KSHCP ANNUAL REPORT, 2025

DRAFT REPORT

Prepared by

Eric VanderWerf
David Hanna
Dylan Blanchard
Pacific Rim Conservation
PO Box 61827
Honolulu, HI 96839

Adrian Gall
Lauren Attanas
ABR, Inc.–Environmental Research & Services
PO Box 80410
Fairbanks, AK 99708

Gregory Spencer
H.T. Harvey & Associates, Ecological Consultants
56 Honuhula Street
Kihei, HI 96753

16 March 2026

EXECUTIVE SUMMARY

Three species of seabirds in Hawai‘i are listed under the Endangered Species Act (16 U.S.C. 1531-1544, as amended) and by the State of Hawai‘i:

- Newell’s Shearwater (*Puffinus auricularis newelli*, Hawaiian name ‘a‘o, abbreviation NESH),
- Hawaiian Petrel (*Pterodroma sandwichensis*, Hawaiian name ‘ua‘u, abbreviation HAPE), and
- Hawai‘i distinct population segment (DPS) of the Band-rumped Storm-petrel (*Hydrobates castro*, Hawaiian name ‘akē‘akē, abbreviation BANP).

All three of these species are vulnerable to attraction and fallout associated with artificial lights, which have been documented on Kaua‘i for decades. The Kaua‘i Seabird Habitat Conservation Plan (KSHCP) was developed and finalized in 2020 to address light attraction impacts to the listed seabirds on the island of Kaua‘i. The KSHCP also addresses the impacts of lights on the Central North Pacific DPS of the green sea turtle (*Chelonia mydas*, Hawaiian name: honu). This report documents and evaluates the activities conducted in 2025—the sixth year of the KSHCP—by the KSHCP Participants and their selected Prime Contractor, Pacific Rim Conservation. These activities fulfill the objectives of the KSHCP as approved in 2020 by the Hawaii Department of Land and Natural Resources, Division of Forestry and Wildlife (DOFAW), and the U.S. Fish and Wildlife Service (USFWS; collectively, “resource agencies”). This report is divided into six sections that correspond to reporting requirements described in Section 6 of the KSHCP:

Section 1: Kahuama‘a Seabird Preserve Management (the mitigation site)

Section 2: Summary of KSHCP Participants’ Annual Reports

Section 3: Minimization Compliance Summary

Section 4: Take Monitoring (all KSHCP participants combined)

Section 5: Adaptive Management

Section 6: KSHCP Financial Status

The location of the Kahuamaʻa seabird preserve (the mitigation site) was selected during the KSHCP process to create a fenced, predator-free preserve in the northwestern region of Kauaʻi. Due to a large landslide that occurred at the originally proposed site, an alternative site was selected 102 m west of the original site, which resulted in changed circumstances being initiated almost immediately upon the adoption of the KSHCP. The new site selected previously was a rare plant restoration area and provides comparable area and habitat to the originally proposed site. In 2020, prior to fence construction, a biological inventory of seabirds and their habitat at the preserve site was completed and monitoring has continued annually since then. Intensive searching indicated that seabirds were not nesting in the immediate project area, but based on high rates of detection during auditory surveys they were clearly transiting the area during the breeding season.

In 2021, construction of a predator exclusion fence around the 2-hectare (4.5-acre) seabird reserve was initiated and completed. Predators were eradicated from the fenced area shortly after the fence was completed, though there have been occasional incursions of rats and mice inside the fence. Control of feral predators was initiated in 2021 to protect colonies that could serve as sources of birds that could colonize the Kahuamaʻa Preserve, with 22 live traps along Kalalau Rim near the Kahuamaʻa Preserve and an additional 16 live traps along the Alakaʻi Swamp Trail. In 2025, 9 feral predators were caught during a total of 3,496 trap-nights on the Kalalau Rim and Alakaʻi Swamp Trail. A total of 46 feral predators have been removed from these areas during 2021–2025.

A social attraction program consisting of artificial nest boxes and a solar-powered sound system that broadcasts Newell's Shearwater calls has been operated at the Kahuamaʻa seabird preserve during the seabird breeding season since 2021. In 2025, a single Newell's Shearwater was photographed by trail cameras visiting the social attraction site inside the Kahuamaʻa Preserve on three nights in May. Also in 2025, a single Hawaiian Petrel was photographed by a trail camera visiting the seabird social attraction site on 20 June. Single Hawaiian Petrels were documented with trail cameras to have visited the social attraction site on multiple nights in 2023 and again in 2024. Visitation on the ground by both species to the mitigation site is one of the main biological objectives, and this KSHCP objective (Objective 2C) has now been marked as achieved. No seabirds have nested at the site yet.

Participants in the KSHCP are required to minimize and document seabird take at their facilities, vessels, and properties that are covered by their permits (collectively, "Facilities"). In 2025, Participants continued to reduce and modify lighting in compliance with the guidelines set forth in the KSHCP. Based on the reports and photos provided, and guided by recommendations from the state and federal agencies, all Participants have made significant efforts towards reducing light attraction exposure risk to listed seabirds at their Facilities. Each Participant also conducted annual training for workers at their Facilities to find downed seabirds and know how to respond properly and in a timely manner. Overall, outreach to guests, staff, and contractors by most Participants in 2025 was adequate and professionally presented.

In addition to light reduction and training requirements, all but one Participant were required to control non-native predators to protect any downed seabirds at their Facilities from depredation. Of the 191 Facilities included in the KSHCP as of 2025, 47 properties were required to control predators. In 2025, predator control was conducted at 48 Participant Facilities, an increase from the 37 Facilities where it was conducted in 2024. This increase was due to expanded pre-season predator control activities at Kauaʻi County Facilities. Of these 48 Facilities, 60% (29) continued predator control operations during the seabird fledging season. In total, 192 predators were removed from Participant Facilities in 2025, a decrease from the 235 predators removed in 2024 and 326 in 2023. Predator control efforts by most Participants were sufficient and in general have shown improvements compared to the first 5 years of KSHCP implementation. Both sites where predator control effort was insufficient were located at Kauaʻi County Facilities.

This report also presents an evaluation of whether the actions described above are being properly implemented (compliance monitoring). Compliance monitoring is used to ensure that each enrolled Participant meets its obligation under this KSHCP and the individual PIPs. In 2025, 63 seabirds of Covered Species were found on Participants' Facilities, including 61 Newell's Shearwaters and two Hawaiian Petrels. This includes 2 adult (AHY) Newell's Shearwaters found at 1 Hotel Hanalei Bay. Eighty-nine percent (54 birds) of Newell's Shearwaters were found alive and eventually released after being evaluated and/or rehabilitated by Save our Shearwaters (SOS). One of the Hawaiian Petrels was found alive and released; the other was found dead. No downed Band-rumped Storm-petrels or honu nests were found during

the 2025 season. The largest number of downed birds was found at 1 Hanalei Bay Hotel (36), with no other Facility having more than eight downed birds. Overall, the objectives of the KSHCP were partially met in 2025, and Participants continue to make improvements and correct deficiencies identified during earlier years of the KSHCP.

TABLE OF CONTENTS

EXECUTIVE SUMMARY ii

LIST OF TABLES xi

LIST OF FIGURES xi

LIST OF APPENDICES xii

INTRODUCTION 1

1. KAHUAMAʻA SEABIRD PRESERVE MANAGEMENT 6

INTRODUCTION AND BACKGROUND 6

FENCE MAINTENANCE 7

SEABIRD SURVEYS, SOCIAL ATTRACTION, AND BIOLOGICAL MONITORING 8

Biological monitoring 8

Seabird Surveys 8

Seabird Social Attraction 11

HABITAT RESTORATION 13

PREDATOR CONTROL AND ERADICATION 15

Site Descriptions 16

Cat Trapping Methods 16

Trail Cameras 17

Rat Eradication and Control in the Kahuamaʻa Predator Exclusion Fence 18

Barn Owl Observations and Control 19

RESULTS 19

Kahuamaʻa Predator Eradication 19

Cat trapping 21

Camera monitoring 24

DISCUSSION 25
2. SUMMARY OF KSHCP PARTICIPANTS' ANNUAL REPORTS 28
ALEXANDER & BALDWIN, INC. (A&B) 35
Ownership and Key Personnel 35
Take 36
Downed seabird search effort 36
Lighting and facilities 37
Predator control 38
Training and outreach 41
COUNTY OF KAUA'I 42
Ownership and Key Personnel 42
Take 42
Downed seabird and honu search effort 42
Lighting and facilities 44
Predator control 45
Training and outreach 46
KAUAI COFFEE 46
Ownership and Key Personnel 46
Take 46
Downed seabird search effort 47
Lighting and facilities 47
Predator control 47
Training and outreach 48

HDOT LIHUE AIRPORT 49
Ownership and Key Personnel 49
Take 49
Downed seabird search effort 49
Lighting and facilities 50
Predator control 50
Training and outreach 51
HDOT NAWILIWILI HARBOR 53
Ownership and Key Personnel 53
Take 53
Downed seabird search effort 53
Lighting and facilities 54
Predator control 55
Training and outreach 56
HDOT PORT ALLEN 57
Ownership and Key Personnel 57
Take 57
Downed seabird search effort 57
Lighting and facilities 58
Predator control 58
Training and outreach 59
NORWEGIAN CRUISE LINES 59
Ownership and Key Personnel 59
Take 60

Downed seabird search effort 61
Lighting and facilities 61
Predator control 62
Training and outreach 62
SOF-XI KAUAI PV HOTEL, LP (1 HOTEL HANALEI BAY) 63
Ownership and Key Personnel 63
Take 63
Downed seabird and honu search effort 64
Lighting and facilities 65
Predator control 66
Training and outreach 66
KAUAI BLUE, INC. (SHERATON KAUAI RESORT) 67
Ownership and Key Personnel 67
Take 68
Downed seabird and honu search effort 68
Lighting and facilities 69
Predator control 69
Training and outreach 70
ESSEX HOUSE CONDOMINIUM CORPORATION (KAUA‘I RESORT [SONESTA]) 70
Ownership and Key Personnel 70
Take 71
Downed seabird and honu search effort 71
Lighting and facilities 72
Predator control 72

Training and outreach 73
3. MINIMIZATION COMPLIANCE AND EFFECTIVENESS 74
LIGHTING AND FACILITIES MINIMIZATION 74
PREDATOR CONTROL 76
TRAINING AND OUTREACH 77
4. TAKE MONITORING 80
KSHCP REQUIREMENTS 80
SEARCH EFFORT 80
Seabirds 80
Honu 85
Predator observations 85
TAKE MONITORING RESULTS AND DISCUSSION 86
Seabirds 86
Honu 90
5. ADAPTIVE MANAGEMENT AND UPDATES 92
ADAPTIVE MANAGEMENT 92
OTHER UPDATES 92
Reporting Schedule 92
Chain of Custody Form 93
Permit Amendments 93
Public Meetings 94
6. FINANCIAL REPORT 95

LIST OF TABLES

Table 1. KSHCP Participants and their permit and license numbers, 2025. 2
Table 2. Timeline of activities at the Kahuama'a Seabird Preserve since its inception in 2020. 7
Table 3. Total number of seabird detections and average calling rate during nocturnal auditory seabird surveys at Kahuama‘a Seabird Preserve in 2025. 11
Table 4. Plant species targeted for removal at Kahuama‘a Seabird Preserve due to their ability to modify seabird habitat. 15
Table 5. Progress towards biological objectives of the mitigation site, as stated in Table 7-4 of the KSHCP, during 2021–2025. 26
Table 6. Observed take and disposition of KSHCP covered seabird species reported at all KSHCP Participant Facilities during the 2025 seabird fledging season. 28
Table 7. Predator control effort and results for KSHCP Participant Facilities, 2025. 32
Table 8. Summary of seabird searcher and awareness training by KSHCP Participants, 2025. 34
Table 9. Outreach efforts conducted at HDOT, Lihue Airport in 2025. 52
Table 10. Outreach efforts at HDOT, Nawiliwili Harbor in 2025. 56
Table 11. Outreach efforts conducted at HDOT, Port Allen Harbor in 2025. 59
Table 12. Take monitoring components and KSHCP guidelines used by KSHCP Participants. 81
Table 13. Summary of take monitoring efforts at covered KSHCP Participant Facilities, 2025. 82
Table 14a. Calculated take of juvenile seabirds for all KSHCP Participants in 2025, based on formulas prescribed in the KCHCP and Participant Inclusion Plans. 89
Table 14b. Calculated take of adult seabirds for all KSHCP Participants in 2025. 89
Table 15. Average annual take of Newell's Shearwaters, permitted 5-year rolling annual average take, cumulative take 2020–2025, and permitted take by Participant. 90
Table 16. Cumulative take of Hawaiian Petrels, 2020–2025, and permitted 30-year take, by Participant. Cumulative take is calculated as the sum of lethal and non-lethal takes across all years. 91
Table 17. Cumulative take of Band-rumped Storm Petrels, 2020–2025, and permitted 30-year take, by Participant. Cumulative take is calculated as the sum of lethal and non-lethal takes across all years. 91
Table 18. Reporting schedule for the KSHCP, revised by the Resource Agencies 18 December 2024. 93

LIST OF FIGURES

Figure 1. Kahuama‘a Seabird Preserve fence before and after maintenance that involved burying the skirt deeper on the southwest corner of the fence to prevent rodents from getting under the skirt. 9
Figure 2. Biological monitoring grid installed at the Kahuama‘a Seabird Preserve. 9
Figure 3. Seabird survey area at Kahuama‘a Seabird Preserve. 10

Figure 4. Photographs of completed artificial nest boxes installed at Kahuamaʻa Seabird Preserve. 12
Figure 5. Photos of a Newell's Shearwater visiting the social attraction site within the Kahuama'a Seabird Preserve on 14 May 2025 and 18 May 2025 14
Figure 6. Photo of a Hawaiian Petrel visiting the social attraction site within the Kahuama'a Seabird Preserve on 20 June 2025. 14
Figure 7. Photos of Barns Owls perched inside the Kahuama'a Seabird Preserve fence on 7 August 2025 and flying outside the fence on 3 September 2025 20
Figure 8. Proportion of tracking tunnels with rat and mouse tracks over time at the Kahuamaʻa Seabird Preserve. 20
Figure 9. Polynesian Rat photographed by a trail camera around burrows on 25 October and 23 November 2025, Kahuamaʻa Seabird Preserve. 20
Figure 10. Number of cat trap-nights on the Alakaʻi Swamp Trail and Kalalau Rim Trail, 2025 22
Figure 11. Number of cat trap-nights by year on the Alakaʻi Swamp Trail and Kalalau Rim Trail, 2020–2025. 22
Figure 12. Total number of rodent and feral cat captures along traplines on the Alakaʻi Swamp Trail and Kalalau Rim Trail, 2025. 23
Figure 13. Number of rodents removed with Goodnature traps by month, Kahuamaʻa Seabird Preserve, 2025 23
Figure 14. Numbers of cats and rodents trapped in the vicinity of Kahuamaʻa Seabird Preserve, 2020–2025. 24
Figure 15. Predator control effort and predator removal at Kauai Coffee, 2025. 48
Figure 16. Numbers of predators observed during active trapping and removal at Nawiliwili Harbor, 2025. 55
Figure 17. Numbers of seabirds found at Participant Facilities in each year of the KSHCP, 2020–2025 87

LIST OF APPENDICES

Appendix A. KSHCP Participant Lighting Photos, 2025 97
Appendix B. KSHCP Participant Outreach Materials, 2025 131
Appendix C. National Fish and Wildlife Foundation (NFWF) Statement of Financal Activity 151

Page intentionally left blank.

INTRODUCTION

Three species of seabirds in Hawai‘i are listed under the U.S. Endangered Species Act and by the State of Hawai‘i: the Newell’s Shearwater (*Puffinus auricularis newelli*, Hawaiian name ‘a‘o, abbreviation NESH), the Hawaiian Petrel (*Pterodroma sandwichensis*, Hawaiian name ‘ua‘u, abbreviation HAPE), and the Hawai‘i distinct population segment (DPS) of the Band-rumped Storm-petrel (*Hydrobates castro*, Hawaiian name ‘akē‘akē, abbreviation BANP). These species are part of the unique natural and cultural heritage of Hawai‘i, and the island of Kaua‘i provides important breeding habitat for all three species. Protecting and managing that habitat to support viable populations of these species is critical for their long-term survival.

Among the threats known to impact listed seabird species is attraction to artificial lights and subsequent fallout or grounding of birds, which has been observed and documented on Kaua‘i for decades. The Kaua‘i Seabird Habitat Conservation Plan (KSHCP) was developed and adopted in 2020 to address the impacts of light attraction to listed seabirds on the island of Kaua‘i. The KSHCP also addresses the impacts of lights on the Central North Pacific distinct population segment (DPS) of the green sea turtle (*Chelonia mydas*, Hawaiian name honu, hereafter honu). The KSHCP is designed for a term of 30 years and the geographic scope of the KSHCP coverage is the island of Kaua‘i and Hawaiian waters.

Light attraction and fallout of seabirds on the island of Kaua‘i is widespread, with certain geographic areas having more downed birds than others. Most of the fallout occurs in the autumn months, coinciding with the seabird fledging season. Many different entities on Kaua‘i (resorts, businesses, and governmental agencies) have documented seabird fallout at their facilities, attributed primarily to the effects of light attraction. Light attraction on Kaua‘i is an island-wide issue that negatively impacts the listed seabird species and is collectively attributable to artificial light at night.

The KSHCP relies on a unique structure to best meet the need for an effective and efficient response to the widespread nature of light attraction impacts on Kaua‘i. The structure of the KSHCP enables multiple individual entities on Kaua‘i to apply for incidental take authorization for light attraction impacts to the listed seabird species under one coordinated framework. This framework takes advantage of economies of scale and enables a pooling of resources to

collectively achieve conservation goals. The KSHCP described the enrollment and approval process, goals and objectives, monitoring, and adaptive management. It consists of two parts:

- The KSHCP document with associated appendices.
- Participant Inclusion Plans (PIPs) for each Applicant providing detailed descriptions of on-site minimization measures, covered activities, a monitoring plan and the amount of take authorization being requested.

In 2020, Applicants to the KSHCP were each issued an approved Incidental Take Permit (ITP) from the U.S. Fish & Wildlife Service (USFWS) and Incidental Take Licenses (ITL) from the State of Hawai‘i Department of Land and Natural Resources (DLNR; Table 1). The mitigation and minimization measures contained in the KSHCP informed the preparation of individual applications for listed seabird incidental take authorization permits. The KSHCP defines a set of actions to minimize and mitigate the effects of light attraction on the listed seabirds and to meet conservation goals. The KSHCP provides a suite of minimization actions and requires that each Applicant to the KSHCP implement all the measures that are applicable to their facility and operational needs. Minimization measures emphasize reducing the amount of light that shines upward and reducing the amount of light output or intensity, which have been

Table 1. KSHCP Participants and their permit and license numbers, 2025.

Participant Name	USFWS ITP[a] Number	State of Hawai'i ITL[b] Number
Alexander & Baldwin (A&B)	TE74388D-0	ITL-31
County of Kaua‘i	TE74391D-0	ITL-29
Kauai Coffee Company, LLC	TE74389D-0	ITL-25
Hawai‘i Department of Transportation (HDOT)	TE74138D-0	ITL-30
NCL (Bahamas) Ltd.	TE74390D-0	ITL-27
SOF-XI Kauai PV Hotel, LP (1 Hotel Hanalei Bay)	TE74392D-0	ITL-28
Kauai Blue, Inc. (Sheraton Kauai Resort)	TE74394D-0	ITL-26
Royal Sonesta Kaua‘i Resort (formerly Marriott)	TE74393D-0	ITL-24

[a] Incidental Take Permit
[b] Incidental Take License

shown to reduce the effects of light attraction. Under the KSHCP, the minimization measures include:

- Deactivation of unnecessary lights.
- Use of light fixtures that allow zero uplight (or their functional equivalent).
- Shielding of existing light fixtures.
- Angling lights downward.
- Lowering the light output or intensity.
- Use of motion sensor light fixtures.
- Decreasing the visibility of interior lights.

Under the KSHCP, mitigation actions were designed to provide a net conservation benefit to the Covered Species as required by Hawai'i law. Because some seabirds grounded by light attraction are found alive and deemed healthy or can be rehabilitated, those birds are released back into the wild and are considered non-lethal take. Seabirds that are found dead, those not found but assumed to have been impacted by light attraction, and those that could not be released back into the wild are considered lethal take. For these unavoidable impacts to Covered Species of seabirds, approved mitigation consists of predator control and the creation of a fenced seabird preserve (known as the Kahuama'a Seabird Preserve) in the northwestern region of Kaua'i. In this preserve, predators have been removed, and seabirds are being lured to the site via social attraction with the goal of creating a breeding colony that is safe from non-native predators, a well-established conservation technique for the creation of new seabird breeding colonies; details of the progress of this activity are documented below. The absence of predators will enable the seabirds to breed more successfully and with higher reproductive success rates than in areas outside the preserve, thereby providing a conservation benefit to seabird populations. The preserve site is located in Kōke'e State Park along the rim of Kalalau Valley. Predator control is being conducted in the vicinity of the preserve to reduce the impacts of predation on seabirds breeding nearby.

The funding design of the KSHCP features a cost-sharing structure. Some costs of the KSHCP, including mitigation, monitoring, adaptive management, and reporting, are shared among the permit recipients proportional to the amounts of take authorized. Monitoring is conducted to ensure that authorized amounts of take are not exceeded and to enable the wildlife agencies to determine whether mitigation actions are meeting conservation goals. The purpose of monitoring is to determine when and where take of Covered Species occurs, and to document monitoring efforts. There are three types of monitoring addressed in the KSHCP:

- "Compliance monitoring" verifies implementation of the HCP terms and conditions by the individual Participants and the Prime Contractor. Each Participant and the Prime Contractor submit annual reports and satisfy reporting requirements (as outlined in Section 6.6) to document compliance.
- "Effectiveness monitoring" evaluates the success of the HCP to minimize and mitigate take of listed species to the maximum extent practicable, evaluating whether minimization measures are effective and sufficient and the extent to which mitigation measures are successful.
- "Take monitoring" determines when and where take of Covered Species occurs, and documents downed bird monitoring efforts.

The purpose of this report is to compile, document, and evaluate the effectiveness of the activities conducted in 2025, which is Year 6 of the KSHCP, by the Participants towards fulfilling the objectives of the KSHCP, as approved by the regulatory agencies. The report also describes compliance and effectiveness monitoring of mitigation at the Kahuamaʻa Seabird Preserve as required by KSHCP 6.6.2.4 and Table 6-1. The goal is to synthesize and summarize several hundred pages of information from lengthy individual Participants' reports into a succinct, easy-to-read document that will allow the Participants and agencies to evaluate the annual effectiveness of the KSHCP implementation. Thus, for the sake of readability, tables and figures are used frequently to present information clearly. The report is divided into six sections:

1. Kahuamaʻa seabird preserve management
2. Summary of KSHCP participants' annual reports

3. Minimization compliance and effectiveness
4. Take monitoring and effectiveness
5. Adaptive management and other changes
6. Financial report

1. KAHUAMAʻA SEABIRD PRESERVE MANAGEMENT

INTRODUCTION AND BACKGROUND

The Kauaʻi Seabird Habitat Conservation Plan (KSHCP) Participants' Committee, on behalf of all the individual Applicants, entered into an agreement with the Prime Contractor, Pacific Rim Conservation (PRC), to perform mitigation and project management measures outlined in the KSHCP. PRC has conservation biology and project management experience and holds recovery permits necessary to conduct its work under Section 10(a)(I)(A) of the Endangered Species Act and/or Sections 13-124-4 and 13-124-6 of the Hawaiʻi Administrative Rules.

The KSHCP includes several mitigation activities, one of which was the establishment of a seabird preserve in Kōkeʻe State Park. This preserve is now known as the Kahuamaʻa Seabird Preserve. The preserve was created by construction of a predator exclusion fence enclosing approximately 2 hectares of suitable seabird breeding habitat and by establishing a seabird social attraction site within the fence. This section of the report describes the management activities conducted at the Kahuamaʻa Seabird Preserve in 2025 by PRC. The specific management activities associated with management of the Kahuamaʻa Seabird Preserve are:

1. Construction and long-term maintenance of the 2-hectare predator exclusion fence.
2. Installation and long-term maintenance of seabird social attraction equipment (sound system, speakers, solar panel, artificial nest boxes) within the fence.
3. Eradication of predators from within the fence and implementation of long-term predator control at the site.
4. Monitoring for predator incursions within the fence.
5. Barn owl control around the preserve and in the surrounding Kalalau Valley area.
6. Feral cat control around the SAS and neighboring source colonies in Kalalau Valley.
7. Invasive plant control within the enclosure and along a 50 m strip outside the fence.
8. Monitoring of the covered seabirds and the artificial nest boxes, including the physical handling and banding of any birds encountered by trained, permitted staff.

9. Monitoring of other listed species (plants, forest birds, etc.) within the enclosure.

10. Nocturnal acoustic monitoring of seabird activity in the area around the fence.

The timeline of activities at the Kahuama'a Seabird Preserve since its inception in 2020 is presented in Table 2.

Table 2. Timeline of activities at the Kahuama'a Seabird Preserve since its inception in 2020.

	2020					2021												2022–2025											
	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Infrastructure installation																													
Fence construction						x	x	x	x																				
Sound system installation									x																				
Artificial nest box installation								x																					
Habitat restoration																													
Weeding								x		x		x			x		x	x				x		x			x		x
Out planting									x																				
Botanical surveys			x			x				x		x			x		x	x											
Predator control																													
Rodent trapping inside fence								x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Cat control inside fence								x	x	x																			
Cat control outside fence		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Seabird monitoring																													
Auditory surveys	x	x	x	x					x	x	x	x	x	x							x	x	x	x	x				

FENCE MAINTENANCE

The predator exclusion fence was completed on 28 June 2021, and since then, the focus has been on maintenance of the fence, preventing predator incursions, and responding to any incursions that occur. Fence inspections are done monthly, and the fence also is checked opportunistically when working in the area. Fence inspections include checking the integrity of the hood, mesh, posts, and skirt, clearing any fallen branches or other obstructions, and covering any exposed areas of the skirt. The path surrounding the outside of the fence experiences soil erosion due to traffic from humans, pigs, goats, and deer, and also from rainfall and drainage.

The fence is in good condition overall and required no major fence maintenance in 2025, but various small fence maintenance actions were conducted occasionally. Activities have included covering areas of the skirt where it had been exposed by erosion from rain or rooting of feral pigs, weed whacking along the exterior of the fence to remove invasive plants and facilitate fence inspections. In August 2025, the skirt was starting to be exposed in the southwest corner of the fence. This was a problem area several years ago due to rooting by feral pigs around the fence. This problem was corrected by digging underneath the skirt and then reburying it deeper (Figure 1).

SEABIRD SURVEYS, SOCIAL ATTRACTION, AND BIOLOGICAL MONITORING

BIOLOGICAL MONITORING

To facilitate effective, long-term monitoring at the site, a monitoring grid was installed in 2020 to conduct bird, vegetation, and rodent surveys (Figure 2). The grid consists of stations inside the fence spaced 25 m apart and marked with white PVC poles. The grid is maintained monthly.

SEABIRD SURVEYS

Ground Searching

Prior to fence construction, auditory surveys and burrow searches were conducted in the area of the Kahuamaʻa Seabird Preserve to document whether any seabirds were present and to ensure that construction activities did not impact any nesting seabirds. Survey areas consisted of three transects covering each side of the fence line: one covering the 80-m section of old ungulate fence line facing east, one covering the 300-m northeastern facing fence line, and one encompassing the 50-m section facing west (Figure 3). All transects were measured to match the length of the designated seabird habitat perimeter along the ungulate fence line. All three transects were further divided into perpendicular transects flagged 3 m apart, and staff walked these transects checking for seabird eggshells, guano, feathers, and scent. Two transects were created for the seabird burrow surveys inside the ungulate fence, covering a total area of 0.39 acres. Transects were spaced 5 m apart, running parallel to the northeastern side of the fence line. Two staff equipped with GPS units and pink flagging walked each transect from east to west.



Figure 1. Kahuama‘a Seabird Preserve fence before (left) and after (right) maintenance that involved burying the skirt deeper on the southwest corner of the fence to prevent rodents from getting under the skirt.

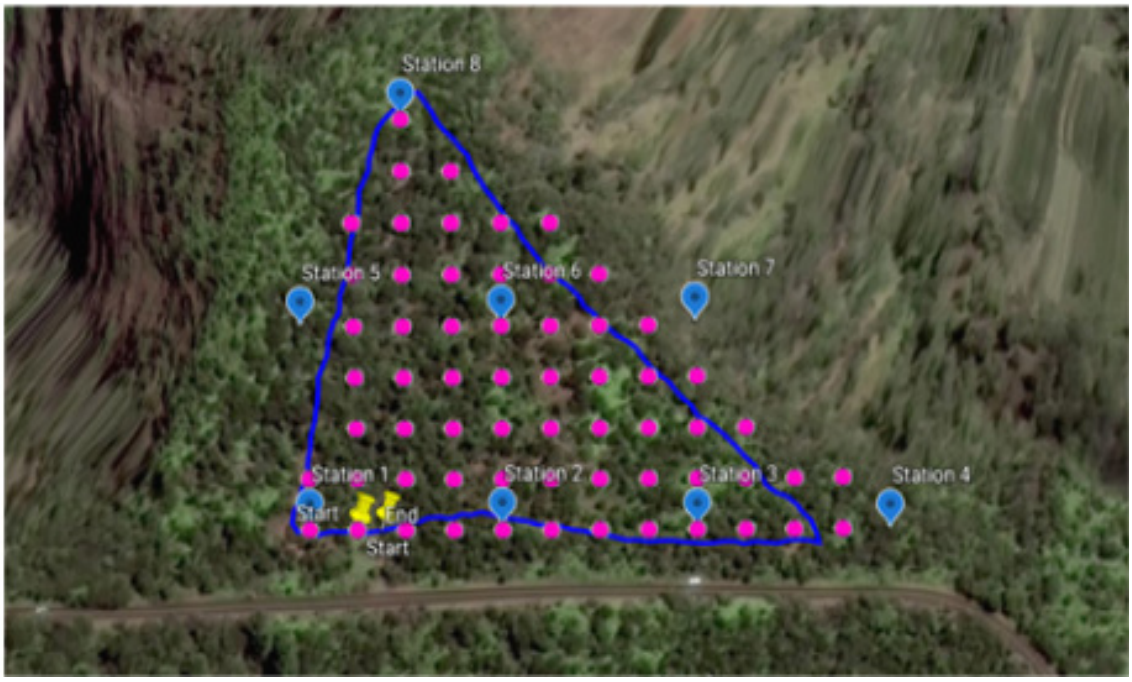


Figure 2. Biological monitoring grid installed at the Kahuama‘a Seabird Preserve. The blue line is the fence, the pink dots are the 25-meter grid points, and the blue stations were used for forest bird surveys but are no longer in use.



Figure 3. Seabird survey area at Kahuama‘a Seabird Preserve. The blue line is the fence, and the yellow, pink, and purple polygons are the areas of potential seabird nesting habitat in which thorough ground searches were done before fence construction.

The total seabird survey area covered was 14,172.10 m^2 (3.50 acres), including 10,614.88 m^2 (2.62 acres) outside the fence line and 1,583.48 m^2 (0.39 acres) inside the fence line. No Newell’s Shearwater or Hawaiian Petrel chicks, adults, or burrows were detected during surveys.

Seabird Auditory Surveys

Auditory surveys were conducted on eight dates in 2025: 13–14 May, 12–13 June, 7–8 July, and 4–5 August. On each pair of dates, two observers conducted surveys for two hours after sunset and then again for two hours before sunrise the following morning, which are the peak calling times for Hawaiian Petrels and Newell’s Shearwaters, respectively. A few surveys were shorter than prescribed because of weather, and there were a total of 1,650 minutes, or 27.5 hours, of data collection. During auditory surveys, observers listened and looked for seabirds. When seabirds were detected, the following data were collected: species, time, number of individuals detected, number of calling bouts, compass bearing, and estimated distance from observer. During auditory surveys, the sound system broadcasting Newell’s Shearwater calls was turned off to ensure that it did not interfere with the survey.

Newell's Shearwaters were the most frequently detected species, as in all previous years. The average calling rate of Newell's Shearwaters in 2025 was 17.1 calls per hour (Table 3), which was higher than the rate in 2024 (15.1 calls/hour) but lower than that in 2023 (35 calls/hour). The average calling rate of Hawaiian Petrels in 2025 was 1.1 calls/hr. (Table 3), which was lower than the rate in 2024 (6.2 calls/hour) and much lower than in 2023 (12 calls/hour). Band-rumped Storm-petrels were not detected at all in 2025 or 2024 and were last detected in 2023. The reason for the decline in calling rate of all three species is unknown. Hawaiian Petrels and Newell's Shearwaters both were observed flying closely overhead on several surveys and appeared to be circling the site. No Barn Owls were detected during auditory surveys in 2025 or 2024, compared to two owls detected in 2023 and 19 detected in 2022.

Table 3. Total number of seabird detections and average calling rate during nocturnal auditory seabird surveys at Kahuamaʻa Seabird Preserve in 2025.

Species	**Total # detections**	**Average calls per hour**
Newell's Shearwater	470	17.1
Hawaiian Petrel	29	1.1
Band-rumped Storm-petrel	0	0

SEABIRD SOCIAL ATTRACTION

Once the predator-proof fence was completed, the social attraction component of the project was implemented to encourage the target seabird species to visit the project site and eventually breed. Social attraction is a well-established conservation strategy to encourage seabirds to breed in a prescribed location by simulating colony activity through the playback of recorded calls. The installation of artificial nest boxes can make the site more attractive and can decrease the time until breeding begins and eventually may increase colony productivity by providing ready-to-use nest sites.

The sound system was designed and built by Eric VanderWerf (PRC) and was installed on 12 May 2021. The system consists of a solar panel, a rechargeable 12-volt battery, two directional waterproof speakers, and a waterproof pelican case that houses a solar charge controller, an mp3 file player, and an amplifier. The speakers are directed towards the northeastern facing slope to attract birds that are flying in Kalalau Valley.

The system played a mix of several different Newell's Shearwater calls from dusk until dawn to mimic natural attendance patterns at the colony during the seabird breeding season. Recordings were of multiple birds simulating a colony and included different calls typical of colony sounds to make it as attractive as possible. The system automatically turned on at sunset and off at sunrise. The system was deployed from March to October, which is the period of highest prospecting activity by all three target seabird species. During times when acoustic surveys were being conducted, the sound system was turned off to assist in detecting real birds.

Decoys of a Newell's Shearwater and a Hawaiian Petrel were placed near one of the speakers in 2025 to provide another form of social attraction. In general, auditory attractants are thought to be more important for nocturnal seabirds like Newell's Shearwater and Hawaiian Petrel, but decoys may help.

In addition to the acoustic attraction system, 100 artificial nest boxes suitable for both Hawaiian Petrels and Newell's Shearwater were constructed and installed at the site in 2021 (Figure 4). These artificial nest boxes are an important part of best management practices in a social attraction site because they provide nest sites that are ready to use and thus can expedite the process of establishing a breeding colony at a new site. Burrow excavation by a newly established breeding pair can take a year or more. Artificial burrows have been used in almost all successful social attraction sites documented in the literature. Not only do they increase the



Figure 4. Photographs of completed artificial nest boxes installed at Kahuamaʻa Seabird Preserve.

likelihood of earlier success at the social attraction site and increase the density of nesting pairs in an area, they also make the monitoring of nests easier and less likely to cause disturbance to burrows and birds. Burrows were constructed by a local contractor using specifications provided by PRC and were painted with reflective roofing sealant to reduce the internal temperature of the boxes and to prevent wood rot. Burrows were installed along the northeastern ridge on the steepest slopes within the reserve and within the area where the sound system was deployed. Burrows were monitored weekly during the breeding season in 2025.

A Newell's Shearwater was documented in trail camera photos visiting the social attraction site within the Kahuamaʻa Seabird Preserve on three nights in 2025, on 14 May, 18 May, and 22 May (Figure 5). These were the first visits to the preserve by a Newell's Shearwater and represent an important milestone for the project. Visitation on the ground by both species to the mitigation site is one of the main biological objectives, and this objective (Objective 2C) has now been marked as achieved. In the photo on 14 May the bird can be seen calling, probably in response to the sound system. On all three occasions, the bird was near a decoy. A Hawaiian Petrel was documented in trail camera photos visiting the social attraction site within the Kahuamaʻa fence on 20 June 2025 (Figure 6). A single Hawaiian Petrel also visited the social attraction site on multiple nights in 2024. The sound system operated properly during the entire season. It is hoped that visitation by Newell's Shearwaters and Hawaiian Petrels will increase in future years.

HABITAT RESTORATION

The Kahuamaʻa Seabird Preserve predator-proof fence is expected to benefit native vegetation and rare plants, in addition to providing high-quality seabird nesting habitat. The habitat at the site is dominated by native vegetation, but certain invasive plants are present, especially within the understory. Seabird habitat suitability mapping exercises consistently identify native vegetation as an important component for successful nesting. Conversely, habitat modification by invasive plant species has been correlated with a reduction in seabird breeding.



Figure 5. Photos of a Newell's Shearwater visiting the social attraction site within the Kahuama'a Seabird Preserve on 14 May 2025 (left) and 18 May 2025 (right). These were the first visits to the preserve by a Newell's Shearwater. In the photo at left, the bird can be seen calling, probably in response to the sound system. On both occasions the bird was near a decoy.



Figure 6. Photo of a Hawaiian Petrel visiting the social attraction site within the Kahuama'a Seabird Preserve on 20 June 2025.

The suite of invasive plant species that have been identified as significant seabird habitat modifiers and that are present and targeted for removal at the Kahuamaʻa Seabird Preserve are listed in Table 4. In 2025, PRC removed invasive plant species regularly during other field work. The dominant species addressed were Himalayan ginger, banana poka, and blackberry. Primary areas in which the team weeded were along the main trails of the monitoring grid, the social attraction site, and the fence perimeter. The team focused on clearing weeds near the burrows so that the predominant plant present was the native ʻuluhe fern (*Dicranopteris linearis*), which is known to promote seabird breeding.

Table 4. Plant species targeted for removal at Kahuamaʻa Seabird Preserve due to their ability to modify seabird habitat.

Common Name	**Scientific Name**	**Priority**
Strawberry guava	*Psidium cattleianum*	1
Himalayan (kahili) Ginger	*Hedychium gardnerianum*	1
Australian tree fern	*Sphaeropteris cooperi*	1
Blackberry	*Rubus argutus*	2
Banana poka	*Passiflora tarminiana*	2
Beardgrass	*Schizachyrium microstachyum*	2
Koster's curse	*Clidemia hirta*	2
Daisy fleabane	*Erigeron karvinskianus*	3
Air plant	*Kalanchoe pinnata*	3

PREDATOR CONTROL AND ERADICATION

The susceptibility of the covered seabirds to predation by feral cats and barn owls suggests that feral cat and barn owl control will result in an increase in the reproduction and numbers of seabirds breeding in Kalalau Valley. Based on the locations of breeding colonies within the Kalalau Valley (KSHCP Section 5.4, Figure 5-1 and KSHCP Appendix A [*Kahuamaʻa Seabird Preserve Management Plan*]), it was estimated that trapping along the rim of Kalalau Valley would achieve a 30% reduction in the number of shearwaters depredated by feral cats. Therefore, cat trapping locations were selected to follow the rim of Kalalau Valley to protect key seabird nesting populations in Kalalau Valley and at key ingress points into Kalalau Valley. Feral cats are known to use the roads and trails in the vicinity of the Kahuamaʻa Seabird Preserve as ingress points to prey upon nearby established colonies in the Kalalau Valley and Rim, Pihea

(part of the Hono O Nā Pali Natural Area Reserve), and Honopū, all of which are potential source populations for the Kahuamaʻa Seabird Preserve.

SITE DESCRIPTIONS

Kalalau Rim.

The Kalalau rim is a high cliff area which falls over a thousand meters into the Kalalau Valley. Due to the steepness and inaccessibility of the cliffs, there are many rare, endemic plants that have survived undisturbed by humans, giving the Kalalau rim unique characteristics. The vegetation at the site is a subtype of ʻōhiʻa Lowland Mesic Forest, with ʻuluhe fern comprising much of the ground cover. Kōkeʻe road follows the Kalalau rim and was selected as a logical location for trap placement.

Alakaʻi Swamp Trail.

Feral cats have been observed on the road to Pihea by Hawaiʻi Division of Land and Natural Resources (DLNR) staff, and DLNR camera data reflects significantly higher numbers of cats moving along trails and fence lines than in densely vegetated areas. The Alakaʻi Swamp Trail was chosen in consultation with Hallux Ecosystem Restoration and the Hawaii DLNR, who do the majority of predator control in the Alakaʻi region. This area covers critical ingress points into seabird colonies and was not being managed for cats prior to the KSHCP and thus fills a critical need in protecting key listed seabird populations.

CAT TRAPPING METHODS

Detailed trapping methods can be found in the appendix of the KSHCP. In summary, Tomahawk live traps have been used each year to accomplish cat trapping objectives. Tomahawk traps are walk-in live-capture traps that can either be baited (single-door) or un-baited/blind-set (double-door), capturing animals as they pass through the trap. The traps used at both sites are a combination of single door (36”x10”x9”) and double door (36”x9”x9”) Tomahawk traps. All Tomahawk Traps were either baited with food or had lures inside designed to attract the attention of predators. Baits used included sardines in olive oil, wet cat food, and dry cat food mixed with Wildlife Control Supplies Shellfish Oil contained in an empty cat food can in the rear of the trap. Lures used included cat toys, metal lids, pieces of foil, compact discs as flashers, and liquid lures

such as Booty Call, Triple Treat, Silent Stalker, Catnip Oil, Feline Exciter, Alley Cat, and bobcat urine. Traps were generally open five days per week for two weeks of the month for a total of 10 trap-nights per trap every month. Traps that were not monitored by real-time transmitting cameras (described below) were manually checked every 48 hours. Traps with cameras attached were generally opened on a Monday and closed on Friday, and their transmitting cameras were checked daily. When traps were not active, they were locked open without bait to allow cats to enter and become familiar with them, increasing the likelihood of successful trapping during subsequent visits.

The number and location of traps have varied somewhat in each year of the KSHCP. Traps have been relocated occasionally because of issues with theft or vandalism or in an attempt to increase the chance of trapping cats and avoiding non-target animals. In 2025, 16 Tomahawk live traps were located every 100 m along the last 1.4 km of the Alakaʻi Swamp Trail, starting about 1 km from the trailhead on Camp 10 road. Care was taken to locate traps off the trail where they were not visible to the public and to cover them with foliage. An additional 22 Tomahawk live traps were located along the western side of the road along Kalalau Rim extending about 0.5 km along the road from Puʻu O Kila lookout and 0.5 km surrounding the Kahuamaʻa Enclosure. Traps were placed 5–10 m off the road and camouflaged using the same protocols described above.

Fifteen out of 16 cat traps on the Alakaʻi Swamp Trail and 18 out of 22 cat traps along the Kalalau Rim also have Goodnature A24 rat traps deployed near them to reduce bait removal from the traps by rats and increase the chance of trapping cats, which are the primary target.

TRAIL CAMERAS

Initially, 15 of 16 cat traps along the Alakaʻi Swamp Trail and 18 of 22 traps along the Kalalau Rim were accompanied by a Cuddelink Cuddeback camera, which was intended to transmit pictures in real time via cellular service to PRC predator technicians to alert them to possible captures. These cameras were used for both camera trapping and monitoring purposes. The cameras were deployed in a chain to transmit pictures to a “home” camera where all images could be viewed in the field and retrieved by replacing a single SD card. The Cuddelink “home” camera was located near Pihea Junction, which allowed for traps to be checked without

physically visiting each trap. Camera data were used to evaluate the level of interaction with each trap by any given predator. Images of predators are saved on an external hard drive, and images of cats, specifically, are saved in a shared Google Drive to determine effectiveness. Although Cuddeback Cameras offer a cellular version of their cameras to be used in areas skirting cellular service availability, there is currently no cellular service close enough to either trapline to warrant use of this type of camera.

There have been problems with theft of cameras and with functionality of the automated Cuddeback camera system because of poor cellular coverage. After the theft of two cameras in 2022 and four more in 2023, all cameras were removed from traps on the Alakaʻi Swamp Trail in early 2024. Some of the cameras were repositioned on traps along the Kalalau Rim instead, so that all traps in that area have a camera. Four additional trail cameras have been placed along the predator fence to help monitor the presence of cats. If cats are photographed along the fence, additional Tomahawk traps are deployed in an effort to catch them.

RAT ERADICATION AND CONTROL IN THE KAHUAMAʻA PREDATOR EXCLUSION FENCE

Efforts to eradicate rats from inside the fence began in 2021 shortly after the fence was completed (Table 2), using a combination of bait stations and traps. At each of 63 points in the 25-m grid in the fenced area (Figure 1), a tamper-resistant Protecta® plastic bait station (Bell Laboratories, Madison, WI) was placed to shield bait from rain and reduce the risk of poisoning to non-target species. Each bait station was filled with up to eight 1-oz Ramik mini-bars® (HACCO Inc., Randolph, WI) containing 0.005% diphacinone. Diphacinone is the only rodenticide approved for conservation purposes in Hawaiʻi and thus was the only option available for this project. Bait stations were serviced twice per week during the first month. After that, the frequency was adjusted based on level of consumption to ensure that an adequate supply of bait was available at all times. In addition to bait stations, 24 Goodnature A24 rat traps were deployed inside the fence the month before fence construction was completed in May 2021. At every other grid point, rat tracking tunnels (N = 31) were deployed as an additional method to measure the level of rodent presence and were run over a 24-hour period every three months.

BARN OWL OBSERVATIONS AND CONTROL

Barn Owl control in the Kahuamaʻa area is done by Hallux Ecosystem Restoration. PRC previously had intended to conduct Barn Owl control before or after evening and morning surveys, if any were observed, but PRC has observed very few Barn Owls in general and has refrained from Barn Owl control to avoid interfering with hunting efforts by Hallux. During the 2025 season, no Barn Owls were observed by PRC during nocturnal auditory seabird surveys. However, a Barn Owl was photographed by a trail camera perched on a log within the Kahuamaʻa burrow area on 7 August, and another Barn Owl was photographed by a trail camera outside the fence on 3 September (Figure 7). For the 2026 season, PRC intends to enquire with Hallux if they would be okay with PRC resuming Barn Owl control efforts around the Kahuamaʻa fence, provided we coordinate the timing to avoid nights when they are hunting.

RESULTS

KAHUAMAʻA PREDATOR ERADICATION

No cats were detected within the fence upon fence completion and thus were considered to have been eradicated through passive methods, since cats can escape from inside the fence but cannot re-enter. Rats and mice were abundant in the fence area prior to fence construction, with about half of tracking cards having rat or mouse track, or both (Figure 6). Rats and mice were thought to have been eradicated by the end of 2021 based on tracking tunnel data, but both rats and mice have been detected on tracking cards inside the fence since then (Figure 8). It is not clear if these individuals represent a small remnant population or occasional incursions into the fence. If they are incursions, the way in which they entered the fence is unknown. A resurgence of Polynesian rats was documented in October 2022 (Figure 8), after which the entire baiting grid was re-activated, because Polynesian rats are more difficult to remove with traps. The baiting grid has been maintained continuously since then, and 10 A24 rat traps also have been deployed continuously.

Data from trail cameras indicate that a small number of Polynesian rats remain inside the fence (Figure 9), but they are rarely detected by tracking tunnels and have not been removed despite the presence of traps and bait. The type of bait used in A24 traps was changed in 2025 in



Figure 7. Photos of Barns Owls perched inside the Kahuama'a Seabird Preserve fence on 7 August 2025 (left) and flying outside the fence on 3 September 2025 (right).

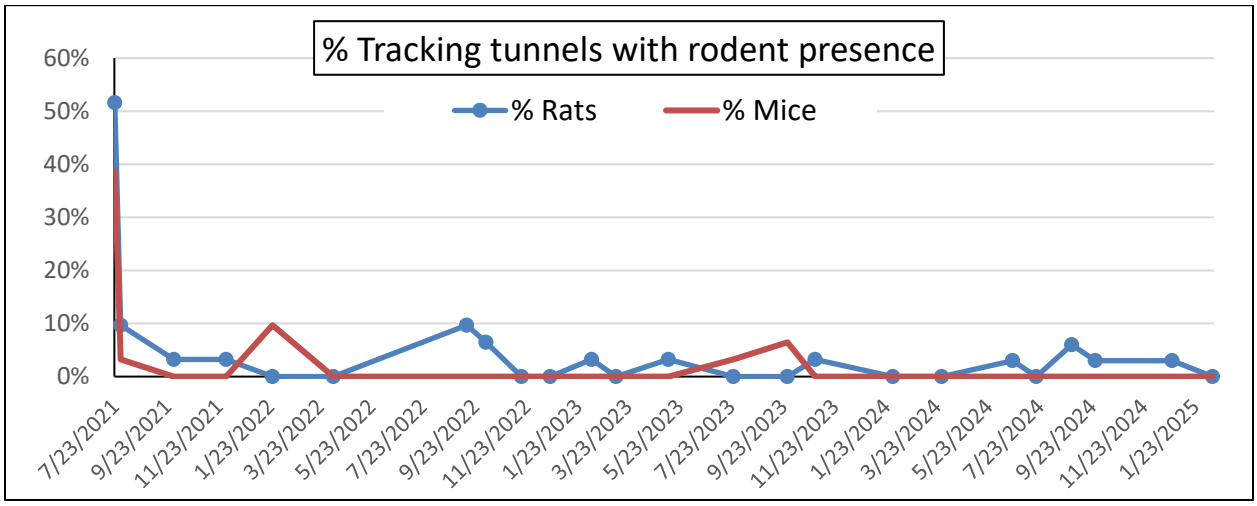


Figure 8. Proportion of tracking tunnels with rat and mouse tracks over time at the Kahuama'a Seabird Preserve.



Figure 9. Polynesian Rat photographed by a trail camera around burrows on 25 October and 23 November 2025, Kahuama'a Seabird Preserve.

an effort to catch the remaining few rats, but it has not made any difference. Additional different baits will be tested in 2026.

CAT TRAPPING

Cat traps were operated for a total of 3,496 trap-nights in 2025, including 2,024 trap-nights along the Kalalau Rim Trail and 1,472 trap-nights along the Alakaʻi Swamp Trail (Figure 10). The KSHCP prescribes that cat traps be operated for a minimum of 300 nights per month. This goal was achieved in 2025 in all months except January and June. This goal has generally been achieved in most months since the KSHCP began, with a few exceptions caused by bad weather that prevented access, vehicle maintenance, or staff availability. The number of trap-nights has remained fairly steady in each year of the KSHCP (Figure 11).

Nine cats were captured in 2025, including six along the Kalalau Rim and three on the Alakaʻi Swamp Trail, resulting in an overall catch rate of 0.0026 cats/trap-night. As required by the KSHCP, all cats were humanely euthanized. This rate is the same as the average trapping rate of 0.0026 cats per trap-night over all years from 2021-2025. A total of 173 rodents were incidentally captured in cat traps between the two sites in 2024, including 147 black rats (Rattus rattus), 21 Norway rats (R. norvegicus), and 0 Polynesian rats (R. exulans), and 5 house mice (Mus musculus), for a trapping rate of 0.049 rodents per trap-night. This rate was higher than the average rate of 0.033 rodents per trap-night from 2021-2025 and is the highest rate in any year so far. All rodents were humanely euthanized. Most cats were captured during the spring and summer months (Figure 12), perhaps related to increased movement of cats and the presence of young during the cat breeding season; this pattern has been typical of all years. The number of rodents trapped varied among months, with a decrease during the summer months, again typical of all years (Figure 12). In addition, a total of at least 243 rodents were removed with A24 rat traps in 2025, including 131 on the Alakaʻi Swamp Trail and 112 on the Kalalau Rim Trail (Figure 13). The numbers of cats and rodents trapped have varied among years (Figure 14). Trapping effort and trap locations have been similar among years and the yearly variation is thought to be random.

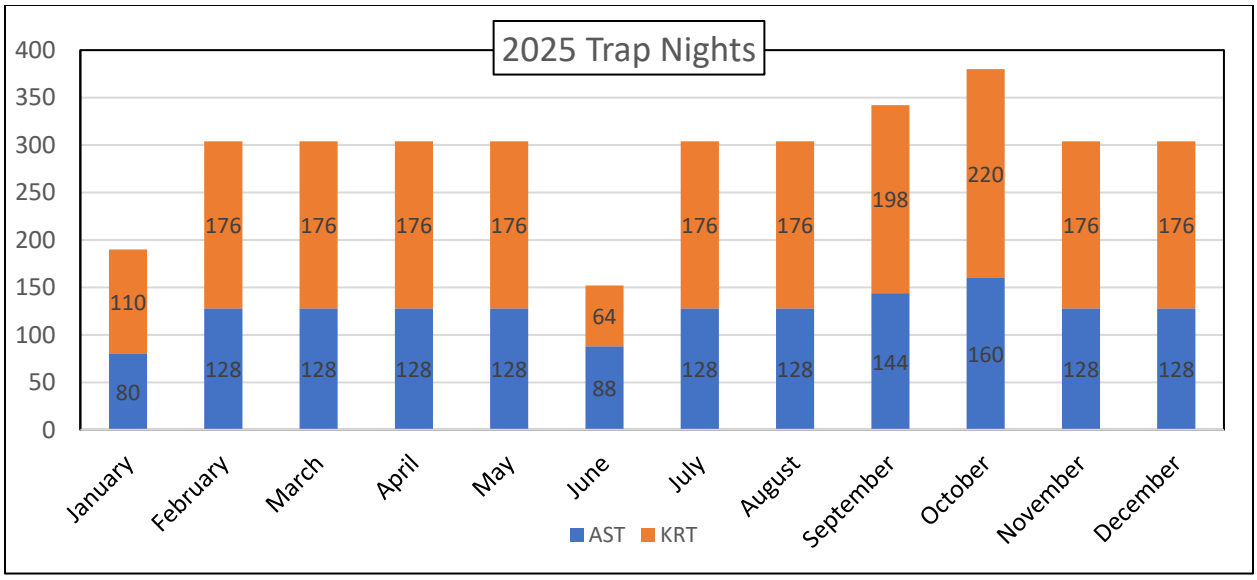


Figure 10. Number of cat trap-nights on the Alakaʻi Swamp Trail (AST) and Kalalau Rim Trail (KRT), 2025. The KSHCP prescribes a minimum of 300 trap-nights per month.

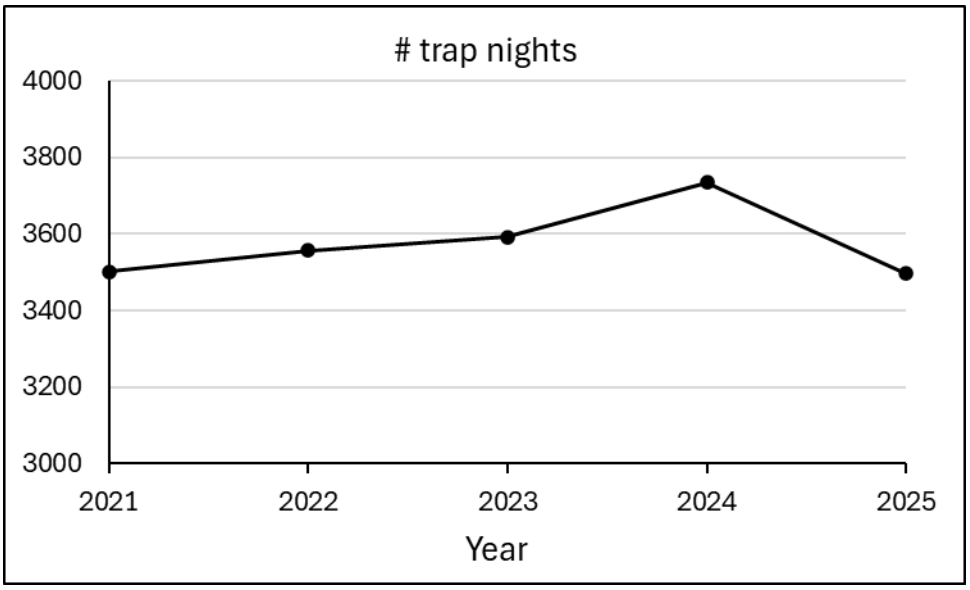


Figure 11. Number of cat trap-nights by year on the Alakaʻi Swamp Trail (AST) and Kalalau Rim Trail (KRT), 2020–2025.

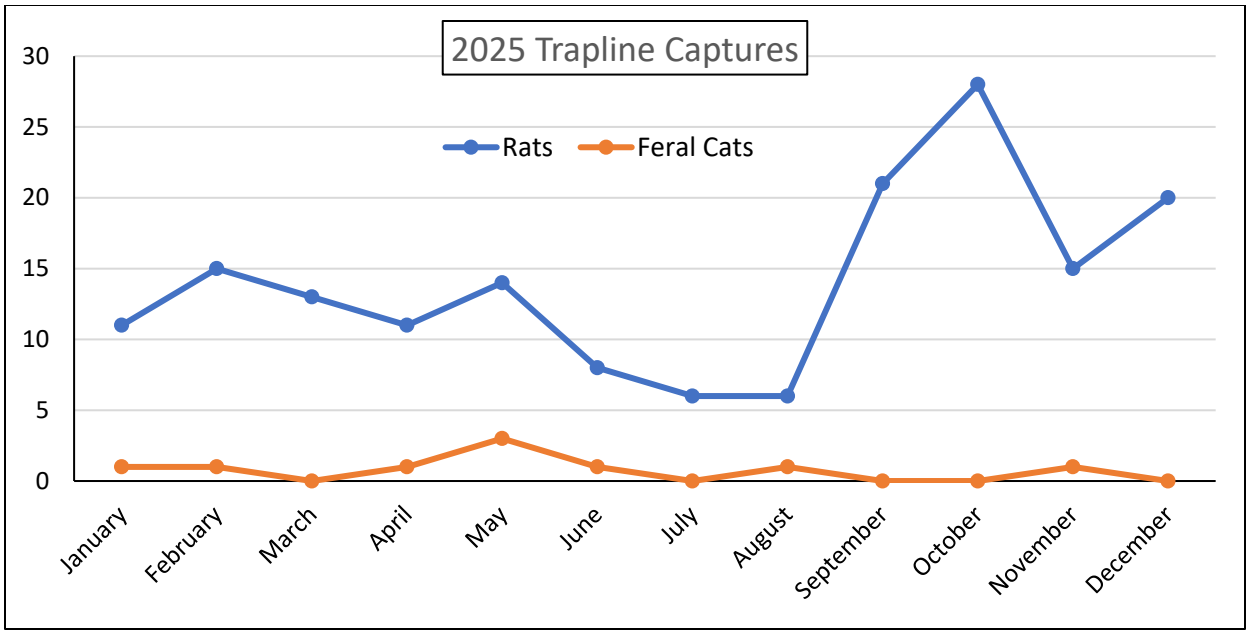


Figure 12. Total number of rodent and feral cat captures along traplines on the Alakaʻi Swamp Trail (AST) and Kalalau Rim Trail (KRT), 2025.

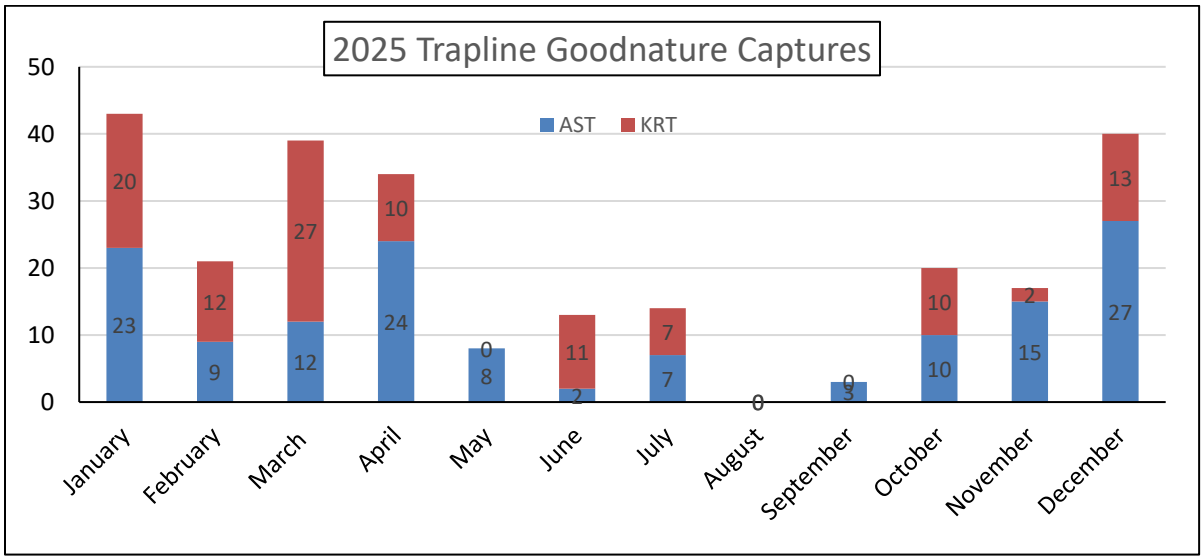


Figure 13. Number of rodents removed with Goodnature traps by month, Kahuamaʻa Seabird Preserve, 2025.

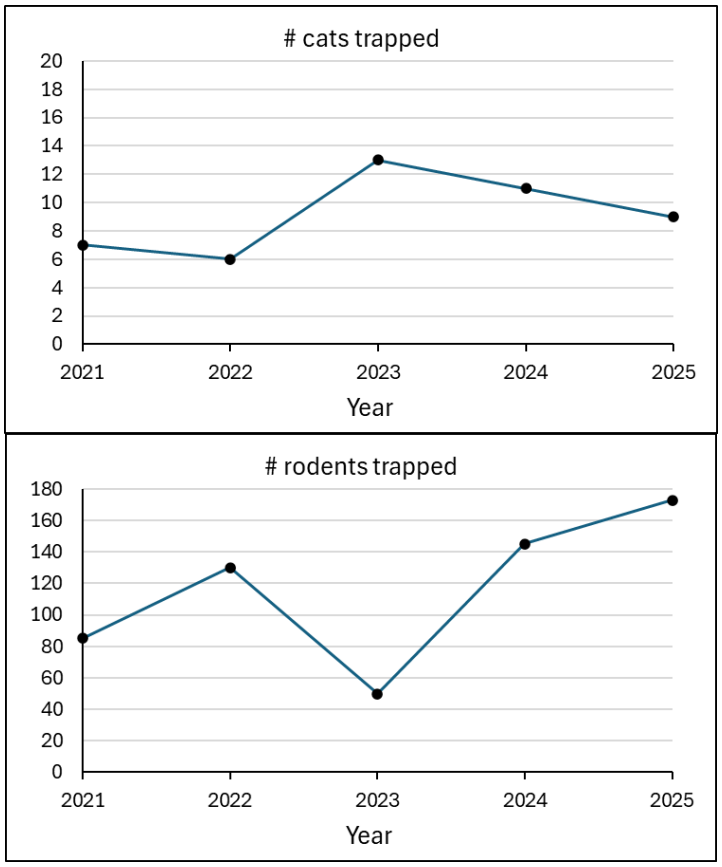


Figure 14. Numbers of cats and rodents trapped in the vicinity of Kahuama‘a Seabird Preserve, 2020–2025. Note the difference in scales for numbers of cats and rodents.

CAMERA MONITORING

All trail cameras were removed from traps along the Alaka‘i Swamp Trail in early 2024 because of chronic problems with theft and vandalism. All 22 traps on the Kalalau Rim Trail still have cameras, and there has been no problem with theft in that area, and there are four additional cameras positioned along the predator fence. The automated Cuddeback system is no longer enabled, since it did not work as intended because of poor cellular coverage and camera connectivity in the dense forest. Cats were observed in images from trail cameras on multiple occasions throughout the year. The color pattern of cats visible in photos matched those of cats trapped, suggesting that all cats known to be in the area were eventually removed. Rats and mice have been observed on every camera deployed on the Kalalau Rim. Black Rats made up the majority of trail camera observations. Other animals such as pigs, dogs, and black-tail deer have been observed on game cameras occasionally. Dogs are commonly observed on game cameras at

both Alakaʻi Swamp Trail and Kalalau Rim. Dogs have been photographed inspecting, crawling into, and sniffing traps that are baited.

DISCUSSION

Objectives and protocols for monitoring progress and success are presented in Table 5 and described in detail in KSHCP Appendix A (*Kahuamaʻa Seabird Preserve Management Plan for the KSHCP*). These objectives involve three aspects of biological monitoring:

1. Predator eradication/suppression,
2. Vegetation (habitat) management, and
3. Seabird response to management.

The predator exclusion fence was completed during the prescribed time frame and has been maintained as needed. Some maintenance has been required, but overall, the fence has held up well and has been effective at excluding ground predators.

All predators were eradicated from the fenced area, including feral cats, rats, and mice, and the fence has been maintained in a largely predator-free state since it was completed. Monitoring with tracking cards has shown that a small number of Polynesian rats, possibly just a single individual, have persisted inside the fence and have been difficult to remove despite the present of numerous traps and bait stations. This low level of Polynesian rat presence is not a serious threat to seabirds, and efforts will continue to remove the remaining individual(s).

Biological monitoring of seabirds and their habitat commenced on schedule in 2021, and all required surveys were completed during that time to provide an inventory and baseline of the flora and fauna present at the Kahuamaʻa Seabird Preserve. Prescribed surveys have been completed each year since then to monitor responses. Auditory surveys have shown that all three listed seabird species regularly fly past the site, with Newell's Shearwater in particularly high numbers based on call rates. The number of seabird detections has declined since 2023 for unknown reasons, but substantial numbers of Newell's Shearwaters and Hawaiian Petrels are still detected during auditory surveys.

Table 5. Progress towards biological objectives of the mitigation site, as stated in Table 7-4 of the KSHCP, during 2021–2025.

Biological Objective	**Status**
2.A. Construct a predator-proof fence and install social attraction equipment (nest boxes, speakers) within the fenced area at mitigation site in Year 1 of KSHCP implementation.	Completed.
2.B. Remove predators from within the fenced enclosure with monitoring confirmation of their absence, and activation of social attraction equipment by Year 2; predator eradication within fenced enclosure maintained for the life of project.	Completed.
2.C. Ground activity by Covered Seabirds documented at the mitigation site by Year 4 of KSHCP implementation.	Completed.
2.D. Breeding activity by Covered Seabirds documented at the mitigation site by Years 5-7 of KSHCP implementation.	Not yet achieved.
2.E. Cumulative upward trend in Covered Seabird breeding documented at the mitigation site by Year 10 of KSHCP implementation.	Not yet achieved.
2.F. Continued cumulative upward trend in Covered Seabird breeding documented at the mitigation site by Year 20 of KSHCP implementation.	Not yet achieved.
2.G. Maintain high quality seabird habitat at the mitigation site by removing habitat modifying invasive plants in Year 1 and annually throughout the 30-year duration of the KSHCP.	Ongoing.
2.H. Protect nesting birds inside mitigation fence and in nearby source colonies by implementing predator control of 1) barn owls within the area surrounding the fenced enclosure and the Kalalau Valley, and 2) feral cats at ingress points to source colonies in the Kalalau Valley, beginning in year 1 and annually throughout the 30-year duration of the KSHCP.	Ongoing.
2.I. Annual protection of any Honu nests adjacent to facilities via shielding or other measures to avoid light attraction take.	Ongoing.

The social attraction program, consisting of 100 artificial nest boxes and a solar-powered sound system that broadcasts Newell's Shearwater calls, was installed as prescribed and has been maintained and operated properly each year. Monitoring of the social attraction site inside the fence has documented the presence of single Hawaiian Petrels on the ground in 2023, 2024, and 2025, and a single Newell's Shearwater in 2025. All possible actions have been taken to make the site as attractive as possible, and it is hoped that visitation by Newell's Shearwaters and Hawaiian Petrels will increase and that both species will begin breeding. The proximity of a large Newell's Shearwater colony was one of the reasons that Kahuamaʻa was selected as the social attraction location, but it is possible that having such a large, loud Newell's Shearwater colony just downslope from the project site is actually a deterrent to birds colonizing Kahuamaʻa because the social attraction calls are less attractive than the existing large colony that presumably has many breeding pairs already. Hawaiian Petrel colonies are located further away, and yet that species appears to be more attracted to the site.

Cat control along the Alakaʻi Swamp trail and Kalalau Rim has been implemented successfully in each year of the KSHCP, and a total of 46 feral cats have been removed from the area. These cats could have accessed seabird colonies and their removal likely has helped to protect existing seabird colonies and maintained them as potential sources of birds to colonize Kahuamaʻa.

2. SUMMARY OF KSHCP PARTICIPANTS' ANNUAL REPORTS

Summaries of Participants' annual reports are presented below. Each summary includes sections on downed bird search effort, seabird recoveries (Table 6), lighting and facilities, predator control (Table 7), training (Table 8), and outreach. For two participants with multiple facilities (Alexander & Baldwin and the County of Kauaʻi), summaries are grouped for the purpose of readability. Summaries for the three State of Hawaiʻi Department of Transportation (HDOT) facilities are presented separately. For more detailed information about any of the compliance activities, please contact the agency representatives at DOFAW and USFWS.

Table 6. Observed take and disposition of KSHCP covered seabird species reported at all KSHCP Participant Facilities during the 2025 seabird fledging season.

Date	Time	Property	Species	Age	Take Type	Status	SOS Reference Number
10/03/2025	19:23	Sheraton Kauai Resort	NESH	HY	nonlethal	released	MRW010
10/15/2025	21:59	Sheraton Kauai Resort	NESH	HY	nonlethal	released	TES127
10/21/2025	14:54	Sheraton Kauai Resort	NESH	HY	nonlethal	released	AGC039
5/17/2025	19:40	1 Hotel Hanalei Bay	NESH	AHY	nonlethal	released	MAK007
7/20/2025	23:30	1 Hotel Hanalei Bay	NESH	AHY	nonlethal	released	ANP410
10/12/2025	4:50	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	AGC009
10/13/2025	23:39	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	LAR089
10/14/2025	23:10	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	TES121
10/14/2025	4:27	1 Hotel Hanalei Bay	NESH	unknown; assumed HY for take estimates	lethal	unknown (bird was not captured)	n/a; bird was not captured
10/14/2025	19:52	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	TES120

Table 6. Continued.

Date	Time	Property	Species	Age	Take Type	Status	SOS Reference Number
10/16/2025	19:31	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	MRW019
10/16/2025	22:24	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	MRW018
10/17/2025	21:17	1 Hotel Hanalei Bay	NESH	HY	lethal	dead on arrival	TES133
10/17/2025	21:22	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	MRW023
10/19/2025	4:04	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	AGC024
10/19/2025	4:24	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	AGC022
10/20/2025	22:23	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	MAK056
10/20/2025	23:44	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	LAR097
10/20/2025	5:08	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	MAK052
10/20/2025	19:36	1 Hotel Hanalei Bay	NESH	HY	lethal	dead on arrival	ANP429
10/20/2025	22:03	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	MAK055
10/21/2025	4:09	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	LAR099
10/21/2025	5:17	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	LAR098
10/21/2025	23:04	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	TES144
10/22/2025	5:34	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	TES143
10/22/2025	23:05	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	MRW035
10/22/2025	4:52	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	TES142
10/23/2025	21:30	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	MRW043
10/23/2025	4:47	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	MRW034

Table 6. Continued.

Date	Time	Property	Species	Age	Take Type	Status	SOS Reference Number
10/23/2025	3:58	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	MRW033
10/24/2025	3:35	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	MRW042
10/24/2025	23:35	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	TES156
10/28/2025	20:30	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	TES158
10/28/2025	4:40	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	LAR107
10/28/2025	19:44	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	TES159
10/29/2025	22:44	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	MRW048
10/30/2025	20:10	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	MAK062
11/21/2025	22:55	1 Hotel Hanalei Bay	NESH	HY	nonlethal	released	MRW072
11/24/2025	22:35	1 Hotel Hanalei Bay	HAPE	HY	lethal	dead on arrival	LAR138
10/22/2025	21:00	Kauaʻi Resort (Sonesta)	NESH	HY	nonlethal	released	TES150
10/23/2025	18:56	Kauaʻi Resort (Sonesta)	NESH	HY	nonlethal	released	TES153
11/17/2025	23:45	Kauaʻi Resort (Sonesta)	NESH	HY	nonlethal	released	AGC075
11/24/2025	18:57	Kauaʻi Resort (Sonesta)	HAPE	HY	nonlethal	released	AGC101
10/17/2025	5:48	A&B: Port Allen Properties	NESH	HY	lethal	dead on arrival	TES130
10/20/2025	4:53	A&B: Hokulei Shopping Village	NESH	HY	lethal	dead on arrival	AGC029
10/20/2025	22:07	A&B: Port Allen Properties	NESH	HY	nonlethal	released	AGC034
10/22/2025	21:11	A&B: Port Allen Properties	NESH	HY	nonlethal	released	TES146
10/23/2025	5:15	A&B: Hokulei Shopping Village	NESH	HY	nonlethal	released	TES149
10/27/2025	5:26	A&B: Port Allen Properties	NESH	HY	nonlethal	released	AGC051

Table 6. Continued.

Date	Time	Property	Species	Age	Take Type	Status	SOS Reference Number
10/29/2025	21:36	A&B: Port Allen Properties	NESH	HY	nonlethal	released	TES160
11/9/2025	21:09	A&B: Port Allen Properties	NESH	HY	nonlethal	released	MAK067
10/16/2025[a]	unknown	Kauaʻi County: Kekaha Gardens Park	NESH	HY	nonlethal	released	TES123
10/16/2025[a]	unknown	Kauaʻi County: Hanapepe Baseball Field	NESH	HY	nonlethal	released	TES124
10/23/2025[a]	unknown	Kauaʻi County: Eleele - low income	NESH	HY	nonlethal	released	TES147
10/28/2025[a]	unknown	Kauaʻi County: Hanapepe Park	NESH	HY	nonlethal	released	AGC054
10/29/2025[a]	unknown	Kauaʻi County: Hanapepe Base Yard	NESH	HY	nonlethal	released	AGC058
10/30/2025[a]	unknown	Kauaʻi County: Eleele Lima	NESH	HY	nonlethal	released	TES161
10/12/2025	21:35	Lihue Airport	NESH	HY	lethal	died +24 hours	AGC012
10/24/2025	6:00	Lihue Airport	NESH	HY	lethal	died in 24 hours	TES154
11/7/2025	20:11	Nawiliwili Harbor	NESH	HY	nonlethal	released	LAR114
10/22/2025	5:08	Port Allen Harbor	NESH	HY	nonlethal	released	unknown
10/22/2025	20:50	Port Allen Harbor	NESH	HY	nonlethal	released	TES145
10/24/2025	5:20	Port Allen Harbor	NESH	HY	nonlethal	released	TES152

[a] Dates for birds attributed to the County of Kauaʻi are the admission dates from Save Our Shearwaters (SOS) records.

Table 7. Predator control effort and results for KSHCP Participant Facilities, 2025.

Participant/Facility	Conducted by	# Traps	# Nights	# Trap-nights	# Predators	Catch/trap-night	Effort sufficient?
Norwegian Cruise Lines	none	n/a		n/a		n/a	not required
Pride of America, Norwegian Sun, Oceania Regatta, Oceania Insignia							
Alexander & Baldwin, Inc.							
Port Allen Properties	contractor	4	115	460	18	0.0391	yes
Hokulei Village	contractor	3–4	2	470	12	0.0255	yes
The Shops at Kukuiula	contractor	2–6	unk	617	19	0.0308	yes
Total, Alexander & Baldwin, Inc.			117	1,547	49	0.0317	yes
Essex House Condominium Corporation							
Kaua‘i Resort (Sonesta)	contractor	3–5	234	966	11	0.0114	yes
HDOT							
Lihue Airport	USDA	11	91	1,001	6	0.0060	yes
Nawiliwili Harbor	contractor	4	86	344	17	0.0494	yes
Port Allen	contractor	1	92	92	6	0.0652	yes
Total, HDOT			269	1,437	29	0.0202	yes
Kauai Blue, Inc.							
Sheraton Kauai Resort	contractor	10	363	3,630	16	0.0044	yes
SOF XI Kauai PV Hotel, LP							
1 Hotel Hanalei Bay	contractor	3–7	125	665	6	0.0090	yes
Kauai Coffee							
Kauai Coffee	contractor	8	41	328	20	0.0610	yes
County of Kaua‘i							
Hanapepe Fire Station	contractor			72	4	0.0556	yes
Lima Ola	contractor			66	2	0.0303	yes
Salt Pond Park	contractor			64	2	0.0313	yes
Waimea Fire/Police Station	contractor			62	1	0.0161	yes
Waimea Theatre	contractor			63	0	0.0000	yes
Kalaheo Fire Station	contractor			90	3	0.0333	yes
Koae Workforce Housing	contractor			76	2	0.0263	yes

Table 7. Continued.

Participant/Facility	Conducted by	# Traps	# Nights	# Trap-nights	# Predators	Catch/trap-night	Effort sufficient?
County of Kauaʻi							
Paanau Village, Phase I, II	contractor			68	3	0.0441	yes
Historic County Building & Annex	contractor			48	5	0.1042	no
Koloa Neighborhood Center	contractor			85	4	0.0471	yes
Kalepa Village, Phase I, II, III, IV	contractor			93	5	0.0538	yes
Kanikoo Elderly Housing, Phase I, II/Rice Camp Senior Housing	contractor			46	5	0.1087	no
Kaua'i Economic Authority (KEO)	contractor			113	7	0.0619	yes
Lihue Civic Center	contractor			58	2	0.0345	yes
Lydgate Park	contractor			211	13	0.0616	yes
Police Headquarters/EOC/OPA	contractor			65	0	0.0000	yes
Transportation Baseyard/Office	contractor			82	1	0.0122	yes
Hanalei Fire/Police Station	contractor			126	0	0.0000	yes
Kolopua Workforce Housing	contractor			93	2	0.0215	yes
Total, County of Kauaʻi				1,581	61	0.0386	yes
Total, all participants				10,154	192	0.0189	yes

Table 8. Summary of seabird searcher and awareness training by KSHCP Participants, 2025.

Participant	Facility	# Trainings	# Partici-pants	Method	Conducted by	Printed materials on property?
Norwegian Cruise Lines	Pride of America, Norwegian Sun, Oceania Regatta, Oceania Insignia	85	5,088	in-person, aided by presentations and fact sheets	Staff, ABR biologists	yes
Alexander & Baldwin, Inc.	Hokulei, TSAK, Port Allen	11	47	video conference and in-person; aided by presentation	Staff, HT Harvey biologist	yes
Essex House Condominium Corporation	Kaua‘i Resort (Royal Sonesta)	9	188	in-person, aided by presentations and fact sheets	Staff, ABR biologists	yes
		76	105	self-paced presentation	Staff	yes
HDOT	Lihue Airport, Nawiliwili Harbor, Port Allen Harbor	9	67	in-person, aided by presentations and fact sheets	HT Harvey biologist	yes
Kauai Blue, Inc.	Sheraton Kauai Resort	20	230	in-person, aided by presentations and fact sheets	Staff, ABR biologists	yes
SOF XI Kauai PV Hotel, LP	1 Hotel Hanalei Bay	7	73	in-person, aided by presentations and fact sheets	ABR biologists, staff	yes
Kauai Coffee	Kauai Coffee	3	85	in-person, aided by presentations	Dilek Sahin, KSERP	yes
County of Kaua‘i	all County Facilities	1	1,300	memo distributed to all employees	n/a	yes
	Sports complexes and stadiums	2	29	in-person presentation with high school football players and school staff	Staff	yes
	all County Facilities	1	179	training video for all employees	n/a	yes
Total	all Facilities		7,391			

ALEXANDER & BALDWIN, INC. (A&B)

OWNERSHIP AND KEY PERSONNEL

Alexander & Baldwin, Inc. (A&B) Facilities covered by the KSHCP include Hokulei Shopping Village, The Shops at Kukuiula (TSAK), and A&B's Port Allen commercial properties (Port Allen). Port Allen comprises five properties grouped together as one Facility for reporting purposes. Since 2021, A&B has closed the sale of seven separate facilities that were originally listed as covered properties under the KSHCP. As of 2025, these facilities are no longer covered by A&B's permits.These facilities and the year of sale are:

- Waipouli Town Center (sold in October 2024)
- Port Allen South Parcels – BEI (bulk fertilizer storage) Parcel only (sold in 2023)
- McBryde Resources Pump 3, Wainiha Hydroelectric Plant, and Kalaheo Hydroelectric Plant (sold in 2022)
- Kukui‘ula Development (Plantation Core/The Club) (sold in 2021)
- Port Allen Solar Facility (sold in 2020).

Changed circumstances and/or Proposed changes

In 2025, A&B requested that the resource agencies agree to amend the subject ITP and ITL by deleting from the A&B PIP all references to the above-listed facilities and thereby formally terminating all obligations under the ITP and ITL related to these facilities. Furthermore, A&B has not requested any other changes to the ITP and ITL and is specifically not requesting any change in the total amount of take authorized for the remaining A&B covered facilities.

A&B notified the resource agencies in 2025 of its intent to utilize an alternative discovery rate for estimating take under the KSHCP. The justification for this proposed alternative stem from the success of the in-house Downed Seabird Searcher Effectiveness Monitoring and Improvement Program and results of third-party trials performed in 2024. Reports detailing the methods and results of both exercises were submitted to the resource agencies to facilitate discussion and process the request in a timely manner.

TAKE

Eight Newell's Shearwaters were found at A&B facilities during the 2025 season, including six at Port Allen and two at Hokulei Shopping Village (Table 6). All of these seabirds were discovered and documented by A&B's trained searchers. Two of the shearwaters found at A&B properties in 2025 were found dead (one at Hokulei Shopping Village and one at Port Allen) while the other six were admitted to SOS and later released. Eight additional Newell's Shearwaters were found off site by A&B's trained searchers during searches of Covered Facilities in 2025. Six of these shearwaters were discovered in the Port Allen community, and two were found on properties adjacent to but not within A&B Covered Facilities at Hokulei Shopping Village. Five of these off-site seabirds were discovered alive, two were deceased upon discovery, and one took flight before it could be secured.

DOWNED SEABIRD SEARCH EFFORT

A&B's Downed Seabird Monitoring and Recovery Plan was updated in August 2025, and searchers were trained on the revised plan. Most daily searches and monitoring of A&B's Covered Facilities were conducted daily and in accordance with the plan by a trained and experienced contractor, with the exception of TSAK, where the morning pre-dawn searches were performed by contract landscape and facility maintenance personnel that received search training in advance of the seabird fledging season. All searches were completed and recorded in specified search logs. At all A&B facilities, searches were performed nightly on each consecutive night during the seabird fledging season beginning 15 September and concluding on 15 December. Four searches were not performed (2 at TSAK and 1 each at Hokulei and Port Allen, respectively) due to health and logistical issues (99.3% overall completion rate). A portion of the gravel parking lots could not be searched during four nights due to safety concerns related to vagrant activity; however, facility lighting on these parcels is not functional. The nightly search was conducted 3–4 hours after sunset, and the early pre-dawn search was conducted one hour prior to sunrise.

The in-house Downed Seabird Searcher Effectiveness Monitoring and Improvement Program, developed and implemented in 2023 and 2024, was continued throughout 2025 and consisted of weekly placement of seabird decoys at all facilities by A&B Environmental Affairs

personnel. This program helped to ensure effective searching was conducted throughout the season and to identify areas requiring improvement. At The Shops at Kukuiula in particular, a specific training need was identified in-season, and additional training of in-house searchers performing morning searches at this facility was conducted which resulted in improved in-house searcher performance. Based on results of this program, searcher performance across all facilities was assessed to be better than that measured during the 2021 Searcher Efficiency Trials performed by DOFAW, with performance above the default 50% searcher efficiency used in take calculations. The 2025 program results are similar to the results of a third-party Searcher Recovery Rate Trial performed during the 2024 monitoring season. It should be noted that the in-season program also positively impacted searcher motivation, with searchers competing to be the top performer and taking a personal interest in self-improvement whenever a decoy was missed.

LIGHTING AND FACILITIES

Nighttime lighting at most A&B-covered facilities has been previously modified to remain in compliance with KSHCP guidelines. Plans for further lighting improvements are under development based on the most recent lighting audit.

The Shops at Kukuiula (TSAK)

In prior years, multiple lighting fixtures at TSAK were modified through the addition of foil lining to lighting globes to achieve full cutoff performance. While planning for more extensive lighting improvements remains ongoing, an additional 25 fixtures received similarly effective modifications in 2025.

Hokulei Shopping Village

One tenant-owned light identified as requiring repairs due to shielding that had been removed or fallen off remained uncorrected throughout the 2024 season and into the 2025 season, despite outreach to the tenant by the facility manager. While the tenant eventually took steps to mitigate the problem by installing a makeshift shield, the installation was insufficient in achieving a fully-compliant fixture. A&B Environmental Affairs therefore chose to directly assist the tenant in modifying the shield to ensure the fixture was fully compliant for the remainder of the season, pending delivery of a permanent replacement shield (Appendix A).

Port Allen

Semi-opaque panels on the roof and sides of the Steel Warehouse have been observed to transmit light from inside the building, and this was addressed in previous years through tenant control of interior lighting during the fledging season (Appendix A). Monitoring of tenant performance remained ongoing during 2025 to assess the need for further action. While the tenant continued to make efforts to comply, safety concerns were raised regarding minimization of interior lighting. As such, other options or the need for further improvements will be evaluated prior to the 2026 season.

PREDATOR CONTROL

The Shops at Kukuiula (TSAK)

Predator control efforts at TSAK were contracted out to a wildlife control contractor, and effectiveness improved significantly from 2024. This may be due in part to efforts to reduce predator feeding in the vicinity of Longs Drugs, though indications are that some amount of feeding is still occurring in the area, generally after midnight and despite ongoing warnings by facility security. Pre-season trapping commenced on 16 June (in conjunction with the normal chicken trapping efforts) and continued through August and the first two weeks of September (excluding weekends through August). Daily trapping continued throughout the season except for one day when traps were not set. During the pre-season through 14 August, two traps were placed at the facility, and this number increased to four through the end of October, then to four to six traps in November and December, for a total of 617 trap-nights (Table 7). Tampering with traps was noted on 13 occasions, primarily near Living Foods but also near Longs Drugs. Traps were checked, baited, reset and maintained on a nightly basis except as noted above. The presence of feral chickens in and around the property likely impacted the trapping program to an extent, and a total of 73 chickens were trapped and removed during the season. Only one instance of predator feeding on the property was logged by searchers, due in part to feeders shifting to late-night feeding.

Predator control "snapshot" surveys were conducted prior to the start of trapping and then before, during, and after the season, and none of these surveys indicated any significant predator presence on the property. This is consistent with the results of previous years' surveys. Twice-

nightly predator monitoring on the properties, in conjunction with seabird searches, indicated that the predator population was quite low for the entire season and near zero during the latter half of the season. No more than four predators were observed on the property during any search and only 55 predators were sighted during 183 searches, a reduction of 40% from predator sightings in 2024. On average, 0.6 predators were seen per night over the course of the season. About 37 % of predator captures occurred prior to 15 September, demonstrating the value of the expanded pre-season trapping efforts. The predator control contractor also monitors the presence of predators on the property during their regular trap checks, and this information is used to help inform trap placement. No significant rat or dog activity was observed, though one wild pig was observed; rodents are controlled under a separate pest control program. Feral chicken activity on this property was high, and chicken trapping was conducted during the preseason to reduce impacts on predator traps.

Hokulei Shopping Village

Predator control efforts at the Hokulei Shopping Village were contracted out to a wildlife control contractor and, as in prior years, appear to have been quite effective based on the extremely low predator counts observed throughout the season. Pre-season trapping commenced on 14 August (excluding weekends during August) and daily trapping continued throughout the season except one day when traps were not set. During the pre-season three traps were initially placed at the facility for the first two nights, and four traps were placed for the remainder of the pre-season and season for a total of 470 trap-nights. Tampering with traps was noted on four occasions. Traps were checked, baited, reset and maintained on a nightly basis except as noted above. The presence of feral chickens in and around the property likely impacted the trapping program to an extent, and a total of 26 chickens were trapped and removed during the season. No instances of predator feeding on the property were logged.

Predator control "snapshot" surveys were conducted prior to the start of trapping and then before, during, and after the season, and none of these surveys indicated any significant predator presence on the property. This is consistent with results during the previous years' surveys. Twice-nightly monitoring for the presence of predators on the properties in conjunction with seabird searches indicated that the predator population was near zero over the course of the season. No more than two predators were observed on the property during any search and only

31 predators were sighted during 183 searches, about the same as in 2024; on average, 0.34 predators were seen per night over the course of the season. About 17 % of predator captures occurred during the month prior to 15 September, demonstrating the value of pre-season trapping efforts. The predator control contractor also monitors the presence of predators on the property during their regular trap checks, and this information is used to help inform trap placement. No significant rat or dog activity was observed; rodents are controlled under a separate pest control program.

Port Allen

Predator control efforts at the Port Allen Properties were outsourced to a wildlife control contractor and were exceptionally effective, based on the extremely low predator counts observed throughout the season. Pre-season trapping commenced on 15 August (excluding weekends during August) and daily trapping continued throughout the season except two days when traps were not set. During the pre-season and throughout the season, four traps were placed at the Port Allen facilities, resulting in a total of 460 trap-nights. Tampering with and theft of traps were not noted in 2025 as they have been in the past. Traps were checked, baited, reset and maintained on a nightly basis except as noted above. The presence of feral chickens in and around the property likely impacted the trapping program to an extent, and a total of 51 chickens were trapped and removed during the season. No instances of predator feeding on the property were logged.

Predator control "snapshot" surveys were conducted prior to the start of trapping and then before, during, and after the season, and none of these surveys indicated any significant predator presence on the property. This is consistent with results during previous years' surveys. Twice-nightly monitoring for the presence of predators on the properties in conjunction with seabird searches indicated that the predator population was near zero throughout the season. No more than two predators were observed on the property during any search and only 12 predators were sighted during 183 searches, a reduction of 55% from 2024; on average, 0.13 predators were seen per night over the course of the season. The predator control contractor also monitors the presence of predators on the property during their regular trap checks, and this information is used to help inform trap placement. Forty-four percent of all predators caught at Port Allen were trapped during the month prior to the start of seabird fledging season, and no predators were

caught during November or December. One loose dog was observed during the season and was captured with the assistance of the Kaua‘i Humane Society, since it was not possible to catch it in the predator traps. Rodents appear to be under control owing to a separate pest control program.

Overall, the predator control program at Port Allen appears once again to have been highly effective. Efforts to curtail the prevalence of trespassers entering the properties to feed predators, free trapped predators, and generally interfere with our predator control program continued in 2025, and these efforts have yielded benefits, as there were no observations of predator feeding at the Port Allen facilities in 2025. Continued attention to this issue is necessary to ensure that predator colony activities do not return in future years.

TRAINING AND OUTREACH

During 9–12 September 2025, three separate training sessions covering Seabird Awareness and Seabird Searching and Recovery were delivered virtually by H. T. Harvey & Associates to 35 individuals comprising designated seabird search contractors, building maintenance and landscaping contractors, security, property management staff, and A&B Environmental Affairs personnel at all 3 A&B Facilities. Each session was 60–90 minutes long and included a PowerPoint training module. Another seven individuals responsible for downed seabird searches and building maintenance received in-person classroom-based training between 13 and 15 September 2025. Four training sessions were provided during the fledging season for new searchers and a new maintenance employee on 4 October, 5 November, 14 November, and 4 December 2025. Combined, 47 individuals received comprehensive training at A&B properties in 2025.

At each of its covered properties, A&B produced and distributed informative and well-designed outreach materials to educate staff, contractors, visitors, and the community about seabirds and their status as endangered and threatened species, with clear instructions on what to do if seabirds are encountered (Appendix B). These include obvious signage at covered facilities and folding pamphlets that contain photos of the Covered Species, information about the habits of these seabird fledglings and their vulnerabilities during their first flight to sea, and how to report discoveries. In addition, A&B Environmental Affairs prepared and delivered a pre-season

letter to Port Allen community landowners about seabird fallout on Kaua‘i and the importance of reducing nighttime lighting at their respective properties and facilities during the seabird season.

COUNTY OF KAUA‘I

OWNERSHIP AND KEY PERSONNEL

Oversight of the County of Kaua‘i’ s participation in the KSHCP and PIP is administered through the Department of Parks and Recreation, as the majority of County facilities covered under the PIP are parks and recreation sites. The Director of Parks and Recreation provides departmental oversight and coordination of the County’s participation in the KSHCP. The County’s Program Specialist serves as the primary resource for the KSHCP and PIP. Responsibilities include ensuring adherence to KSHCP plan requirements, providing training to County employees, conducting outreach to the public and facility users, supporting predator control and other compliance efforts required by federal and state mandates, and assisting with coordination of the participant committee. Supporting departments and offices include the County Department of Transportation, Housing Department, Kaua‘i Fire Department, County Parks maintenance personnel, Information Technology Department, and the Office of the Mayor.

TAKE

There were six Newell’s Shearwater groundings attributed to Kaua‘i County facilities in 2025 (Table 6). All six of these incidents were assigned to Kaua‘i County based on the locations presented in SOS weekly tabulations of island-wide take records. These records indicate the six Newell’s shearwaters were discovered at Kekaha Gardens Park, Hanapepe Baseball Field, ‘Ele‘ele workforce housing, Hanapepe Park, Hanapepe Base Yard fuel, and ‘Ele‘ele Lima Ola. ‘Ele‘ele workforce housing is a county parcel that is not a Covered Facility, with construction presently underway.

DOWNED SEABIRD AND HONU SEARCH EFFORT

Monitoring occurred primarily during early morning hours, generally beginning around 08:00, across multiple County facilities and parks identified as requiring daily or routine seabird surveys during fledging season. The monitoring responsibilities were shared by multiple County

staff members, demonstrating cross-departmental participation to achieve compliance with monitoring requirements throughout the fledging season. Survey frequency remained consistent throughout the fledging season, with weekly search totals generally ranging between approximately 45 and 65 searches per week. Slight increases in effort were made during peak fledging periods in late October through early December.

In 2025, the County monitored 18 Category 3 sites/facilities where nighttime lighting presents concern for fallout:

- Hanalei Fire/Police Station, Hanapepe Fire Station, Kalaheo Fire Station, Waimea Fire/Police Station, and Kauaʻi Police Department Headquarters
- Historic County Building and Annex, Lihue Civic Center, and Transportation Baseyard.
- Kalepa Village Housing, Kanikoo Elderly Housing, Koae Workforce Housing, Kolopua Workforce Housing, Kauaʻi Economic Development, Paanau Village Housing, and Lima Ola Workforce Housing.
- Lydgate Beach Park, Salt Pond Beach Park, and Waimea Theatre.

A total of 610 dedicated downed seabird searches of covered facilities were performed in 2025 with effort distributed to prioritize Category 3, 4, and 5 sites with known lighting risks, public use, or previous seabird fallout history. There were 18 of the initial 37 Category 3 facilities that were monitored and searched for grounded seabirds in 2025. In concurrence with the resource agencies, the County of Kauaʻi implemented several lighting minimization actions at 19 Category 3 facilities that reduced lighting at these facilities to the equivalent of Category 2 levels.

- Kalepa Village Housing, Kanikoʻo Elderly Housing, Koaʻe Workforce Housing, Kolopua Workforce Housing, Kauaʻi Economic Development, Paʻanau Village Housing, and Lima Ola Workforce Housing.

During the 2025 fledging season, four nighttime high school football games were held at Hanapepe Stadium, a Category 5 facility. All games were conducted with pre-planned seabird monitoring, lighting controls, and response measures in place, consistent with the KSHCP and

the County of Kauaʻiʻs PIP. Monitoring and compliance measures in place during each event included:

- A trained supervising monitor was present for the duration of each event;
- Monitoring began prior to stadium lights being activated and continued through post-game lighting shutoff;
- Monitoring start and end times, game end times, and lighting on/off times were documented in the County's monitoring logs;
- Continuous visual monitoring for seabird activity was conducted continuously; and
- Immediate response procedures were in place should a seabird be observed circling repeatedly over the facility, become grounded, or injured.

There were no takes of Covered Species of seabirds during any of the high school football games that were played at Hanapepe Stadium in 2025.

In addition to seabird monitoring, County staff documented honu sightings and nesting activity when observed during routine park operations and monitoring activities.

LIGHTING AND FACILITIES

There are 60 County facilities listed in the County of Kauaʻi PIP that require monitoring due to their light classification:

- 37 Category 3 facilities.
- 11 Category 4 facilities
- 12 Category 5 facilities

Lights are off during fledging season for Category 4 and 5 sites to ensure the protection of the Covered Species of seabirds and ensure compliance with the KSHCP. Some Category 5 facilities may use lights intermittently on an approval-only basis following the procedures outlined above. There are eight fire stations island-wide that are designated as Seabird Aid Stations and take in downed seabirds annually from organizations that do not participate in the

KSHCP and community patrons who find downed birds. Of these eight fire stations, 4 are classified as Category 3 facilities under the KSHCP:

- Waimea Fire and Police Station
- Kalaheo Fire Station
- Hanapepe Fire Station
- Hanalei Fire Station

The additional four Seabird Aid Stations deployed at the other four fire stations on Kauaʻi are not listed in the KSHCP as Category 3, 4, or 5 facilities; by hosting the Aid Stations, these County fire stations assist SOS with efforts to salvage and recover grounded seabirds and promote their conservation. All firefighting personnel participate in the annual seabird training exercises and perform regular searches of their respective facilities as outlined in the KSHCP.

PREDATOR CONTROL

In 2025, the County of Kauaʻi retained the services of a contractor to perform predator control at County facilities from 1 January through 31 December. The contractor conducted reconnaissance surveys and monitored predator presence, performed trapping and removal efforts, and ensured that humane animal treatment practices were always adhered to. Nineteen separate County covered facilities received predator control efforts in 2025 and collectively logged 1,581 trap-nights. Sixty-one animals were captured and removed from County facilities in 2025, yielding an overall capture success rate of 0.039 animals per trap-night (Table 7).

The County reported that staff deploy game cameras at County beach parks (i.e. Lydgate Beach Park and Salt Pond Beach Park) to understand predator habits, gain insights into their relative abundance, and determine when and where traps are being tampered with or damaged. Cameras have proven useful for selecting trapping locations to avoid unwanted detection and target areas where predators are repeatedly observed. Over time and again in 2025, it has become apparent that Lydgate Beach Park is a preferred animal abandonment site where members of the public will transport and release free-roaming predators into the environment, and curtailing these activities is a high priority for County officials.

TRAINING AND OUTREACH

During 2025, the County conducted comprehensive seabird-related training for employees, contractors, and partner organizations. Training focused on KSHCP compliance, downed bird response procedures, lighting management, and monitoring responsibilities. Although some training was done throughout the year, most training was completed immediately prior to and in the early days of the seabird fledging season. In 2025, 1,329 participants received training through a combination of in-person sessions, online modules, and inter-organizational communications (Table 8).

The County continued extensive outreach efforts to educate residents and visitors on seabird protection, predator impacts, responsible behavior, and the protection of other native wildlife (Appendix B). Key outreach activities included:

- Continuous distribution of digital feral predator informational flyers to campground users at Anini, Anahola, Salt Pond, and Lydgate;
- Public presentations by the Kaua‘i Endangered Seabird Recovery Project (KESRP);
- Public Service Announcements (PSAs) related to nighttime football games and seabird safety;
- Installation and maintenance of SOS Aid Stations at all Kaua‘i Fire Stations for public drop-off of downed seabirds; and
- Development and use of community reporting tools to support predator management.

KAUAI COFFEE

OWNERSHIP AND KEY PERSONNEL

Kauai Coffee Company, LLC manages the provisions of the KSHCP on its fourteen TMK parcels southwest of the town of Kalaheo. The Covered Facilities comprise a cultivated landscape, operations and processing infrastructure, and a guest services area.

TAKE

There were no incidents or reports of take of Covered Species of seabirds by Kauai Coffee in 2025.

DOWNED SEABIRD SEARCH EFFORT

Searches for downed seabirds were performed by trained employees of Kauai Coffee. Search logs in 2025 indicate that searches were performed daily, within the 3–4 hours after sunset and early pre-dawn hours, each consecutive day starting on 15 September with completion on 15 December. No downed seabirds were reported found at Kauai Coffee in 2025. Searches were performed by three individuals who shared the search responsibilities, and depending on the harvest rotation, searchers sometimes worked in pairs. Within the context of their work on the plantation, searchers are affiliated directly with orchard operations, irrigation management, factory and milling and thus very familiar with the layout of the search areas and covered facilities.

LIGHTING AND FACILITIES

Kauai Coffee did not provide a written summary of lighting infrastructure or changes in lighting that were implemented in 2025. Photos characterizing lighting and types of lighting that are utilized to facilitate plantation operations during various operational phases during 2025 are presented in Appendix A.

PREDATOR CONTROL

The trapping effort at Kauai Coffee in 2025 consisted of an 8-trap deployment beginning on 6 August and running consistently through 12 December 2025. Cumulative predator control effort during the seabird fledging period was 712 trap-nights. A total of 20 predators were captured and removed between 21 August and 3 December, with ten (50%) of these being removed prior to the beginning of fledging season. Single-day captures ranged between one and three individuals before the beginning of fledging season; after 18 September, there were no more than a single capture and removal on a single capture day (Figure 15). A steep reduction in the catch rate of unwanted predators after 18 September 2025 suggests fewer predators present and a corresponding reduction in downed seabird depredation risk at Kauai Coffee during fledging season in 2025.

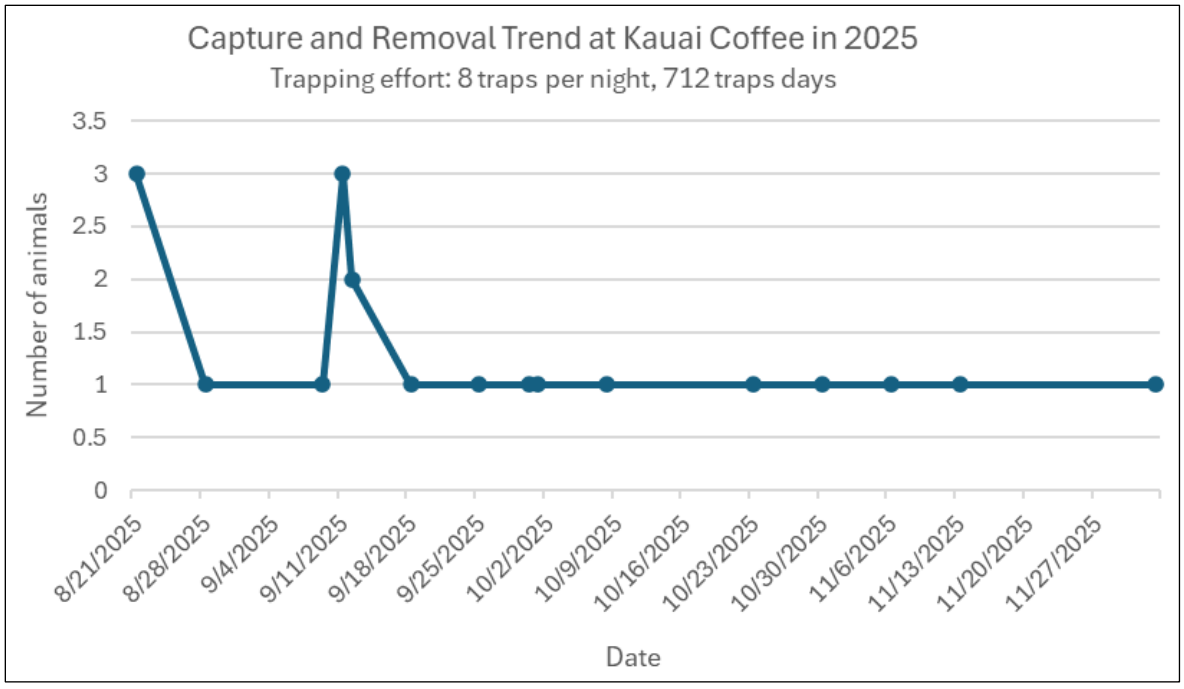


Figure 15. Predator control effort and predator removal at Kauai Coffee, 2025.

TRAINING AND OUTREACH

Kauai Coffee coordinated with the Kaua‘i Endangered Seabird Recovery Project (KESRP) to deliver the annual seabird awareness and response training to Kauai Coffee staff. On 17 September, KSERP presented in-person training and hands-on training for 22 Kauai Coffee personnel. The hands-on segment of the training reached 10 of these staff and included demonstration and discussion on surveillance techniques, rescue and handling procedures, and reporting. Additionally, the PowerPoint presentation developed by KESRP was distributed to various departments within Kauai Coffee, reaching 79 staff and support services at Kauai Coffee between 29 September and 24 October 2025 (Table 8).

Outreach efforts undertaken by Kauai Coffee in 2025 primarily targeted plantation guests and the public. This was accomplished by producing and posting an informational banner to inform guests of seabirds and their unique place in the natural history of Kaua‘i, light attraction fallout, and how to handle and report seabirds if they are encountered at Kauai Coffee or elsewhere (Appendix B).

HDOT LIHUE AIRPORT

OWNERSHIP AND KEY PERSONNEL

Lihue Airport is owned and operated by the State of Hawai‘i Department of Transportation (HDOT). Key personnel for Lihue Airport include the HDOT Director, the Kaua‘i Airports District Manager, and the head of the Office of Environmental Compliance.

TAKE

Two Newell’s shearwaters were found at Lihue Airport in 2025. Both these seabirds were found in the Aircraft Operations Area (AOA) adjacent to the main terminal ramp in the vicinity of Gate 6 on 12 and 24 October, respectively. Although both seabirds were discovered alive, neither was able to be released (Table 6).

DOWNED SEABIRD SEARCH EFFORT

Systematic searches for downed seabirds were conducted twice each day at Lihue Airport as prescribed in the KSHCP and HDOT’s PIP. Within the publicly accessible areas, trained searchers performed this surveillance each day between 15 September and 15 December, 3–4 hours after sundown and then again within 1 hour of sunrise. The public area consists of the terminals, parking areas, portions of the rental car facilities, several roadways and access corridors connecting various parts of the airport facility, air cargo, and unrestricted portions of the heliport, North Ramp and Ahukini Road (Appendix A). The AOA, where active aviation activities take place, is a restricted area. The AOA is searched for grounded seabirds twice each day by U.S. Department of Agriculture (USDA)-Wildlife Services biologists, once in the evening 3–4 hours after sundown, and again within an hour of sunrise. The Wildlife Hazards Management Plan (WHMP), implemented by USDA-Wildlife Services at Lihue Airport entails frequent and regular wildlife surveillance facility-wide and is often affected to some degree by species migration pulses. During the seabird fledging season, USDA-Wildlife Services biologists regularly extend their wildlife surveillance into the public access areas. However, this expansion of surveillance into the public areas has no effect on the frequency and specificity of dedicated searches for grounded seabirds conducted by trained KSHCP search personnel.

LIGHTING AND FACILITIES

Lighting upgrades were implemented in 2020 as part of the Phase 3 lighting improvements for Lihue Airport. A total of 18 high-mast high-pressure sodium-light fixtures in the Airside ramp area were replaced with LED full-cut-off heads. Lihue Airport also turns off portions of the high-mast ramp lighting during seabird fledging season on the following schedule:

- Commercial terminal ramp lights are set to turn off at 12:30 am – 3:30 am, after the last flight, and before Hawaiian Airlines crews begin early morning ramp operations in preparation of their morning flights;
- Cargo, Commuter and Life Flight ramp lights remain on due to their activity; and
- North ramp and T-hangar lights turn off at 12:00 am – 5:30 am.

Combined, these measures are considered to advance the efficacy of seabird light attraction minimization and contribute to achieving biological goals and objectives.

PREDATOR CONTROL

A year-round animal control program is in place at Lihue Airport consistent with the provisions of the Wildlife Hazard Management Plan being implemented by USDA-Wildlife Services. This program covers the entire airport property inclusive of the AOA and publicly accessible areas. In addition to avian wildlife, the program addresses dogs, pigs, cats and any other free-roaming animals that might present a risk to aviation and public safety. Free-roaming predators present a threat to downed seabirds during the annual seabird fledging season, both within the AOA and publicly accessible portions of Lihue Airport. During the seabird fledging season, HDOT works in coordination with USDA-Wildlife Services to expand trapping effort targeting the capture and removal of free-roaming predators at Lihue Airport, which includes increasing the number of predator traps in the AOA and public access areas prior to 15 September. Tomahawk-style live traps are baited with commercial pet food and checked daily. Trapping effort at Lihue Airport during the 2025 seabird fledging season consisted of 11 traps, 4 of which were distributed in the public access area. In the public areas, traps were set in the public parking lot, along the median between the public parking lot and the rental car complex, and near Air Cargo. Inside the AOA, traps were placed in a relatively even manner along the

main terminal ramp, cargo ramp, and north ramp at strategic points determined by USDA-Wildlife Services. Combined, the 11 traps used in 2025 amounted to 1,001 active trap-nights (Table 7). A total of 6 predators were removed from Lihue Airport during the 2025 fledging season. All were captured with traps, yielding a capture success rate of 0.006 predators per trap-night (the same capture rate reported in 2024). Pre-season spot surveys and planning with USDA-Wildlife Services provided information to assess the general abundance of predators in the public access areas of Lihue Airport and factors necessary to consider as trap placements were chosen. During the regular counts made during twice daily searches in 2025, predators were documented during each of the 92 days that searches were performed. Trapping and removal efforts generally focus more on the AOA because most of the seabird fallout is associated with the airfield at Lihue Airport. In 2025, personnel documented that almost daily, the traps set in the public access areas were tampered with (e.g., closed, bait removed or blocked from functioning). Much more than in past seasons, they observed and documented a large amount of animal feeding and watering activity in the public area. Feeding by members of the public and trap tampering are issues that are the focus of discussion and planning for the 2026 season.

TRAINING AND OUTREACH

H. T. Harvey & Associates conducted formal in-person annual training (Annual KSHCP Seabird Awareness and Response Training) for 20 HDOT staff, USDA-Wildlife Services, and another 16 airport, car rental managers, TSA, and Airport Security personnel on 12 and 15 September 2025. The annual training covers information on the covered seabird species (including commonly-seen MBTA species, e.g., Wedge-tailed shearwaters), the light attraction fallout phenomenon, and procedures that need to be followed when downed seabirds are encountered anywhere at Lihue Airport.

The Kauaʻi Airports District Manager issued a written Airport Notice to All Concerned Parties to alert airport personnel and tenants of the seabird fledging season, procedures for rescue and reporting when seabirds are found (dead or alive), and the role of USDA-Wildlife Services. The letter also reiterated the airport policy of no animal feeding anywhere on airport property.

Training was also delivered to search and monitoring personnel and consisted of familiarizing designated searchers with the search areas, operational aspects of the facility and

light configurations, methods and approaches to ensure high detection capacity and thoroughness of coverage to aid in establishing search profiles, seabird species identification, ecology, and habits exhibited by grounded seabirds. In addition, trainers presented standard seabird awareness, rescue, and response training that is extended to a broad range of facility personnel. Airport Security and other trained personnel also received training to promote vigilance throughout the season that helped augment monitoring and surveillance capacity. USDA-Wildlife Services performed daily surveillance consisting of early morning and evening searches of the entire AOA.

Outreach consisted of in-person visits to present rental-car company managers and staff with an overview of seabird light-attraction and minimization tools, rescue and reporting procedures, and distribution of the Fact Sheet (Table 9, Appendix B). The laminated seabird light attraction Fact Sheet was widely distributed among the Lihue Airport workforce with an emphasis on reaching employees and contractors who are active in the AOA. As part of outreach efforts, the Fact Sheet was posted in worker common areas and bulletin boards where it is visible to staff.

Table 9. Outreach efforts conducted at HDOT, Lihue Airport in 2025.

Date(s) of Outreach	Description of Outreach	Property or Facility	Outreach Target Audience	Printed Materials or Other Media Provided
9/12/2025	Seabird awareness and response procedures, minimization opportunities, and distribution of the Fact Sheet with facility points of contact for reporting grounded seabirds.	Lihue Airport	Rental car personnel, air cargo staff, taxi vendors, parking attendants.	Seabird Light Attraction Fact Sheet containing information on fallout, species involved, rescue and reporting procedures.
Throughout the Season	Continuation of outreach activities, revisits with rental car staff and management, and passing along the Fact Sheet and information about light minimization.	Lihue Airport	Mostly non-HDOT personnel as listed above.	Seabird Light Attraction Fact Sheet containing information on fallout, species involved, rescue and reporting procedures.

HDOT NAWILIWILI HARBOR

OWNERSHIP AND KEY PERSONNEL

Nawiliwili Harbor is owned and operated by the State of Hawai‘i Department of Transportation. Key personnel include the HDOT Director, the Kaua‘i Harbors Manager, and the head of the Office of Environmental Compliance.

TAKE

One Newell’s shearwater was discovered at Nawiliwili Harbor on 7 November 2025 (Table 6). It was admitted to SOS and released on 11 November 2025. In addition, there were six Wedge-tailed Shearwaters (*Ardenna pacifica*) and one Pacific Golden Plover (*Pluvialis fulva*) found at Nawiliwili Harbor. Two of the Wedge-tailed Shearwaters were discovered prior to the fledging season and were presumed to be subadult/adult birds.

DOWNED SEABIRD SEARCH EFFORT

Searches were conducted twice each day at Nawiliwili Harbor in 2025, as outlined and prescribed in the KSHCP and HDOT’s PIP. These searches were performed each night within 3–4 hours after sundown and then again within 1 hour of sunrise, on consecutive days beginning on 15 September and concluding on 15 December. An H. T. Harvey & Associates-trained field biologist conducted searches of Nawiliwili Harbor each night, while harbor security personnel received training and properly conducted the pre-dawn search for grounded seabirds. The training enabled security personnel to exercise vigilance for seabird presence during round-the-clock security surveillance activities they perform at the harbor. Harbor security is a valued partner helping ensure the highest probability of detecting grounded seabirds and performing quick and efficient rescue and reporting when birds are discovered. Facility-wide searches were performed on consecutive nights and mornings, and harbor security was first to discover three of the four Wedge-tailed Shearwaters and the single Newell’s Shearwater documented at the harbor during the fledging season in 2025.

An experienced local contractor provided three field biologists who received facility-specific training by H. T. Harvey & Associates and performed all of the nighttime searches at Nawiliwili Harbor in 2025. Although three contracted biologists received searcher training, the

majority of the searches were performed by one individual. In addition, three to four harbor security officers who received first time training and/or refresher training provided early morning seabird search support and remained vigilant to the potential presence of grounded seabirds during their frequent security rounds. In addition to the trained searchers, HDOT, Matson, and Young Brothers personnel, as in past years, provided incidental detection capacity that increased the probability that birds not detected during the dedicated nighttime and pre-dawn searches would be found by workers at the facility during the day. All the individuals who participated in regular and routine searches of Nawiliwili Harbor facilities were presented with in-person training and provided informational content on seabird awareness, response, rescue and KSHCP reporting procedures. Specific personnel responsible for conducting searches at Nawiliwili Harbor were the contract field biologists and several security personnel under the direct supervision of Allied Universal Security Services and HDOT Harbors Division.

LIGHTING AND FACILITIES

Standard security and worker safety procedures at Nawiliwili Harbor require that high mast lights be turned on to full illuminance when active cargo operations are in progress. Supplemental lighting to ensure pedestrian safety at night when cruise ships are in port does not involve port lighting and is limited to the vessel and pedestrian terminal. The standard procedures in place during the seabird season are that when nighttime port operations are completed, high mast lights are reduced to a lower security level setting (roughly 15% of illumination capacity). This procedure was followed uninterrupted for the duration of the 2025 seabird fledging season and is the standard operational procedure in place throughout the year.

Light system control upgrades provide more comprehensive system control features that enable programming and manual control capabilities and allow adjustments or corrections to be made quickly. Harbors Division personnel at Nawiliwili Harbor work closely with lighting engineers to ensure sufficient training of harbor security personnel and staff so that proper setting procedures are followed. Maintaining light minimization standards to reduce facility lighting during non-operational periods as a year-round standard operational procedure at Nawiliwili harbor and is considered progressive in terms of continuing to advance biological goals and objectives.

PREDATOR CONTROL

HDOT Harbors Division posted signs stating the no predator feeding policy in place at Nawiliwili Harbor. Predator control activities at Nawiliwili Harbor in 2025 were managed by the animal control contractor and included trapping and removal. Trapping at Nawiliwili Harbor consisted of deploying four Tomahawk-style live cage traps placed at various locations within the facility and moved regularly based on contractor observations and reports delivered by harbor security. Traps were baited with commercial pet food, fried chicken, and fish, and traps remained active for 344 trap-nights. Seventeen predators were captured and removed from Nawiliwili Harbor in 2025, and 15 additional animals were observed. Overall, observations of predators at Nawiliwili Harbor were reported on 12% of the search nights and ranged in numbers between 0 and 3 per night (mean = 0.34/survey).

An apparent decline in the number of free-roaming predators was evident, with none (other than chickens) observed or reported after 21 October 2025 (Figure 16). HDOT Harbors Division has posted signs stating the no predator feeding policy in place at Nawiliwili Harbor and adherence to this policy appeared to be consistent throughout the season.

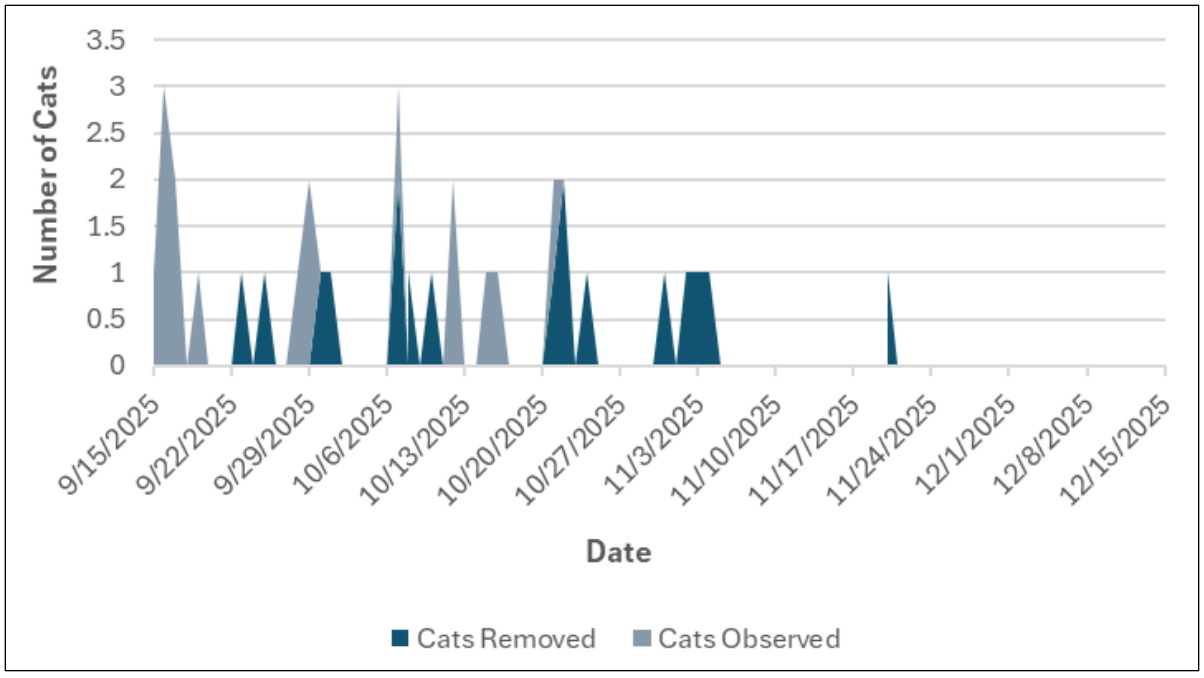


Figure 16. Numbers of predators observed during active trapping and removal at Nawiliwili Harbor, 2025.

TRAINING AND OUTREACH

One in-person training session facilitated by PowerPoint presentation was delivered to seven HDOT staff including the District Manager and senior management team, operations team, and harbor security manager at Nawiliwili Harbor in 2025. During the training, the information contained in the Fact Sheet and KSHCP Downed Wildlife Protocol were reviewed and discussed, and these materials were distributed to attendees. The training was delivered by H. T. Harvey & Associates. Printed outreach material was also posted in areas that are visible to harbor staff and tenants.

In addition to the seabird awareness and response training, special searcher training was also delivered to dedicated searchers including harbor security (Table 8). Dedicated and ongoing outreach at Nawiliwili Harbor included meeting with tenants (Matson and Young Brothers) prior to the beginning of the fledging season as well as routine initiatives to communicate with workers, cruise ship personnel, and the public to enhance awareness. Efforts were made to clearly communicate response procedures through clearly visible signage and distribution of the Fact Sheet (Table 10, Appendix B).

Table 10. Outreach efforts at HDOT, Nawiliwili Harbor in 2025.

Date(s) of Outreach Effort	**Description of Outreach Effort**	**Outreach Target Audience**	**Printed Materials or Other Media Produced**
9/12/2025	Seabird awareness and response discussion with managers, provided training module and Fact Sheet and encouraged broad distribution among staff.	Matson and Young Brothers	Seabird Light Attraction Fact Sheet (laminated) containing information on fallout, species involved, rescue and reporting procedures.
Throughout the Season	Continuation of outreach activities, revisits with security and cruise ship shore-based staff (vessel specific security teams), placing signage where it can be seen by workers and the public.	HDOT personnel, harbor security, port workers, and the public.	Seabird Light Attraction Fact Sheet and appropriate signage.

HDOT PORT ALLEN

OWNERSHIP AND KEY PERSONNEL

Port Allen Harbor is owned and operated by the State of Hawai‘i Department of Transportation. Key personnel include the HDOT Director, the Kaua‘i Harbors Manager, and the head of the Office of Environmental Compliance.

TAKE

There were three Newell’s shearwaters recovered at HDOT Port Allen Harbor in 2025 (Table 6). All three birds were released by SOS.

DOWNED SEABIRD SEARCH EFFORT

Downed seabird searches were conducted twice each day at Port Allen Harbor in 2025 as outlined and prescribed in the KSHCP and HDOT’s PIP. These searches were performed each night within 3–4 hours after sundown and then again within 1 hour of sunrise, on 92 consecutive days, beginning on 15 September and concluding on 15 December. Port Allen Harbor is open to the public 24 hours per day with no on-site security presence. Three trained field biologists conducted the twice daily searches of Port Allen Harbor totaling 184 searches on consecutive nights and mornings in 2025.

In 2025, the downed seabird monitoring at Port Allen Harbor was conducted and shared by three trained contract field biologists. All three biologists have conducted seabird search and monitoring activities in the Port Allen community for one or more years and quickly became familiar with Port Allen Harbor. Searcher training was delivered by H. T. Harvey & Associates and included site orientation review, discussion of historical fallout patterns and distribution, habits of the covered seabirds, the importance of situational awareness, and reporting procedures.

The effectiveness of the 2025 downed seabird search and monitoring program at Port Allen Harbor was enhanced by the skill of the trained searchers combined with the training and review of procedures prior to the beginning of the seabird fledging season. Port Allen Harbor is a small facility that affords good access to the searchable area. The training and preparations for the fledging season at Port Allen Harbor included a thorough review of the search area, past distribution of downed seabirds including photos and circumstances associated with those

incidents. We also reviewed lessons learned about various factors affecting seabird detection, such as vegetation cover and concealed spaces that birds might utilize for cover.

LIGHTING AND FACILITIES

Standard security, worker, tenant, and public safety procedures at Port Allen Harbor dictate that some facility lighting must remain on at night. The main light illuminating the parking lot and wall-mounted lights along the seaward side of the warehouse are programmed to be on from 18:00 to 20:30 each night to provide for the safety of workers and visitors disembarking from tour boats and departing from the pier and parking area. At 20:30, the main warehouse light, which is shielded, is turned off, and the wall mounted lights along the south and west sides of the warehouse are reduced to 50% capacity (i.e., every other wall mounted light is turned off) and remain at this level until the following morning. These light management parameters were in place at Port Allen Harbor for the entire fledging season in 2025.

PREDATOR CONTROL

In 2025, we again utilized the services of a licensed wildlife control contractor to handle trapping and removal of free-roaming predators within Port Allen Harbor. Free-roaming predators are scarce at Port Allen Harbor in recent years, but we noted a slight increase in activity in 2025. The contractor deployed one Tomahawk-style live trap at Port Allen Harbor. The trap was strategically placed to intercept animals at a known ingress point, where cover provided by vegetation and structural features was sufficient to avoid trap detection and tampering. The trap was periodically moved around within this “zone” during the season. Six free-roaming predators were captured and removed in 2025. Baits used included fish, commercial mixed, and dry. Bait used changed on an approximately weekly basis or when the contractor determined it was necessary. A single trap remained active for the entire season. No predators were reported during twice-daily downed seabird searches at Port Allen Harbor. We conclude that, given the very low apparent presence and successful removal of six predators during the fledging season, on-site animal control efforts continue to be very successful at Port Allen Harbor.

TRAINING AND OUTREACH

One in-person training session facilitated by PowerPoint presentation was delivered to seven HDOT staff including the District Manager, Port Allen HDOT manager, and operations team, and operations team at Port Allen and Nawiliwili Harbors (Table 8). The Fact Sheet and KSHCP Downed Wildlife Protocol were reviewed and discussed, and these along with the training module were distributed to attendees. The training was delivered by H. T. Harvey & Associates. Printed outreach material was posted in areas that are visible to harbor staff, tenants, and the public (Table 11, Appendix B). NCL (Bahamas), Ltd.

Table 11. Outreach efforts conducted at HDOT, Port Allen Harbor in 2025.

Date(s) of Outreach Effort	Description of Outreach Effort	Outreach Target Audience	Printed Materials or Other Media Produced
9/12/2025	Visits to several of the local tour boat operator offices to communicate about seabird fallout in the Port Allen community and special emphasis on HDOT Port Allen circumstances (i.e., light timing and configuration, historic fallout patterns, and concurrence on standard procedures for rescue and reporting.	Tour boat operators and crews.	Seabird Light Attraction Fact Sheet.
Ongoing throughout season	Checking in with vessel operators, HDOT personnel, and providing interpretive information to curious members of the public.	Tour boat operators, crews, site personnel, and the public.	Seabird Light Attraction Fact Sheet.

NORWEGIAN CRUISE LINES

OWNERSHIP AND KEY PERSONNEL

In 2025, NCL had three vessels operating in Hawai‘i waters during seabird fledging season:

- The Pride of America operated in Hawai‘i waters during the entire season (15 September–15 December).

- The Norwegian Sun was in Hawai‘i waters during 31 May–9 June, 3–15 July, and 26 September–6 October 2025.
- The Oceania Regatta sailed in Hawai‘i waters 4 times in 2025 (28 July–5 August, 26 September–4 October 24–27 October, and 2–6 December).

Two other NCL vessels were briefly in Hawai‘i waters outside of seabird fledging season:

- The Oceania Nautica was in Hawai‘i waters during 14–16 January 2025 and made calls to the ports of Lahaina, Honolulu, and Hilo.
- The Oceania Insignia was in Hawai‘i waters during 25–27 June 2025 and made calls to the ports of Honolulu and Hilo.

As in previous years, each vessel's Environmental Officer oversees KSHCP compliance, including implementation of seabird protocols, bird searches and recovery, record keeping, reporting, and interaction with rehabilitation personnel (SOS, DOFAW, Hawaii Wildlife Center). Environmental Officers on the Regatta and Norwegian Sun were new to KSHCP protocols and procedures in 2025 and received training prior to the beginning of seabird fledging season. ABR, Inc. (ABR) continued to support the NCL by reviewing lighting, providing training and data management, and preparing downed seabird reports and KSHCP annual reports.

TAKE

There was no take of Covered Species on any of the NCL vessels that sailed in Hawai‘i waters during 2025.

On 25 November 2025, NCL submitted an updated PIP and initiated a permit amendment request to cover take of adults of Covered Species, triggered by adults that were unexpectedly recovered from the vessels during the first 5 years of the permit term (1 Band-rumped Storm-petrel and 1 Newell's Shearwater in 2022, 1 Hawaiian Petrel and 1 Newell's Shearwater in 2023). The PIP's revised take estimates indicate that the current take and mitigation required by NCL's ITP and ITL is adequate to cover the expected take of adult birds. The agencies confirmed receipt of the PIP and are reviewing the calculations of take and mitigation.

DOWNED SEABIRD SEARCH EFFORT

All vessels are searched continually by staff and guests. During the seabird fledging season, monitoring was continuous, and coverage was 100% on each vessel. Environmental Officers aboard all vessels used the chain of custody form developed by USFWS and DOFAW for all birds found during 2025. NCL does not propose any additional adjustments to its self-monitoring protocol aboard either vessel.

On 1 November 2024, DOFAW and USFWS issued a joint letter naming DOFAW Maui and Maui Nui Seabird Recovery Project (MNSRP) as the "appropriate first responder to downed seabirds on the island" and updated their standard protocol to reflect this change. Since then, NCL ship staff have contacted MNSRP to retrieve birds from NCL personnel when their vessels are in port on Maui. This change is not yet reflected in the KSHCP, and the KSHCP has not yet been modified to delete the existing requirement that downed birds can only be submitted "to an appropriately permitted rehabilitation facility." NCL continues to voluntarily comply with this new downed bird protocol while this HCP modification is pending.

LIGHTING AND FACILITIES

In 2025, ABR conducted lighting reviews aboard 3 NCL vessels that were scheduled to be in Hawai‘i waters during seabird fledging season. Photos of lighting are presented in Appendix A.

Oceania Regatta

The Oceania Regatta lighting was reviewed on 20 January 2025 in Melbourne, Australia. During the review, the ship's engineering team and the ABR biologist developed a lighting protocol to reduce the ship's lighting during transit in Hawai‘i waters. Reduction measures included turning many lights off, adding shields to existing lights, and training housekeeping and facility staff to draw blinds 30 min after sunset to reduce light spill from windows.

Norwegian Sun

The Norwegian Sun lighting was reviewed on 6 June 2025 in Kahului Harbor. As in 2024, the ship's lighting was greatly reduced during transit in Hawai‘i waters. Reduction measures included turning many lights off, adding shields to existing lights, and training housekeeping and

facility staff to draw blinds 30 min after sunset to reduce light spill from windows. In 2025, additional lighting reduction measures included turning off the floodlights over the basketball court, turning off every other light over the shuffleboard (Deck 12), reducing pool lighting (Deck 11), and turning off unnecessary lights under lifeboats (Deck 6/7).

Pride of America

The Pride of America lighting was reviewed on 11 September 2025 in Nawiliwili Harbor. Between 10 May and 6 June, the Pride of America was in drydock in Portland, OR for large-scale maintenance. NCL requested consultation with DOFAW and USFWS in a letter dated 18 February 2025 to discuss the proposed conversion of the "Teen's Area" on Deck 12 into 12 new staterooms. Changes to lighting included the elimination of 22 existing lights and the addition of 12 new balcony lights (net reduction of 10 lights). All new light fixtures were identical to existing balcony lights on the vessel. New balcony lights are equipped with timers for automatic switching on/off, and illuminance and color are the same as existing balcony lights. Additional lighting changes in 2025 included decreasing the luminance of the main pool lights during seabird fledging season and installing new tinted exterior windows in the Liberty Dining Room (Deck 6).

PREDATOR CONTROL

Biological Objective 1B relates to predator control and is not applicable on a seagoing vessel; thus, NCL did not conduct predator control activities on any of its vessels.

TRAINING AND OUTREACH

As in previous years, substantial efforts were made to conduct outreach and education to both crew and guests. In total, 5,088 staff members across three vessels received training in 2025 (Table 8). This included at least 20 in-person presentations to 1,603 staff members aboard the Norwegian Sun and 25 presentations to 673 staff members aboard the Oceania Regatta. Training aboard the Pride of America in 2025 was part of onboarding for employees; 2,812 employees received training in 2025. ABR provided training to Environmental Officers aboard the Pride of America, Norwegian Sun, and Oceania Regatta prior to seabird fledging season.

In 2025, NCL created a short video about seabird protection that was shown on TV screens in all 3 vessels' passenger cabins as part of the Notice to Passengers videos (Appendix B). The seabird protection segment described the reasons for seabird fallout and the procedures that guests should follow if they observe a downed bird. As in previous years, all 3 vessels also provided information about seabirds to their passengers in their onboard daily newsletters (the *Freestyle* for Pride of America and Norwegian Sun and *Currents* for Oceania Regatta). Staff aboard each vessel close cabin draperies every afternoon as part of the turn-down service and when cabins are cleaned. Passengers are requested to keep their draperies closed as part of the ship's green initiative and to conserve natural resources.

SOF-XI KAUAI PV HOTEL, LP (1 HOTEL HANALEI BAY)

OWNERSHIP AND KEY PERSONNEL

There were several changes to Key Personnel at 1 Hotel Hanalei Bay during 2025, including the Director of Loss Prevention (the main KSHCP contact), Director of Engineering, Hotel Manager, and Managing Director. As in previous years, Loss Prevention staff were trained and responded to downed birds on property throughout the year. As in 2024, an experienced contractor was hired to provide dedicated seabird searchers to conduct searches twice nightly beginning 15 September. 1 Hotel Hanalei Bay continued to retain ABR to evaluate lighting and vegetation, conduct seabird and honu awareness and responder training, provide training materials, prepare downed seabird reports, and prepare the KSHCP annual report.

TAKE

In 2025, 35 ʻAʻo/Newell's Shearwaters (33 juveniles and 2 adults, identified to species) and 1 ʻUaʻu/Hawaiian Petrel (juvenile) were found on the property (Table 6). Of these, 13 birds were found by 1 Hotel employees, and the rest were found by dedicated searchers. Of the 36 birds found at 1 Hotel, all but one were identified to species and transferred to SOS. A Newell's Shearwater, found on 14 October at 23:10, could not be captured by the search team and was included as observed lethal take of a Newell's Shearwater juvenile, per the KSHCP (page 33) and agency instructions. Of the 35 birds of Covered Species that were transferred to SOS, 1 Hawaiian Petrel and 2 Newell's Shearwaters were found dead; the other 32 Newell's Shearwaters were rehabilitated and released by SOS. Two adult ʻAʻo/Newell's Shearwaters were recovered at

1 Hotel Hanalei Bay in 2025, and both birds were successfully released by SOS (Table 6). In its annual report, 1 Hotel Hanalei Bay calculated take of adults separately from take of juveniles.

SOF-XI Kauai PV Hotel, LP submitted a revised PIP to USFWS and DOFAW on 3 February 2026 to initiate the process of amending the ITP/ITL to request adult take, increase the amount of juvenile take, and amend the discovery rate from 0.9 to 0.5. The discovery rate of 0.5 was validated by a searcher efficiency trial conducted by KSERP in 2024.

DOWNED SEABIRD AND HONU SEARCH EFFORT

In 2025, 1 Hotel Hanalei Bay hired a contractor to conduct daily seabird searches in the morning and evening throughout the fledging season. As in previous years, dedicated seabird searchers conducted searches twice daily during seabird fledging season: once in the early morning prior to sunrise (04:00–06:30) and once in the evening after sunset (18:30–00:00). Each survey took approximately 2–3 hours to complete. Two trained searchers performed each search, and each one walked half of the route shown in the search route map. No morning search was completed on 17 October due to inclement weather, and several searches were made difficult by heavy rains and thunderstorms. Total search effort in 2025 was 664 hours.

In 2025, 1 Hotel deployed decoys with the objectives of improving downed bird detection rates among staff and improving downed bird data collection practices. Before the start of seabird fledging season, Loss Prevention staff deployed 11 decoys at non-random locations to give employees an opportunity to practice finding decoys and record data using a custom application on their phones. Of these pre-season placements, staff located 10 decoys. Between 15 September and 15 December, Loss Prevention staff deployed 31 decoys. The deployment days within each week and the number of decoys deployed each night was selected at random; 1–3 decoys were placed on each deployment day. Members of the search team did not have notice of whether decoys were placed on a given night or the decoy location(s). Complete results from the decoy deployments were not available at the time of this report. Systematic decoy trials will be implemented again in 2026 with additional training for the deployment team to improve the quality of the deployment data.

From 15 May to 15 December, one Loss Prevention officer conducted daily honu searches of Pu‘u Poa Beach and portions of Leolani Cove near the beach, typically in the morning before

sunrise. Each search took 5 minutes, due to the small size of the beach and good visibility. Honu searches of Pu‘u Poa Beach were completed on most (160 of 215) days during 2025, and total honu search effort was approximately 18 hours. In 2025, 1 Hotel experienced staffing shortages in the Loss Prevention department, and as a result, approximately 55 daily honu surveys were not completed throughout the 2025 season. Although formal searches were not conducted on these days, employees who have received honu awareness training were present and were trained to report nesting activity to Loss Prevention. No honu nests, tracks, or hatchlings were recorded in 2025.

LIGHTING AND FACILITIES

In 2025, 1 Hotel’s management team implemented further light minimization action, based on agency recommendations and spatial patterns of incidental seabird take on the property (Appendix A). Lighting changes completed in 2025 include:

- Welcome Hale lights are now angled straight down.
- Spotlights on top of the pizza ovens were replaced with down-angled track lighting.
- The beach access path has new amber fixtures (24” tall mushroom lights) for human safety.
- The skylight on the 7th floor roof is now tinted.
- Shields extending 16 inches downward from fixtures have been added to the parking lot lights to reduce the glare from the lamps while focusing adequate lighting in the parking lot.
- The second floor emergency stairway lights have been shielded to direct the light downward, reducing light spill from the stairwell.
- Welina Terrace blinds are lowered partway while the bar is serving guests and lowered entirely during cleaning.
- Beach Rental Hale lights were turned off for the 2025 seabird fledging season. Outside of the season, they are now down-directed and amber.

ABR reviewed existing lighting during an on-site visit in June 2025 and made recommendations for adjustments that were implemented prior to the start of or during seabird fledging season. ABR subsequently reviewed lighting changes during a follow-up visit in September. A lighting review was conducted together with biologists from DOFAW and USFWS in December 2025, and recommendations from that review will be addressed prior to the start of the 2026 seabird fledging season.

PREDATOR CONTROL

As in previous years, 1 Hotel Hanalei Bay hired a commercial pest control service to provide predator control on the property in 2025. Trapping effort varied throughout the year. During February and March, the contractor deployed and checked 3 traps 12 days per month. No traps were deployed in April or July. In May, the contractor increased effort to 7 traps checked 12 days per month, and during seabird fledging season, 3–7 traps were deployed and checked 12 days per month. Trapping ended on 10 December 2025. Total predator control effort was 665 trap-nights during 2025; 51% of the total trap-nights (343) occurred during September–December (Table 7). In 2026, trapping will occur in all months of the year.

Resort staff are trained to search for and report predators to search staff or Loss Prevention. Trained searchers and security personnel inspected the grounds of 1 Hotel at least twice daily during the fledging season (September–December) and recorded 53 predator sightings, most of which were reported to the pest control agency for adaptive trapping. In October, a member of the seabird search team noticed signs of predators being fed along the public walking path outside of the 1 Hotel property. Combined with increased vigilance and documentation by dedicated searchers, this may explain the high numbers of predator observations in 2025.

TRAINING AND OUTREACH

In 2025, 1 Hotel provided seabird and honu awareness training to associates and dedicated seabird searcher training to its Loss Prevention staff. During June, the Director of Engineering led several seabird and honu awareness training sessions, and ABR biologists led seabird and honu awareness and responder training in June and September. The Loss Prevention team was trained in seabird protocols to recover and transfer downed seabirds to SOS; contracted searchers were trained by their employer. Training documentation was available for 79 staff members,

including 11 members of the Loss Prevention team (Table 8); however, additional training records were missing at the time of this report due to the departure of the resort's training coordinator.

Outreach to employees in 2025 included posters produced by Archipelago Research and Conservation, LLC and Hanalei Watershed Hui in employee areas to educate associates about seabird fledging season and to report downed birds (Appendix B). The Loss Prevention and search teams were reminded about the increased likelihood of seabird fallout during the days leading up to each new moon from September through December.

Guest outreach included printed materials, online information, and in-person programs (Appendix B). As in previous years, 1 Hotel Hanalei Bay placed information cards and door hangers in guest rooms during seabird fledging season, asking guests to close shutters and blinds at night and to turn off lights when they are not in use. Daily turndown service included shutting guest blackout blinds. In November, 1 Hotel's Marketing department posted information about seabird fledging season on the resort's social media accounts.

Since 2023, 1 Hotel Hanalei Bay has been hosting "Shearwater Talk Story," a program free to guests and members of the public. Representatives from We Care Kauaʻi presented information about the Hawaiʻi archipelago, seabird species, and threats to seabird species, including light pollution. The sessions, held twice per month from October through December, were advertised online by We Care Kauaʻi and at the resort in hard copy schedules provided in the rooms and on the resort guest app. Total attendance at all programs in 2025 was at least 12 registered attendees; other individuals were often observed listening to presentations as they passed through the 9th floor lobby.

KAUAI BLUE, INC. (SHERATON KAUAI RESORT)

OWNERSHIP AND KEY PERSONNEL

There were no changes in ownership or Key Personnel at the Sheraton Kauai Resort (SKR) in Poʻipū during 2025. The Safety and Security Supervisor continued to oversee implementation of downed seabird protocols, and SKR continued to retain ABR, Inc. (ABR) to support the Security staff with lighting reviews, staff training, data management, preparation of downed seabird reports, and KSHCP annual report preparation.

TAKE

Three Newell's Shearwaters were found on the property during the 2025 season and were transferred to SOS care (Table 6). All three birds were rehabilitated and released by SOS.

DOWNED SEABIRD AND HONU SEARCH EFFORT

Dedicated searchers, who are part of SKR's Security staff, conducted downed seabird searches from 15 September through 15 December. Search times varied but were generally within 1 hour before sunrise (04:00–06:00) and 3–4 hours after sunset (21:00–23:00). Each searcher completed one full search of the entire property separately for a total of 4 searches of the property per night. Each search took approximately 60–75 minutes to complete (i.e., 2–3.5 person-hours per search). In addition, the entire resort staff was responsible for searching their respective work areas during work hours. No morning search was completed on 16 September or 8 December, and several searches were made difficult by heavy rains and thunderstorms. In 2025, total search effort was approximately 355 hours.

Beginning on 15 May, one Security officer conducted daily honu searches every morning before sunrise. Honu searches consisted of walking the length of the beach lawn and making visual observations of Poipu Beach. In 2025, no searches were conducted on 15 May, 10 October, 6 November, and 13 November. No honu, nests, or tracks were observed in 2025.

In 2025, Sheraton Kauai conducted an internal decoy trial with the objectives of improving downed bird detection rates among staff and improving downed bird data collection practices. Searchers found 14 of the 24 practice decoys (58%) that were deployed by the Safety and Security Supervisor prior to the start of seabird fledging season. Between 21 September and 27 November, 25 decoys were deployed at random locations across the property. The deployment days within each week and the number of decoys deployed each night was selected at random; 1–3 decoys were placed on each deployment day. Members of the Sheraton search team did not have notice of whether decoys were placed on a given night or the decoy location(s). Of the 25 decoys deployed during seabird fledging season in 2025, 15 decoys were found by Sheraton staff (60%).

In 2025, SKR continued its $250 Incentive Program to reward qualifying associates, contractors, and guests who located a downed seabird or bird decoy. This incentive resulted in random searches by associates and guests in addition to the dedicated search by Security personnel.

LIGHTING AND FACILITIES

In June and September 2025, ABR conducted on-site lighting reviews at the property. Based on recommendations from the ABR biologist and agencies, flood lights were permanently removed from the roof of Lava's restaurant and a spotlight was removed from the end of a building (Appendix A). In addition, SKR began replacing the main pool's underwater lights with lower luminance lights. One bulb had been replaced as of September 2025, and more will be replaced during subsequent pool maintenance. A lighting review was conducted together with biologists from DOFAW and USFWS in December 2025 and recommendations from that review will be addressed prior to the start of the 2026 seabird fledging season.

In 2025, new lights were installed by the County of Kaua‘i along Ho‘onani Road which bisects the Sheraton Kauai Resort. There are concerns that the luminance of these new fixtures is higher than old fixtures and may result in additional seabird fallout on the Sheraton facility; these were discussed with the project manager at KIUC in 2024.

PREDATOR CONTROL

SKR continued to contract a commercial pest control service to systematically trap predators. In response to agency recommendations, Sheraton increased control effort from 10 months in 2024 to 12 months (year-round) in 2025. The contractor deployed and checked 10 traps nightly starting on 1 January for a cumulative total of 3,630 trap-nights in 2025 (Table 7). This included 920 trap-nights during seabird fledging season. Trained searchers and security personnel inspected the grounds of Sheraton Kauai Resort at least twice daily during the fledging season and recorded any predator sightings which they reported to the contractor for adaptive trapping. In 2025, searchers and security personnel reported 35 sightings of predators on the Sheraton property.

TRAINING AND OUTREACH

In 2025, Sheraton continued to provide regular seabird and honu awareness training to all associates and dedicated seabird searcher training to its security staff. Approximately 230 of 267 current Sheraton associates (86.1%) received seabird and honu awareness or dedicated seabird searcher training (Table 8). This included nine members of the Security team who attended multiple Dedicated Searcher trainings led by ABR and SKR. Training placed emphasis on search intensity, search methods, retrieval of downed birds, and reporting.

As in previous years, SKR placed brochures containing a detailed description of protected seabird species and seabird fledging season in guest rooms and made them available at Front Desk (Appendix B). Seabird coloring pages were available for keiki guests and visitors. Staff also placed a poster in the resort lobby and near the beach pathway to notify guests about seabird fledging season.

ESSEX HOUSE CONDOMINIUM CORPORATION (KAUA‘I RESORT [SONESTA])

OWNERSHIP AND KEY PERSONNEL

The Kaua‘i Resort comprises the Mariott Vacation Club and the Royal Sonesta Kaua‘i Resort which operate on the same property in Lihue. Efforts to transfer the permit and license From Essex House Condominium Corporation to the Association of Apartment Owners of Kalapaki Beach Club initiated in 2021 and are still in progress; in the meantime, the KSHCP requirements continue to be implemented by the Sonesta International Hotels Corporation (“Sonesta”).

There were several changes in Key Personnel at Sonesta in 2025.

- The Director of Security left Sonesta in late September 2025, and a new Security Manager was hired in November 2025. During the interim, the Security Supervisor and Resort Manager assumed responsibility for nightly searches and downed bird reporting.
- Sonesta designated one Security lead to be responsible for implementing internal decoy trials in 2025.

- Sonesta continued to retain ABR, Inc. to conduct lighting audits, provide decoy deployment training, assist with seabird searcher training, and prepare downed bird reports, manage data, and prepare the KSHCP annual report.

TAKE

Three Newell's Shearwater fledglings and one Hawaiian Petrel fledgling were found on property during 2025 (Table 6). All 4 birds were transferred to SOS care and were eventually released by SOS.

DOWNED SEABIRD AND HONU SEARCH EFFORT

Dedicated searchers who are part of Sonesta's security staff conducted downed seabird and predator searches twice nightly from 15 September to 15 December. Security officers conduct the searches in pairs and in conjunction with their security rounds, with one officer searching the eastern half of the property and the other searching the western half of the property. Search times varied but generally were within 1 hour before sunrise (04:00–06:00) and 3–4 hours after sunset (21:00–23:00). In addition, the entire resort staff was responsible for searching their respective work areas during work hours. In 2025, downed seabird search and recovery efforts were conducted nightly by a team of 4 searchers during seabird fledging season (15 September–15 December; 93 days). Total search effort in 2025 was approximately 353 hours.

Honu searches were completed daily from 15 May to 15 December 2025 (216 days). One search took an average of 30 minutes to complete. Total honu search effort for 2025 was approximately 124 hours. No honu, nests, or tracks were observed in 2025.

In 2025, Sonesta deployed seabird decoys with the objectives of improving downed bird detection rates among staff and improving downed bird data collection practices. Before the start of seabird fledging season, 12 decoys were deployed at non-random locations to give the search team an opportunity to practice finding decoys prior to seabird fledging season. Searchers found all of the practice decoys. Between 12 October and 15 December, 50 decoys were deployed by a member of the Security team. The deployment days within each week and the number of decoys deployed each night was selected at random; 1–3 decoys were placed on each deployment day. Members of the Sonesta search team did not have notice of whether decoys were placed on a

given night or the decoy location(s). Complete results from the decoy deployments were not available at the time of this report. Systematic decoy trials will be implemented again in 2026 with additional training for the deployment team to improve the quality of the deployment data.

LIGHTING AND FACILITIES

Sonesta made several additional lighting adjustments in 2025 in response to agency recommendations and seabird recovery patterns observed in previous years (Appendix A). Prior to seabird fledging season, Sonesta added tinting to the elevator landing windows of Hā‘upu Tower. During seabird season, all chandeliers and table lamps in the elevator landings of Hā‘upu Tower were turned off, and signage was added to explain the low lighting. In addition, the motion sensor light over the middle entrance of Kahili Tower was turned off for the season; wall sconces inside the doorway provided adequate lighting for guest and employee safety. Lighting near the BBQ grills near Kahili Tower was also reduced during seabird fledging season. A lighting review was conducted together with biologists from DOFAW and USFWS in December 2025 and recommendations from that review will be addressed prior to the start of the 2026 seabird fledging season. The resort continued typical operations through the 2025 season, and no major changes to the physical layout or operations that could potentially affect Covered Species are proposed.

PREDATOR CONTROL

Sonesta continued to contract with a commercial pest control service to trap predators systematically during January–December 2025. The contractor deployed and checked 3 traps 20 days per month between January and May; with an increase to 5 traps between June and December. Total predator control effort in 2025 was 966 trap-nights (Table 7). Sonesta staff notified the contractor of any additional predator sightings on the property, and the contractor adjusted control locations in response to these observations. In June 2025, Sonesta staff started noticing regular interference with some traps and installed monitoring cameras at the affected sites. This allowed the team to identify and contact the individuals involved. Following these conversations, no further tampering occurred during the remainder of the 2025 season.

There were no changed or unforeseen circumstances that triggered adaptive management changes to minimization measures per the KSHCP Sections 6.9, 6.11, and 6.12.

TRAINING AND OUTREACH

In 2025, Sonesta continued to provide regular seabird and honu awareness training to all associates and dedicated seabird searcher training to its security staff (Table 8). A total of 293 staff members received seabird and honu awareness training or dedicated seabird searcher training in 2025. This includes nine members of the security team who received dedicated searcher training in September.

Outreach efforts at the Kauaʻi Resort in 2025 were similar to previous years (Appendix B). The hotel staff placed educational cards about seabird fledging in all guest rooms at the resort. Signage was placed at the check-in desk in the main lobby to inform guests about seabird fledging season, and new signs were placed at all elevator landings in the Hāʻupu Tower to explain the reasons for low lighting in elevator landings.

3. MINIMIZATION COMPLIANCE AND EFFECTIVENESS

The purpose of this section is to summarize the overall performance of the KSHCP Participant Group in meeting the requirements of avoidance and minimization measures at Participant facilities. Compliance monitoring assesses whether the participants are implementing the actions required under the terms and conditions of the ITPs/ITLs. Effectiveness monitoring helps participants and the resource agencies determine whether those actions are succeeding at achieving the biological goals and objectives of the KSHCP, and whether modifications or the implementation of Adaptive Management measures are necessary (KSHCP Section 6.9). Furthermore, effectiveness monitoring can sometimes result in a determination that amendments to permits, or to the HCP itself should be considered.

To facilitate the resource agencies' assessment of compliance and effectiveness, this section summarizes the specific measures that were implemented in 2025:

- Minimize light attraction exposure risk for the covered seabirds.
- Ensure sufficient on-site control to reduce the presence of predators.
- Provide training and outreach, designed to reduce light exposure risk and increase the likelihood of finding and reporting downed seabirds.

The assessments presented here focus on activities at the Participants' facilities. A separate discussion of the effectiveness of conservation actions being implemented at the Kahuama‘a Seabird Preserve to provide mitigation for unavoidable impacts is provided in Section 1 (above).

LIGHTING AND FACILITIES MINIMIZATION

Measures to avoid and minimize the impacts of light attraction on the Covered Species are an integral part of the KSHCP. The lighting minimization measures outlined below are detailed in Appendix E of the KSHCP (*Guidelines for Adjusting Lighting at Facilities*) and reflect the best available science on seabird-friendly lighting. Briefly, these light minimization measures include:

- Deactivate non-essential lights
- Install full cut-off (zero upward directed lighting) shielded light fixtures

- Shield light fixtures such that the fixture emits no light in an upward direction and the source is not directly visible outside of the illuminated area
- Angle lights downward
- Place lights under eaves
- Reduce lighting when there is little moonlight (i.e., according to the moon phase)
- Install motion sensors for motion-activated lighting
- Decrease lighting levels
- Decrease visibility of interior lights
- Use light-less technologies
- Plant vegetation around lights to reduce light visibility
- Lower height of lights
- Use longer light wavelengths (i.e., minimize blue light content <560 nm)

The KSHCP Participants have reduced or modified lighting at their facilities annually in compliance with the guidelines set forth in the KSHCP since the plan began in 2020. Lighting reviews conducted by biologists from DOFAW, USFWS, and KESRP indicate that most of the modifications were made in the first years of the KSHCP (2020-2023), and those modifications continue to be implemented. Accordingly, this 2025 annual report in general contains less information about lighting modifications than previous years' reports. The following participants described lighting changes or adjustments made in 2025: Alexander & Baldwin, Kauai Coffee, Norwegian Cruise Lines, 1 Hotel Hanalei Bay, Royal Sonesta Kaua‘i Resort, and Sheraton Kaua‘i Resort. Kaua‘i County implemented site-specific monitoring for seabirds during events with bright nighttime lighting. Details for each participant are available in Section 2, and lighting photos are available in Appendix A.

Facilities typically reduce their lighting in the first two weeks of September in preparation for fledging season. These modifications include turning off as many lights as possible without compromising safety, reducing luminance (e.g., light output from fixtures, measured in lumens) where possible, and aiming lights downward. These adjustments may take up to a week to

implement, particularly on older properties that do not have computer-operating lighting controls. Lighting reviews were conducted by agency biologists at several Facilities in December 2025 to ensure that the lighting was being evaluated as it was implemented during the fledging season. Evaluators were also able to visit the exact locations where downed birds were found in that year and make site-specific recommendations. The participants now have 8 months to address those recommendations before the start of the next fledging season. We recommend maintaining this schedule of annual assessments in December for the duration of the KSHCP term. Additional lighting reviews may be conducted at the start of the fledging season to evaluate the implementation of lighting adjustments recommended at the end of the previous fledging season.

PREDATOR CONTROL

Seabirds that are downed at Participant facilities may be vulnerable to depredation by free-roaming dogs, cats, pigs, or even rats (collectively referred to as predators). Downed seabirds that are depredated are considered lethal take (see KSHCP Section 4.2.1). While the KSHCP makes conservative assumptions about depredation, and the KSHCP Participants continue to use these assumptions when calculating take, since 2020 no Participant has identified partial remains of a depredated seabird at their facility. To receive incidental take authorization from the USFWS and DLNR, KSHCP Participants are required to implement measures that will reduce the presence of predators at their facilities for the duration of the seabird fledging season. The KSHCP requires that Participants "Conduct a predator trapping and removal program throughout the Covered Property immediately prior to and throughout the fledging season…unless alternative methods are included in an approved PIP" (KSHCP Section 5.3.2).

Of the 191 properties and facilities included in the KSHCP as of 2025, 32 of these properties received active predator control during the 2025 seabird fledging season (Table 7). This is two fewer than in 2024 (n = 37) but still higher effort than was reported in 2023 (n = 25). The increase since 2023 has been due to Kauaʻi County's expansion of predator control at 13 additional facilities in 2023, and 27 facilities in 2024. Along with this expansion, a subset of traps was moved among County facilities throughout the year; therefore, the trapping effort at each Facility varied throughout the fledging season.

Predator control efficacy varied among Participant Facilities in terms of effort, how site-specific variables were handled (e.g. proximity of traps to known predator colonies), and the experience and skill of those responsible for performing the work. The number of predators caught per trap-night was calculated for each facility and is a useful measure of predator abundance that can be used to compare capture and removal rates at individual sites and among sites over time. The number of predators caught per trap-night does not, however, reflect the influence of surrounding urban areas on predator abundance near Participants' facilities, which can vary over time based on third party activity in these offsite areas, especially offsite predator feeding, predator dumping and predator colonies. If trapping and removal are effective at reducing the number of predators present, the trapping rate should decline over time and remain at a lower level than when the trapping effort was initiated. If the rate remains high, it can be an indication that trapping effort is not sufficient; that predators are able to ingress and egress at will; or that there may be a nearby predator colony location or release site (often accompanied by public feeding) that may constitute a source of free-roaming predators. For this report, sites where the catch per trap-night was < 0.1 were judged to have sufficient trapping effort. Sites where the catch per trap-night was > 0.1 were judged to need greater trapping effort (i.e., an increased number of traps/ha) or other actions that effectively curtail ingress.

Predator control efforts by most Participants were sufficient and in general have shown steady improvements over the last few years of KSHCP implementation. Only two County of Kauaʻi covered properties, the Historic County Building and Annex and the Kanikoʻo Elderly Housing, Phase I, II/Rice Camp Senior Housing fell slightly short of meeting the capture rate threshold presented above. A total of 192 predators were removed from Participant covered facilities in 2025 (Table 7), fewer than the 235 predators removed in 2024, and markedly fewer than 274 predators removed in 2022 and 326 predators removed 2023. The downward trend in numbers of predators removed suggests there are steadily fewer predators present at KSHCP covered facilities.

TRAINING AND OUTREACH

The KSHCP recognizes that an important step in reducing mortality of downed seabirds is prompt discovery followed by rapid and efficient rescue and recovery (i.e. finding the bird and taking it to a licensed rehabilitation facility, such as SOS). This is most likely to occur when on-

site staff and workers are able to identify Covered Species of seabirds and understand and fully implement the basic procedures that include notifying designated responders when grounded seabirds are found and safely rescuing and securing birds until they can be handed over to a designated care provider (i.e., SOS) or are safely delivered to an SOS Aid Station.

Each KSHCP Participant conducted annual training and outreach for workers and personnel at their facilities. The training is specific to the KSHCP and the covered seabird species to help workers identify downed seabirds and equip them on how to respond in a timely and effective manner. The goal is to train workers and other facility personnel who in the course of their primary duties may encounter downed seabirds while performing their work in and around the facility. In 2025, a total of 147 training sessions were conducted and attended by 7,391 staff, workers, and guests associated with the KSHCP Participant Covered Facilities (Table 8). The training and outreach materials and information produced and presented by KSHCP Participants are accurate and of high quality.

In addition to training of workers and staff, KSHCP Participants also produced and distributed seabird outreach materials tailored to their customers, guests, property tenants, vendors, and the public to educate anyone present at their facilities during the seabird fledging season (Appendix B). The County of Kauaʻi extended outreach considerably by including outreach materials on seabirds and their vulnerability to free-roaming predators, such as cats, to travelers from neighboring islands and outside the state when camping and access permits are issued. Outreach materials supplement the efforts of Participant staff by encouraging more awareness of the seabird fallout issue and by helping staff and guests alike identify and take the proper steps to recover downed seabirds. For visitor-based facilities (1 Hotel Hanalei Bay, Royal Sonesta Kauaʻi Resort, Sheraton, and NCL), guest outreach was the main form of public outreach and represents a large proportion of the total number of people reached by all Participants through training and outreach combined. Commercial properties (HDOT, Kauaʻi County and A&B Port Allen Commercial facilities) posted informational fliers and fact sheets in staff rooms, common areas, and work vehicles that can be used for quick reference and further reinforce training. Tenants at retail properties, such as A&B covered properties, received a tri-fold brochure, and a letter outlining seabird-friendly lighting requirements. Overall, outreach at

each KSHCP Participant Facility was adequate and professionally presented. Examples of outreach materials produced and distributed by KSHCP Participants are provided in Appendix B.

4. TAKE MONITORING

KSHCP REQUIREMENTS

This section evaluates KSHCP Participants' take monitoring programs at Covered Facilities. Each Participant's take monitoring program must satisfy requirements set forth in section 5.3 of the KSHCP. Take monitoring programs typically include identifying searchable areas on each property, designing seabird and honu search programs, training searchers and other key personnel in approved seabird search and recovery methods, reporting and documenting downed birds, documenting the presence of predators at each facility, and appropriate recordkeeping (Table 12).

SEARCH EFFORT

SEABIRDS

In 2025, all eight KSHCP Participants conducted regular searches for downed seabirds at the majority of Covered Facilities during seabird fledging season (Table 13). Most Participants documented search routes at all facilities and provided adequate documentation and descriptions of searcher training and search effort. Except for NCL vessels, where staff regularly patrol and monitor workstations year-round, seabird searches were conducted from 15 September through 15 December 2025. Three KSHCP Participants (A&B, HDOT, and 1 Hotel Hanalei Bay) hired contractors to conduct seabird searches while the other five Participants (Kauai Coffee, County of Kaua‘i‘, NCL, Kaua'i Resort, Sheraton) trained their staff to complete searches. The frequency of searches at facilities was variable; 1–4 searches per day were completed at most facilities; however, 18 Kaua‘i‘ County facilities that require monitoring were surveyed less often than daily (Table 13). Searches were typically conducted 3–4 hours after sunset and within one hour of sunrise.

Table 12. Take monitoring components and KSHCP guidelines used by KSHCP Participants[a].

Take monitoring component	KSHCP Guideline
Detailed maps of the property indicating structures and property features (including all light sources); topography; any unsearchable areas; and the proposed search route	All searchable areas must be covered in defined search routes (attach map). Justify "unsearchable areas".[b]
Description of annual training for searchers	Must cover seabird identification, seabird handling, appropriate downed birds search methods, and response procedures. Recommend training to occur immediately prior to Sept 15 (start of fallout season).[b]
Time of Year of searches	Searching should occur twice nightly between Sep 15 and Dec 15.[b]
Frequency of searches	Minimum of twice nightly (or more frequently if possible); searching should be intensified during the peak of fallout (Oct 1 –15).[b]
Time of day of searches	The peak of fallout generally occurs around 2 hours after sunset – **searches should therefore commence 3–4 hours after sunset**. An additional search should take place within **1 hour before sunrise** to find birds that were grounded during the night.[b]
Search methods	Specify, e.g. vehicle versus walking; looking under and around objects as opposed to just patrolling; searching with flashlight, etc.[b]
Record keeping method	Downed Wildlife Form and photographs required for each bird found.
Presence of seabird predators on site (predators, dogs, mongoose)	Record any predators seen during searches and inform management taking actions to reduce predators at facilities, and what action(s) taken to remove predators from the area. Records should include the type and date of predators sighted, and the timing of response actions and outcome. [c]
Number of searchers needed to cover area.	Depends on site conditions and safety considerations.[b]

[a] These general guidelines are summarized in KSHCP table 6-4 but may be modified for Participants that have different site-specific protocols in an agency-approved PIP.

[b] See Section KSHCP Section 5.3.4.1.

[c] See Section KSHCP Section 5.3.2.This section reports on the take of listed seabirds and whether, individually and cumulatively, Participants are in compliance with the terms of the KSHCP.

Table 13. Summary of take monitoring efforts at covered KSHCP Participant Facilities, 2025.

Participant/ Facility	# Birds found	Search routes submitted?	Training records?	Description of annual searcher training?	Search dates	# Surveys/ day	Search times	Methods docu-mented?	Bird search logs submitted ?	Take log submitted ?	Honu search logs submitted ?	# Honu observa-tions	Predator presence recorded ?
Alexander & Baldwin													
Hokulei Shopping Village	2	yes	yes	yes	Sept 15 – Dec 15	2	3–4 hrs after sunset, and within 1 hr of sunrise	yes	yes	yes	not required	n/a	yes
Port Allen Commercial properties	6	yes	yes	yes	Sept 15 – Dec 15	2	3–4 hrs after sunset, and within 1 hr of sunrise	yes	yes	yes	not required	n/a	yes
The Shops a Kukuiula Shopping Center	0	yes	yes	yes	Sept 15 – Dec 15	2	3–4 hrs after sunset, and within 1 hr of sunrise	yes	yes	yes	not required	n/a	yes
County of Kaua‘i													
Multiple	6	no	no	yes	Sept 15 – Dec 15	1	Early morning; typically around 8:00	partially	no	yes	no	0	yes
HDOT													
Lihue Airport	2	yes	yes	yes	Sept 15 – Dec 15	2	3–4 hrs after sunset, and within 1 hr of sunrise	yes	yes	yes	not required	n/a	yes

Table 13. Continued.

Participant/ Facility	# Birds found	Search routes submitted?	Training records?	Description of annual searcher training?	Search dates	# Surveys/ day	Search times	Methods docu-mented?	Bird search logs submitted ?	Take log submitted ?	Honu search logs submitted ?	# Honu observa-tions	Predator presence recorded ?
HDOT													
Nawiliwili Harbor	1	yes	yes	yes	Sept 15 – Dec 15	2	3–4 hrs after sunset, and within 1 hr of sunrise	yes	yes	yes	not required	n/a	yes
Port Allen	3	yes	yes	yes	Sept 15 – Dec 15	2	3–4 hrs after sunset, and within 1 hr of sunrise	yes	yes	yes	not required	n/a	yes
Kauai Coffee Company													
Factory and Fields, Kalaheo	0	yes	yes	yes	Sept 15 – Dec 15	1–3	Typically morning and evening	yes	yes	yes	not required		yes
Essex House Condominium Corporation													
Kaua‘i Resort (Sonesta)	4	yes	yes	yes	Sept 15 – Dec 15	2	3–4 hrs after sunset, and within 1 hr of sunrise	yes	yes	yes	yes	0	yes
NCL (Bahamas), Ltd.													
Pride of America	0	n/a	yes	yes	year-round	n/a	Continuous	yes	n/a	yes	not required	n/a	n/a

Table 13. Continued.

Participant/ Facility	# Birds found	Search routes submitted?	Training records?	Description of annual searcher training?	Search dates	# Surveys/ day	Search times	Methods docu-mented?	Bird search logs submitted ?	Take log submitted ?	Honu search logs submitted ?	# Honu observa-tions	Predator presence recorded ?
NCL (Bahamas), Ltd.													
Norwegian Sun	0	n/a	yes	yes	year-round	n/a	Continuous	yes	n/a	yes	not required	n/a	n/a
Oceania Regatta	0	n/a	yes	yes	year-round	n/a	Continuous	yes	n/a	yes	not required	n/a	n/a
SOF-XI Kauai PV Hotel, LP													
1 Hotel Hanalei Bay	36	yes	yes	yes	Sept 15 – Dec 15	2	3–4 hrs after sunset, and within 1 hr of sunrise	yes	yes	yes	yes	0	yes
Kauai Blue, Inc.													
Sheraton Kauai Resort	3	yes	yes	yes	Sept 15 – Dec 16	4	3–4 hrs after sunset, and within 1 hr of sunrise	yes	yes	yes	yes	0	yes
Total, all Facilities	63												

HONU

KSHCP Participants with sandy beaches on their property were required to monitor their properties and adjacent beaches for honu nests and signs of nesting during nesting season (15 May–15 December) and to report on the monitoring and measures taken to avoid take of any honu or nests found (see individual Participants' summaries in Section 2). In addition, the County of Kauaʻi documented honu sightings and nesting activity when they were observed during routine park operation and monitoring activities, as they have done in prior years. As in previous years, three KSHCP participants regularly monitored beaches adjacent to their facilities in 2025:

- SOF-XI Kauai PV Hotel, LP (1 Hotel Hanalei Bay)—Puʻu Poa Beach
- Kauai Blue, Inc. (Sheraton Kauai Resort)—Kiahuna Beach
- Essex House Condominium Corporation (Royal Sonesta Kauaʻi Resort)—Kalapaki Beach

Honu monitoring surveys were consistently completed at all three facilities in 2025; however, 1 Hotel Hanalei Bay experienced staffing shortages that resulted in reduced effort. A single survey took 5–60 minutes to complete, depending on the size and complexity of the beach being monitored.

PREDATOR OBSERVATIONS

KSHCP Participants must document the presence of seabird predators at all properties and facilities and share those observations with those responsible for on-site predator control (Table 12). With the exception of NCL which is not required to monitor predators aboard their vessels, all Participants reported predator observations, though the level of effort and data recording methods varied among them (Table 13). At nine Participant Facilities (A&B, HDOT, Sheraton, Royal Sonesta Kauaʻi Resort, and 1 Hotel Hanalei Bay), predator monitoring was systematic and concurrent with seabird searches while other Facilities relied on incidental observations by employees, contractors, guests, and the public. The County of Kauaʻi collects community predator feeding reports from the public through an online platform; these reports support their predator reduction efforts.

TAKE MONITORING RESULTS AND DISCUSSION

SEABIRDS

Observed Take of Covered Species

In 2025, 63 seabirds were found on Participants' Facilities, including 61 Newell's Shearwaters and two Hawaiian Petrels (Table 6). By far the largest number of downed birds was found at 1 Hanalei Bay Hotel (36 birds), with no other Participant having more than eight incidents of fallout. There were 54 Newell's Shearwaters found alive and eventually released after being admitted to the Save our Shearwaters (SOS) facility. Of the 7 observed lethal takes of Newell's Shearwaters, four were found dead; two died after being taken to SOS; and one was not captured before it took flight and was assumed to have died. Two adult Newell's Shearwaters were found at 1 Hotel Hanalei Bay in May and July 2025; both birds were found alive and eventually released (Tables 6, 10b). Of the two Hawaiian Petrels found in 2025, one was found dead and the other was found alive and eventually released from SOS. No Band-rumped storm-petrels were found during the 2025 season.

There are several possible reasons for the higher take in 2023–2025 than in previous years (Figure 17). In 2020–2022, the COVID-19 pandemic resulted in fewer lights being on, and 1 Hotel Hanalei Bay, which typically sees high rates of downed seabirds, was closed for renovation during those years. The well-documented association between the new moon period and peak fledging of Newell's Shearwaters on Kaua‘i was again evident in the 2025 fallout pattern. Peak fallout typically occurs during a roughly two-week period in October centered on the new moon; the date of the new moon was 21 October 2025, and 49 of the 63 (78%) downed seabirds that were documented on KSHCP Participant Facilities were found from 14 October to 29 October (Table 6). The timing of the moonrise and moonset may further affect light attraction vulnerability of seabirds, particularly for Newell's Shearwaters, during peak fledging. Both Hawaiian Petrels were found toward the end of the season in late November, reflecting their later fledging period. Understanding how the lunar cycle affects seabird fallout vulnerability allows KSHCP Participants to plan accordingly for enhanced search and light attraction minimization vigilance during and leading up to the peak fledging period.

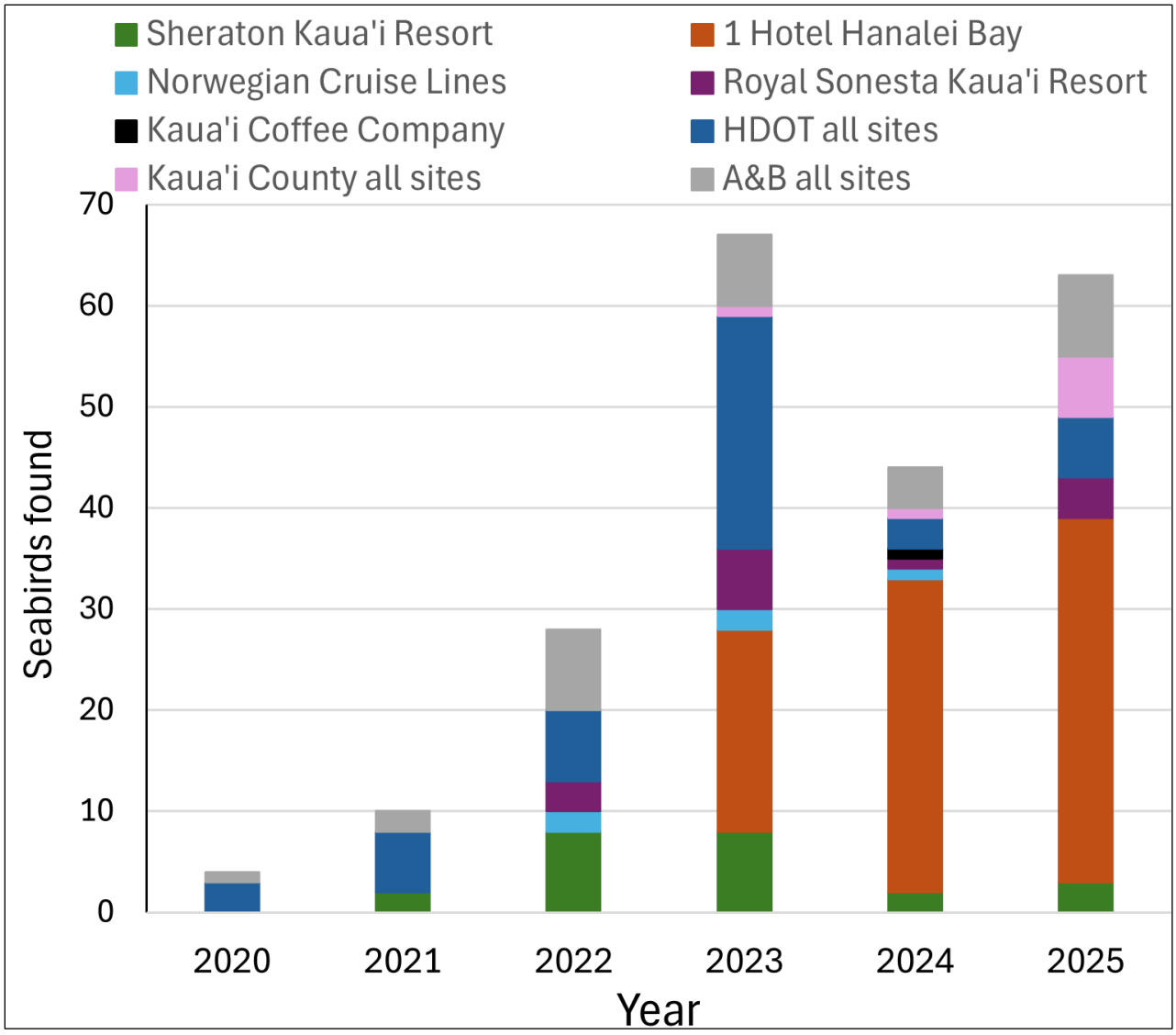


Figure 17. Numbers of seabirds found at Participant Facilities in each year of the KSHCP, 2020–2025.

Calculated Take of Covered Species

Each Participant ITP and ITL requires that the Participant "calculate their annual lethal and non-lethal take using the methodology described in the KSHCP and with the discovery rate within their approved Participant Inclusion Plan." Methods for determining the amount of take of Covered Species ("take calculations") are set forth in KSHCP Section 6.2.2.1 In 2025, the presumed lethal and non-lethal take by each Participant was calculated using formulas prescribed in the KSCHP and following additional guidance from the resource agencies (Elyse Sachs, USFWS, in litt. 23 April 2025).

Calculating estimates of incidental take begins with finding and documenting downed seabirds (observed take). Protocols for the recovery of downed seabirds are set forth in KSHCP section 5.3.4.1. The numbers of seabirds found alive and dead on each property as reported by each Participant (Table 6) are used to calculate the presumed lethal and non-lethal take by each Participant (Tables 14 a and b), using the following formulas:

Total calculated take = (Observed nonlethal take + Observed lethal take)/ Discovery rate

Calculated lethal take = Total calculated take - (Observed nonlethal take + Observed lethal take)

Total (estimated) lethal take = Calculated lethal take + Observed lethal take

Total (estimated) nonlethal take = Observed nonlethal take

The estimated take is higher than the number of birds found because some birds are likely to have been missed and because some birds may have been taken by predators before they could be found. The discovery rate of birds is known to vary among locations, and the following discovery rates were applied to account for missed birds, per the rates approved in each participant's PIP: HDOT Lihue Airport—75%; HDOT Nawiliwili Harbor—90%; HDOT Port Allen Harbor—50%; 1 Hotel Hanalei Bay—90%; all other locations—50%. Trials have been conducted at some Participant facilities that have shown the actual discovery rates to be different from those listed above, but permits have not yet been amended to change these values.

Table 14a. Calculated take of juvenile (HY) seabirds for all KSHCP Participants in 2025, based on formulas prescribed in the KCHCP and Participant Inclusion Plans.

Property or Facility	NESH		HAPE		BANP	
	Lethal	Non-lethal	Lethal	Non-lethal	Lethal	Non-lethal
A&B-Multiple	10.00	6.00	0	0	0	0
Kaua'i County-Multiple	6.00	6.00	0	0	0	0
HDOT-Lihue Airport	2.67	0	0	0	0	0
HDOT-Nawiliwili Harbor	0.11	1.00	0	0	0	0
HDOT-Port Allen	3.00	3.00	0	0	0	0
Kaua'i Coffee	0	0	0	0	0	0
Kaua'i Resort (Sonesta)	3.00	3.00	1.00	1.00	0	0
NCL-Multiple	0	0	0	0	0	0
1 Hotel Hanalei Bay	6.67	30	1.11	0	0	0
Sheraton Kaua'i Resort	3.00	3.00	0	0	0	0
Total	34.45	52.00	2.11	1.00	0	0

Table 14b. Calculated take of adult (AHY) seabirds for all KSHCP Participants in 2025.

Property or Facility	NESH (AHY)	
	Lethal	Non-lethal
1 Hotel Hanalei Bay	0.22	2.00
Total	0.22	2.00

Calculated take estimates were then compared to the permitted levels of take, based on each Participant's approved Covered Seabird Monitoring Plan in its PIP, and limits specified in Participants' ITPs and ITLs. Each Participant's ITP and ITL specify estimates for the 5-year (rolling) average of Newell's Shearwaters that can be used to trigger adaptive management well in advance of reaching the total take limits specified over the 30-year permit term. These take values are presented for each Participant and for the Participant group as a whole. Any adults taken were reported in the individual reports but were not included in cumulative Participant take calculations because take of adults is not covered under the KSHCP.

Cumulative lethal and non-lethal take over the first six years of the KSHCP (2020–2025) is presented in Tables 15–17. For Newell's Shearwater, the five-year rolling average take represents the annual average during the most recent five years (Table 15). Until 2025, this distinction in the way the average was calculated did not matter, because there had been only five years or fewer of data. In 2025, the sixth year of data collection, it made a difference for Newell's Shearwater calculations because the values from 2020 dropped out, and the values from 2025 were added. For Hawaiian Petrel (Table 16) and Band-rumped Storm Petrel (Table 17), cumulative take (the sum of calculated take across all years) is presented.

HONU

In 2025, no honu nests or signs of nesting were observed at any of the three Covered Facilities with sandy beaches. Monitoring and mitigation measures to protect honu nests have been implemented at all three facilities. These measures include avoiding and minimizing honu hatchling disorientation due to lighting at beachfront facilities through best lighting practices specified in PIPs and protecting any nests at facilities as needed through shielding.

Table 15. Average annual take of Newell's Shearwaters, permitted 5-year rolling annual average take, cumulative take 2020–2025, and permitted take by Participant. The 5-year rolling average was calculated as the annual average for years 2021–2025. The cumulative take is the sum of all take since the inception of the plan (2020–2025). Orange highlighting indicates projected take values in excess of the permitted 5-year rolling average.

	5-yr Rolling Average		**5-yr Permitted Rolling Average**		**Cumulative take 2020–2025**		**30-yr Permitted Take**	
Property or Facility	**Lethal**	**Non-lethal**	**Lethal**	**Non-lethal**	**Lethal**	**Non-lethal**	**Lethal**	**Non-lethal**
A&B- Multiple	5.80	3.80	3.46	2.64	30.00	20.00	104	80
Kaua'i County-Multiple	1.60	1.60	9.18	7.22	8.00	8.00	276	217
HDOT-Lihue Airport	1.87	1.60	0.72	1.41	10.00	10.00	22	43
HDOT-Nawiliwili Harbor	0.49	2.40	0.42	1.58	2.44	12.00	13	48
HDOT-Port Allen	1.40	1.40	2.24	1.76	8.00	8.00	53	68
Kauai Coffee	0.40	0.40	1.12	0.88	2.00	2.00	34	26
Kaua'i Resort (Sonesta)	2.60	2.60	1.10	0.70	13.00	13.00	33	21
NCL-Multiple	0.40	0.40	1.00	1.00	2.00	2.00	30	30
1 Hotel Hanalei Bay	2.42	15.80	4.16	15.84	12.33	81.00	125	476
Sheraton Kauai Resort	5.00	4.20	2.69	2.11	25.00	21.00	81	64
Total Participant take, NESH	21.98	34.20	—	—	112.78	123.00	771	1,072

Table 16. Cumulative take of Hawaiian Petrels, 2020–2025, and permitted 30-year take, by Participant. Cumulative take is calculated as the sum of lethal and non-lethal takes across all years.

Property or Facility	Cumulative Take		30-yr Permitted Take	
	Lethal	Non-lethal	Lethal	Non-lethal
A&B- Multiple	0	0	3	3
Kaua‘i County-Multiple	0	0	17	4
HDOT-Lihue Airport	0.33	1.00	3	6
HDOT-Nawiliwili Harbor	1.11	0	2	6
HDOT-Port Allen	0	0	0	0
Kauai Coffee	0	0	0	0
Kaua‘i Resort (Sonesta)	1.00	1.00	1	1
NCL-Multiple	2.00	2.00	6	6
1 Hotel Hanalei Bay	2.33	1.00	6	6
Sheraton Kauai Resort	0	0	1	0
Total Participant take, HAPE	4.67	4.00	39	32

Table 17. Cumulative take of Band-rumped Storm Petrels, 2020–2025, and permitted 30-year take, by Participant. Cumulative take is calculated as the sum of lethal and non-lethal takes across all years.

Property or Facility	Cumulative Take		30-yr Permitted Take	
	Lethal	Non-lethal	Lethal	Non-lethal
A&B-Multiple	0	0	1	1
Kaua‘i County-Multiple	0	0	4	0
HDOT-Lihue Airport	0	0	1	2
HDOT-Nawiliwili Harbor	0	0	0	0
HDOT-Port Allen	0	0	0	0
Kauai Coffee	0	0	0	0
Kaua‘i Resort (Sonesta)	0	0	1	1
NCL-Multiple	2.00	2.00	6	6
1 Hotel Hanalei Bay	0	0	1	1
Sheraton Kauai Resort	0	0	3	1
Total Participant take, BANP	2.00	2.00	17	12

5. ADAPTIVE MANAGEMENT AND UPDATES

ADAPTIVE MANAGEMENT

Adaptive management allows for changes in management practices when supported by data or other information. After five years of conducting lighting reviews and monitoring at the Participant facilities, several updates have been made to procedures that were originally described in individual PIPs. These changes have been recommended by the resource agencies, ESRC, and/or developed proactively by the participants. Adaptive measures that were implemented in 2025 included:

- More frequent vegetation clearing during fledging season to facilitate searching.
- Increased security presence to improve safety for searchers.
- Increased trapping effort.
- Expanded search areas.
- Monitoring nighttime events before, during, and after illumination (Kaua‘i County Category 5 facilities).
- Window tinting as a way to reduce light escapement from interior spaces.

These added measures will continue to be implemented in 2026. Vegetation pruning/clearing in early September improves detection probabilities for observers and reduces cover for predators. In certain areas, these benefits should be weighed against using vegetation to conceal predator traps or shield lighting.

OTHER UPDATES

REPORTING SCHEDULE

Starting in January 2025, the agencies provided the following revised reporting schedule for the KSHCP (Table 18). This schedule allows for more time to reconcile downed bird records from the Participants with data provided by the recovery and rehabilitation organizations. This schedule has not yet been incorporated as a minor modification to the KSHCP, and until that happens, KSHCP Participants will continue to voluntarily follow this schedule

Table 18. Reporting schedule for the KSHCP, revised by the Resource Agencies 18 December 2024.

Date	Deliverable
1 February	Participant raw data (including downed bird reports, predator control and monitoring, honu surveys if beachfront property, outreach efforts, etc.) submitted to Prime Contractor and Resource Agencies
15 February	Annual report on Kahuama'a mitigation site submitted by Prime Contractor to Resource Agencies
15 March	Draft KSHCP annual report submitted by the Prime Contractor to Resource Agencies
Mid March	Annual ESRC review meeting for the mitigation project at Kahuama'a
1-30 March	Resource Agency and Participant Meetings
Mid April	Annual ESRC review meeting for KSHCP Participants
15 May	Final KSHCP report submitted by Prime Contractor to Resources Agencies

CHAIN OF CUSTODY FORM

In 2024, the agencies added a Chain of Custody form to the KSHCP Downed Wildlife Protocol. The Form specifies that it is for use in locations other than Kauaʻi. One of the challenges in reconciling downed bird records from the participants with those from Save Our Shearwaters is that birds are delivered to the SOS rescue boxes without complete information about the recovery. Voluntary use of the Chain of Custody form for birds recovered from Participant facilities could improve the integrity of the data being shared with SOS at the time of bird pickup and will likely facilitate matching downed bird records with records from SOS. This Chain of Custody form has not yet been incorporated as a minor modification to the KSHCP. NCL, the only KSHCP Participant to have downed birds in locations other than Kauaʻi, will continue to use the Chain of Custody for all birds recovered, including those recovered on Kauaʻi.

PERMIT AMENDMENTS

A review of reported take and results from searcher efficiency trials conducted during the first 5 years of the permit prompted several Participants to apply for amendments to their ITPs and ITLs. The following participants are in the process of requesting amendments for their permits:

- County of Kauaʻi is currently in discussion with the agencies about a possible permit amendment.
- NCL initiated the amendment process by submitting a revised PIP to USFWS and DOFAW on 25 November 2025. This amendment requests to allow take of adult birds, recognizing that adults of each species have been recovered from NCL ships. Representatives from NCL, USFWS, and DOFAW met on 3 February 2026 to discuss the PIP. As of 27 February 2026, the agencies are reviewing the take calculations and estimates of mitigation to determine whether this request will be considered a minor or major amendment to the KSHCP.
- 1 Hotel Hanalei Bay initiated the amendment process by submitting a revised PIP to USFWS and DOFAW on 3 February 2026. This amendment requests an increased take of juveniles, the addition of adult take, and a change in the searcher efficiency used to calculate take from 0.9 to 0.5. As of 27 February 2026, the agencies had confirmed receipt but had yet to provide comments.

PUBLIC MEETINGS

- 10 April 2025 - Annual review of the KSHCP, Day 1 (Searcher efficiency trial report, Kauai Coffee, Sheraton Kauaʻi Resort, 1 Hotel Hanalei Bay, Norwegian Cruise Lines, Royal Sonesta Kauaʻi Resort)
- 24 April 2025 - Annual review of the KSHCP, Day 2 (Searcher efficiency trial report, Alexander & Baldwin, County of Kauaʻi, Hawai'i Department of Transportation)
- 24 October 2025 - Status update on the KSHCP (1 Hotel Hanalei Bay, Royal Sonesta Kauaʻi Resort, County of Kauaʻi)

6. FINANCIAL REPORT

The financial report is attached as a separate document (Appendix C) produced by the KSHCP's fiscal sponsor, the National Fish and Wildlife Foundation (NFWF). As required by the contract between NFWF and the KSHCP Participants, the report period covers the Federal fiscal year of 1 October 2024–30 September 2025. The contract for this project was renewed in June 2025, with Pacific Rim Conservation continuing to serve as the Prime Contractor.

Page intentionally left blank.

Appendix A. KSHCP Participant Lighting Photos, 2025

ALEXANDER & BALDWIN: THE SHOPS AT KUKUI‘ULA (TSAK)



1. West side of TSAK, as viewed from the north.



2. Center of the TSAK retail complex. Several lights have been modified with foil to reduce light trespass.



3. TSAK parking lot. Overhead lighting now complies with DarkSky recommendations.

ALEXANDER & BALDWIN: HOKULEI SHOPPING CENTER



1. Jack In The Box employee entrance door light, unshielded



2. Jack In The Box employee entrance door light, shielded



3. Close-up of new Jack In The Box light shield

ALEXANDER & BALDWIN: PORT ALLEN



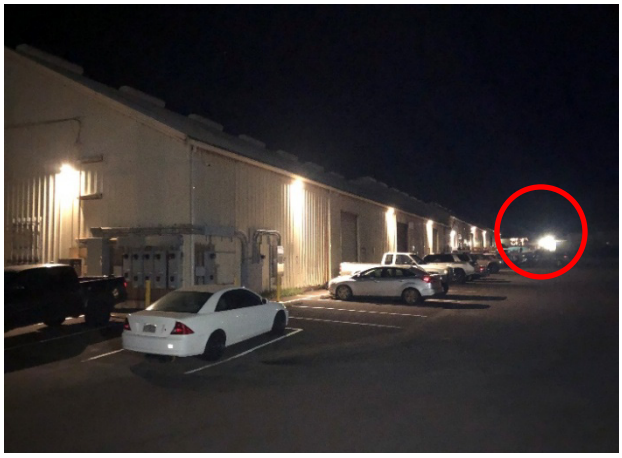
1. Port Allen steel warehouse.



2. Port Allen Marina Center parking lot entrance off Waialo Road.



3. Port Allen Marina Center (left), intersection of lower Waiailo Road.



4. Port Allen Marina Center. Bright light at far right is located on neighboring property.



5. Port Allen Center 1 (right) and 2 (left), looking towards the steel warehouse.

KAUAI COFFEE



1. Kauai Coffee water tank area, standard lighting.



2. Kauai Coffee water tank area, bird season lighting (reduced illuminance).



3. Kauai Coffee equipment shop, standard lighting.



4. Kauai Coffee factory shop, standard lighting. Additional light shields will be added to reduce light trespass.



5. Kauai Coffee wet plant, standard lighting. Additional light shields will be added to reduce light trespass.

COUNTY OF KAUA‘I



1. Hanamaulu Beach Park lighting.



2. Hanamaulu Beach Park pavilion.



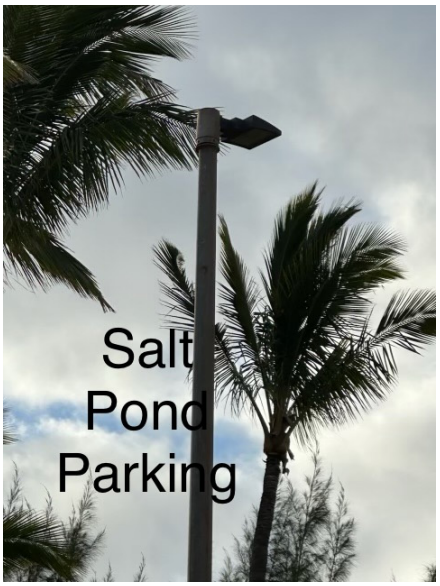
3. Lydgate Beach Park, large pavilion.



4. Lydgate Beach Park.



5. Lydgate Beach Park



6. Salt Pond parking lot



7. Vidinha Stadium parking lot lighting.



8. Vidinha Stadium parking lot lighting.



9. Wailua Houselots parking lot lights.

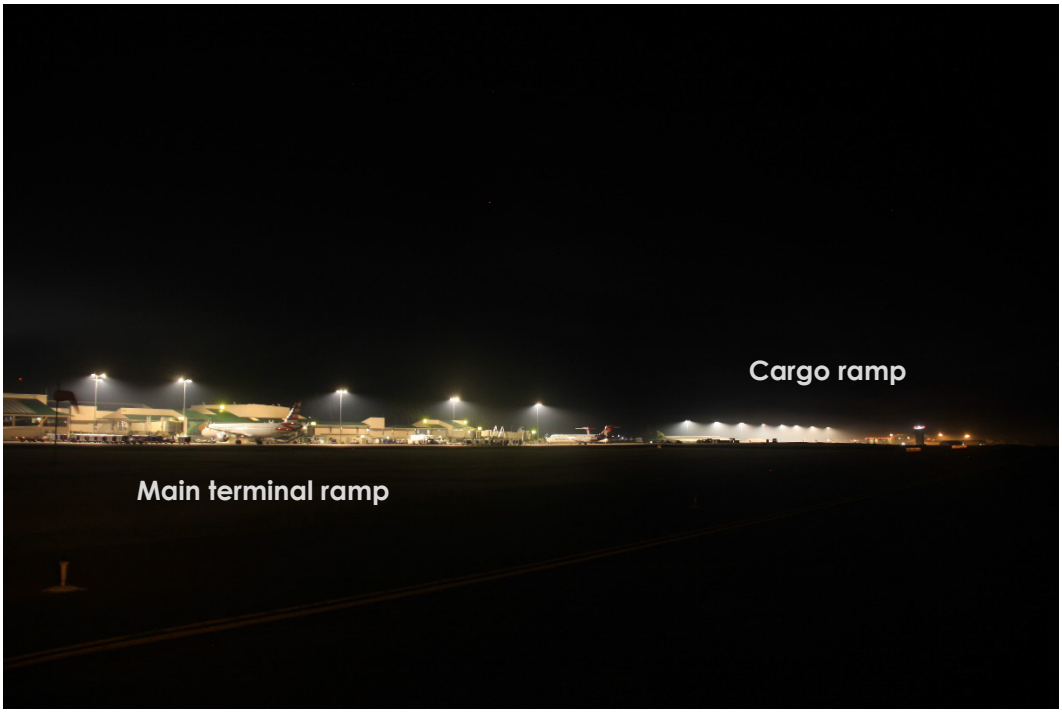
HDOT: LIHUE AIRPORT



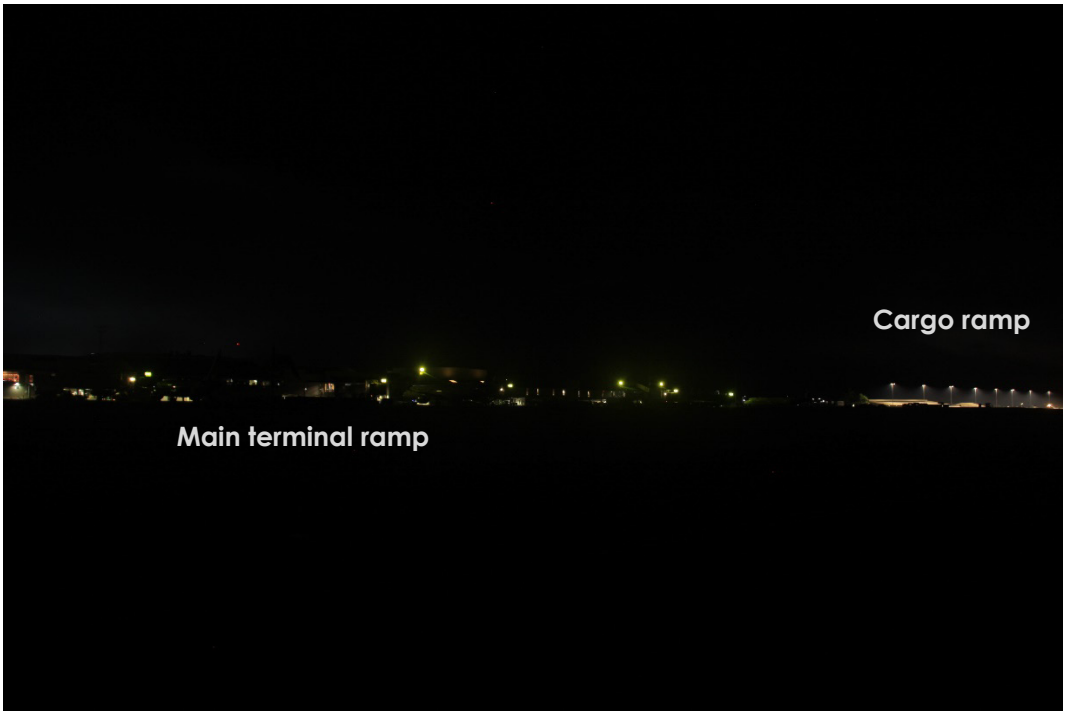
1. Aircraft and lighting infrastructure along the main terminal ramp at Lihue Airport during normal operational conditions.



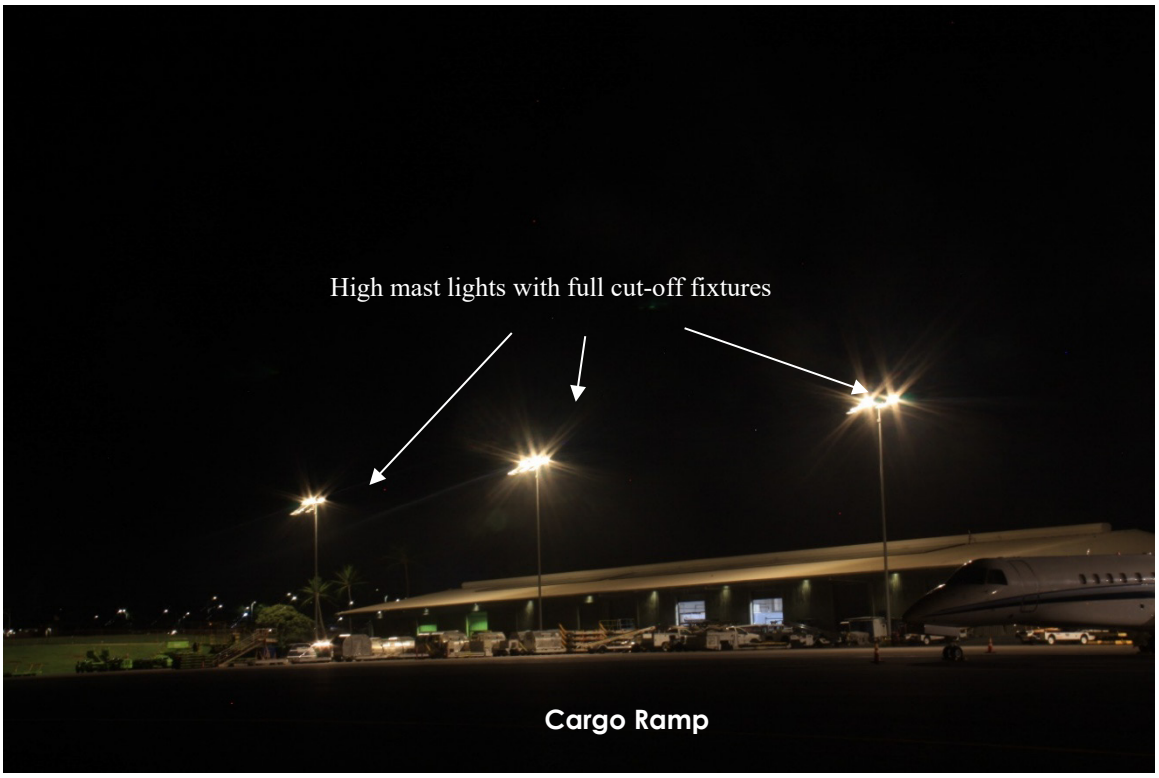
2. Aircraft and lighting infrastructure along the cargo and north ramps at Lihue Airport during normal operational conditions.



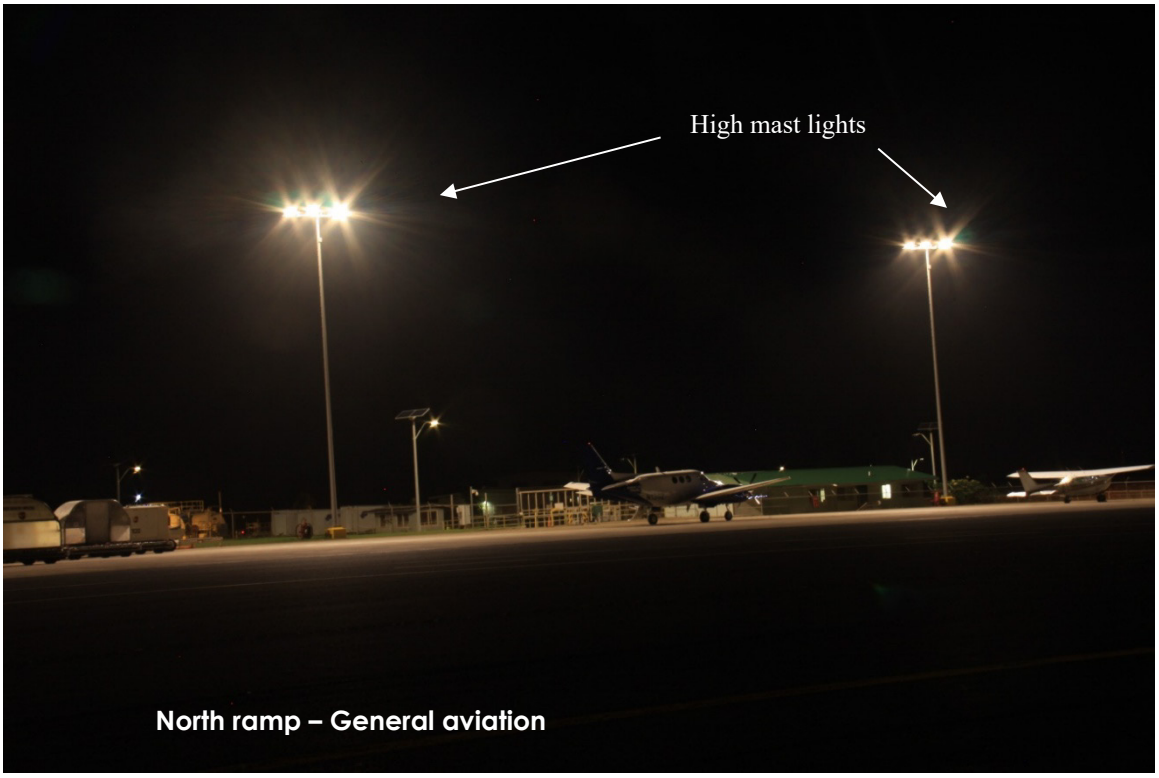
3. Normal operational lighting conditions along a portion of the main terminal ramp, cargo ramp, and north ramp at Lihue Airport.



4. During the seabird fallout season, as a minimization measure, the main terminal ramp high mast lights are turned off between 00:00 and 04:00 at Lihue Airport.



5. High mast lights on the cargo ramp, Lihue Airport.



6. High mast lights on the north ramp (below), Lihue Airport.



7. View from the North ramp looking south along the Cargo and Main Terminal sections of the airfield at Lihue Airport.

HDOT: NAWILIWILI HARBOR



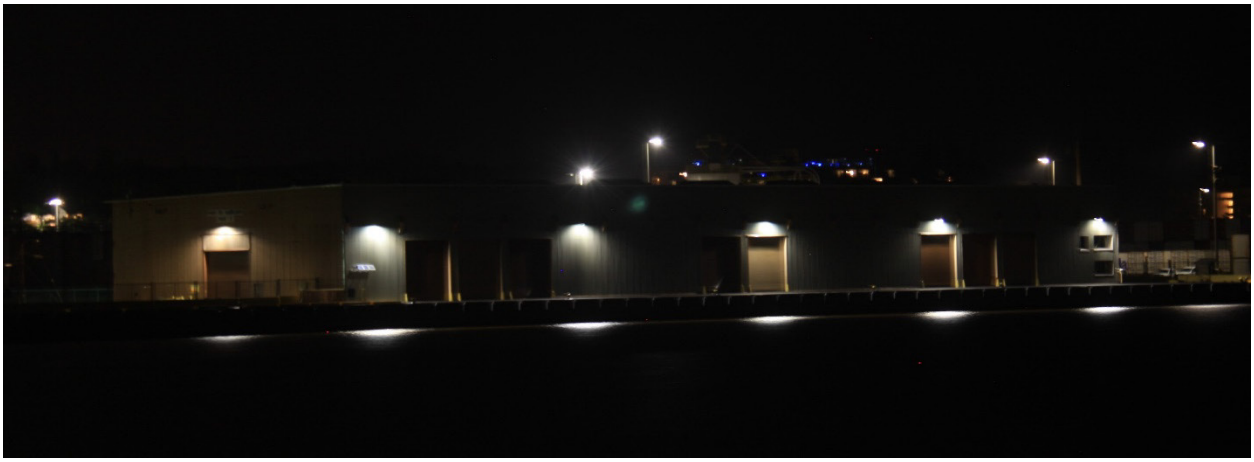
1. Broad view of Nawiliwili Harbor (Pier 3) showing the distribution of high mast light installations (10 visible in this image).



2. A portion of the Matson yard with numerous containers; the main entrance and guard shack are in the foreground.



3. High mast lights along the southern perimeter of Pier 3 set at a lowered security level setting (15%).



4. Wall-mounted lights illuminating bay doors and bulkhead along Pier 2.



5. Lighting conditions as operations are ceasing and Young Brothers tug and barge prepare to depart Pier 3, Nawiliwili Harbor.



6. Wall mounted light on the side of the Pier 2 warehouse (east side facing Pier 1), Nawiliwili Harbor. This light typically remains on during both operational and security light level environment.



7. Lighting conditions at Pier 3 during bulk fuel operations, Nawiliwili Harbor.

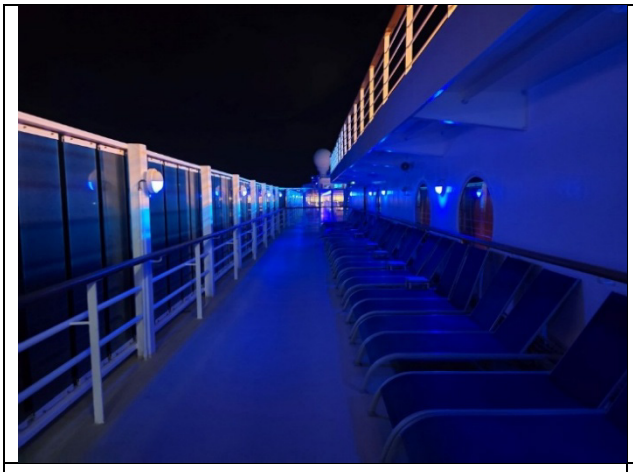


8. High mast lights in security setting at Pier 1, Nawiliwili Harbor.



9. High mast lights in operational setting at Pier 1, Nawiliwili Harbor.

NCL: PRIDE OF AMERICA



1. Deck 12, pre-renovation.



2. Deck 12, post-renovation.



3. Main pool with higher luminance lighting and railing lights on. Deck 11.



4. Main pool with lower luminance lighting and railing lights off. Deck 11.

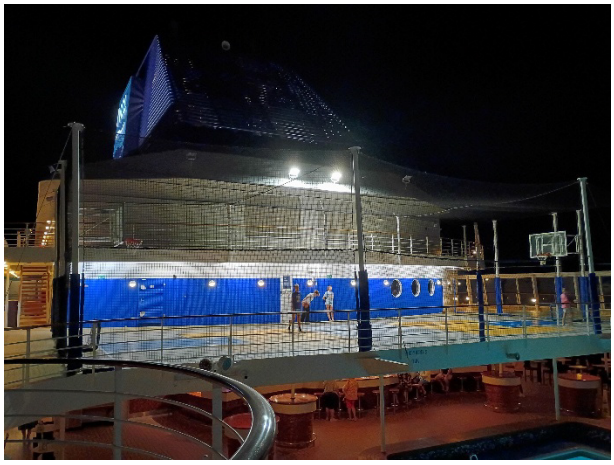


5. Pride of America from Nawiliwili Harbor, bird season lighting.



6. Liberty Dining Room with new tinted windows. Deck 6.

NCL: NORWEGIAN SUN



1. Basketball court floodlights on. Deck 12.



2. Basketball court floodlights off. Deck 12.



3. Bar light under lifeboat on. Deck 6.



4. Bar light under lifeboat off. Deck 6.



5. Pool deck awning floodlights on. Deck 11.



6. Pool deck awning floodlights off. Deck 11.



7. Main pool lights higher luminance. Deck 11.



8. Main pool lights lower luminance. Deck 11.



9. Main pool floodlights on, Deck 11.



10. Main pool floodlights off, Deck 11.



11. Sports deck railing and overhead lights, every light turned on. Deck 12.



12. Sports deck railing and overhead lights, every other light turned off. Deck 12.

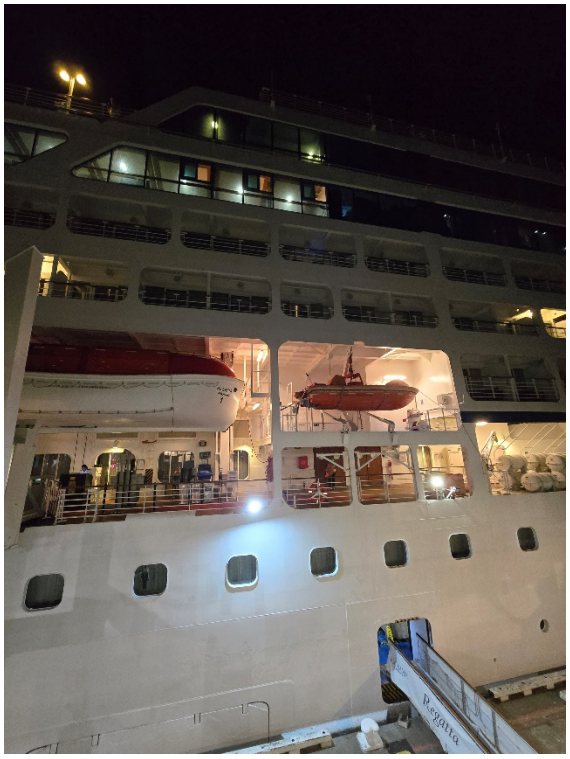
NCL: OCEANIA REGATTA



1. Bar lights on lifeboat decks 5 and 6.



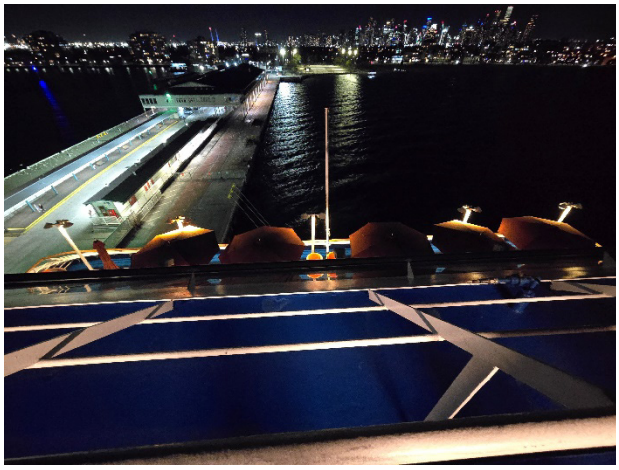
2. Bar lights on lifeboat decks 5 and 6.



3. Over-the-side flooding lights on.



4. Over-the-side flooding lights on.



5. light from stern Terrace Café.



6. Looking up at Terrace Café lights.



7. Library with drapes open.



8. Library with drapes closed.



9. Pool with track and string lights on.



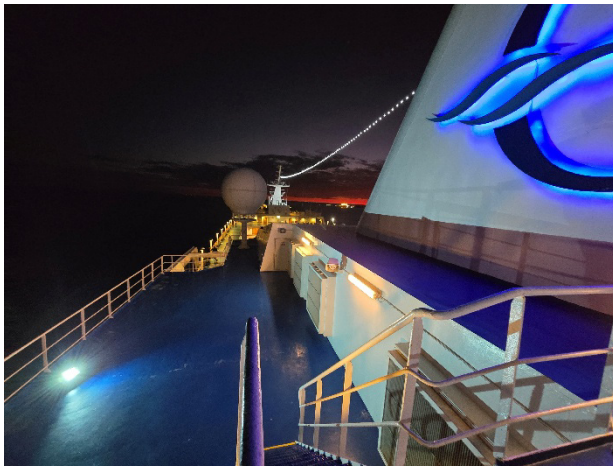
10. Pool with track and string lights off.



11. Bow deck 11 an stack lights on.



12. Bow deck 11 an stack lights off.



13. Stern deck 11 lights on.



14. Stern deck 11 with deck, string, and track lights off.

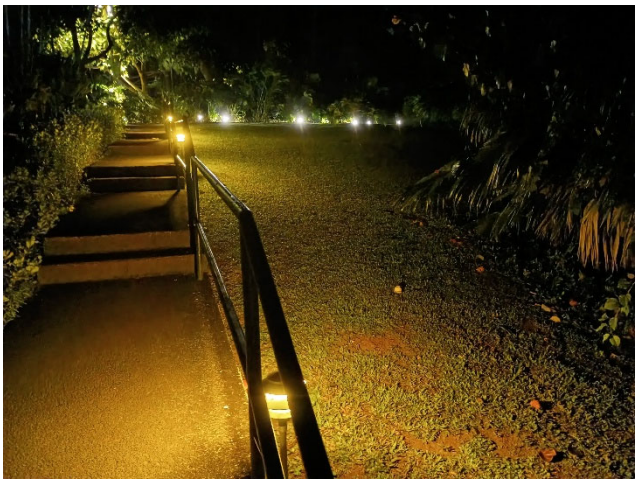


15. Stern crew deck 11 lights on.



16. Stern crew deck 11 lights off.

1 HOTEL HANALEI BAY



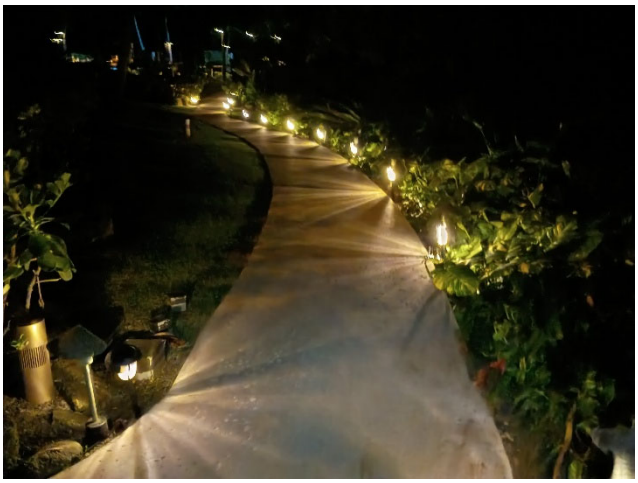
1. Public beach path before lighting changes, June 2025. Note cool-colored lights at the top of the path.



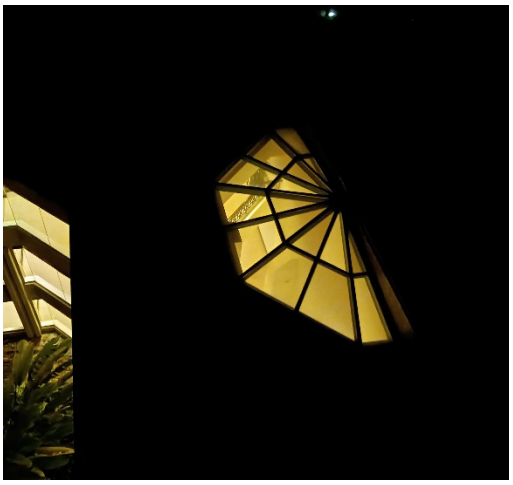
2. Public beach path after lighting changes, September 2025. Note warm-colored lights at the top of the path.



3. Path between 1 Hotel and parking lot, September 2024.



4. Path between 1 Hotel and parking lot with new lighting, June 2025.



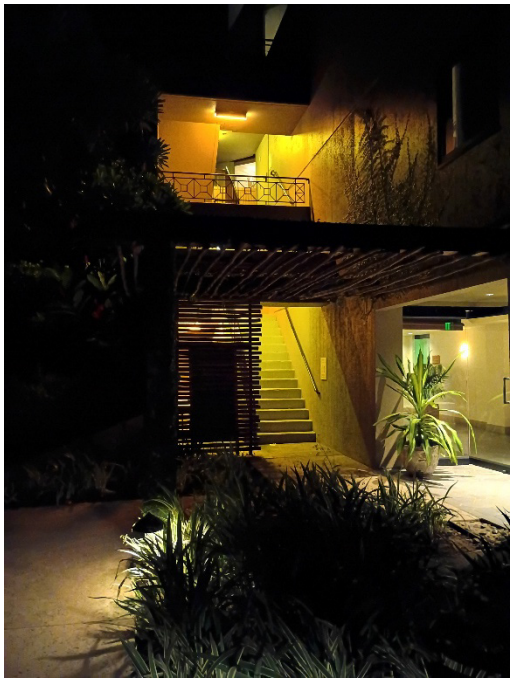
5. Seventh floor skylight, no tinting, June 2025.



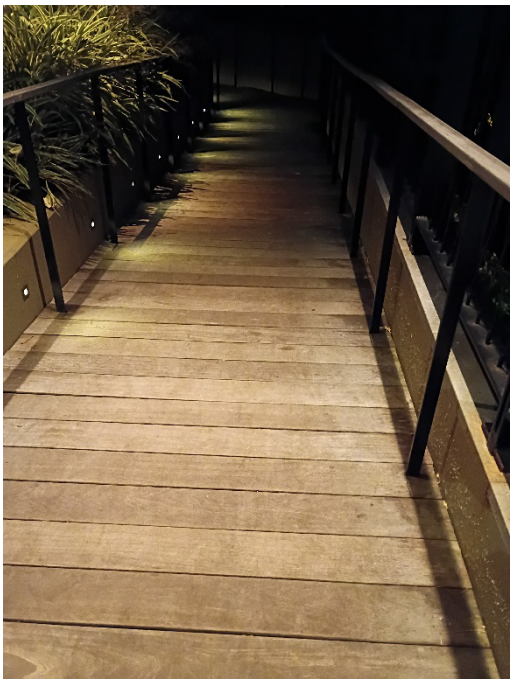
6. Seventh floor skylight with tinting, September 2025.



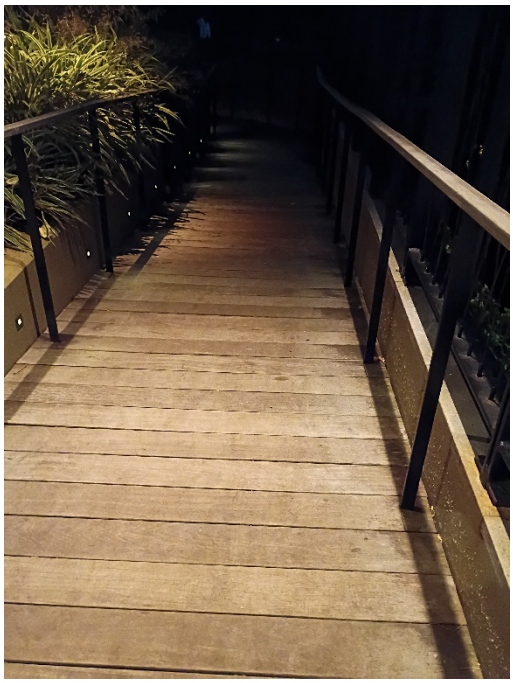
7. Second floor stairwell lighting with no shield, June 2025.



8. Second floor stairwell lighting with shield, September 2025.



9. Ramp between Welina Terrace and 1Kitchen, standard lighting.



10. Ramp between Welina Terrace and 1Kitchen, bird season lighting.

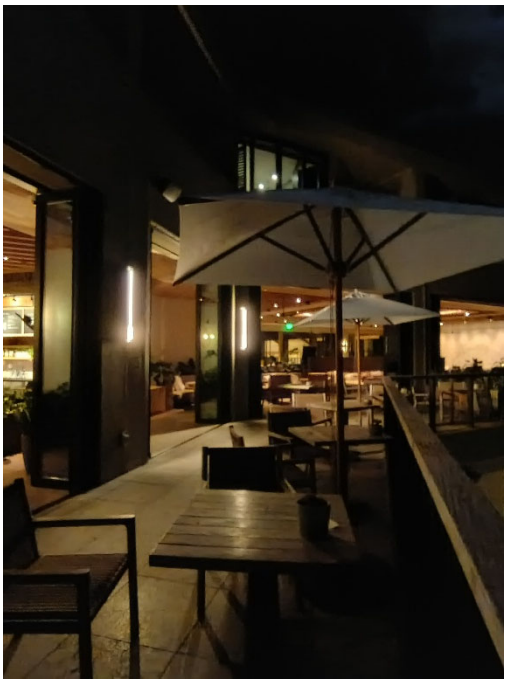


11. Parking lot light without shield.

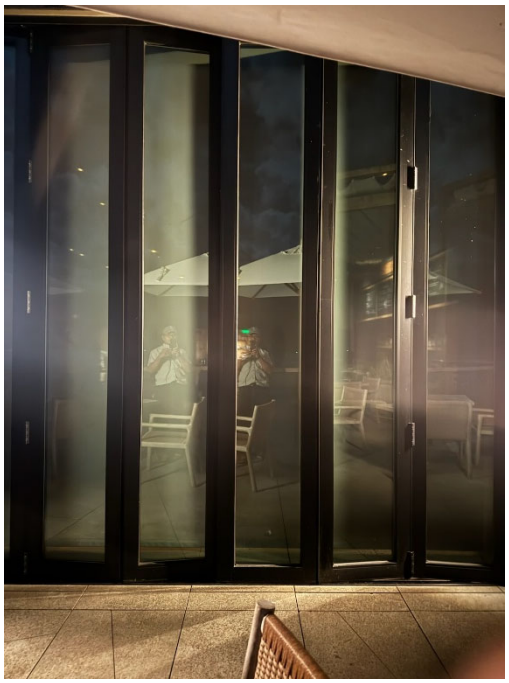


12. Parking lot light with shield, installed in October 2025.

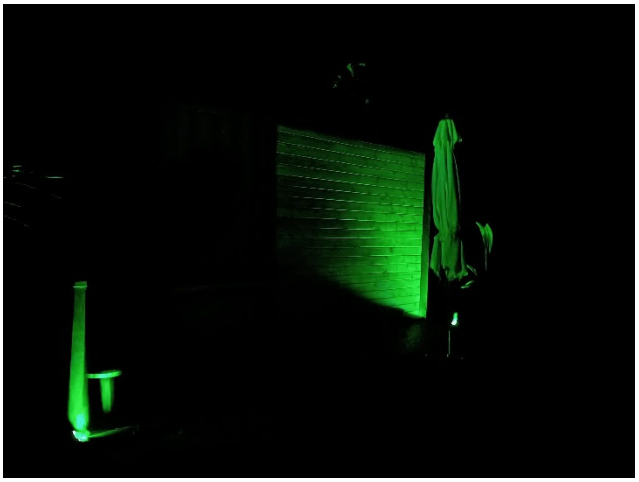
.



13. Welina Terrace and bar, viewed from outside, windows open.



14. Welina Terrace and bar, viewed from inside, windows closed. Windows were closed nightly during cleaning.



15. Beach activities hale with green uplights, June 2025.



16. Beach activities hale with blue lights, September 2025. After this photo was taken, the vendor turned them off for the remainder of the season at the request of 1 Hotel.

KAUA‘I RESORT (SONESTA)



1. Ha’upu Tower with newly tinted windows, standard lighting.



2. Ha’upu Tower with newly tinted windows, bird season lighting. Note overhead lights turned off in elevator landings, bottom 5 floors on right.



3. Ha’upu Tower elevator landings, bird season lighting.



4. Garden outside of ballrooms, bird season lighting.



5. Kukui's Restaurant, standard lighting.



6. Kukui's Restaurant, bird season lighting.



7. Kahili Tower, motion sensor light enabled, standard lighting.



8. Kahili Tower, motion sensor light disabled, bird season lighting.



9. Dukes Restaurant walkway with new lower luminance lighting.

SHERATON KAUAI RESORT



1. Lava's Restaurant with spotlights.



2. Lava's Restaurant, spotlights permanently removed.



3. Higher luminance in-pool lighting.



4. New, lower luminance in-pool light (left) next to older high luminance light (right). Other in-pool bulbs will gradually be replaced with the lower luminance bulbs.

Page intentionally left blank.

Appendix B. KSHCP Participant Outreach Materials, 2025

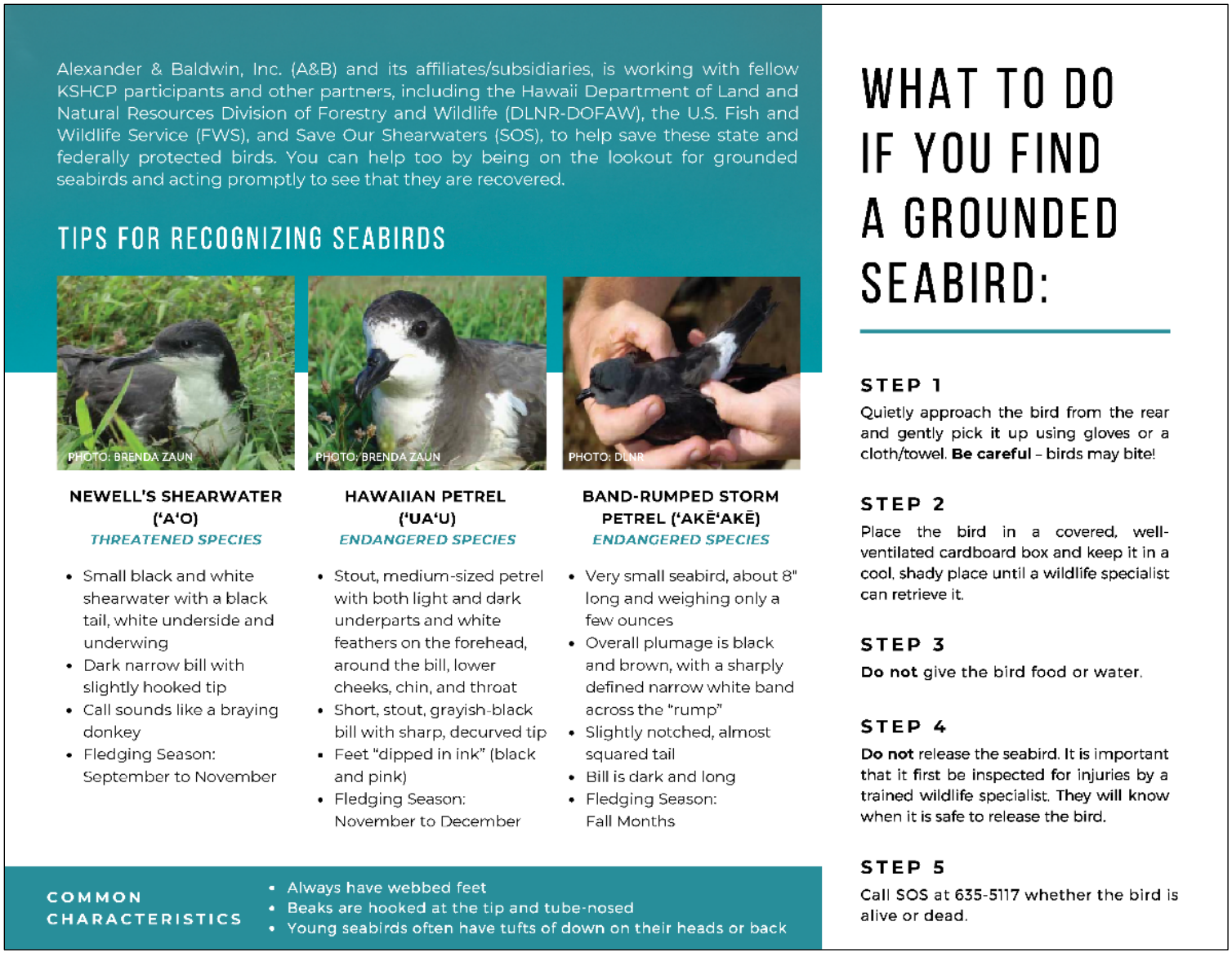
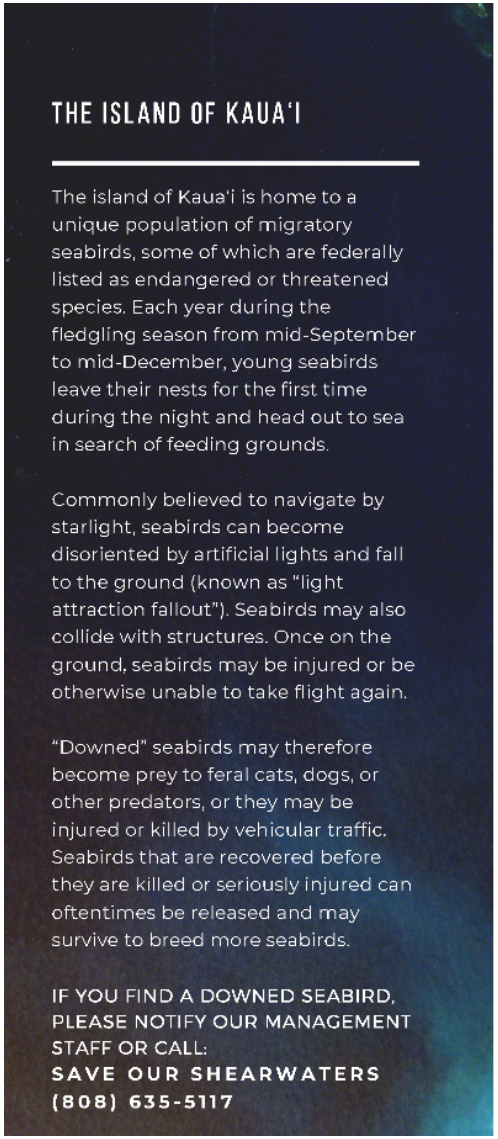


Figure B1. Alexander & Baldwin seabird educational brochure.



KAUA'I SEABIRD HABITAT CONSERVATION PLAN

The Kaua'i Seabird Habitat Conservation Plan (or KSHCP) was developed as an island-wide conservation program to aid in the protection and propagation of endangered and threatened seabirds on Kaua'i. The threatened green sea turtle, or honu, is also covered by the KSHCP.

Because nighttime lighting is an essential activity in most homes, businesses, industrial facilities, roadways, and other public spaces, some amount light attraction fallout of seabirds may be unavoidable.

Participants in the KSHCP, including this facility, seek to minimize such fallout through the use of "seabird friendly" lighting practices, and take steps to minimize injury or death of downed seabirds to help ensure their recovery and release. Participants also help to fund a special breeding site to aid in species propagation and recovery.

Your assistance, or kokua, in ensuring the success of these efforts is greatly appreciated. Mahalo!

FOR MORE INFORMATION ABOUT KAUAI'S SEABIRDS, PLEASE VISIT:
SAVEOURSHEARWATERS.ORG

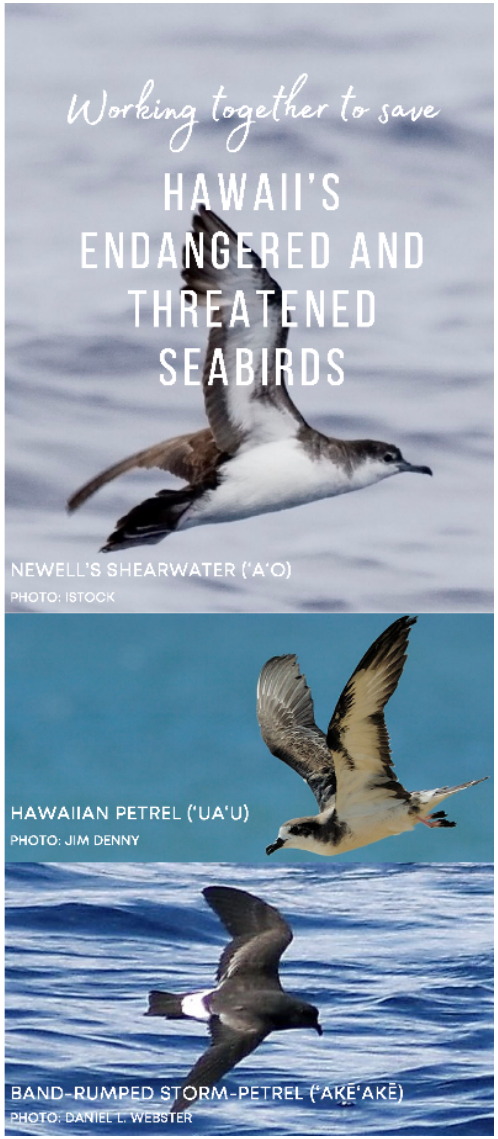


Figure B1. Alexander & Baldwin seabird educational brochure, continued.



Figure B2. Seabird signage at Alexander & Baldwin properties. Clockwise from the top: Port Allen, Hokulei Shopping Center, The Shops at Kukui'ula (TSAK).

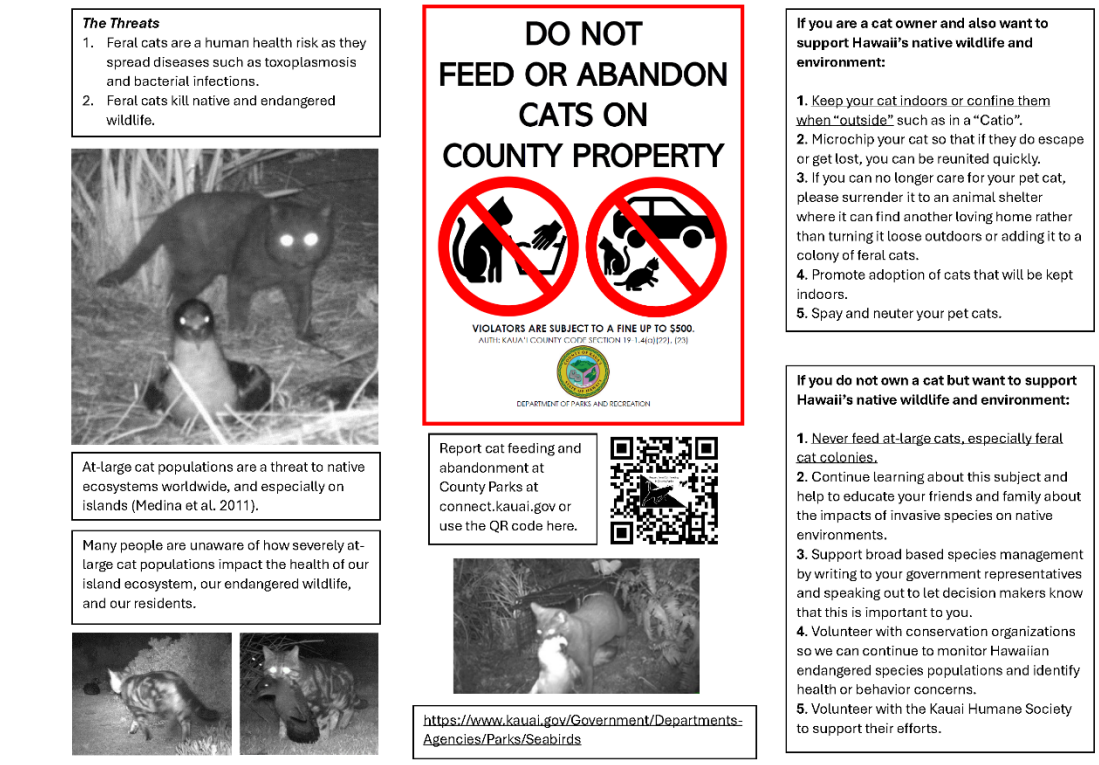


Figure B3. County of Kaua‘i outreach information. Clockwise from the top: cat informational flyer, cat feeding prohibited sign, and sea turtle protection sign.

JOSH GREEN, M.D.
GOVERNOR
KE KIA'ĀINA

STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF TRANSPORTATION | KA 'OIHANA ALAKAU
LIHUE AIRPORT
3901 MOKULELE LOOP, UNIT 6
LIHUE, HAWAII 96766

EDWIN H. SNIFFEN
DIRECTOR
KA LUNA HO'OKELE

Deputy Directors
Nā Hope Luna Ho'okele
DREANALEE K. KALILI
TAMMY L. LEE
CURT T. OTAGURO
ROBIN K. SHISHIDO

IN REPLY REFER TO:
AIR-K 25.017

August 22, 2025

HDOT – LIHUE AIRPORT NOTICE #25.017

TO: ALL CONCERNED

SUBJECT: SEABIRD FALLOUT SEASON

The Seabird fallout season begins September 15 through December 15. All airport tenants are obliged to be on high alert for any downed seabirds within the property boundaries and report them as soon as possible.

All birds found "dead or alive" should be brought to USDA APHIS Wildlife Services for documentation and handling. Airport tenants should call Security Dispatch at (808) 274-3814 for assistance in contacting the USDA APHIS Wildlife Services to assist with collection. The USDA Wildlife Services will be the main point of contact during the fallout season and will provide a kennel outside its office (Unit 20) to drop off downed seabirds, if personnel are limited.

As a reminder, please DO NOT FEED CATS on Airport property. Any predator activity (i.e., feral cats) within Airport property must be reported as well.

Mahalo for your cooperation and assistance.

CRAIG H. DAVIS
Kauai Airports District Manager

c: Tessa Broholm, USDA APHIS Wildlife Services

Figure B4. HDOT 2025 outreach letter to all LIH airport tenants, regarding seabird fallout season.





Figure B5. HDOT seabird fact sheets (top) and sign (bottom). The sign was posted at Nawiliwili Harbor during seabird fledging season.



Figure B6. No cat feeding sign, posted by HDOT at Nawiliwili Harbor and Port Allen.

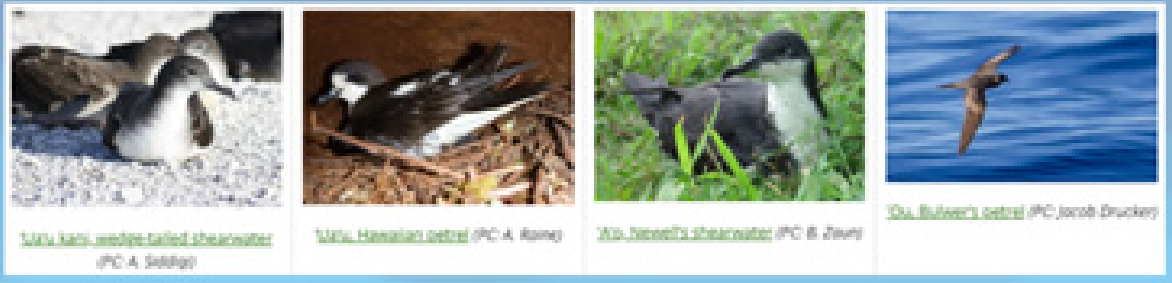






Figure B7. Kauai Coffee outreach materials. Clockwise from top: seabird sign, sign in place, decoy roundup event poster.

Found a Downed Seabird?



If the bird is dead, place it in a labeled Ziplock bag (make sure the seal is tightly closed). Take it to an SOS aid station or the SOS facility.

If the bird is alive, instructions are as follows:

1. **Obtain your recovery kit.** Be familiar with the kit closest to you:
   - Pali Uli
   - Orchard Office
   - Factory Supervisor's office
   - Security office
   - Safety manager's office

   Call or text Marla to report downed seabird **(808)652-0129**

2. **Use caution and protect yourself.** Approach it from behind, use a towel, t-shirt, or cloth to gently wrap around its back and wings. Gently cover the head (like a tent) and keep voices low to help the animal remain calm and greatly reduce stress. Wear personal protective equipment.

3. **Transport Safely:** Place the bird in a cardboard box or pet carrier, ensuring the lid is secured. Do not leave food or water in the container.

4. **Keep it Safe:** Keep the secured container in a quiet, dark place away from loud noises, people, and other animals until you can transport it to a wildlife professional.

5. **Deliver to a Professional:** Take the bird to a designated drop-off location.
   - Near Kauai Coffee: Hanapepe Fire Station and Kalaheo Fire Station
     - For aid stations, write this information on the aid station board: incident date, incident time, and location the bird was found.

6. **Report the Sighting:** For Kauai, call the Save Our Shearwaters (SOS) hotline at 635-5117 to report the find and request assistance or further instructions.

Figure B8. Kauai Coffee downed seabird fact sheet.



WELCOME TO NAWILIWILI, HAWAII
SUNDAY, SEPTEMBER 28

DAY 12
NORWEGIAN SUN

27°C/80°F

SUNRISE 6:28a
SUNSET 6:28p

ARRIVAL: 5:45p

OVERNIGHT

PROTECTING HAWAII'S SEABIRDS

From September through December, Hawaii's protected seabird fledglings take their first flights over the open ocean. To help safeguard them, Norwegian Sun will reduce lighting on open decks to prevent the birds from becoming disoriented and injured.

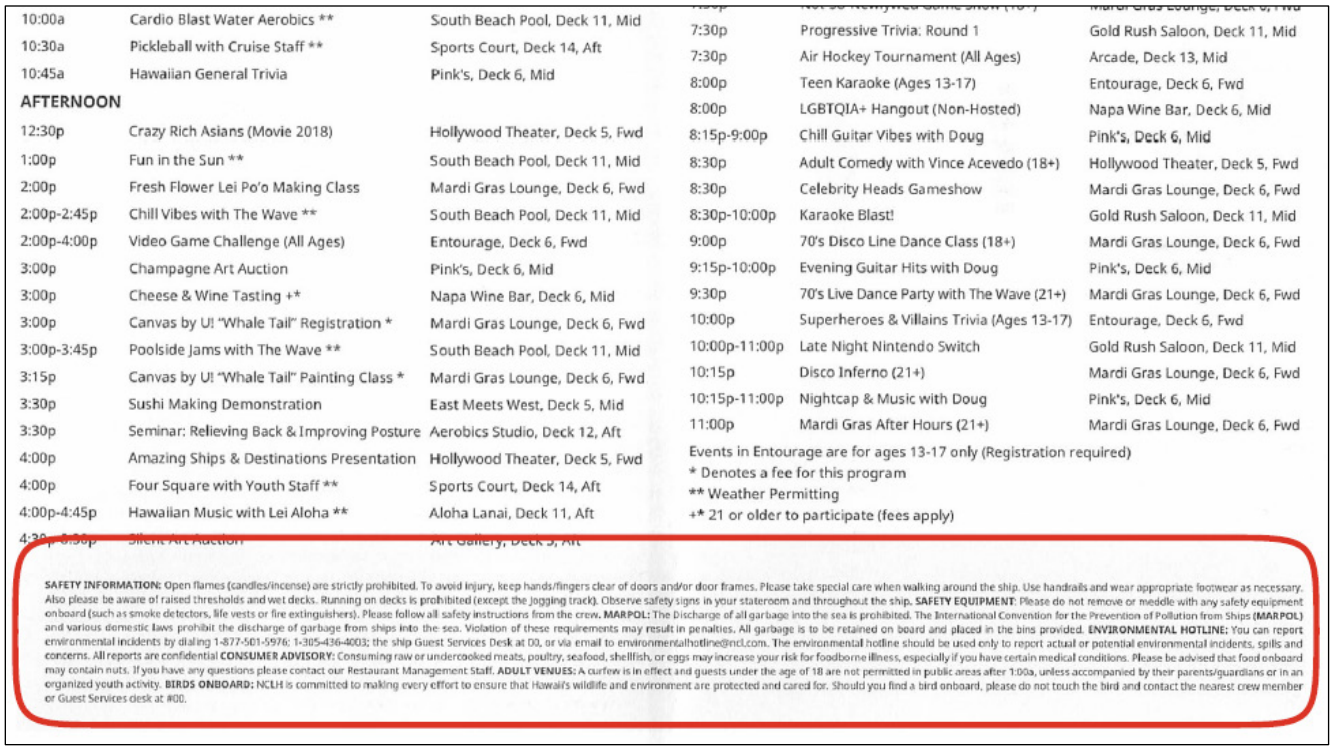
We kindly ask for your support by keeping your balcony lights off and your shades drawn. NCLH is dedicated to protecting Hawaii's wildlife and preserving its natural environment. If you spot an injured bird, please do not touch it. Instead, contact our Reception Desk at telephone #20 for assistance.

NEWLYWED NOT SO NEWLYWED GAMESHOW

How well do you know your better half? Join your Cruise Director Jess as she delves into the lives of our volunteered married couples. This fun, cheeky show will make you laugh and cry at the same time. You may be the couple we're looking for as our next contestants. Auditions for tonight's contestants will happen before the show begins on Deck 6. Get there early if you'd like to take part - you may be the couple we're looking for. Allocated area for wheelchairs is on Deck 6.

Time: 9:00p, Stardust Theater,

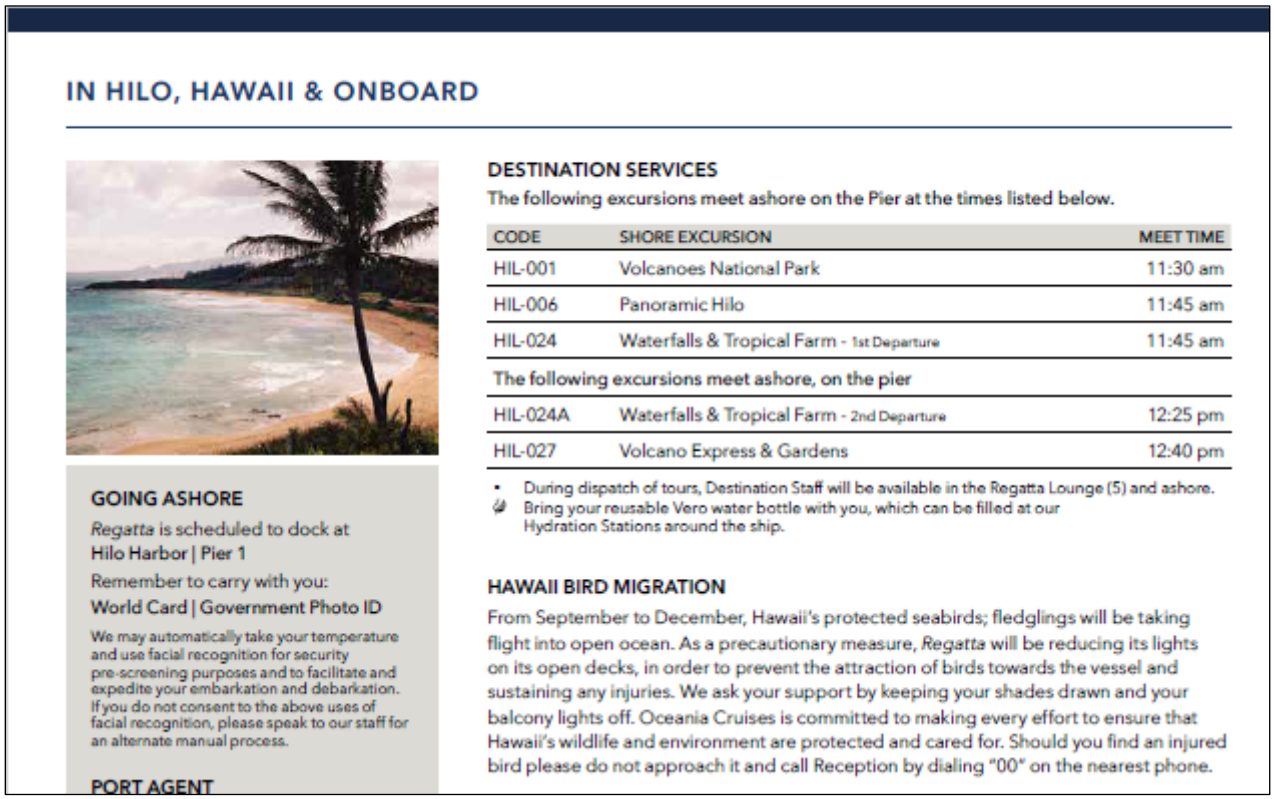
Figure B9. NCL storyboard for new seabird outreach video(top); seabird announcement in Norwegian Sun daily guest newsletter (bottom).



10:00a	Cardio Blast Water Aerobics **	South Beach Pool, Deck 11, Mid
10:30a	Pickleball with Cruise Staff **	Sports Court, Deck 14, Aft
10:45a	Hawaiian General Trivia	Pink's, Deck 6, Mid
AFTERNOON		
12:30p	Crazy Rich Asians (Movie 2018)	Hollywood Theater, Deck 5, Fwd
1:00p	Fun in the Sun **	South Beach Pool, Deck 11, Mid
2:00p	Fresh Flower Lei Po'o Making Class	Mardi Gras Lounge, Deck 6, Fwd
2:00p-2:45p	Chill Vibes with The Wave **	South Beach Pool, Deck 11, Mid
2:00p-4:00p	Video Game Challenge (All Ages)	Entourage, Deck 6, Fwd
3:00p	Champagne Art Auction	Pink's, Deck 6, Mid
3:00p	Cheese & Wine Tasting +*	Napa Wine Bar, Deck 6, Mid
3:00p	Canvas by U! "Whale Tail" Registration *	Mardi Gras Lounge, Deck 6, Fwd
3:00p-3:45p	Poolside Jams with The Wave **	South Beach Pool, Deck 11, Mid
3:15p	Canvas by U! "Whale Tail" Painting Class *	Mardi Gras Lounge, Deck 6, Fwd
3:30p	Sushi Making Demonstration	East Meets West, Deck 5, Mid
3:30p	Seminar: Relieving Back & Improving Posture	Aerobics Studio, Deck 12, Aft
4:00p	Amazing Ships & Destinations Presentation	Hollywood Theater, Deck 5, Fwd
4:00p	Four Square with Youth Staff **	Sports Court, Deck 14, Aft
4:00p-4:45p	Hawaiian Music with Lei Aloha **	Aloha Lanai, Deck 11, Aft
4:30p-5:30p	Silent Art Auction	Art Gallery, Deck 5, Aft
7:30p	Progressive Trivia: Round 1	Gold Rush Saloon, Deck 11, Mid
7:30p	Air Hockey Tournament (All Ages)	Arcade, Deck 13, Mid
8:00p	Teen Karaoke (Ages 13-17)	Entourage, Deck 6, Fwd
8:00p	LGBTQIA+ Hangout (Non-Hosted)	Napa Wine Bar, Deck 6, Mid
8:15p-9:00p	Chill Guitar Vibes with Doug	Pink's, Deck 6, Mid
8:30p	Adult Comedy with Vince Acevedo (18+)	Hollywood Theater, Deck 5, Fwd
8:30p	Celebrity Heads Gameshow	Mardi Gras Lounge, Deck 6, Fwd
8:30p-10:00p	Karaoke Blast!	Gold Rush Saloon, Deck 11, Mid
9:00p	70's Disco Line Dance Class (18+)	Mardi Gras Lounge, Deck 6, Fwd
9:15p-10:00p	Evening Guitar Hits with Doug	Pink's, Deck 6, Mid
9:30p	70's Live Dance Party with The Wave (21+)	Mardi Gras Lounge, Deck 6, Fwd
10:00p	Superheroes & Villains Trivia (Ages 13-17)	Entourage, Deck 6, Fwd
10:00p-11:00p	Late Night Nintendo Switch	Gold Rush Saloon, Deck 11, Mid
10:15p	Disco Inferno (21+)	Mardi Gras Lounge, Deck 6, Fwd
10:15p-11:00p	Nightcap & Music with Doug	Pink's, Deck 6, Mid
11:00p	Mardi Gras After Hours (21+)	Mardi Gras Lounge, Deck 6, Fwd

Events in Entourage are for ages 13-17 only (Registration required)
* Denotes a fee for this program
** Weather Permitting
+* 21 or older to participate (fees apply)

SAFETY INFORMATION: Open flames (candles/incense) are strictly prohibited. To avoid injury, keep hands/fingers clear of doors and/or door frames. Please take special care when walking around the ship. Use handrails and wear appropriate footwear as necessary. Also please be aware of raised thresholds and wet decks. Running on decks is prohibited (except the jogging track). Observe safety signs in your stateroom and throughout the ship. **SAFETY EQUIPMENT:** Please do not remove or meddle with any safety equipment onboard (such as smoke detectors, life vests or fire extinguishers). Please follow all safety instructions from the crew. **MARPOL:** The Discharge of all garbage into the sea is prohibited. The International Convention for the Prevention of Pollution from Ships **(MARPOL)** and various domestic laws prohibit the discharge of garbage from ships into the sea. Violation of these requirements may result in penalties. All garbage is to be retained on board and placed in the bins provided. **ENVIRONMENTAL HOTLINE:** You can report environmental incidents by dialing 1-877-501-5976; 1-305-436-4003; the ship Guest Services Desk at 00, or via email to environmentalhotline@ncl.com. The environmental hotline should be used only to report actual or potential environmental incidents, spills and concerns. All reports are confidential **CONSUMER ADVISORY:** Consuming raw or undercooked meats, poultry, seafood, shellfish, or eggs may increase your risk for foodborne illness, especially if you have certain medical conditions. Please be advised that food onboard may contain nuts. If you have any questions please contact our Restaurant Management Staff. **ADULT VENUES:** A curfew is in effect and guests under the age of 18 are not permitted in public areas after 1:00a, unless accompanied by their parents/guardians or in an organized youth activity. **BIRDS ONBOARD:** NCLH is committed to making every effort to ensure that Hawaii's wildlife and environment are protected and cared for. Should you find a bird onboard, please do not touch the bird and contact the nearest crew member or Guest Services desk at #00.



IN HILO, HAWAII & ONBOARD

GOING ASHORE

Regatta is scheduled to dock at
Hilo Harbor | Pier 1

Remember to carry with you:
World Card | Government Photo ID

We may automatically take your temperature and use facial recognition for security pre-screening purposes and to facilitate and expedite your embarkation and debarkation. If you do not consent to the above uses of facial recognition, please speak to our staff for an alternate manual process.

PORT AGENT

DESTINATION SERVICES

The following excursions meet ashore on the Pier at the times listed below.

CODE	SHORE EXCURSION	MEET TIME
HIL-001	Volcanoes National Park	11:30 am
HIL-006	Panoramic Hilo	11:45 am
HIL-024	Waterfalls & Tropical Farm - 1st Departure	11:45 am
The following excursions meet ashore, on the pier		
HIL-024A	Waterfalls & Tropical Farm - 2nd Departure	12:25 pm
HIL-027	Volcano Express & Gardens	12:40 pm

- During dispatch of tours, Destination Staff will be available in the Regatta Lounge (5) and ashore.
- Bring your reusable Vero water bottle with you, which can be filled at our Hydration Stations around the ship.

HAWAII BIRD MIGRATION

From September to December, Hawaii's protected seabirds; fledglings will be taking flight into open ocean. As a precautionary measure, *Regatta* will be reducing its lights on its open decks, in order to prevent the attraction of birds towards the vessel and sustaining any injuries. We ask your support by keeping your shades drawn and your balcony lights off. Oceania Cruises is committed to making every effort to ensure that Hawaii's wildlife and environment are protected and cared for. Should you find an injured bird please do not approach it and call Reception by dialing "00" on the nearest phone.

Figure B10. NCL seabird announcements in daily newsletters for guests, Pride of America (top) and Oceania Regatta (bottom).



Figure B11. Kaua‘i Resort (Sonesta) seabird educational sign in the main lobby (right); seabird cards placed in all guest rooms (bottom)

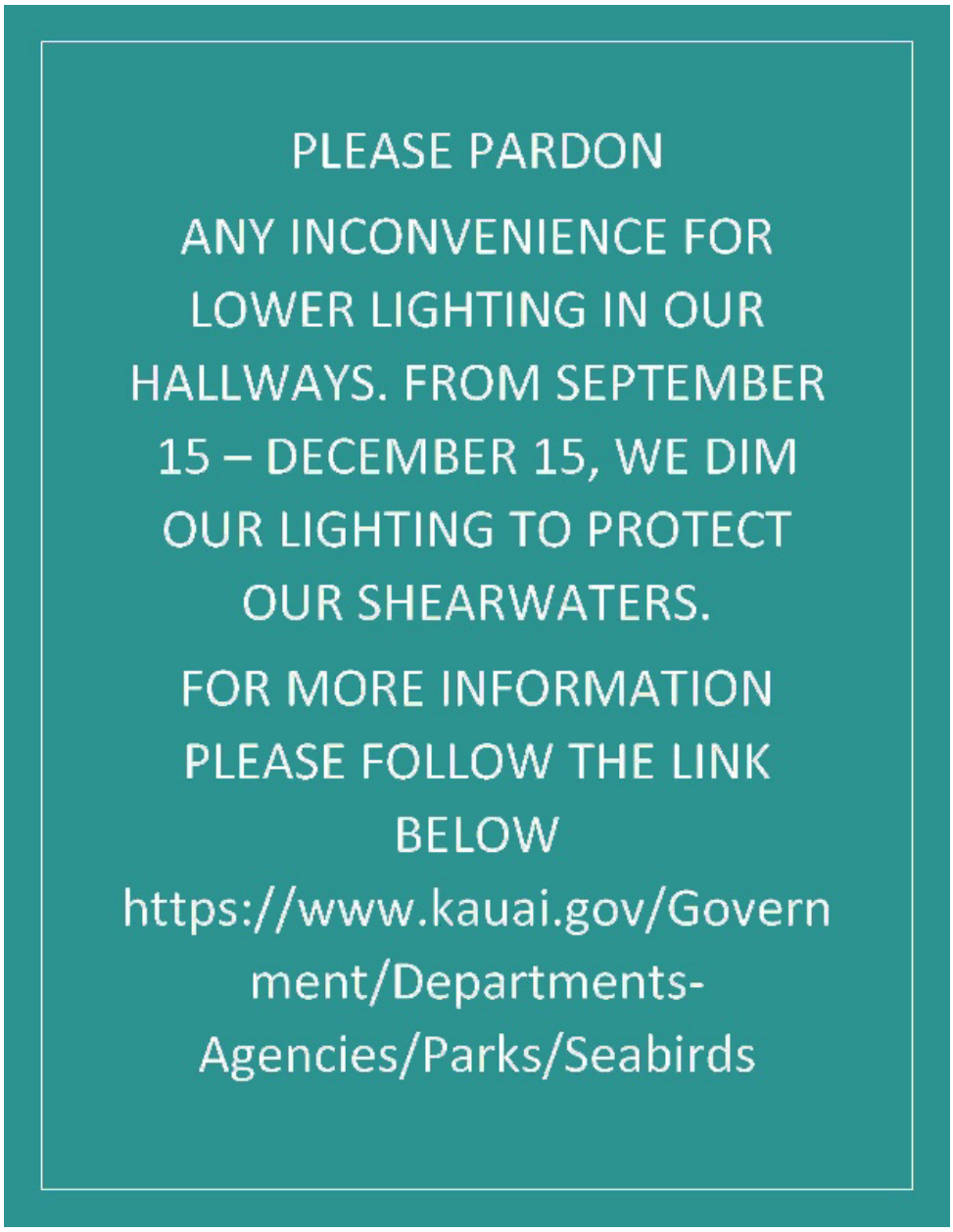


Figure B12. Kaua‘i Resort (Sonesta) educational signs placed at all elevator landings, 2025.



Figure B13. 1 Hotel Hanalei Bay ARC seabird fallout poster, posted near the employee entrance.

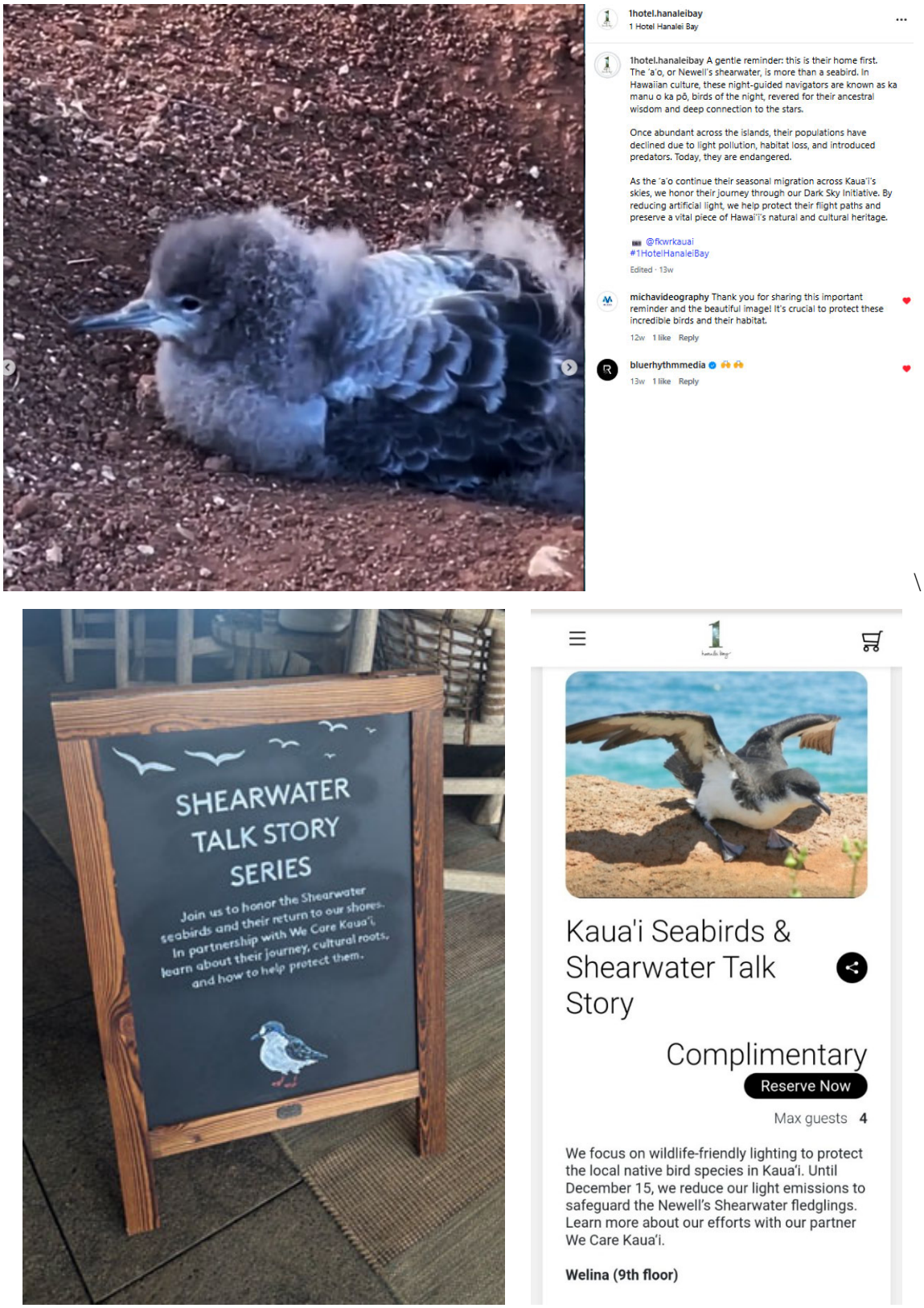


Figure B14. 1 Hotel Hanalei Bay social media post, November 2025; Shearwater Talk Story sign and online registration form for guests.



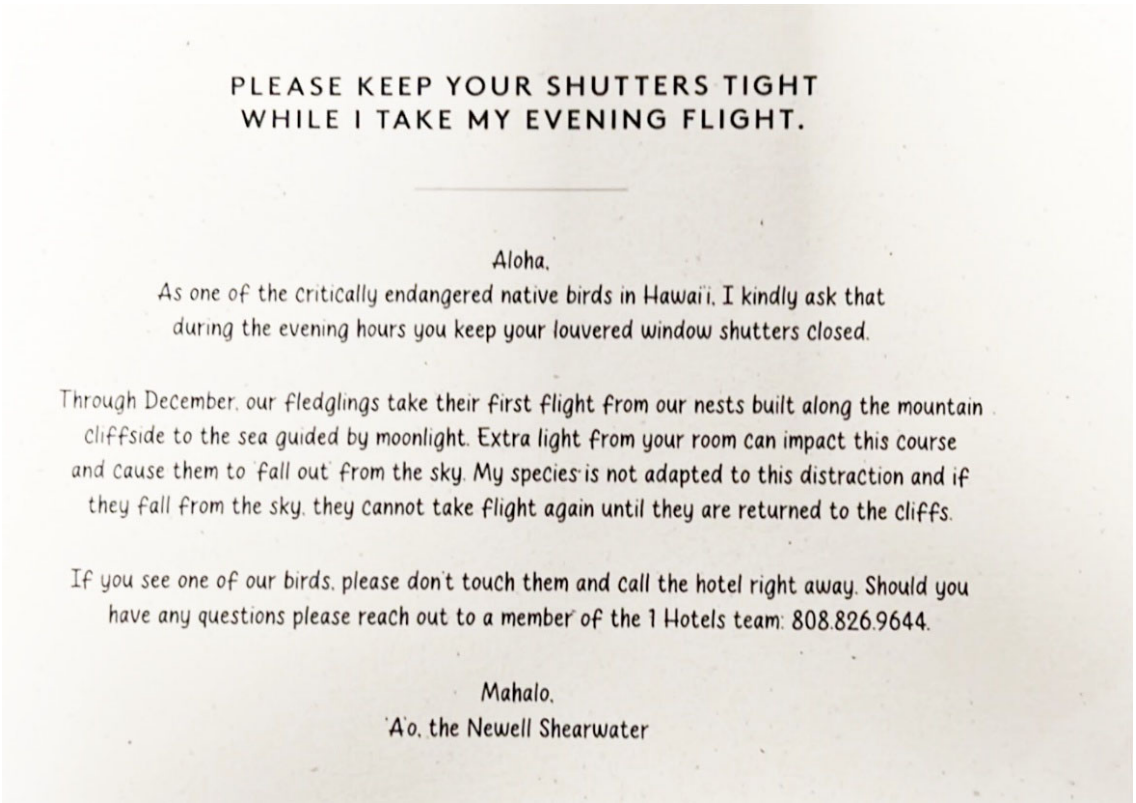


Figure B15. 1 Hotel Hanalei Bay, seabird room card, front and back



Figure B16. Sheraton Kauai Resort seabird education sign, near beach walkway, 2025.

MĀLAMA HAWAI'I

In partnership with the Hawai'i Department of Land and Natural Resources & Division of Forestry and Wildlife, we take pride in our continued efforts to protect Kauai's natural resources and native Hawaiian species.

DO'S + DONT'S

- Do report down birds immediately
- Do not handle the bird unnecessarily, they are easily stressed and can overheat.
- Do not give food or water to the bird.
- Do not attempt to release the bird yourself. It may have internal injuries or be too tired or week to survive. Throwing the bird into the air could cause more injury. Let the trained Save Our Shearwaters Staff members examine the bird and decide when, where and how to let it go.
- Do not feed the cats. Feral cats, in particular, is a predator that poses a severe threat to these bird populations

KEIKI ACTIVITY BOOKS

Seabird informational activity books available at the Front Desk.

DOWNED SEABIRD RESPONSE PROTOCOLS

Reward $250 Dining or Room Credit

Eligibility:

1. If you find a grounded seabird on property, a person must stay with the bird to keep it safe.
2. Contact (808) 742-1661 or dial (0) from a house phone to connect with a Hotel Operator.
3. Describe the birds location.
4. Wait for the Security Officer to arrive. They will collect your contact information and safely retrieve the bird.

If there are multiple guests involved, a $250 award will be split amongst the group.

OFF-PROPERTY SITING OR MORE CONTACT INFO:

- Kauai Division of Forestry and Wildlife (808) 274-3433
- Save our Shearwaters Program (808) 635-5117

SHERATON KAUAI RESORT
2440 HOONANI ROAD
KOLOA, HAWAI'I 96756

SHERATON
Kauai Resort

PROTECT OUR SHEARWATER

Fledgling Season Begins
September 15 to December 15



To protect kauai's native wildlife let's work together to save the seabirds. They can become grounded by flying toward artificial lighting. Please follow the procedures outlined here.

Figure B17. Sheraton Kauai Resort seabird guest brochure, placed in all guest rooms during seabird fledging season.

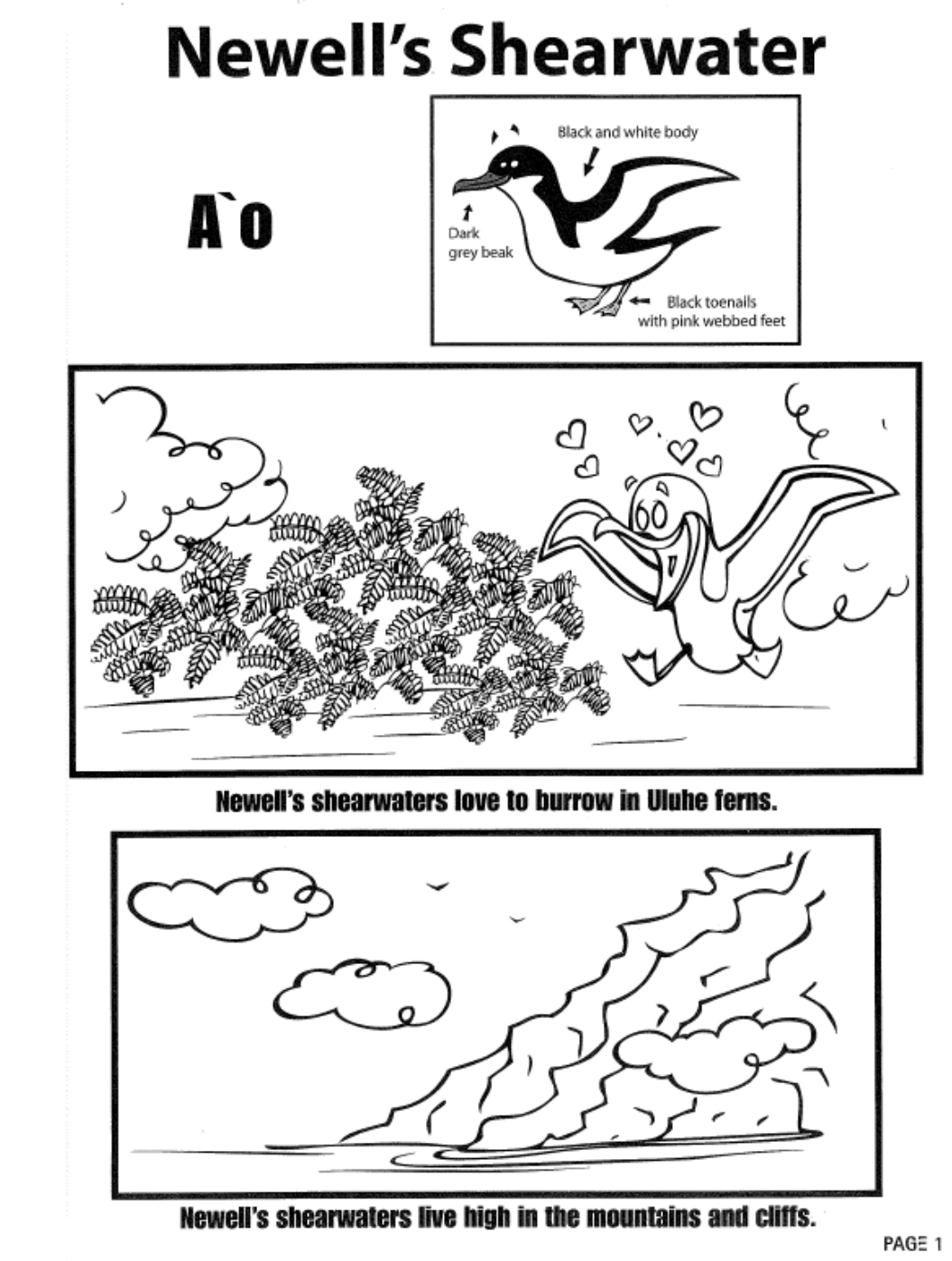


Figure B18. Sheraton Kaua‘i Resort seabird coloring page for keiki guests.

Appendix C. National Fish and Wildlife Foundation (NFWF) Statement of Financal Activity

National Fish and Wildlife Foundation
STATEMENT of FINANCIAL ACTIVITY*

Account Name:	**Kaua'i Seabird Habitat Conservation Plan (KSHCP) Operating Account**
Account Partner:	KSHCP Participants
Account Number:	IM.A172
Account Expiration Date:	June 15, 2050
Reporting Period:	October 1, 2024 - September 30, 2025

ACCOUNT SUMMARY:

Credits:	$413,639.54
Project Disbursements:	$157,835.17
Administrative Expenses:	$3,333.11
Cash Balance at End of Period:	**$252,471.26**

ACCOUNT DETAILS:

I. Credits

	Amount	Date
Account Balance from Previous Period	$148,794.95	10/1/2024
Deposits		
Marriott	$26,743.88	10/23/2024
NCL Corporation	$9,871.27	5/29/2025
Alexander & Baldwin	$34,220.39	6/9/2025
Sofxi Kauai	$41,130.28	6/11/2025
Kalapaki Beach	$10,858.39	6/6/2025
Kauai Coffee Co.	$11,187.44	6/12/2025
State of Hawaii	$26,743.88	6/19/2025
County of Kaua'i	$90,815.65	7/9/2025
Investment Activity	$13,273.41	
Total Credits:	**$413,639.54**	

Statement of Financial Activity Page 1 of 4

II. Expenses

Project Disbursements		$157,835.17 *details below*
Management Fee (greater of 2% or $1,000[1])		$3,333.11
	Total Expenses:	**$161,168.28**

PROJECT DISBURSEMENT DETAILS:

Name of Recipient	Name of Project	Project Number	Amount Budgeted	Disbursements
Pacific Rim Conservation	KSHCP Conservation Plan Mitigation Site	8006.21.071156	$157,835.17	$157,835.17
State of Hawaii, Department of Land and Natural Resources	KSHCP Conservation Plan Mitigation Site	8006.24.085478	$0.00	$0.00
		TOTAL Project Expenses:	**$157,835.17**	**$157,835.17**

1 As expressed in calendar year 2020 dollars.

National Fish and Wildlife Foundation
STATEMENT of FINANCIAL ACTIVITY*

Account Name:	**Kaua'i Seabird Habitat Conservation Plan (KSHCP) Reserve Account**	
Account Partner:	KSHCP Participants	
Account Number:	IM.A173	
Account Expiration Date:	June 15, 2050	
Reporting Period:	October 1, 2024 - September 30, 2025	**Annual Audit has not been completed for Reporting Period*

ACCOUNT SUMMARY:

Credits:	$916,193.52
Project Disbursements:	$0.00
Administrative Expenses:	$8,897.00
Cash Balance at End of Period:	**$907,296.52**

ACCOUNT DETAILS:

I. Credits

	Amount	Date
Account Balance from Previous Period	$857,097.83	10/1/2024
Deposits		
Marriott	$9,759.97	10/23/2024
State of Hawaii	$9,759.97	6/19/2025
Investment Activity	$39,575.75	
Total Credits:	**$916,193.52**	

II. Expenses

Project Disbursements	$0.00	*details below*
Management Fee (greater of 1% or $1,000[1])	$8,897.00	
Total Expenses:	**$8,897.00**	

PROJECT DISBURSEMENT DETAILS:

Name of Recipient	Name of Project	Project Number	Amount Budgeted	Disbursements
Pacific Rim Conservation	KSHCP Conservation Plan Mitigation Site	8006.21.071156	$0.00	$0.00
	TOTAL Project Expenses:		**$0.00**	**$0.00**

1 As expressed in calendar year 2020 dollars.