breeding season (October-March) are conducted annually by DOFAW staff to gather data on population estimates, nesting success, and fledging success. DOFAW staff carried out nēnē activity and nesting surveys once a month

during the breeding season. Visual ground surveys took place at each site monthly, between 7:00 am and 3:30 pm, from October 2024 through March 2025. Most activity was observed near the reservoirs at the nēnē Cabin and Powerline Road, as well as on ranchlands southeast of the property. Nēnē pairs were seen from October to March, with the highest number (five pairs) recorded in October. No nests or juvenile nēnē were observed. To better understand nēnē movement patterns, DOFAW attached a GPS transmitter to a nēnē captured at the Nēnē Cabin Reservoir in February 2025. As of May 2025, this nēnē remains at Keauhou, with GPS data indicating it mainly uses open shrubland habitats and kīpuka north of the Nēnē Cabin Reservoir. The nēnē was detected again in late June 2025 by a trail camera near the Nēnē Cabin Reservoir, in a flock of approximately 20. Another GPS-equipped nēnē from Waikoloa Village Golf Course traveled through the property in May, stopping at the Powerline Reservoir, then moving to Kapāpala Ranch, before returning to the Powerline Reservoir in June 2025. No downed nēnē were observed on the property in FY25.

Baseline monitoring for ʻŌpeʻapeʻa includes canopy assessments every 10 years and species occupancy surveys every 5 years. Occupancy is determined through acoustic monitoring and will be carried out by the Agencies or cooperating parties agreeable to KS. The canopy assessment is scheduled for completion by FY28, while occupancy surveys, originally planned for FY23, were postponed because the agencies couldn't conduct them. KS started occupancy surveys in FY24 in partnership with TMA. The survey methods were developed in consultation with USGS PIERC. SM Mini Bat recorders were installed at the same high and low elevation sites used for the USGS baseline surveys around 2010, with three detectors per site, deployed for 7 to 10 days each month from September 2023 to August 2024. Bats were observed at both low and high elevation sites during each sampling period from September 2002 to August 2024. Although bats were not recorded every night, they were present at least once during each recording period at all six sites.

Baseline monitoring for threatened and endangered plant species follows protocols established or approved by the Plant Extinction Prevention Program (PEPP). Plant surveys for PEPP species founders (those with 50 or fewer remaining plants in the wild) and any natural regeneration are conducted annually by PEPP/DOFAW. Non-PEPP species will be surveyed every 2 years, and outplants will be monitored every 5 years by the Agencies or other cooperating parties acceptable to KS. If these organizations are unable to conduct these surveys, KS will be responsible for completing them at least once every 5 years. So far, the Agencies have not had the capacity to conduct regular plant surveys.

Kamehameha Schools contracted PEPP to conduct a thorough survey of all known threatened and endangered plant species on the Enrolled Property, which was completed in FY20. In FY21 and FY22, KS carried out a supplemental survey of the Area Requiring Additional Conservation Commitments. In FY25, KS started a survey of additional listed and rare plant species that we are requesting to add as Covered Species under the Agreement. These surveys will be finalized in FY26, and a final report will be submitted to the Agencies along with our amendment request. Incidental detections and additional surveys of some populations of covered plant species have also occurred while collecting propagules and performing other Covered Activities.

Overall, surveys over the first 7 years of the agreement show a downward trend for most covered plant species, with two species no longer present on the property (*Phyllostegia racemosa* and *Plantago hawaiiensis*). Most of the mortality seems to result from poor survival of outplants and possible lifespan issues. For the two species that are no longer found on the property, baseline numbers were particularly low (4 outplants of *P. racemosa* and one wild *P. hawaiiensis*). Surveys also identified new population units of three species (*A. peruvianam* var. *insulare*, *Clermontia peleana*, and *Phyllostegia velutina*), two endangered species (*Exocarpos menziesii* and *Sanicula sandwicensis*) previously unknown from the Enrolled Property, and one rare but unlisted species (*Phyllostegia macrophylla*), which is currently the only known wild individual remaining. In FY25, surveys detected one new population of *A. peruvianum* var. *insulare* and the first known population of *Silene hawaiensis* on the Property, consisting of 25 individuals. Additional collections from ten *V. menziesii* founders were also made in FY25, including 24 cuttings from seven founders and 31 seeds from four founders. The cuttings from 12 of 20 *V. menziesii* founders have been deposited at the Volcano Rare Plant Facility (VRPF), along with 156 seeds from five founders stored at VRPF and Lyon Arboretum. Despite VRPF's success in rooting many cuttings and maintaining vigorous plants for years, an outbreak of mites in FY24 and other factors have caused a recent decline in the ex-situ population. As of August 2025, only two founders are represented at VRPF, down from eight in January 2024. All founders are a high priority for additional collection efforts in FY26. Additionally, 7 cuttings and around 100 mature fruit were collected from Phyllost*egia macrophylla* and deposited at VRPF and Lyon Arboretum. In FY26, KS will continue collaborating with DOFAW on planned *V. menziesii* recovery activities, focusing on re-collection of cuttings and possibly collecting seeds from all living founders. We are also considering moving rooted cuttings to alternative nursery sites in partnership with DOFAW.

CONDITION OF THE ENDANGERED SPECIES TRUST FUND

Act 144, SLH 2004 established the Endangered Species Trust Fund, with purposes set forth in Section 195D-31, HRS.

Description	Expenditure	Revenue	Encumbrances
Beginning Cash Balance		$4,515,727	
Outstanding Encumbrances FY 2025			$807,222
Total in Encumbrances from previous years			$494,688
Contributions for the Management and Recovery of Hawai'i's Native Wildlife	$153,314	$40,037	
Subtotal Ending Balance			$4,402,451
Total in Encumbrances			$1,301,911
Total in ESTF in FY 2025			$5,704,361
Funds rolled over from previous year's HCP Technical Assistance Program			
Funds Received as Payment for the Use of the HCP Technical Assistance Program		$98	
Expenditures in FY 2025 for personnel			
Total in ESTF (including outstanding encumbrances)			**$5,704,459**

RECOMMENDATIONS TO FURTHER THE PURPOSES OF CHAPTER 195D, HRS

Habitat Conservation Plans and Safe Harbor Agreements are essential tools in Hawai'i for protecting threatened and endangered species while balancing development and energy independence needs. FY 2023 marks the 25th year since the implementation of Chapter 195D, HRS, which includes issuing Incidental Take Licenses. The program has seen many successes since it began.

The following are recommendations to further improve implementation of Chapter 195D, HRS.

- Increase statewide staff capacity for HCPs by funding four fully supported State civil service positions to effectively track and monitor funds and expenditures for each Habitat Conservation Planning project. The current team within DLNR-DOFAW consists of three contracted administrative staff managing all HCP and SHA projects across the islands, as well as reviewing projects statewide that may impact threatened or endangered species. Supplemental staff, funded by grants, produce standalone HCPs. Additional staff would enable more efficient processing of HCP applications, development of administrative rules (as mentioned in the last bullet), creation of procedures to ensure consistency in HCPs, follow-up monitoring of development projects, and the management of

mitigation and other initiatives critical for the recovery of Hawai'i's threatened and endangered species.

- Continue fostering partnerships between DLNR/DOFAW, other State and Federal agencies, and private landowners to ensure program success.
- Conduct additional outreach to further educate private landowners and developers on the benefits of HCPs and SHAs.
- Support the proposed Conservation Banking Bill, which gives DLNR-DOFAW the authority to establish a conservation banking system and in-lieu fee mitigation program under HRS Chapter 195D.
- Establish administrative rules under Chapter 195D, HRS, to provide guidelines, limitations, and parameters specific to the authority provided under Chapter 195D, HRS.

For information on DLNR's Endangered Species Recovery Committee, please see http://dlnr.hawaii.gov/wildlife/esrc/. For a full listing of the State's Habitat Conservation Plans and license-holder annual reports, please see http://dlnr.hawaii.gov/wildlife/hcp/approved-hcps/.

For further information on the State's Habitat Conservation Plans contact:

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