

**Kauai Lagoons/Hōkūala Habitat Conservation Plan Annual Report
for Fiscal Year July 1, 2015 – June 30, 2016**

September 30, 2016

(Revised and Amended January 12, 2017)

I. Introduction

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 and Incidental Take License, respectively. The effective date of those incidental take authorizations was November 9, 2012. On January 1, 2015 the former Marriott Vacation Resort known as Kauai Lagoons was transferred to Tower Kauai Lagoons Land LLC and renamed Hōkūala Resort. The State ITL was transferred shortly thereafter; the federal ITP was transferred on December 9, 2016.

Section 4.5 of the HCP requires the permit/license holder to produce and submit to both agencies an annual HCP compliance and monitoring report by September 30 of each year. From the outset of HCP implementation, Kauai Lagoons LLC prepared such Annual Reports on a calendar year basis. Recently, DOFAW requested that the Annual Reports be prepared on a fiscal year basis, covering the period July 1 through June 30, and be submitted by August 1. DOFAW also requested that the annual report previously submitted for calendar year 2015 be revised to cover the fiscal year period July 1, 2015 to June 30, 2016, and this revised document complies with that request. Going forward, all subsequent annual reports will be prepared on a fiscal year basis and will be submitted to both agencies by August 1 of each year.

II. One-Time Obligations

A. 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/in compliance (May 2012)

III. Ongoing Obligations

A. Financial Assurances (Section 6.4)

Requirement: Post a bond or letter of credit 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 with a copy to USFWS at least six months prior to expiration of the bond.

Status: Completed/in compliance (Bond provided to agencies in December 2012; Continuation Certificate provided to agencies in January 2014; a new bond issued to the new owner Tower Kauai Lagoons Land LLC dated July 1, 2015 was previously provided to both agencies)

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

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

Status: Completed/in compliance. Biologist Reginald David updated the training module, then retrained the entire Hōkūala Resort staff and all contractors conducting work on the Hōkūala Resort property. Thereafter, either Reginald David, or the other biological monitor, trained all newly hired Hōkūala Resort employees and contractors as they were brought on staff.

C. Construction Contract Provisions (Section 4.2.1.2)

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

Status: Completed/in compliance. New construction on the property was initiated in January 2016, and all construction contracts contained provisions and restrictions to avoid and minimize take of Covered Species.

D. 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: Not applicable, as no mass grading (commonly understood to mean grading of large quantities of earth on a large scale over a large area, such as occurred on the Kauai Lagoons property in the first years of HCP implementation, as opposed to finish grading which is used to prepare a level surface or specified slope for construction) occurred during the reporting period.

E. Biological Monitors (Section 4.2.1.4)

Requirement: Designate two biological monitors.

Status: Completed/in compliance. The two biological monitors designated in the HCP (Alan Silva and Reginald David) remain the designated monitors. Al Silva worked roughly three quarters time for the entire reporting period.

F. Construction Monitors (Section 4.2.1.5)

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

Status: Completed/in compliance. Hōkūala Resort hired an additional construction monitor prior to the onset of new construction activity in January 2016. Currently Hōkūala has two full time construction monitors and one casual monitor, plus biological monitor Reginald David, monitoring activities on the property.

G. Fencing (Section 4.2.1.6)

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

Status: Completed/in compliance. Please see the attached Hōkūala Endangered Waterbird Monitoring Report, which describes the three specific fencing and exclusion areas created during the reporting period to restrict ingress into construction and roadway areas by the Covered Species.

H. 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: Completed/in compliance.

I. Roadways (Section 4.2.2.1)

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

Status: Completed/in compliance. Speed signs, speed bumps and Covered Species warning signs were installed in prior years by the previous owners, and remain in place. Additional waterbird warning signs have and will continue to be erected as birds are found to be using different areas on the property. This has been a very dynamic process over the past five years as DOFAW has been actively capturing and relocating Nēnē families from the site. As birds were chased and caught by DOFAW employees the birds changed their foraging and nesting habitats in response to the ongoing removal of Nēnē families.

J. Lighting (Section 4.2.2.2)

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

Status: Completed/in compliance. During the reporting period no new lights or lighting fixtures were installed on the Hōkūala Resort property.

K. 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: Completed/in compliance. All employees have received training and during the season communicated effectively and proactively with the biological monitors over potential issues with endangered avian species.

L. 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: Completed/in compliance. In 2014, the CC&Rs were amended to: require compliance with the operational (as opposed to the construction-related) requirements of the HCP; prohibit the harming of any threatened or endangered species on the property; properly controlling (with leash or reins) dog or cats, and keeping them within established pedestrian walkways and sidewalks at all times; properly disposing of, and ensuring that threatened or endangered species do not come into contact with, trash or food waste; and ensuring that trash receptacle lids remain closed. In addition, endangered species educational materials, and materials describing seabird fallout and the SOS program, were previously developed and are distributed to owners and rental visitors. At check-in, visitors are also notified about speed limits on the property, and are invited to weekly nature walks to learn about threatened and endangered species on and around the property.

M. Golf Operations (Section 4.2.2.5)

Requirement: Golf course Starters and Marshalls 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; an educational kiosk will be established at the Starter location; 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; golf course to establish a local rule for golf play allowing movement of a ball away from nest areas.

Status: Completed/in compliance. This task has become much simpler since DOFAW initiated removal of Nēnē from the property.

N. 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: Completed/in compliance.

O. Emergency Response Protocol (Section 4.4.1.4)

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

Status: Completed/in compliance.

P. Facilitate DOFAW removal of Nēnē (Section 4.4.1.5)

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

Status: Completed/in compliance. Hōkūala regularly provides access and golf carts to DOFAW staff for their use in DOFAW's Nēnē capture and translocation efforts. Please see the attached Hōkūala Endangered Waterbird Monitoring Report for details on Hōkūala's support of those efforts.

Q. Predator Control (Section 4.4.2)

Requirement: Deploy 10 live traps during the season of 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 Kauai Humane Society; deploy rodent bait stations in same areas during this same timeframe; control cattle egrets and feral chickens.

Status: Completed/in compliance. Live traps were deployed throughout the season, and moved to new areas in response to cat sightings or activity. A total of 16 cats and nine dogs were removed from the property during the season. Additionally, 1695 feral chickens and 106 Cattle Egrets were killed using air rifles. All bird control activities were conducted under a state Wildlife Depredation Permit, and/or under a federal Migratory Bird Depredation permit. Please see the attached Hōkūala Endangered Waterbird Monitoring Report for additional details.

R. 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 (NFWF). The 2013 payment shall be made by November 1, 2013, and subsequent payments shall be made by September 15 of each year.

Status: Completed/in compliance. The 2013 payment was sent to NFWF on September 26, 2013, and the 2014 payment was sent to NFWF on September 12, 2014. The 2015 payment was sent to NFWF on July 29, 2015.

S. Nēnē Monitoring During Nesting Season (Section 4.5.3)

Requirement: Biological monitors to monitor Nēnē nesting activity and nesting success on a daily basis starting September 15 and ending on March 31 each year. Monitoring data to be collected includes 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: Completed/in compliance. For details, please refer to the attached Hōkūala Endangered Waterbird Monitoring Report.

T. Waterbird Monitoring (Section 4.5.4)

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

Status: Completed/in compliance. Please refer to the attached Hōkūala Endangered Waterbird Monitoring Report for details.

U. Seabird Monitoring (Section 4.5.5)

Requirement: 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 the results of their own additional searches performed during the expected peak of the seabird fallout season

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

Searcher efficiency trials using seabird carcasses were conducted on the property by Hōkūala designated biologist Reginald David. He placed two dead Wedge-tailed Shearwater carcasses secured from the SOS Program, on the site on the night of October 1, 2015. One bird was placed close to the fitness center in the Kalanipu'u complex (a location where we have previously recovered a downed seabird). The second bird was tucked in behind a planter box in front of the golf course clubhouse. Security personnel found the bird placed close to the fitness center at 5:00 am the following morning (October 2), and one of the golf cart attendants found the bird placed next to the club house at 6:00 am the following morning (October 2) when he started his work day.

IV. Incidental Take Reporting

Based on a review of records, and discussions with Hōkūala and USFWS, DOFAW has prepared a spreadsheet documenting all reported instances of downed, injured or dead birds at Kauai Lagoons/ Hōkūala Resort since inception of the HCP. A copy of the current version of the DOFAW spreadsheet covering the period July 1, 2015 to June 30, 2016 is attached. The following is a summary of the information contained in the spreadsheet.

Between July 1, 2015 and June 30, 2016 Hōkūala Resort experienced the direct incidental take of six Hawaiian Coots, three Hawaiian Gallinules (labeled as “Hawaiian Moorhen” on the DOFAW spreadsheet) and one Hawaiian Duck (Table 1). Five of the Hawaiian Coots were killed by golf ball strikes, and one was hit by a vehicle on a resort paved road. The three Hawaiian Gallinules killed during this period were all hit by vehicles on roads within the Resort. The one Hawaiian Duck mortality was of a bird which flew into the lobby window in the Kalanipu‘u lobby.

Additionally, one Hawaiian Duck was killed by a terrestrial predator, likely a cat. Four traps were set in the vicinity immediately after the reported event occurred, and two cats were removed over the following two days. One additional Hawaiian Duck was also predated by a Barn Owl on the lawn in front of the Kalanipu‘u Building.

Table 1 –Take and cause of take July 1, 2015 – June 30, 2016		
<i>Take Date</i>	<i>Common Name</i>	<i>Cause of Death</i>
9-Aug-15	Hawaiian Coot	Golf ball strike
14-Nov-15	Hawaiian Coot	Golf ball strike
14-Dec-15	Hawaiian Coot	Golf ball strike
26-Feb-16	Hawaiian Coot	Golf ball strike
9-Apr-16	Hawaiian Coot	Golf ball strike
14-Jul-2015	Hawaiian Gallinule	Hit by car
3-Sep-15	Hawaiian Gallinule	Hit by car
16-Oct-15	Hawaiian Coot	Hit by car
20-Nov-15	Hawaiian Gallinule	Hit by car
7-Apr-16	Hawaiian Duck	Window interaction

From the effective date of the state and federal take authorizations, through June 30, 2016, total direct incidental take under the HCP consists of the following:

--Hawaiian Goose (Nēnē): 2

--Hawaiian Gallinule : 6

--Hawaiian Coot: 11

--Hawaiian Duck: 2

--Hawaiian Stilt: 0

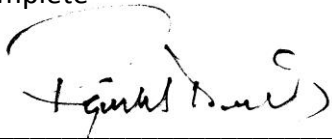
--Newell’s Shearwater: 2

--Hawaiian Petrel: 0

--Band-rumped Storm-Petrel: 0

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

A handwritten signature in black ink, appearing to read "Reginald David", written over a horizontal line.

Reginald David
Biological Consultant
Rana Biological Consulting

January 12, 2017

Date

Appendix A

Waterbird Monitoring July 1, 2015 – June 30, 2016

Hökūala Endangered Waterbird Monitoring Report: July 1, 2015 – June 30, 2016

Revised January 12, 2017

Nēnē Nesting Observations

Between July 1, 2015 and June 30, 2016 the Nēnē (*Branta sandvicensis*) nesting season resulted in 5 found Nēnē nests, from 5 different pairs, on Hōkūala property during the season. The season began in October 2015. Gravid females were observed early in the month and the first nest was located on October 31st. Subsequent nests were found on November 5th and 6th. Nēnē pairs were monitored daily from October through April and data was compiled into an excel database. This monitoring data includes: Nēnē pairs (bands when present), nests viability and gosling survivability, DOFAW Nēnē translocations and banding, avian mortalities, waterbird surveys, trapping summary. All nests that produced goslings were located except for one breeding pair which appeared on property with two goslings late in the season and was not counted in the nesting or gosling production totals.

The 5 total Nēnē nests produced 15 eggs of which 10 hatched for an average hatch rate of 66.7 percent. Of these 10 hatchlings, 7 were observed alive at Hōkūala at last survey or date of their translocation providing us with a hatchling survival rate of 70.0 percent (Table 1). In the 2015-2016 nesting season, 80.0 percent of nests were successful, hatching at least one gosling with no nest failures (Table 2). Only one nest failed to hatch, which was a nest of a singular runt egg. Individual egg fates were also recorded. Failed eggs were collected and measurements were taken and recorded. Viability was determined for each egg by examining the contents of the egg. Of the five eggs examined, none contained partially or fully developed embryos.

Table 1 – Nēnē Egg Production and Survivorship July 1, 2015 – June 30, 2016

Eggs Laid	Eggs Hatched	Gosling Count at Last Sighting	Hatch Rate	Hatchling survival rate
15	10	7	66.7	70.0

Table 2 – Nēnē Nest and Egg Fates July 1, 2015 – June 30, 2016

Egg Fates			Percentage		Nest Fates			Percentage	
Hatched	10	66.67%	Hatched	4	80.0%	Abandoned	0	-	
Abandoned	0	-	Disappeared	0	-	Predated	0	-	
Disappeared	0	-	Smashed	0	-	Flooded	0	-	
Predated	0	-	Flooded	0	-	Failed to Hatched	3	20.0%	
Smashed	1	6.67%	Failed to Hatched	0	-	Runt Eggs	1	6.67%	
Flooded	0	-	All Runt Eggs	1	20.0%	Unknown	0	-	
Failed to Hatched	3	20.0%	Re-nests	0	-	Total Eggs	15		
Runt Eggs	1	6.67%	Total Nests	5					
Unknown	0	-							

In addition to the 5 pairs (10 individuals) that nested on-site, and their 7 surviving goslings, an additional 8 Nēnē (and two goslings) utilized the property. To represent all Nēnē on site, we have compiled a list of all Nēnē sighted at Hōkūala between October 2015 and April 2016, including the nesting pairs (Table 3).

Table 3– Estimated Total Number of Nēnē at Hokuala 2015-2016			
Banded Nēnē	Unbanded Nēnē (Est)	Surviving Goslings	Total Nēnē at KL (Est)*
10	8	9**	27

*Not all sighted at once. This is the number on property over the span of one nesting season.

**Two goslings included that appeared on property late in season.

Nēnē Translocation

Throughout the Hawaii Department of Land and Natural Resources (DLNR), Division of Forestry and Wildlife (DOFAW) translocation project Al Silva, Courtney McLaughlin and Hōkūala golf course staff worked closely with the state providing up-to-date maps and data on resident Nēnē on property. DOFAW biologist Jean Olbert was also escorted around property to conduct Nēnē surveys frequently between January and April of 2016. Additionally, Hōkūala supplied DOFAW staff with golf carts for transportation during the captures. The project ran smoothly due in part to the increased amount of communication efforts between DOFAW and Hōkūala staff in advance of scheduled captures.

DOFAW staff executed two separate translocation capture efforts during the 2015-2016 season. On February 16, 2016, six adults and three goslings were captured and removed from property. On March 7, 2016 four adults and six goslings were captured and removed from the property. Those translocation captures are summarized in Table 4. No Nēnē were banded and released at Hōkūala this season. All captured banded individuals were re-banded by DOFAW with unique bands for translocation. Seven birds from the February 16th capture were relocated to Maui and 5 birds from the March 7th capture were relocated to Big Island. There were a remaining 7 Nēnē that tested positive for avian malaria and will be released back on Kauaʻi.

Table 4 DOFAW Nēnē Translocation Captures at Hokuala 2015-2016¹			
Date	Adults	Goslings	Total Nēnē
2/16/2016	6	3	9
3/7/2016	4	6	10
TOTAL	10	9	19

¹ Data on translocation captures provided by DOFAW

Mortalities

A total of 14 avian carcasses were found on site this season between September 2015 and April 2016. A species breakdown and total is represented below (figure 5). All carcasses that died on-site were stored in the refrigerator at Hōkūāla and collected by DOFAW staff.

Common Name	Scientific Name	Hawaiian Name	Total
Hawaiian Goose	<i>Branta sandvicensis</i>	Nēnē	1 – (Gosling)
Hawaiian Duck	<i>Anas Wyvilliana</i>	Koloa Maoli	3
Hawaiian Coot	<i>Fulica alai</i>	'Alae 'ke'oke'o	6
Hawaiian Gallinule	<i>Gallinula galeata sandvicensis</i>	'Alae 'ula	3
Hawaiian Stilt	<i>Himantopus mexicanus knudseni</i>	A'eo	0
Pacific Golden Plover	<i>Pluvialis fulva</i>	Kōlea	1 ²

Waterbird Surveys

Native waterbirds on Hōkūāla property including Nēnē, Black-necked Stilt (*Himantopus mexicanus knudseni*), Common Gallinule³ (*Gallinula galeata sandvicensis*), Hawaiian Coot (*Fulica alai*), Hawaiian Duck (*Anas Wyvilliana*), and Black-crowned Night-Heron (*Nycticorax nycticorax*) were counted monthly, occasionally bi-monthly. Surveys were done by golf cart or by foot; birds that could only be seen by boat were not counted. Averages were totaled for twelve separate counts between July 1, 2015 and June 30, 2016 (Table 6). This season we have not included average Nēnē numbers recorded on site; the large number of unbanded birds now make it extremely difficult to determine the actual number of individual birds present on the site. Nēnē numbers are addressed in the Nēnē nesting section at the beginning of the document. Also of interest was the presence of relatively large numbers of Pacific Golden-Plovers, which were observed on property on all surveys and were seen up until May 10th, 2016.

Common Name	Scientific Name	Hawaiian Name	Average
Hawaiian Duck	<i>Anas Wyvilliana</i>	Koloa Maoli	54
Hawaiian Coot	<i>Fulica alai</i>	'Alae 'ke'oke'o	88
Hawaiian Gallinule	<i>Gallinula galeata sandvicensis</i>	'Alae 'ula	41
Hawaiian Stilt	<i>Himantopus mexicanus knudseni</i>	A'eo	3
Black Crowned Night Heron	<i>Nycticorax nycticorax</i>	'Auku'u	20
Pacific Golden-Plover	<i>Pluvialis fulva</i>	Kōlea	177

² A mortality report was prepared for this mortality, but was not submitted to the agencies because this is neither a listed species nor a Covered Species under the HCP.

³ The American Ornithological Union changed the common name of this species from Common Moorhen to Common Gallinule in July 2015 (Chesser et al., 2015)

Trapping Totals

Invasive mammalian species removal and predator trapping was carried out throughout the season. Traps were removed during the months the majority of goslings were present in order to prevent any trap related injuries. Intense cat trapping began at the beginning of the nesting season and 16 cats were removed from the property and transported to the Kauai Humane Society where most, if not all, were euthanized. Feral chickens were shot on a daily basis with a pellet gun. All invasive species removal is covered under Wildlife Control Permit: WCP 15-26 and Migratory Bird Depredation Permit number: MB86226B-0 as care taken to protect listed endangered species. Predator control effort and results are presented in Table 7.

Given that the bird make-up of the site has changed significantly over the past five years as a result of DLNR-DOFAW removal of over 500 Nēnē from the property – comparing metrics from the onset of the program to this past season is difficult. The flock of Nēnē that were present on the site prior to DOFAW’s removal of animals was a mature flock consisting of all age groups of birds, some as old as 22 years old. Those Nēnē were the dominate bird species on the property, and pretty much controlled where and how many other waterbirds were present on the site. As the Nēnē have been removed the mix of the number of each species has changed dramatically. For instance, at the start of DOFAW’s removal program there were very few Hawaiian Gallinules in and around the golf course (they were largely restricted to the dense vegetation on a couple of ponds), but with the removal of Nēnē, Hawaiian Gallinules are now the species presenting the greatest challenge, as they are distributed all over the property and in areas where they were never seen just five years ago. On-site mortality of this species was not an issue five years ago, whereas now it is the biggest mortality issue on site as a result of DOFAW’s Nēnē removal program.

We have had very few mortalities due to mammalian predators over the past five years – this past season was a case in point with only one Hawaiian Duck likely taken by a cat, and one taken by a Barn Owl. Additionally, one Pacific Golden-Plover was likely killed by a cat, but this permit does not cover that species, as it is not listed as an endangered species.

Table 7 - Trapping and Predator Removal Totals July 1, 2015 – June 30, 2016	
Trapping Days	213
Traps Used	Have-a-Heart cage traps
Chickens shot	1695
Cats removed	16
Dogs removed	9

Cattle Egrets

During the season, lethal action was taken against Cattle Egrets (*Bulbcus ibis*) on Hōkūala property, performed under Migratory Bird Depredation Permit number: MB86226B-0. This permit was issued on February 26, 2016 and remains effective until January 31, 2017. In accordance with the depredation permit, non-lethal action was also used to discourage egrets colonizing the property. Cattle Egret control data is presented in Table 8.

Table 8 - Cattle Egret Removal Totals February 26, 2016 – June 1, 2016	
Removal Days	65
Cattle Egrets Removed	106

Protective Fencing

In the fourth quarter of 2015, we began reporting Hawaiian Coot and Common Gallinule mortalities along Holokawelu Way between Kalanipu'u Resort and the Timbers Resort construction area. To minimize this novel situation, we installed two-foot high fencing along the lagoon - road interface zone. Once the fence was installed, Common Gallinules were observed on the habitat side of the fence during the majority of the day. Images of the fenced habitat areas are included at the end of this report as Images 1 and 2.

A second series of fencing was constructed in February 2016. Modifications were made for this section of fencing, changing the type and style. Individual fence units of 2'x25' are free standing and placed end to end along the boundary between the lagoon and the construction road. Units were made to be able to be moved around easily to accommodate the changing scenery of the construction site, and the birds behavior. This section of fencing covers approximately 700ft, spanning from the water pumping station to the construction entrance gate. Images of fencing and location included as Figures 2 and 3.

A third series of fencing was installed in March 2016, inside the construction site as a response to birds sighted in the area. Approximately 400 feet of silt fencing was used along the water's edge to create a safe barrier for all endangered waterbird species. Images of fencing and location are included in Figures 5 and 6.

Since the initial fence installation, there have been zero fatalities due to vehicle strikes near the fenced areas.

Construction Monitoring

New construction began on the Hōkūala property in January 2016. Timbers Resorts began construction of three buildings on the south end of the property that all had pre-existing concrete foundations. A wildlife construction monitor was employed and was on site daily during all construction activities, later increased to seven days a week to ensure that Nēnē did not make nests on the weekends under and around construction buildings and material stock piles. Daily monitoring included arriving on-site before construction began, as well as continual checks throughout the day. The monitor also responded to all

wildlife related issues and diligently worked to prescribe and implement any prescribed minimization measures.

Endangered Species Awareness Training

Endangered Species Awareness courses were given to all workers on the site, regardless of job, company, or position. Training was presented as a PowerPoint presentation and hard copies of the training module were distributed to all who attended the courses. Information packets translated to Spanish were available for Spanish-speaking contractors. Awareness course includes information on all eight listed endangered or proposed avian species covered in our State and Federal incidental take license and incidental take permit.

Other Waterbird broods on-site

This season Common Gallinules, nested on the property several times. 4 different broods were observed in four different habitat areas. First, the habitat pond behind the closed Waikahe golf course is about 1.5 acres and is surrounded by dense overgrown vegetation. The first brood was observed on 1/22/16 and had 2 chicks. The second brood was observed on 2/17/16 at the habitat pond on the 15th hole of the Ocean Course and had 3 chicks. Hawaiian Ducks also successfully nested on the property this year, however, no nests were ever observed. Families were often observed with varying numbers of small ducklings within the main lagoon habitat.

Table 9- Waterbird Brood Sightings Hōkūala Property July 1, 2015 – June 30, 2016		
Date	Species	# of young in brood
1/22/16	'Alae 'ula	2
1/27/16	Kolola Maoli	5
2/17/16	'Alae 'ula	3
2/25/16	Koloa Maoli	9
3/14/16	Koloa Maoli	7
3/19/16	Koloa Maoli	6
3/20/16	'Alae 'ula	5
3/28/16	Koloa Maoli	4
4/10/16	'Alae 'ula	2
4/10/16	Koloa Maoli	2

Figure 1. Fencing section along south end of Holokawelu Way



Figure 2. Fencing section along north end of Holokawelu Way.



Figure 3. Mobile fencing section between pumping station and construction gate



Figure 4. Close up of mobile fence



Image 5. Silt fencing inside the construction area



Image 6. Close-up of silt fencing



Literature Cited

Chesser, R. T., R. C. Banks, K. J. Burns, C. Cicero, J. L. Dunn, A. W. Kratter, I. J. Lovette, A. G. Navarro-Sigüenza, P. C. Rasmussen, J. V. Remsen, Jr., J. D. Rising, D. F. Stotz, and K. Winker. 2015. Fifty-sixth supplement to the American Ornithologist Union Check-list of North American Birds. *The Auk, Ornithological Advances*, 132: 748-764.