
Hōkūala Habitat Conservation Plan Annual Report: July 1, 2022 – June 30, 2023 (FY 2023)



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Outline of the Document

In the first section of this report, we present updates on compliance with all the terms and conditions included in the HCP (Ebbin, Moser + Skaggs LLP and Rana Biological Consulting, Inc. 2009). This section includes the specific reference to each topic in the HCP for clarity. In the second section, we present detailed information and data associated with each of the topics addressed in the first section of the document.

Section 1

Introduction and Background

In 2012, the U.S. Fish and Wildlife Service (USFWS) and the Hawaii Department of Land and Natural Resources (DLNR)/Division of Forestry and Wildlife (DOFAW) approved the Habitat Conservation Plan (HCP) prepared by Kauai Lagoons LLC and issued to Kauai Lagoons an Incidental Take Permit (ITP) and Incidental Take License (ITL), respectively. The effective date of those incidental take authorizations was April 12, 2012 for the ITL and November 9, 2012 for the ITP. On January 1, 2016, the former Marriott Vacation Resort known as Kauai Lagoons was transferred to Tower Kauai Lagoons LLC and renamed Hōkūala Resort. The USFWS transferred the ITP to the new owner in December 2016. The ITL transferred to the new owner automatically as the ITL runs with the land.

Section 4.5 of the HCP requires that the permit holder produce and submit an annual HCP compliance and monitoring report to both agencies by September 30 of each year. Per DOFAW's request, annual reports will be submitted by August 1 of each year and cover the period from July 1 to the following June 30.

HCP Sections and Specific Obligations

One-Time Obligations

Nēnē Mitigation Payment (HCP Section 4.4.1.6)

Requirement: A one-time payment of \$85,000 to the DLNR Endangered Species Trust Fund. DLNR is to use these funds to control predators and/or manage Nēnē at a translocation site.

Status: Completed (May 2012)

Ongoing Obligations

Financial Assurances (Section 6.4)

Requirement: Post a bond or letter of credit (LoC) in the amount of \$153,667. Under Section 7.2 of the HCP Implementing Agreement, the bond term must be two years, and a Continuation Certificate must be sent to DLNR (and a copy to USFWS) at least six months prior to expiration of the bond or LoC.

Status: The current bond was issued June 6, 2023. Attachment A is a copy of the invoice for this bond. Tower Lagoons Land, LLC has committed to including a line item for HCP implementation in its annual operating budget for the life of the HCP.

Training (“Endangered Species Awareness Program”) (Section 4.2.1.1)

Requirement: All new employees hired by the resort operators and any contractors conducting construction activity on the property must go through the training program as detailed in the HCP.

Status: Attachment B contains the updated training module used for the 2022-2023 season. Alan Silva trained all new employees prior to their starting at the resort. A refresher training class is also given to most employees each year.

Construction Contract Provisions (Section 4.2.1.2)

Requirement: Develop provisions and restrictions to avoid and minimize take of Covered Species and insert these Contract Provisions into all new construction contracts.

Status: New construction was initiated in January of 2016 and all construction contracts contained provisions and restrictions to avoid and minimize take of Covered Species. Construction has been ongoing throughout the reporting period and all contracts awarded since re-initiation of construction in 2016 contain the required provisions and restrictions.

Pre-Construction Surveys (Section 4.2.1.3)

Requirement: A biological monitor must survey any new mass grading areas immediately prior to mass grading.

Status: Grading and footings occurred for Lot 4 (15 acres) from July 2022 through December 2022.

Biological Monitor (Section 4.2.1.4)

Requirement: Designate two biological monitors.

Status: The two monitors designated in the HCP (Alan Silva and Reginald David) remain the designated biological monitors.

Construction Monitor (Section 4.2.1.5)

Requirement: Use one or more construction monitors during periods of active grading or earth moving.

Status: Construction grading and footings occurred during this reporting period. One full-time and two part-time monitors monitored construction activities daily during this reporting period. A second full-time biological monitor will be hired in FY 2024.

Fencing (Section 4.2.1.6)

Requirement: Where feasible, erect and maintain solid fencing around discrete construction areas to prevent Covered Species from traveling into these areas.

Status: Prior to the onset of work this past season, all grading sites were surrounded by eight-foot-high construction fencing.

Best Management Practices (Section 4.2.1.7)

Requirement: Implement the specific BMPs contained in Section 4.2.1.7 (e.g., speed limits, signage, trash receptacles).

Status: In compliance.

Roadways (Section 4.2.2.1)

Requirement: Post permanent speed limit and Covered Species warning signs, and speed bumps as necessary.

Status: Done and in compliance.

Lighting (Section 4.2.2.2)

Requirement: Ensure that lighting associated with construction of new structures is bird friendly. As new buildings near completion, a qualified biologist is to inspect lighting after dark to ensure light attraction has been minimized to the maximum extent practicable. Analyze onsite seabird fallout on an ongoing basis to determine if particular areas within the resort attract downed birds on a regular basis; if so, take steps to redesign, reconfigure, or eliminate sources of presumed attracting light.

Status: In compliance.

In June of 2018, the new Timbers Kauai Ocean Club & Residences complex was finished and opened (Cover image, and Figure 1). During the reporting period, Ninini Point-Laola Nani Townhomes (12 units on two pads) were under construction as well as the tennis and pickleball courts at Lot 800 (golf parking lot). During the design phase of the project, a seabird biologist consulted with the electrical and lighting engineers and designers to ensure that lighting associated with the facilities were fully Dark Sky Compliant and as bird friendly as possible. Prior to the opening of the new facility, the biologist conducted a night-time audit of the property, which identified a small number of lights that could be improved. Those improvements and/or modifications were completed prior to the 2018 seabird fallout season.

A lighting audit was conducted in FY 2024 and necessary changes will be made prior to the 2024 seabird fallout season.



Figure 1 Timbers Kauai Ocean Club & Residences

Grounds Management and Maintenance (Section 4.2.2.3)

Requirement: Grounds management crews must go through the training described in Section 4.2.1.1 and must coordinate with the biological monitors as needed.

Status: All employees have received training and communicate effectively and proactively with the biological monitors over potential issues with endangered avian species.

Rules, Education for Resort Owners and Renters (Section 4.2.2.4)

Requirement: Covenants, Conditions and Restrictions (CC&Rs) will address issues such as trash receptacles, trash disposal, landscape design, etc. Endangered species information and education tools will be developed to educate owners and visitors regarding endangered species issues, restrictions, and special seasonal protocols.

Status: In compliance. Additionally, in FY 2022, the HCP staff started leading bird and farm tours on the resort for guests and visitors. A brochure and check-list is given to tour participants regarding the birds and organic farm (Attachment D). This brochure and check-list will be revised in the future to reflect a unified outreach and property brand and message.

Golf Operations (Section 4.2.2.5)

Requirement: Golf course starters and marshals must attend additional training from the Biological Monitors in addition to the standard training described in 4.2.1.1. Morning briefings for golf course personnel will include updates on Covered Species presence. The starter will inform each golfer about the potential presence of Covered Species and appropriate precautions to take. An educational kiosk will be established at the starter location and all golf carts will contain a placard replicating information from the kiosk. Warning signs will be posted if a Covered Species establishes a nest within the golf course and the golf course will establish a local rule for golf play to allow movement of a ball away from nest areas.

Status: Done and in compliance. The Biological Monitor provides a refresher endangered species training course to the golf course starter each year. The Biological Monitor provides updates on the presence of Covered Species to golf course personnel (manager on duty for golf operations, superintendent, and starter) every day. The manager on duty for golf operations, superintendent, and starter are responsible for daily morning briefings to inform all golf course staff of the presence of Covered Species. An educational kiosk (sign) was posted at the starter location in 2014 and each golf cart contains a placard that replicates that information. Every golf cart has a Pace Technology GPS system installed (<https://ezgo.txtsv.com/fleet/why-e-z-go/pace-technology>) that maps locations of current nests of Covered Species (and other pertinent information). The GPS system flashes a “warning” sign if the cart approaches a nest, slows the golf cart to 5 mph or less when it is near a Covered Species, and stops the cart from proceeding on a route that would approach a Covered Species (See Attachment E for more information about Pace Technology). The Biological Monitor provides information on Covered Species to the Club House as soon as the data are gathered. Club House staff program the GPS system.

Maintenance of On-Site Nesting Areas (Section 4.4.1.2)

Requirement: Previously enhanced nesting areas shall not be maintained, and supplemental grain feeders shall not be provided on lagoon islands. Limited areas of the resort grounds will be managed and maintained as determined and directed by DOFAW and USFWS.

Status: In compliance.

Emergency Response Protocol (Section 4.4.1.4)

Requirement: Implement the protocol contained in HCP, Appendix I.

Status: In compliance.

Facilitate DOFAW removal of Nēnē (Section 4.4.1.5)

Requirement: As appropriate, lend support to DOFAW efforts to capture and translocate Nēnē.

Status: In compliance. DOFAW’s Nēnē capture and translocation efforts ended on March 20, 2016. Hōkūala continues to provide regular access and golf carts to DOFAW staff for their use in DOFAW’s Nēnē and waterbird surveys. See Section 2 regarding the initiation of the US. Department of Agriculture–Wildlife Services (USDA-WS) Nēnē hazing efforts, which utilizes border collies. The USDA-WS hazing effort started on June 24, 2019, and has continued since.

Predator Control (Section 4.4.2)

Requirement: Deploy ten live traps during the period September 15 to March 15 in areas of the property frequented by waterbird Covered Species. Check live traps every 48 hours and deliver trapped cats to the Kauai Humane Society. Deploy rodent bait stations in these same areas during this same time frame and control cattle egrets and feral chickens.

Status: Hōkūala surpassed the permit requirements during this reporting period. Predator control at Hōkūala is a year-round effort. The flexible program shifts resources in response to the presence, density, and “trapability” of predators throughout the resort. Hōkūala maintains 20 live traps used for cats, 29 live traps used for chickens, one trap used for pigs, and three traps for bullfrogs. The predator control program relies on directed trapping—traps are deployed in specific locations and at specific times of the year in response to observations of predators. All traps are checked daily. A permit for egret removal expired years ago, but has not yet been renewed.

A total of 26 cats, 22 pigs, and 1,149 chickens were removed from the property during this reporting period. For details see Section 2.

Seabird Mitigation Payments (Section 4.4.3; HCP Amendment of September 2013)

Requirement: Contribute \$10,000 annually to the Listed Hawaiian Seabird Conservation Account administered by the National Fish and Wildlife Foundation.

Status: A check in the amount of \$10,000 was sent to NFWF on September 15, 2022, to cover the upcoming season.

Nēnē Monitoring During Nesting Season (Section 4.5.3)

Requirement: Biological monitors to monitor Nēnē nesting activity and nesting success daily starting September 15 and ending on March 31 each year. Monitoring data to be collected include band numbers, pair bonds, nest location, eggs laid, eggs hatched, goslings fledged, and reported mortalities. In addition, perform monthly monitoring during the remainder of the year (April through August), recording the number of Nēnē on the property and observed band numbers.

Status: In compliance; refer to Section 2. Nene monitoring is done year-round on a daily basis

Waterbird Monitoring (Section 4.5.4)

Requirement: As part of the comprehensive Nēnē monitoring effort, the biological monitors will also record information on all observed waterbird species on a weekly basis between September 15 and March 31 of each year, and monthly from April through August of each year. This effort is to include observations regarding waterbird species numbers, nest locations, eggs laid, eggs hatched, chicks fledged, and reported mortalities.

Status: We have surpassed the requirement and survey on a bi-weekly basis year-round; refer to Section 2.

Seabird Monitoring (Section 4.5.5)

Requirement: Hōkūala security staff will record all downed seabirds recovered on the property. Biological monitors will evaluate security staff search efficiency and carcass removal rates. Biological monitors will record results of their additional searches performed during the expected peak of the seabird fallout season.

Status: Both security personnel and the onsite biological monitors were re-trained in seabird search and handling techniques prior to the start of the 2022 fallout season. Security personnel conducted searches on an ongoing basis as part of their usual patrols of the grounds and buildings. The biological staff searched the buildings and surroundings every morning for downed seabirds during the September 15 – December 15 fallout season.

Incidental Take Reporting

Based on a review of records, and discussions with Hōkūala, USFWS and DOFAW have prepared a spreadsheet documenting all reported instances of downed, injured, or dead birds at Kauai Lagoons/Hōkūala since the inception of the HCP. Table 1 is a summary of the information contained in the spreadsheet pertaining to the current reporting period.

Table 1. Take and Outcome of Take July 1, 2022 – June 30, 2023.

<i>Date</i>	<i>Common Name</i>	<i>Outcome Dead or Alive</i>	<i>Indirect Take</i>
8-2-22	Hawaiian Duck	Dead	
9-29-22	Nēnē	Dead	
10-3-22	Hawaiian Coot	Dead	
10-4-22	Hawaiian Gallinule	Dead	
10-18-22	Hawaiian Gallinule	Dead	
10-20-22	Newell's Shearwater	Injured	
11-8-22	Hawaiian Gallinule	Injured	
11-19-22	Hawaiian Gallinule	Dead	
11-23-22	Hawaiian Coot	Dead	
12-17-22	Hawaiian Gallinule	Injured	
3-4-23	Hawaiian Coot	Dead	
3-19-23	Nēnē (gosling)	Injured	
6-28-23	Nēnē (adult)	Dead	

Between July 1, 2022, and June 30, 2023, Hōkūala experienced the direct incidental take of 6 Hawaiian Coot, 7 Common Gallinule, and two Nēnē (Table 1).

Indirect take is defined as the loss of parental care due to parent mortality during the breeding season resulting in the indicated additional take calculated as the probability that if the adult had not been killed a potential nest would have produced the number of adults indicated.

From the effective date of the state and federal take authorizations through June 30, 2022, total direct and indirect incidental take under the HCP is presented in Table 2.

Table 2 Hōkūala Direct and Indirect Take from Permit Inception Through June 30, 2023.

<i>Species</i>	<i>Scientific Name</i>	<i>Direct Take</i>	<i>Indirect Take</i>
Hawaiian Goose (Nēnē)	<i>Branta sandvicensis</i>	4	
Common (Hawaiian) Gallinule	<i>Gallinula galeata sandvicensis</i>	28	
Hawaiian Coot	<i>Fulica alai</i>	31	
Hawaiian Duck	<i>Anas wyvilliana</i>	6	
Black-necked (Hawaiian) Stilt	<i>Himantopus mexicanus knudseni</i>	0	
Newell’s Shearwater	<i>Puffinus newelli</i>	8	
Hawaiian Petrel	<i>Pterodroma sandwichensis</i>	0	
Band-rumped Storm-Petrel	<i>Oceanodroma castro</i>	0	

Table 3– Hōkūala Permitted Take Approved in the ITP and ITL Issued in 2012.

<i>Species</i>		<i>Mortality</i>	<i>Non-Lethal</i>
Hawaiian Goose (Nēnē)	<i>Branta sandvicensis</i>	17	Or Non-Lethal
Common (Hawaiian) Gallinule	<i>Gallinula galeata sandvicensis</i>	40	30
Hawaiian Coot	<i>Fulica alai</i>	110	180
Hawaiian Duck	<i>Anas wyvilliana</i>	36	Or Non-Lethal
Black-necked (Hawaiian) Stilt	<i>Himantopus mexicanus knudseni</i>	38	Or Non-Lethal
Newell’s Shearwater	<i>Puffinus newelli</i>	27	Or Non-Lethal
Hawaiian Petrel	<i>Pterodroma sandwichensis</i>	1	Or Non-Lethal
Band-rumped Storm-Petrel	<i>Oceanodroma castro</i>	<1	Or Non-Lethal

Section 2

In this section we present detailed information on the activities associated with managing the Nēnē and other waterbird species on the property, including, nesting, production, recruitment, and banding, as well as predator control, mortalities, and minimization measures implemented.

Nēnē Nesting Observations

Between July 1, 2022 and June 30, 2023, the Nēnē (*Branta sandvicensis*) nesting season resulted in 25 Nēnē nests from 25 different pairs on Hōkūala property. The season began in mid-September. Gravid females were observed, and the first nest was located on October 25, 2022. Subsequent nests were found through January 3, 2022. Nēnē pairs were monitored daily from September through June and data were compiled into an Excel database. The monitoring data include: Nēnē pairs (bands when present), nest viability and gosling survivability, banding, avian mortalities, waterbird surveys, and predator trapping summary.

The 25 Nēnē nests (only 23 found) produced 74 eggs, of which 65 hatched for an average hatch rate of 88 percent. Of these 65 hatchlings, 50 survived to fledge, a hatchling survival rate of 77 percent (Table 4).

Table 4 Nēnē Egg Production and Survivorship at Hōkūala July 1, 2022 – June 30, 2023.

<i>Eggs Laid</i>	<i>Eggs Hatched</i>	<i>Hatch Rate</i>	<i>Goslings Fledged</i>	<i>Hatchling Survival Rate</i>	<i>Eggs Fledged Rate</i>
74	65	88%	50	77%	68%

During the 2022-2023 nesting season, 88 percent of nests were successful in that they hatched at least one gosling (Table 5). Two nests failed to hatch any eggs and one nest was abandoned. Two nests were not found, but the pairs were seen with goslings. For one pair, goslings were seen only once and then not again (Table 5). A representation of the nest locations is depicted in Figures 2 through 5.

Failed eggs were collected, measurements taken, and viability determined by examining the contents of each egg. Four of the nine failed eggs were found to be infertile when examined after collection. Three eggs had a fully developed gosling, and one egg had a partially developed gosling. One egg was found cracked and hollow inside. Detailed info on egg fates is presented in Table 6. Details on the nests, timing, bird band numbers, and locations of the nests are detailed in Table 7

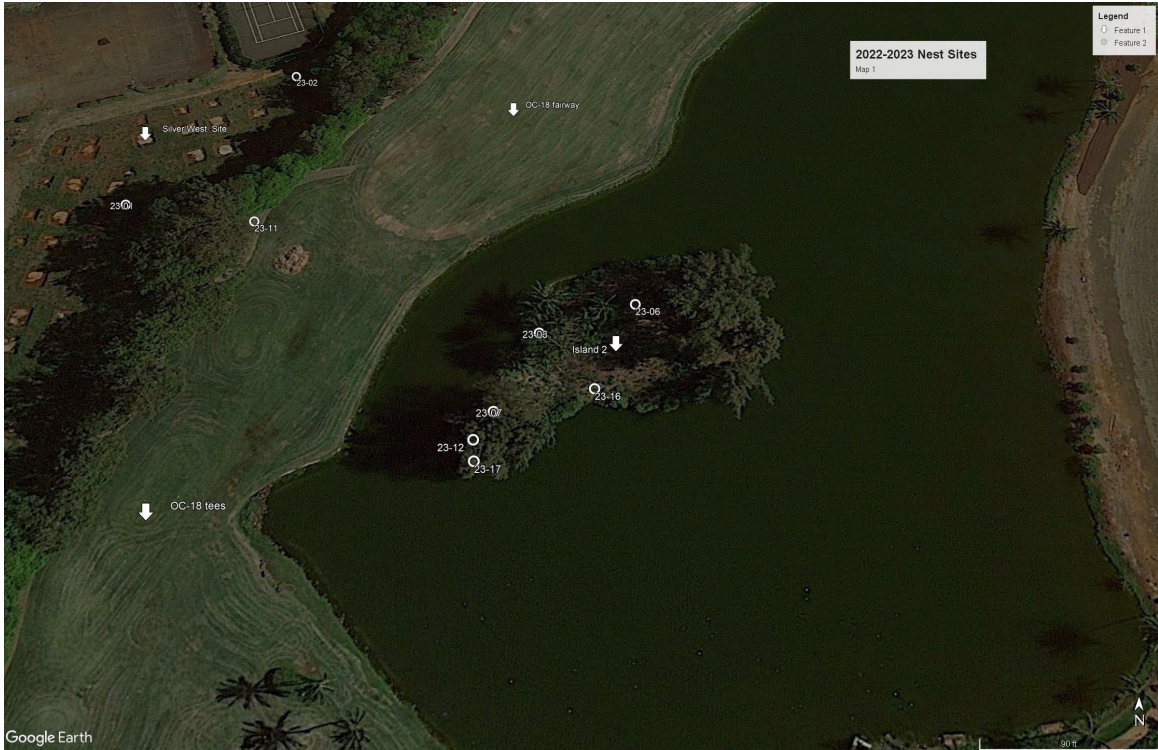


Figure 2 Nēnē Nest Sites, Island 2, Main Lagoon - 2022-2023 Season.



Figure 3 Nēnē Nest Sites, Island 1, Main Lagoon - 2022-2023 Season



Figure 4 Nēnē Nest Sites, Islands 5, 6, 7, and other locations, Main Lagoon - 2022-2023 Season.



Figure 5 Nēnē Nest Sites, Farm - 2022-2023 Season.

Table 5 Nēnē Nest and Egg Fates July 1, 2022 – June 30, 2023.

<i>Nest Fates</i>			<i>Egg Fates</i>		
		<i>Percentage</i>			<i>Percentage</i>
Hatched	22	88%	Hatched	65	88%
Abandoned	1	4%	Abandoned	0	--
Disappeared	0	--	Disappeared	0	--
Predated	0	--	Predated	0	--
Smashed	0	--	Smashed	0	--
Failed to Hatch	2	8%	Failed to Hatch	9	12%
Total Nests	25	100%	Total Eggs	65	100%

Table 6– Un-hatched Nēnē Eggs Fates July 1, 2022 – June 30, 2023.

<i>Nest #</i>	<i>Pair</i>	<i># Un-hatched eggs</i>	<i>Length (mm)</i>	<i>Width (mm)</i>	<i>Weight (g)</i>	<i>Diagnosis</i>
23-02	bZAH(m)- bRRK(f)	1	81.96	56.13	117	Partially developed
23-05	bHTZ-bNXE	1	Egg	cracked		Fully developed
		2	Egg	cracked		Fully developed
		3	83.4	55.54	117	Infertile
23-06	bTPZ-bPKU	1	82.90	55.83	79	Infertile
23-12	bNZU-bJCY	1	85.44	55.33	102	Fully developed
23-21	Fed(m)-unb(f)	1	82.20	53.24	112	Infertile
		2	81.73	53.31	107	Infertile
23-23	brRE-y944	1	N/A	N/A	N/A	Hollow, nothing in it, cracked shell only

Table 7 2022-2023 Hōkūala Nēnē Nesting Season.

<i>Date Found</i>	<i>Nest #</i>	<i>Pair ID</i>	<i>UTM</i>	<i>Eggs/hatched</i>	<i>Survey Fledged</i>	<i>Nest Location</i>
10-25-22	23-01	bRRP-bZAN	009	3/3	1	0464370-2428507
10-31-22	23-02	bZAH-bRRK	010	2/3	2	0464164-2428512
11-10-22	23-03	bRXZ-bJCR	012	4/4	4	0464224-2428445
11-21-22	23-04	Unbanded pair	014	3/3	0	0464121-2429691
11-22-11	23-05	bHTX-bNXE		0/3	0	no GPS point
11-22-22	23-06	bTPZ-bPKU	015	3/3	3	0464266-2428445
11-22-22	23-07	bPAE-bKCY	016	3/4	3	0464226-2428437
11-22-22	23-08	bHRJ-bHRK	017	3/3	2	0464766-2428734
11-22-22	23-09	bTPK-bTZR	018	3/3	3	0464742-2428716
11-22-22	23-10	bUPN-bRTN	019	3/3	3	0464861-2428695
12-7-22	23-11	bZAE-bRRZ	022	3/3	1	0464865-2428660
12-7-22	23-12	bNZU-bJCY	023	2/3	2	0464264-2428450
12-14-22	23-13	bJEH-bKEC	025	3/3	3	0464466-2428694
12-19-22	23-14	bHRN-bRRU	024	3/3	1	0464374-2428507
12-20-22	23-15	bHTX-bNXE	026	3/3	2	0464477-2428686
12-20-22	23-16	bZYJ-bNZH	027	3/3	2	0464254-2428436
12-20-22	23-17	unb(m)-bZAC	028	4/4	6	0464230-2428432
12-27-22	23-21	Fed/m-Unb/f	032	0/2	0	0464443-2428755
12-29-22	23-22	bTZT-bYTY	033	2/2	2	0464482-2428747
1-3-23	23-23	bRRE-y944	none	0/1	0	no GPS point

In addition to the 25 pairs that nested, and their 50 surviving goslings, an additional 50 state-banded Nēnē, one federal banded Nēnē, and approximately 12 un-banded Nēnē utilized the property during this reporting period (Table 8). During the season, biologists from DOFAW, with the assistance of Hōkūala biologists, banded a total of 59 Nēnē, 53 of which were hatch year goslings, one was an adult, and one was a re-banded adult. All bands recorded for this reporting season are presented in Table 8.

**Table 8 Band Codes of Nēnē observed at Hōkūala 2022-2023
(Includes birds banded this season).**

oEEK	oEKT	oJAH	oJCH	oJCU
oEKN	oEKU	oJAJ	oJAZ	oJCE
oEKP	oHAE	oJAR	oHYP	oJEU
oEZT,	oHAH	oJAU	oJCP	oJAT
oEZU	oEZZ	oJAX	oEKX	oEKY
oEZX,	oHAA	oJCJ	oEKZ	oJCK
oEZY	oHAC	oHZZ	oHZU	oJCT
oEZN	oHAJ	oJAE	oHZX	
oJAK	oHAK	oJAA	oHZY	
oEZR,	oHAN	oJAP	oJZC,	
oEKR	oEZP	oHYR	oJAN	

The composition of birds at Hōkūala has changed significantly over the past several years because DLNR-DOFAW removed 650 Nēnē from the property between 2011 and 2016, and a Nēnē hazing program using trained dogs to maintain the Lihue runway free of birds was implemented in 2019. Therefore, a comparison of metrics from the last eleven seasons to those collected from the onset of the program is not indicative of the success or failure of implementation of the HCP. The flock of Nēnē that were present on the site prior to the removal of animals was a mature flock that comprised all age groups of birds—some as old as 22 years. Nēnē from that flock were the dominant species on the property and the flock controlled where and how many other waterbirds were present.

Since removal of Nēnē, the densities of other waterbird species changed dramatically. For instance, at the start of the program there were very few Common Gallinules in and around the golf course—this species was restricted to the dense vegetation surrounding a few of the golf course ponds. After removal of Nēnē, Common Gallinule became a common waterbird species on the property. Mortality of this species was not an issue at the onset of the permit in 2012, but currently is the larger numerical issue. However, the increase in number of Common Gallinule fledglings has more than kept pace with the increase in mortality.

Nēnē Hazing

On June 24, 2019, USDA-WS—acting on behalf of the Hawaii Department of Transportation, Airports Division—began a pilot project to haze Nēnē from Hōkūala using dogs. The purpose of the hazing program is to reduce the bird/wildlife aircraft strike hazard (BASH). This hazing plan was approved by DOFAW and USFWS. The initial one-year pilot project has been extended and enlarged with the addition of more dogs and handlers. Currently USDA-WS runs four dogs on Hōkūala. Hazing occurred the entire season addressed in this annual report.

Waterbird and Shorebird Surveys

Native waterbirds at Hōkūala include resident endemic and indigenous species and native non-breeding migratory waterfowl and shorebirds. The resident endemic waterbird species recorded on the property include all the resident endemic waterbird species found on the Island of Kauaʻi: Hawaiian Duck (*Anas wyvilliana*), Common (Hawaiian) Gallinule (*Gallinula galeata sandvicensis*), Hawaiian Coot (*Fulica alai*), and Black-necked (Hawaiian) Stilt (*Himantopus mexicanus knudseni*). The lone resident indigenous species is Black-crowned Night-Heron (*Nycticorax nycticorax hoactli*). Regularly recorded indigenous migratory shorebird species include Pacific Golden-Plover (*Pluvialis fulva*), Ruddy Turnstone (*Arenaria interpres*), Sanderling (*Calidris alba*, none was recorded this reporting period), and Wandering Tattler (*Tringa incana*; none was recorded this reporting period). A small number of uncommon and/or extralimital swans, ducks, geese, and shorebirds have been recorded on the property over the years. We did not record any extralimital species during this reporting period.

Waterbird and shorebird surveys were conducted on a bi-weekly basis and are conducted using golf carts and walking the property. The surveys record the species and adult/juvenile status for each individual observed. A synopsis of the data collected during this reporting period is presented in Table 9.

Table 9 Hōkūala Waterbird and Shorebird Counts, July 1, 2021 – June 30, 2022.

<i>Common Name</i>	<i>Scientific Name</i>	<i>Average</i>	<i>High</i>	<i>Low</i>
Hawaiian Goose (Nēnē)	<i>Branta sandvicensis</i>	11	49	0
Hawaiian Duck	<i>Anas wyvilliana</i>	4	15	0
Common (Hawaiian) Gallinule	<i>Gallinula galeata sandvicensis</i>	20	52	18
Hawaiian Coot	<i>Fulica alai</i>	35	71	1
Black-necked (Hawaiian) Stilt	<i>Himantopus mexicanus knudseni</i>	10	35	0
Pacific Golden-Plover	<i>Pluvialis fulva</i>	37	88	0
Ruddy Turnstone	<i>Arenaria interpres</i>	5	34	0
Wandering Tattler	<i>Tringa incana</i>	0	0	0
Black Crowned Night-Heron	<i>Nycticorax nycticorax hoactli</i>	5	13	0
Cattle Egret	<i>Bubulcus ibis</i>	85	169	25

Waterbird Nesting

Waterbird nesting on Hōkūala had been steadily increasing over the past six years. Waterbird nesting data are collected during bi-weekly surveys, as described above; major water features surveyed are shown in Figure 6. Because nests are difficult to find in the thick vegetation, “nest” counts are based upon observations of families (families are counted only once). This season there were no Hawaiian stilt nest or chicks found on the property (Table 10, Figures 7 - 11).



Figure 6 Hōkūala Overview of some Water Features.

Table 10 Hawaiian Waterbird Nesting at Hōkūala 2021-2022.

<i>Area</i>	<i>COGA</i>		<i>HACO</i>		<i>HADU</i>		<i>BNST</i>	
	Nest	Chicks	Nest	Ducklings	Nest	Chicks	Nest	Chicks
Moki 3 Pond	4	13	8	45	3	6	0	0
Farm Pond	1	2	0	0	0	0	0	0
Taro Pond	2	7	0	0	0	0	0	0
Irrigation Pond	1	3	2	10	0	0	0	0
Lagoons	7	23	1	3	0	0	0	0
OC-8 Pond	2	7	1	5	0	0	0	0
OC-15 Pond	2	7	0	0	0	0	0	0
Totals	19	62	12	63	3	6	0	0



Figure 7 Moki 3 Pond Waterbird Nests 2022-2023.



Figure 8 Farm-Taro & Irrigation Ponds Waterbird Nests 2022-2023.



Figure 9 Lagoons (All areas) Waterbird Nesting 2022-2023.

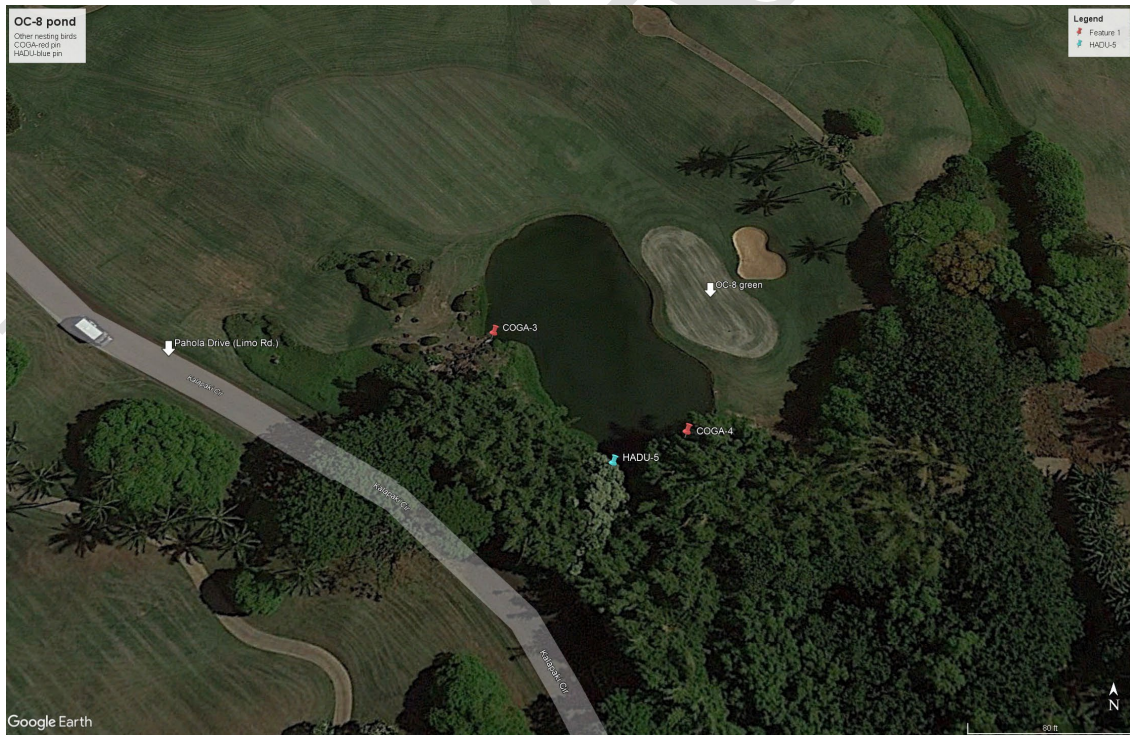


Figure 10 OC-8 Pond Waterbird Nesting 2022-2023



Figure 11 OC-15 Pond Waterbird Nesting 2022-2023

Take

A total of 17 listed avian take incidents were recorded on site this season. A breakdown by species and totals are presented in Table 1 (above). All carcasses were stored in a refrigerator at Hōkūala and collected by DOFAW staff or disposed of following direction from DOFAW staff, most within less than 24 hours after an incident.

Take, over the life of the permit to date, is depicted in the following graph (Figure 10). As can be seen, the species impacted each year and the number of incidents varies on an annual basis.

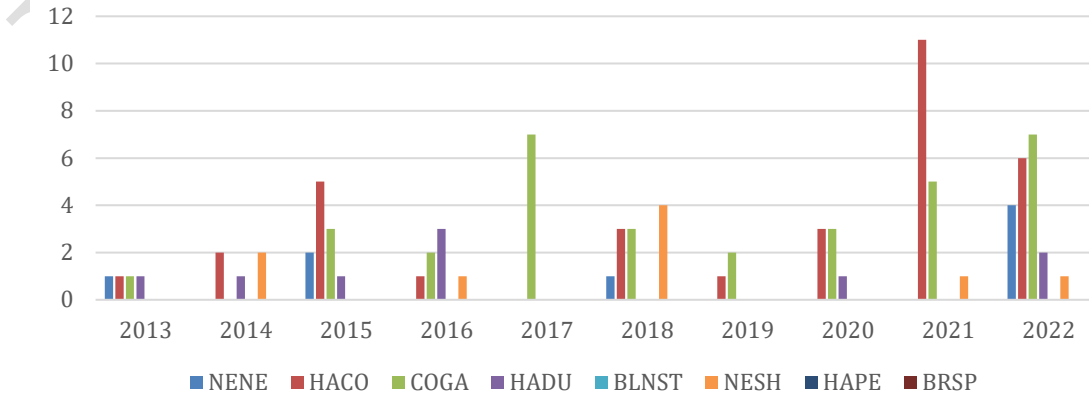


Figure 10 – Take over time by species on an annual reporting basis.

Predation

We did not observe evidence of mammalian predation events on Covered Species the property during this reporting period. A daily (365 days a year) task of biological monitors is to record signs of mammalian predation events. These observations are made whenever the biological monitor is undertaking other duties (e.g., monitoring Nēnē pairs, conducting waterbird surveys). Additionally, all resort staff report observations of predators to the biological monitors who then place targeted traps in direct response to the reports. From FY 2025 and on, biologists will record incidences of BCNH stalking Covered Species.

Trapping and Predator Control Efforts

Invasive vertebrate species removal and predator trapping was successfully carried out throughout the year. As stated above, no mammal predation events occurred this year. Traps were moved away from locations with Nēnē activity during the months that the majority of Nēnē goslings were present (October to April) to prevent trap related injuries. Intense cat trapping occurs in response to discovery of cat sign. Two of the major issues with predator control on this property are that of increasing numbers of cats abandoned on the property (likely due to the current Kaua'i Humane Societies policies on not accepting cats) and that of the over 600-acre site not fenced and traversed by a County of Kaua'i public road.

Roadways, Speed Limits, and Endangered Species Signs

The posted speed limit on the resort property is 14 MPH (Figure 12). We have a series of different endangered species signs, some of which are semi-permanent and others that are temporary and moved to different locations as needed (Table 11 and Figures 12 through 16). Additionally, there are two endangered species informational signs posted in areas that are accessed by guests and golfers using the facilities (Figure 17).

Bird locations and bird activity and densities are dynamic on this property. As circumstances change and new areas of concern are identified we move around and modify warning signs on the property. As of this writing, the resort has deployed 31 Nene crossing, slow down wildlife crossing and two in-road sandwich boards (Figures 12 through 18). During the next phases of construction on the property (potentially in FY 2025) up to seven new signs will be erected, signs that welcomes guests and owners onto an area where endangered species live. The proposed locations of the signs are shown in Figure 18. These signs will incorporate pictures of other Covered Species, including Hawaiian Coot, Hawaiian Gallinule, Hawaiian Stilt, and Hawaiian Duck.

Table 11 Nēnē and T&E Caution Signs on Property 2020-2021.

<i>Sign Description</i>	<i>Number</i>
Yellow metal 2x2 Nēnē crossing signs	17
White Nēnē slow down signs	12
Plastic Sandwich Board caution slow down	3
Metal do not feed Nēnē signs	4
Endangered Species informational displays	2



Figure 12 Posted Speed Limit at Hökūala Resort.

DRY

Figure 13 Location of cautionary signs deployed on the resort.



Figure 14 Nēnē semi-permanent crossing sign



Figure 15 Portable wildlife warning and do-not-feed signs.



Figure 16 Wildlife slow down warning signs placed every 45 feet along Holokāwelu Road.



Figure 17 Sandwich board portable sign in the middle of Holokāwelu Road.

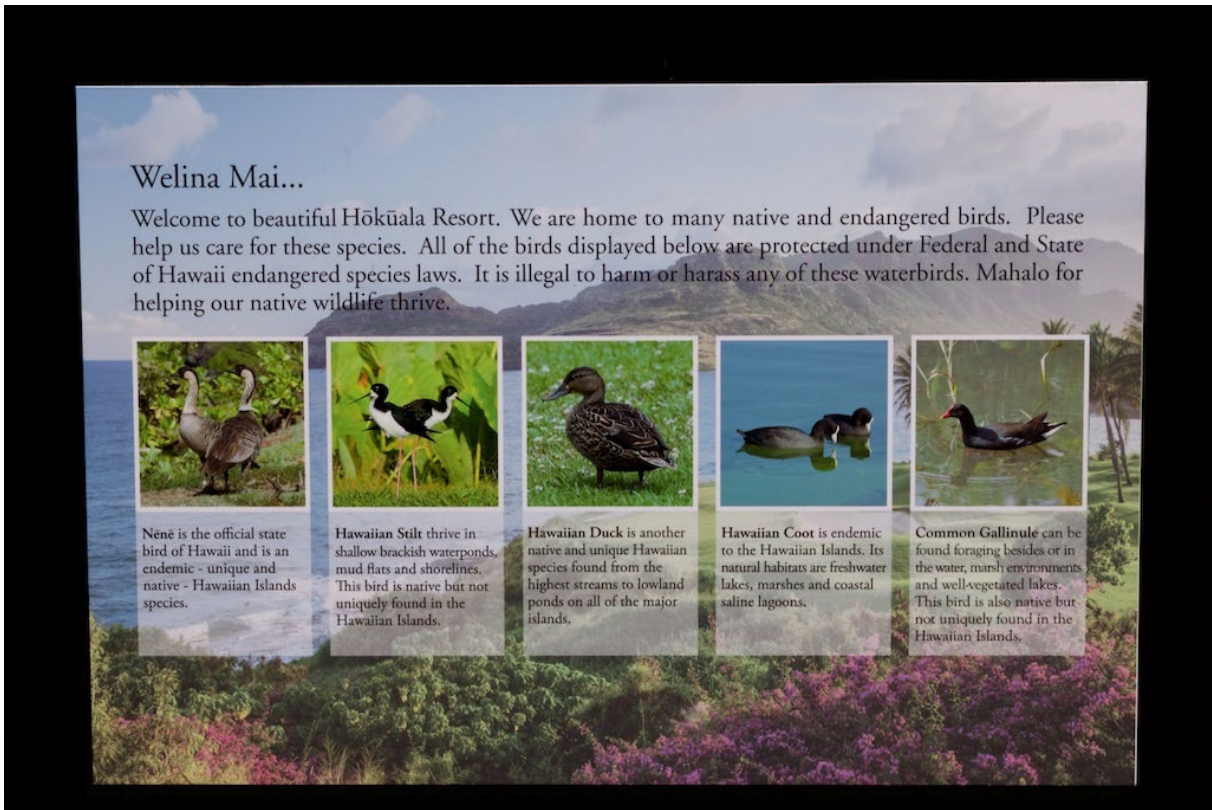


Figure 18 Typical endangered waterbird informational sign.



Figure 19 Proposed locations of “conservation area” signs.

Speed Bumps

There are currently five speed bumps on roadways within the resort. Some of the new signs to be installed in FY 2024 may say something like “Caution endangered species — slow down”.

Construction Monitoring

During this reporting period one site was graded and footed: Lot 4. This site is approximately 15 acres and is within the areas included in the daily monitoring routines and was inspected by senior on-site biologist prior to the onset of grading.

Nēnē did not nest within any of the three areas during construction. USDA-WS hazing operations included these three construction areas during this time period, so nēnē did have an opportunity to become established in the construction areas. No other Covered Species waterbirds nested here.

During this reporting period, Hōkūāla had one full time monitor and two part time monitors (plus the overseeing biologist, Reginald David) monitoring construction activities on the property. As construction moves forward, a second full-time biological monitor will be hired in FY 2024 to ensure full-time monitoring of the projects that will be in progress this coming season.

Endangered Species Awareness Training

Endangered Species Awareness training using a Power Point presentation was given to all personnel on the site, regardless of job, company, or position. A total of 67 classes were held, which trained 219 people. Three versions of the presentation were developed for specific target audiences; hard copies of the training modules were distributed to all who attended the courses. The training course includes information on all eight listed avian species covered in our incidental take license and incidental take permit. In the training sessions the specific Covered Species protocols and restrictions were discussed in depth, as were potential disciplinary action if the protocols and procedures are not followed. A log of all the individuals that receive training is maintained and all construction workers are required to undergo the training and display a uniquely numbered Endangered Species Awareness Training sticker on their hardhats. As an indicator of the effectiveness of the training program, no disciplinary actions were undertaken during FY 2022 – 2023. Personnel always report situations of concern to on-site construction and biological monitors.

Bird and Nature Tours

Biologists led 127 bird and nature tours of the Resort property during this reporting period in which 429 guests and local residents participated. The driving tours are in a 6-8 passenger golf cart and routes are all on established roads (Figure 20). Guests do not get out of the cart in areas where endangered species are present and the guests are always under the supervision of the biological monitor. Guests get out of carts only at the farm and at restroom facilities. The biological monitor drives the vehicle and avoids approaching endangered species. A copy of the draft brochure (currently under review) for guests is included as Attachment C.

The tour begins and ends in the Timbers lobby, proceeds around the lagoon through the 17th and 18th holes of the golf course and stops at the Club House. The tour continues along the paved roads between Bridges 1 & 2, then continues to Kalanipu'u, turning around at the old Sharkey's restaurant. The tour then backtracks to Bridge 2 and proceeds along the Lagoon path. The route of the tour continues between the 10th and 11th holes and follows along the abandoned golf course paths. A brief stop is made on the elevated bank of the Mokihana 3 pond then the tour continues onward to the Timbers Farm. The tour circles around the driving range and associated trails returns to the main Timbers lobby. The tour lasts between 1 ½ and 2 hours.



Figure 20 Established/typical route taken for the bird and nature tours (yellow line).

Certification (Implementation Agreement, Section 8.3)

I certify that, to the best of my knowledge, after appropriate inquiries of relevant persons involved in the preparation of this report, the information submitted is true, accurate, and complete.

Stacey Kilarski
Biological Consultant
AECOS, Inc.

Date July 31, 2022 (revised March 29, 2024)

Literature Cited

Ebbin, Moser + Skaggs LLP, and Rana Biological Consulting, Inc. 2009. Kaua'i Lagoons Habitat Conservation Plan. Prepared for: Kauai Lagoons, LLC & Mori Golf (Kauai), LLC.

DRAFT

Attachment A

Copy of FY 2023 Bond

DRAFT



INVOICE

Marsh USA LLC
Marsh Risk & Insurance Services
(213) 624-5555

Page	1 of 2
Invoice Total	2,689.00 USD
Invoice No.	822262238299
Invoice Date	06/05/2023
Client No.	8222683024

Billed To: **Sarah Frayer**
Oaktree Capital Management, L.P.
333 S. Grand Avenue, 28th Floor
Los Angeles, CA 90071

Remittance Copy

Company earns and retains interest income on premium payments held by Marsh on behalf of insurers during the period between receipt of such payments from clients and the time such payments are remitted to the applicable insurer, where permitted by law.

Detach and remit this portion with your payment

Client No.	Invoice No.	Payment Due	Invoice Total	Amount Paid
8222683024	822262238299	Immediate	2,689.00 USD	

Thank you for your prompt payment.

Please indicate Invoice Number 822262238299 on your remittance.

Additionally, for ACH or wire payments, e-mail remittance detail to: FiduciaryserviceRequest.US@marsh.com

By ACH: **Bank Name:** Bank of America
ACH Routing No: 071000039
Account Title: Marsh USA LLC
Account Number: 8188063091

By Wire: **Bank Name:** Bank of America
Wire Routing Number: 026009593
Account Title: Marsh USA LLC
Account Number: 8188063091

By Mail: Marsh USA LLC
P.O. Box 846112
Dallas, TX 75284-6112 USA

8222622382999 000026890079



INVOICE

Marsh USA LLC
Marsh Risk & Insurance Services
(213) 624-5555

Page	2 of 2
Invoice Total	2,689.00 USD
Invoice No.	822262238299
Invoice Date	06/05/2023
Client No.	8222683024

Sarah Frayer
Oaktree Capital Management, L.P.
Billed To: 333 S. Grand Avenue, 28th Floor
Los Angeles, CA 90071

Surety Name	Bond No.	Effective Date	Expiration Date	Transaction Type	Description/ Type of Coverage	Item	Amount
Atlantic Specialty Ins Co	800014350	07/01/2023	07/01/2024	Original	Commercial Bond	PREMIUM	2,689.00

Invoice Comments:

Principal: Tower Kauai Lagoons Land, LLC
Obligee: State of Hawaii, Department of Land and Natural Resources
Bond Amount: \$153,667.00
Bond Type - Description: License & Permit - Kauai Lagoons Resort project on the Island of Kauai Hawaii-Kauai Lagoons Habitat
Conservation Plan-Incidental Take License (ITL)/Incidental Take permit (ITP)
Requester: Eric Cucchi

Invoice Total (Payable in Full upon Receipt)	2,689.00
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Company earns and retains interest income on premium payments held by Marsh on behalf of insurers during the period between receipt of such payments from clients and the time such payments are remitted to the applicable insurer, where permitted by law.

Attachment B

Training module used for
FY 2022 - 2023



Hōkūāla

KAUA'I

Timbers /Hōkuāla Contractor & New Hire Orientation Endangered Species Awareness Program – 2021-2022



Prepared by Reginald David

Purpose of Training

- Numerous protected bird species are present on the site
- Hōkuāla is committed to the protection of these species
- Hōkuāla has specific endangered bird protocols in place that will be followed by all Operations, Contractors, and Construction personnel
- All Operations, Contractors, and Construction personnel need to be familiar with the issues and protocols
- There are significant legal implications if any of these birds are harmed, or protocols are not followed

Regulatory Setting - Protected Species

Federal -

The Endangered Species Act of 1973, as amended (ESA)

Migratory Bird Treaty Act (MBTA)

State of Hawai‘i -

Hawaii Revised Statutes (Chapter 195-D)

IT IS ILLEGAL TO:

“harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct” any species listed under any of these statutes

Outline

- **Agency and Endangered Species Program Contacts**
- **Endangered waterbird species**
- **Specific rules and restrictions in place to protect waterbird species**
- **Listed seabird species**
- **Specific rules and restrictions in place to protect seabird species**

Agency and Endangered Species Program Contacts - Who to Call

State Department Land & Natural Resources – Division of Forestry & Wildlife (DOFAW)

- Clay Chow: Division of Forestry & Wildlife: (808) 274-3440

Onsite Biologists / Monitors

- Alan Silva: (808) 651-8100 or (808) 977-0218 email: Hokualahcp@hokualakauai.com
- Diane Butler

Hōkuāla Program Coordinators

- Gary Siracusa: Director of Construction: (808) 241-6046 - Cell: (808) 639-1917
- David Nagao: Association Director: (808) 241-6045 - Cell: (808) 652-9857
- Chad Visitation Safety & Security Supervisor: Cell: (808) 375-5284

Hōkuāla Biological Consultant

- Reggie David: (808) 329-9141 Cell: (808) 937-0124, email: davidr003@hawaii.rr.com

Endangered Waterbirds at Hōkūala

- **Hawaiian Goose - *nēnē***
- **Hawaiian Coot - *'alaeke'oke'o***
- **Common Moorhen - *alae'ula***
- **Hawaiian Duck - *koloa***
- **Hawaiian Stilt - *a'eo***

Nēnē



Hawaiian Coot - *'ala'eke'oke'o*



Common (Hawaiian) Gallinule - *'ala'e'ula*



Hawaiian Duck - *koloa*



Black-necked Stilt - *a'eo*



Onsite Waterbird & Nēnē Monitors

- Waterbird monitors will be onsite to ensure that any and all activity does not harm Nēnē or other waterbird species
- Monitors are authorized to stop any and all activity that they deem may potentially be harmful to Nēnē and other endangered waterbird species
- Nēnē and waterbird safety takes precedent over any and all activity

Obey all directives given to you by the onsite monitors

Waterbird Special Rules

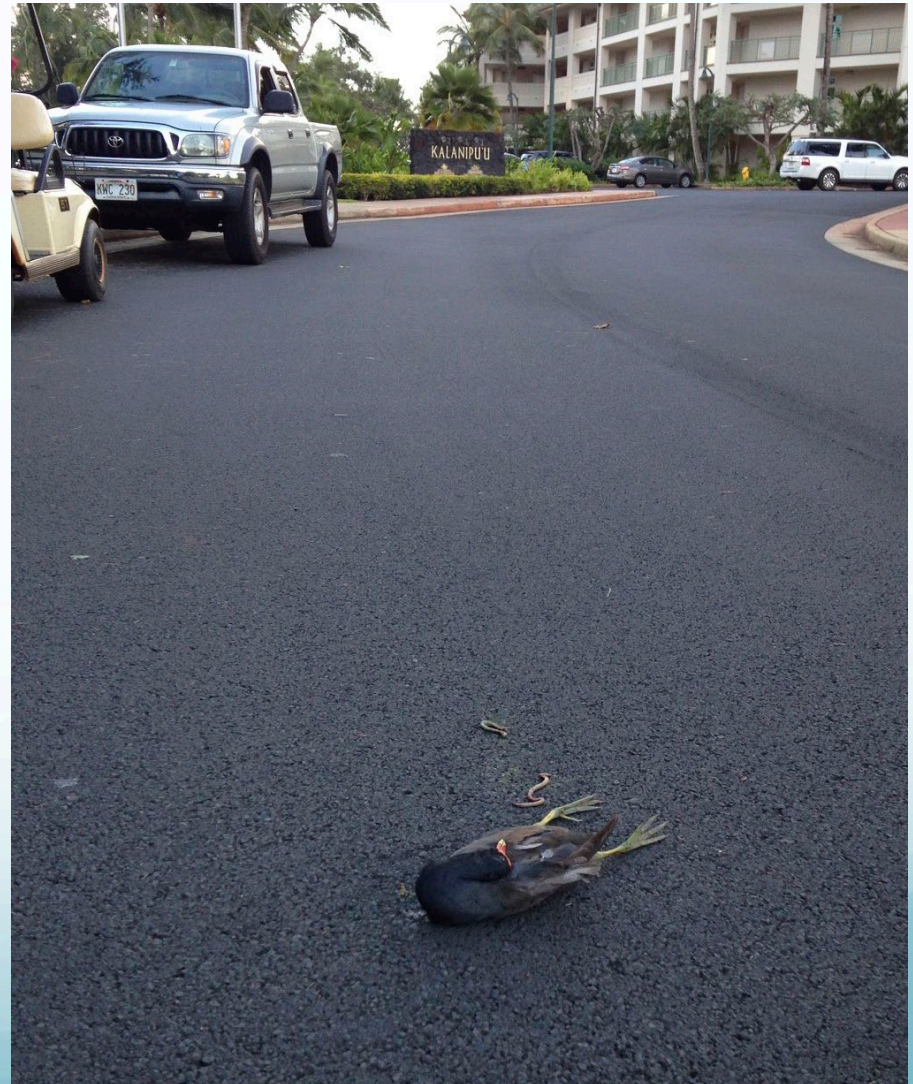
- Slow Down - Speed limit on the site is **14 mph**



Waterbird Special Rules

- Check beneath all equipment before driving machines
- No pets on the site
- Dispose of food and trash in trash cans
- Don't feed/pet/approach Nēnē or other waterbirds
- Immediately report any injured birds to the onsite monitors or your supervisor
- Feeding cats or stray dogs on property is expressly prohibited

Gallinule Issue – Holokawelu Way



Gallinule Issue – Holokawelu Way



Gallinule Issue – Holokawelu Way



Waterbird Special Rules

- Don't approach Nēnē nests



Take Home Message

- The harming of listed waterbird or seabirds may be construed as “take” under the ESA, and/or HRS 195D.
- The minimization and avoidance of “take” to the maximum extent practicable is required under both federal and State of Hawaii endangered species statutes
- Failure to do so may result in enforcement action, which may result in significant civil and criminal penalties
- Penalties include civil fines of up to \$25,000 per incident, and criminal fines of up to \$50,000, and up to one year federal imprisonment per incident
- **Non-compliance with any of the endangered species rules and protocols will result in immediate disciplinary action and a ban on working on property or job site without warning**

- Don't approach Nēnē nests



Endangered Seabird Species



Listed Seabirds Issues

- Nocturnally flying seabirds are often attracted to lights
- Fledgling birds on their way to sea for the first time are often attracted to lights and can be confused by them
- Confused birds may collide with structures, or simply land on the ground too tired to continue flying
- Once on the ground they cannot take off again and will die from starvation or be killed by predators if not rescued



Seabird Season Lighting Protocols

- **Between September 1 and December 15, no unshielded lights will be allowed within the project area**
- **The reason for the reduced lighting is to minimize the chance that seabirds will be attracted to the lights, become disoriented by them, and then land on the ground, or in a worse case scenario collide with a man-made structure**
- **Report all downed seabirds to your manager or security immediately**

Mahalo

Hōkuāla thanks you for your attention to and assistance with this program

Hōkuāla takes pride in our continued efforts to protect the natural resources on the Island of Kauaʻi

Protection of these native birds is everyone's responsibility, and is in the common interest of the Island community and future generations

If You Want More Information

- **Other questions? Please see me after the presentation**
- **Hard copies of this presentation are being distributed**

Thank You For Your Attention

Attachment C

ESA Brochure

Timbers Endangered Species



Hawaiian Nene Goose (family)



Hawaiian Coot



Common Gallinule



Hawaiian Stilts



Hawaiian (Koloa) Ducks

Seabirds & Shoreline Birds



Great Frigate Bird



Ruddy Turnstone



Pacific Plover (adult)



Pacific Plover (juvenile)



Red tailed Tropic bird (shoreline)



White tailed Tropic bird (mountain)



Wandering Tattler



Sanderlings

Seabirds & Shorebirds



Bristle-thighed Curlew



Band-rumped Storm Petrel



Newell's Shearwater



Wedge-tailed Shearwater



Short-tailed Plover



Glaucous Gull



Laughing Gull



Ringed-bill Gull

Common Birds on Property



Jungle Fowl (chickens)



Western Meadowlark



White-rumped Shama (male)



Shama (female)



Laced Neck (Spotted) dove



Zebra Dove



Northern Cardinal



Red-crested Cardinal

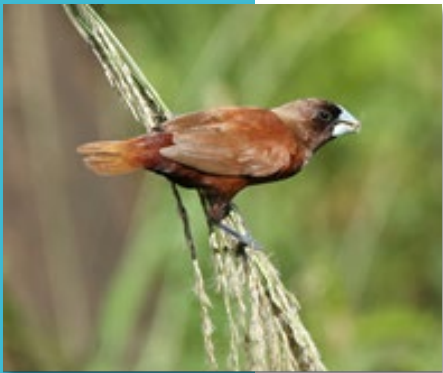
Common Birds on Property



Black-crowned Night Heron (adult)



Black-crowned Night Heron (juvenile)



Chestnut Manikin



Nutmeg Manikin



Java Sparrow



House Sparrow



House Finch (pair)



Rose-ringed Parakeet

Common Birds on Property



Saffron Finch



Common Mynah



Mockingbird



Red Avadavat (Strawberry Finch)

Owls



Pueo (Hawaiian Short-eared Owl)



Common Barn Owl

Visiting Geese-Cranes-Ducks



Cackling Goose



Canadian Goose



Snow Goose



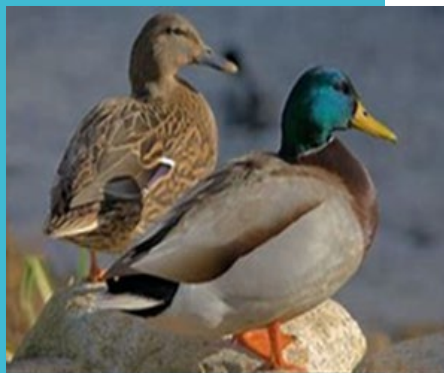
Demoiselle Crane 11/2019



Pied-billed Grebe



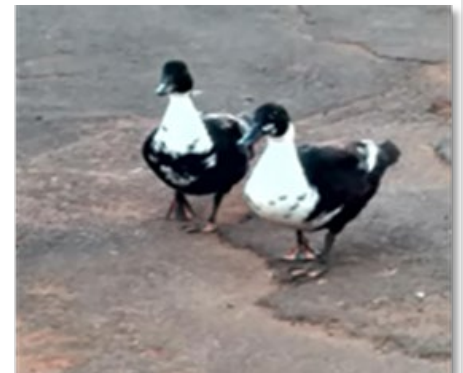
Brandt Goose



Mallard (pair)



Ruddy Shelduck



Muscovy Ducks

Other Endangered Species Found at Timbers



Hawaiian Monk Seals



Green Sea Turtles