PRW PRINCEVILLE DEVELOPMENT COMPANY LLC
1100 Alakea Street, Suite 2500
Honolulu, Hawaii 96813

February 27, 2018

Mr. Daniel E. Orodenker
Executive Officer
State of Hawaii
Land Use Commission
P.O. Box 2359
Honolulu, HI 96804-2359

Re: Annual Progress Report
Land Use Commission Docket No. A83-557

Dear Mr. Orodenker:

PRW Princeville Development Company LLC ("PRW Princeville") hereby submits its Annual Progress Report pursuant to the conditions set forth in the State Land Use Commission ("SLUC") Findings of Fact, Conclusions of Law, and Decision and Order in Docket No. A83-557, dated July 1, 2011 (the "Decision and Order"). An original and two copies are being submitted to the SLUC. Pursuant to the Decision and Order, copies are being submitted to the Office of State Planning, County of Kauai Department of Planning, and to Teresa Tico, Esq., the last known attorney for Intervenor Concerned Citizens of Anini.

I. Project Status

Since the last annual report, there has been no change in the project status. However, PRW Princeville hereby informs the Commission that PRW Princeville has entered into an unrecorded Option Agreement with North Shore Preserve, Inc., a Delaware corporation ("NSP"), an assignee of North Shore Preserve LLC, a memorandum of which was recorded in the Bureau of Conveyances of the State of Hawaii as Document No. A-65430915.

Upon NSP's exercise of the option, PRW understands that NSP intends to rename the Project as the "North Shore Preserve" and amend and restate the condominium documents, and PRW has agreed to amend and restate the existing Master Declaration of Covenants, Conditions and Restrictions along with the Restrictive Covenants governing the agricultural program. PRW Princeville will notify the Commission upon the exercise of the option and the conveyance of Units to NSP.

II. Commission Conditions.

Listed below are the conditions imposed under the Decision and Order and the status of activities pertaining to each respective condition. Many of the conditions will be addressed or complied with as further progress on the project is achieved.

1. *The Subject Area's maximum of 18 homesites will be capped by Petitioner through Housing Agreement (Doc. 2010-158386), and through Conditions, Covenants, and Restrictions ("CCRs").*

Status: This condition has been satisfied. Pursuant to the Community Documents, 16 homesites were established within the Subject Area is substantially the same configuration as Exhibit "A" attached to the Decision and Order.

2. *Petitioner will implement consultant recommendations for the koaʻa specimens on the Subject Area, including a program for seed collection, propagation, and outplanting in consultation with the State Department of Land and Natural Resources, Forestry and Wildlife Division.*

Status: PRW Princeville retained an expert arborist, Kevin Eckert of Arbor Global LLC, to develop the koaiʻa seed propagation and outplanting program. Mr. Eckert conferred with the Department of Land and Natural Resources, Forestry and Wildlife Division, and the koaiʻa seed propagation and outplanting program is in progress.

3. *An endangered species awareness program will be developed, which includes general information on the endangered species act and protected species, specific restrictions that will be in force on the job site to protect endangered species, and a set of protocols on who, and how job site personnel will respond to any downed or injured endangered species that may occur on the site. The endangered species awareness program will be implemented by the master developer as well as individual homesite developers.*

Status: PRW Princeville has developed an endangered species awareness program. A copy of the endangered species awareness program is attached. Each purchaser will be provided a copy of the endangered species awareness program.

4. *If construction activity is planned to occur during the Nene nesting season, which typically runs from October through March on Kaua'i, the Subject Area and individual homesite areas will be surveyed by a qualified biologist before the onset of nesting, to determine if there is any active Nene nesting activity occurring on the site. If active Nene nesting does occur while construction is ongoing, a Nene monitoring protocol will be in place to ensure that no harm befalls the birds.*

Status: This restriction has been incorporated into the Restrictive Covenants. The Nene nesting protocol is included in the endangered species awareness program, which will be implemented as part of the design review process.

5. *All exterior lighting associated with the operation of the proposed development and homesites will be shielded so as to reduce the potential for interactions of nocturnally flying Hawaiian Petrels and Newell's Shearwaters with external lights and man-made structures.*

Status: This condition is included within the Design Guidelines for the community.

6. *Although not detected, Hawaiian hoary bats have been recorded foraging for insects over the Subject Area in the past. To the degree that any clearing of vegetation in gulches occurs, all contractors will be advised to avoid clearing and grubbing in the months of June and July to avoid disturbing female bats carrying pups as recommended by Petitioner's consultant.*

Status: This condition has been incorporated into the Restrictive Covenants and the endangered species awareness program, and will be implented as part of the design review process.

7. *There are no federally or state listed endangered or threatened species on the Subject Area. There is also no federally designated Critical Habitat for any invertebrate species on or adjacent to the Subject Area. The homesite development activity on the Subject Area is not expected to threaten entire species or entire populations of invertebrates. Petitioner's compliance with its consultant's recommendation to discourage removing native flora environments, including on steep slopes, and in ravines should provide habitats for the few native invertebrate species.*

Status: The Design Guidelines will contain provisions discouraging the removal of native flora.

8. *The development on the Subject Area will have minimal to no impacts on Hawaiian cultural beliefs, practices, resources (historic and/or cultural properties), sites, and traditions. If 'iwi or cultural resources are found during the ground disturbance and construction phases of the individual homesites, cultural and lineal descendants of the area and appropriate agencies will be notified and consulted in regard to preparation of appropriate mitigation plans, including a burial treatment plan.*

Status: This requirement has been incorporated into the Community documents.

9. *Kuhio Highway is designated as a Scenic Roadway Corridor in the North Shore Planning District Heritage Resources Map of the County General Plan. The southern border of the Subject Area borders this scenic corridor. To minimize obstruction of views along the highway and public views toward the coast from the highway, homesites will be set away from Kuhio Highway as much as possible and landscape plantings and dwelling orientation and design will be used to both screen noise and traffic from the homesites and preserve view corridors from the highway to the ocean. Setbacks from the bluffs will reduce visual impacts from 'Anini Beach and Kalihi Kai Beach, and drainage valleys will separate the dwellings from the adjacent 'Anini Vista Subdivision. Portions of the dwellings' roof lines may be visible from the highway and from 'Anini Vista. The CCRs will require landscape screening to mitigate adverse visual impacts of the proposed dwellings.*

Status: The Community documents include setbacks, roof line restrictions, and landscape mitigation measures that have been developed in consultation with the County to address scenic resource issues.

10. *Short-term impacts from fugitive dust during construction may potentially occur. Because of this, an effective dust control plan for the period of construction will be prepared and implemented.*

Status: The Design Guidelines will contain requirements for control of fugitive dust emissions during construction.

11. *Petitioner will implement the [traffic] recommendations [contained in the Decision and Order]. With the implementation of the recommendations in the traffic impact report, the Project, including the development on the Subject Area, is not expected to have a significant impact on traffic operations.*

Status: PRW Princeville will comply with this condition.

12. *Petitioner will prepare a solid waste management plan for the Project, including the development on the Subject Area, as part of its sustainable development initiatives to reduce the impact that the development will have on the County solid waste management facilities. The solid waste management plan will identify efforts to minimize waste generated by the development during construction and at build out.*

Status: This condition has been satisfied. A Solid Waste Management Plan has been adopted and is included in the Restrictive Covenants. Additionally, the initial Design Guidelines contain a chapter entitled "Sustainable Building Strategies" that specifically addresses waste reduction, energy demand reduction, utilization of durable local materials, as well as recycling.

13. *Petitioner will incorporate low impact development designs and practices for onsite storm water management into the design and development of backbone infrastructure and drainage systems to the extent practicable, and will promote the use of low impact development techniques by individual homesite developers. Petitioner will limit clearing of vegetation during construction of backbone infrastructure and CCRs will discourage clearing of vegetation by homeowners and occupants of dwellings to avoid the potential for non-point source pollution of surface and coastal waters due to soil erosion and debris from runoff.*

Status: PRW Princeville will address this condition during the design process. Additionally, the Design Guidelines contain provisions regarding sustainable building strategies, and discourage homeowners from clearing vegetation.

14. *In a letter to OP dated May 6, 2011, the State Civil Defense ("SCD") office requested that Petitioner fund and install at least one 121 DBC solar-powered siren to provide outdoor siren warning coverage in the new development area. A final determination on the*

placement of the siren will be available as soon as SCD can view the final development plans. Petitioner will consult with SCD in complying with this request.

Status: The condition is ongoing. Petitioner will continue to work with SCD with respect to a siren for the Subject Area, if SCD determines such a siren is needed. PRW Princeville notes that a new siren was recently installed near Anini Beach, in close proximity to the Subject Area.

15. *Petitioner shall develop the Subject Area, including the implementation of mitigation measures within the Subject Area as recommended by its consultants in the Planning Report attached as Exhibit 1 to the Motion, in substantial compliance with the representations made to the Commission. Failure to so develop the Subject Area may result in reversion of the Subject Area to its former classification, or change to a more appropriate classification.*

Status: PRW Princeville is proceeding with development of the Project in substantial compliance with representations made to the SLUC.

16. *Petitioner shall give notice to the Commission of any intent to sell, lease, assign, place in trust, or otherwise voluntarily alter the ownership interests in the Subject Area, prior to development of the Subject Area.*

Status: PRW Princeville will comply with this condition. See Item #1 above.

17. *Petitioner shall timely provide without any prior notice, annual reports to the Commission, OP, the Planning Department, and Intervenor in connection with the status of the development of the Subject Area and Petitioner's progress in complying with the conditions imposed herein. The annual report shall be submitted in a form prescribed by the Executive Officer of the Commission.*

Status: This annual report is being filed pursuant to this condition.

18. *The Commission may fully or partially release the conditions provided herein as to all or any portion of the Subject Area upon timely motion and upon the provision of adequate assurance of satisfaction of these conditions by Petitioner.*

Status: This condition is not currently applicable.

19. *Within seven days of the issuance of the Commission's Decision and Order, Petitioner shall (a) record with the Bureau of Conveyances a statement that the Subject Area is subject to conditions.*

Status: This condition has been satisfied. A Notice of Imposition of Conditions by the Land Use Commission was recorded July 8, 2011 in the Bureau as Document No. 2011-107459.

20. *Petitioner shall record the conditions imposed herein by the Commission with the Bureau of Conveyances pursuant to § 15- 15-92HAR.*

Status: This condition has been satisfied. A Declaration of Conditions was recorded in the Bureau as Document No. 2011-110844.

Should you require any further information, please do not hesitate to contact me.

Regards,

PRW Princeville Development Company LLC

By: Commercial Property Advisors, Inc.
Its Manager

By: _____
Name: Kendall C. Kim
Its Treasurer

Enclosure

ENDANGERED SPECIES AWARENESS PROGRAM AND PROTECTION PLANS, FOR TWO ENDANGERED SPECIES: THE HAWAIIAN HOARY BAT AND THE HAWAIIAN GOOSE

FINAL REPORT

Hamer Environmental
WWW.HAMERENVIRONMENTAL.COM

September 22, 2017

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1. Introduction to the Endangered Species Awareness Program (ESAP)

The purpose of this Endangered Species Awareness Program (ESAP) is to provide important information for landowners, construction and landscape personnel, and those hired or enlisted to perform work where listed species can be potentially impacted. ESAP information includes the legal aspects and pertinent life history characteristics, of key protected species that may be encountered during development of raw land and the best management practices to avoid impacts to these species.

The North Shore Preserve LLC intends to develop the Subject Area, a 17-lot subdivision proposed for agricultural and associated farm dwelling uses with a combined total area of approximately 583 acres. Distributed to landowners and developers of this Subject Area, the ESAP includes a PowerPoint presentation as an added training tool. This tool would be used to train those people involved in building and land clearing, and includes the spectrum from small- to large-scale projects. For example, such training would be for construction and utility workers, landscapers, excavators, and tree trimmers. An informational brochure available to the landowners, construction companies and the general public will summarize the Best Management Practices when encountering a protected species when these activities are taking place, as well as step-by-step procedures to follow during wildlife emergency situations.

2. Federal Endangered Species Act (ESA) and Migratory Bird Treaty Act (MBTA)

2.1 Endangered Species Act

The Endangered Species Act (ESA) protects endangered and threatened species and their habitats by prohibiting the "take" of listed animals without prior government approval. "Take" means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to engage in any such conduct."

Table 1. Definition of "harass" and "harm" as described in the ESA.

Harass	Harm
"An intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering."	"An act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering."

The law's ultimate goal is to recover species so they no longer need protection under the ESA. Species Recovery plans are written by biologists and species experts and describe the steps needed to restore a species to ecological health. Since two-thirds of federally listed species have at least some habitat on private land, and some species have most of their remaining habitat on private land, the U.S. Fish and Wildlife Service (USFWS) has developed an array of tools and incentives to protect

the interests of private landowners while encouraging management activities that benefit listed and other at-risk species.

Two federally listed species have been detected or are known to breed and forage in the Subject Area (seventeen lots proposed for agricultural and associated farm dwelling uses with a combined total area of approximately 583 acres): the Hawaiian Hoary Bat (*Lasirus cinereus semotus*) and the Hawaiian Goose (*Branta sandvicensis*).

2.1.1 Hawaiian Hoary Bat or Ōpeaʻapeʻa

The Hawaiian Hoary Bat was federally listed as Endangered on October 13, 1970. A Recovery Plan for the Hawaiian Hoary Bat was written by the USFWS in 1998.

Link to most recent recovery plan: https://ecos.fws.gov/docs/recovery_plan/980511b.pdf

2.1.2 Hawaiian Goose or Nēnē

The Hawaiian Goose, commonly known as "Nēnē," was federally listed as Endangered in 1967. In 2004, USFWS revised their Recovery Plan.

Link to most recent recovery plan: https://ecos.fws.gov/docs/recovery_plan/040924a.pdf

2.2 Federal Migratory Bird Treaty Act

Several of the bird species known to occur in the Subject Area, including the Hawaiian Goose, are also protected by the Migratory Bird Treaty Act (MBTA) of 1918 (revised in 2010).

The MBTA prohibits taking, killing or possessing migratory birds. Unless federally permitted, the MBTA also makes it unlawful to pursue, hunt, take, capture, kill, possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product.

Importantly, the MBTA does not apply to introduced, non-native migratory birds in Hawaiʻi, like the barn owl and cattle egret.

A full list of birds protected under the MBTA, can be found at:
http://www.pacificwildlife.org/info/online%20docs/fmbtalist.pdf

3. State Protection Regulations: Hawaiʻi Department of Land and Natural Resources

3.1 Chapter 195D, Hawaiʻi Revised Statutes

Chapter 195D, Hawaiʻi Revised Statutes, is the State of Hawaiʻi equivalent of the Federal ESA. Except as permitted by rules, Chapter 195D expressly prohibits any person to take, possess, transport, transplant, export, process, sell, offer for sale, or ship any species determined to be in need of conservation. Similar to the ESA, the term "take" is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collected endangered or threatened species of aquatic life or wildlife, or to cut, collect, uproot, destroy, injure, or possess endangered or threatened species of aquatic life or land plants, or to attempt to engage in any such conduct."

The overall goals of conservation actions are to not only protect current populations and key breeding habitats, but also to establish additional populations, thereby reducing the risk of extinction.

Both the Hawaiian Hoary Bat and the Hawaiian Goose are additionally protected at the state-level.

3.1.1 Hawaiian Hoary Bat or Ōpeaʻapeʻa

The Hawaiian Hoary Bat was Hawaiʻi-State listed as Endangered on October 13, 1970. In addition to statewide and island-wide conservation actions, specific management directed toward Hawaiian Hoary Bats includes:

- Conservation of known occupied habitats.
- Development and implementation of conservation plans to reduce known negative impacts.
- Continued support for the Hawaiian Hoary Bat Research Cooperative.

3.1.2 Hawaiian Goose or Nēnē

The Hawaiian Goose is also State listed as Endangered. Past and current conservation actions include:

- Captive propagation and release of captive-bred individuals into the wild.
- Predator control and habitat enhancement.
- Research and long-term monitoring.
- Private conservation efforts.
- Formation of the Nēnē Recovery Action Group.
- Public outreach and education.

4. Identification, Habitat Preference, and Indications of Presence of Hawaiian Hoary Bats and Hawaiian Geese

It is important for landowners, land developers, construction workers, and landscapers to be able to identify the Hawaiian Hoary Bat and the Hawaiian Goose – adults and juveniles – as well as the different habitats used by these species for breeding, rearing young, and feeding. Additionally, being familiar with indicators that point to the possible presence of adult and juvenile Hawaiian Hoary Bats and Hawaiian Geese is equally important.

4.1 Hawaiian Hoary Bat or Ōpeaʻapeʻa

Residents of Kauaʻi should know some information about the Hawaiian Hoary Bat because this species is a benefit for landowners to have around. Increasing awareness about the plight of these palm-sized creatures can help protect their existence.

In 2011, the Hawaiian Hoary Bat became the official state land mammal. Granted, it is the only endemic land mammal in Hawaiʻi and thus it is the only species of bat found in Hawaii. These bats weigh a mere half to three-quarters of an ounce and wear a brown and gray fur coat. The name comes from the bat's white-tinged furry tips around the ears and the frosted or "hoary" look overall. They have a wing span of about 10.5- to 13.5-inches. Females are larger than males.

4.1.1 Photos of Adults

4.1.2 Photos of Juveniles

Each Hawaiian Hoary Bat can eat up to 40-percent of its own body weight in a single meal. They eat insects that include termites, mosquitoes, flies, stink bugs, beetles, moths, and crickets. Landowners benefit from the presence of bats that can control these nuisance insect populations easily, cost-effectively and naturally.

Hawaiian Hoary Bats don't roost in large congregations. They are solitary when roosting, except for a female with pups. These bats roost from 3-29 feet above ground level, and they prefer dense canopy foliage or the sub-canopy where foliage is somewhat sparse. They prefer trees with open access for launching into flight, such as albizia and eucalyptus trees. Prime habitats for roosting include rain forests, disturbed habitats, xeric landscapes, and urban areas.
Bats may roost and forage in habitats with the following vegetation:

- ʻŌhiʻa (*Metrosideros polymorpha*)
- Pu hala (*Pandanus tectorius*)
- Coconut Palm (*Cocos nucifera*)
- Kukui (*Aleurites moluccana*)
- Kiawe (*Proscopis pallida*)
- Avocado (*Persea americana*)
- Shower trees (*Cassie javanica*)
- Pūkiawe (*Styphelia tameiameiae*)
- Fern clumps (various spp.)
- Eucalyptus (*Eucalyptus spp.*)
- Sugi pine (*Cyrptomeria japonica*)

Hawaiian Hoary Bats use a variety of habitats for foraging. Typically, the bats leave their roost shortly before or after sunset and they return before sunrise. They are regularly observed feeding over streams, reservoirs, and wetlands. They also utilize areas that are open or wooded, and habitats with a wide range of vegetation types. Insects that congregate around the glow of artificial lights are an ideal food source that attracts bats. Hawaiian hoary bats have distinct core-use areas averaging about 63 acres, and can travel as far as 6 to 8 miles one-way in a night to forage.

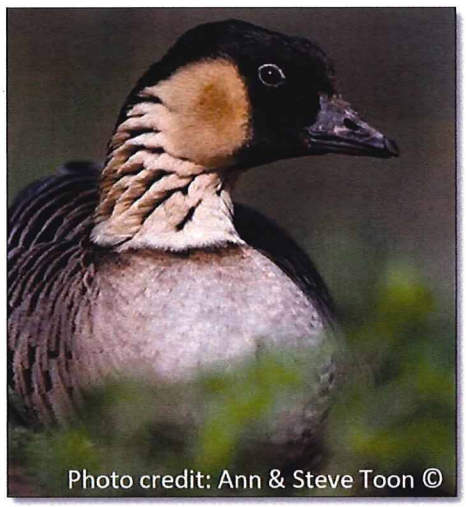
Habitat examples include:

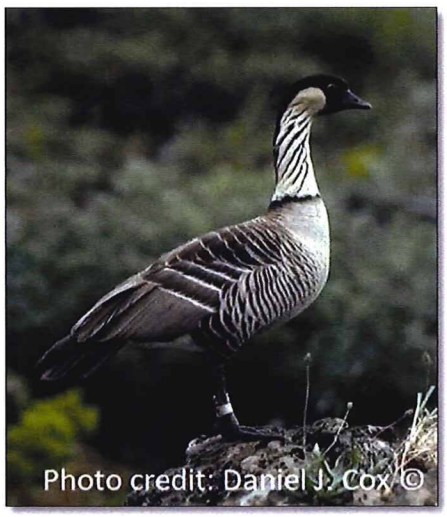
- Barren land for foraging.
- Croplands with tall windbreaks and other orchards for foraging and roosting.
- Developed land including golf courses, city and residential areas, rural roads, and farmsteads for foraging and roosting.
- Forests where trees dominate, such as Eucalyptus plantations, Albizia-dominant stands, and forests dominated by ʻŌhiʻa, Koa, and Māmane-naio for foraging and roosting.
- Rural yards and windbreaks for foraging and roosting.
- Pastureland with forest component for foraging.
- Rangeland that has fallow fields near forest for foraging.
- Water areas like reservoirs, wetlands, river corridors, and coastal shores for foraging.

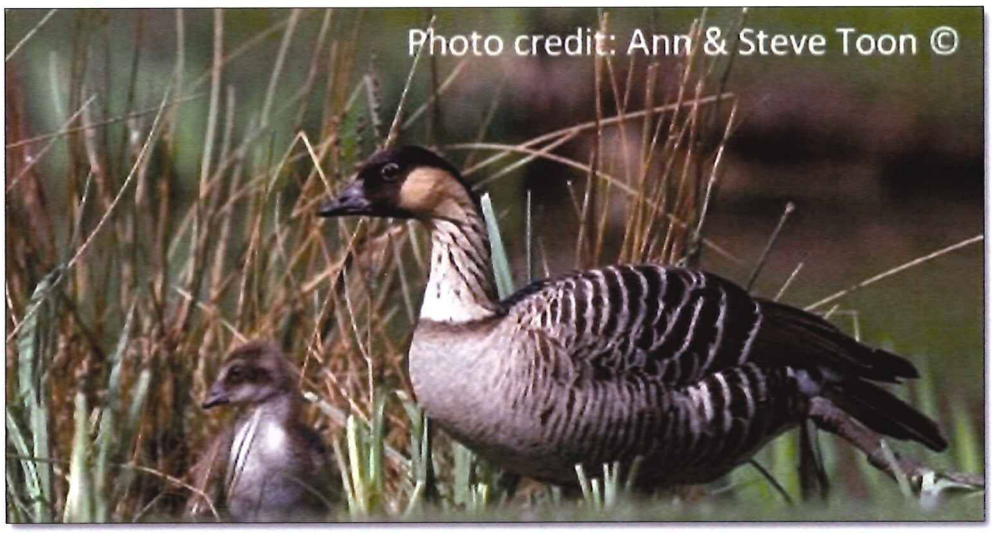
Relatively little research has been conducted on this Hawaiian endemic species. Data regarding its habitat needs and population status are very limited. Most of the available documentation suggests that this elusive bat is threatened by habitat loss, pesticide poisoning, predation, and roost disturbance.

4.2 Hawaiian Goose or Nēnē

The official bird of Hawaiʻi, the Hawaiian Goose, is considered rare. This medium-sized bird is only about 25-27 inches long. It has black feathers around the eyes and upper face, on the crown of its head, and extending down the back of its neck. The cheeks are golden-buff colored like the throat, but are tinged with ochre. Striking black diagonal furrows run the length of the neck. Males and females have similar plumage and are therefore difficult to tell apart.







The Hawaiian Goose has relatively long legs for a goose. These limber limbs allow it to run and climb over very rugged terrain, and to walk without the typical waddle. Unlike other geese, Hawaiian Geese do not require open water sources, however, they will swim if there is water near to their nest. They are not necessarily efficient paddlers because Hawaiian Geese have feet that are only partially webbed.

Hawaiian Geese live a more terrestrial, non-migratory lifestyle in the Hawaiian Islands. They are known to occupy various habitat and vegetation community types ranging from coastal dune vegetation to alpine grasslands and shrublands. Adults feed on grasses and fruits of native and introduced plants. Hawaiian Geese are attracted to feeding opportunities provided by mowed grassy areas, such as lawns, golf courses and pastures. They also feed off human handouts, thus becoming tame and unafraid of human activity, which makes them vulnerable to accidents. Human presence can also disrupt nests and brooding family groups.

What plants Hawaiian Geese eat depends largely on the composition of vegetation in their surrounding habitats. These geese appear to be opportunistic in their choice of food plants as long as they are meeting their nutritional demands. Hawaiian Geese may exhibit seasonal movements to grasslands in periods of low berry production, and in wet conditions that produce grass with a high

water content and resulting higher protein content. These herbivores are seed dispersers, and therefore play a key ecological role in influencing plant communities.

Hawaiian Geese face a variety of threats. Predation by non-native mammals like cats, dogs and rats pose the most serious threat. Hawaiian Geese take off and land with a very low-to-the-ground flight path and can easily collide with vehicles and man-made structures. Birds foraging along mowed roadsides are at risk from being hit by cars. Nesting and brooding sites separated by roads make it even more dangerous for adult pairs to transit with goslings.

Hawaiian Geese are heard as well as seen. Vocalizations vary and include soft mewing or mooing, loud cackling alarm calls, and high-pitched trumpeting for long-distance communication.

5. General Life History and Breeding Information, Including Information on When to Expect Each Species Within the 583-acre Subject Area

5.1 Minimizing Disturbance to Breeding Species

To minimize impacts to Hawaiian Hoary Bats and Hawaiian Geese, it is helpful to know general information about the breeding biology of each species along with their nesting habits and when they would most likely be present in the Subject Area and vulnerable to disturbance.

5.1.1 Hawaiian Hoary Bat or Ōpeaʻapeʻa

Because of their low numbers and sparse populations, little is known about the biology and breeding behavior of Hawaiian Hoary Bats. Bat activity varies seasonally, with most occurring from April to December.

Breeding has only been documented on Hawai'i and Kauaʻi Islands. Mating most likely occurs between September and December. Females give birth to twins from May until early July, and stay with their pups for 6-7 weeks. Nothing is known about annual survival or longevity. Warm temperatures are strongly related to breeding success. Hawaiian hoary bats do not appear to be site loyal, they may return seasonally to the same area but not necessarily the same tree. They are, however, somewhat adaptive to human-modified landscapes.

Roost disturbance is a common threat to Hawaiian Hoary Bats and a violation of federal and state endangered species laws. Such disturbance includes clearing trees that bats roost in, loud and unpredictable activities such as construction work near a bat roosting site, or other human activities that alter the normal feeding and breeding patterns or cause direct mortality. Roost disturbance (felling or pruning trees that bats are using) when juvenile hoary bats fledge (June-September) has the highest potential for negative impacts.

5.1.2 Hawaiian Goose or Nēnē

Hawaiian Geese have the longest nesting season of any wild goose species. Eggs can be found in all months except May-July, although the majority of birds nest from October through March. Female Hawaiian Geese lay their clutch, typically three eggs, on the ground in hollows amongst vegetation. Their nests are often found in a 'kipuka' (an island of vegetation surrounded by barren earth). Hens

incubate for about 30-days. After hatching, goslings are flightless for about 10- to 14-weeks, making them particularly vulnerable to predation.

Hawaiian Geese nests are down-lined (pictured above, left) and nesting geese are usually well concealed under bushes (pictured above, right). Hawaiian Geese are site loyal, nesting in the same area year after year. Family groups begin flocking soon after the young are able to fly and these groups remain in their breeding areas for about a month, wandering around in search of food. Once the juveniles are efficient at flying, the geese may travel long distances from their breeding area.

6. Potential Impacts To the Hawaiian Hoary Bat and the Hawaiian Goose

Knowing the potential impacts to Hawaiian Hoary Bats and Hawaiian Geese is important for understanding how to minimize negative interactions with these species. Best Management Practices aimed at minimizing or eliminating negative interactions with Hawaiian Hoary Bats and Hawaiian Geese are discussed in Section 7.

6.1 Hawaiian Hoary Bat or Ōpeaʻapeʻa

6.1.1 Potential Impacts

The most common and detrimental impacts occur when juvenile Hawaiian Hoary Bats that are too small to fly but too large to be carried by a parent, are present in a tree that is being trimmed or felled. From June 1st to September 15th when pups are present, you can directly impact or injure bats by trimming, pruning, cutting or clearing trees and shrubs.

Other impacts come from exposure to loud and unpredictable noises, pesticide poisoning, habitat loss, predation, collision with man-made structures, and collision with barbed-wire fencing.

Activity rates recorded for Hawaiian Hoary Bats on Kauaʻi are highest from April to December. Females give birth in May and June. Importantly, females and flightless pups are present from June 1st to September 15th. Avoid conducting activities that can potentially impact this species when pups are flightless.

6.2 Hawaiian Goose or Nēnē

6.2.1 Potential Impacts

Many Hawaiian Geese primarily die as a result of interacting with humans and human activities. The Hawaiian Goose evolved without people, and therefore it has no instinct to avoid them. Hawaiian Geese will often approach people without fear. Feeding these protected species is illegal and harmful for the individual bird. Hand feeding teaches these birds to associate humans with food.

Roads and parking lots are frequent places where Hawaiian Geese are impacted. Geese and goslings are hit or run over by vehicles. If foraging and nesting areas are separated by roadways, flocks face dangers when crossing. Hawaiian Geese forage in the short grass along roads and trails. Interactions with cyclists, domestic pets, and golf carts are detrimental to this species. Pay extra attention in areas where collisions could occur.

Hawaiian Geese can become ill or die, or even entangled in trash strewn along roadsides and windbreaks. They can be attacked by cats and preyed upon by dogs. The available habitat for Hawaiian Geese is shrinking, with preferred habitat changing into residential and urban settings. Hawaiian Geese breed from October through March. Be vigilant for their presence during this time.

7. Best Management Practices (BMP's)

Best Management Practices (BMP's) are management techniques that use a combination of technologies and well-established practices and protocols to manage protected species and their habitats. BMP's can be structural, requiring installation or building. Structural BMP's include road barriers, erosion fencing, and runoff diversion culverts. BMP's can also be part of a process that is planned and conducted, such as flagging buffers around nesting geese, and surveying for bats before tree pruning and land clearing.

All landowners, residents, grounds management and maintenance personnel, as well as construction contractors, utility workers, excavation and land clearing crews, and project managers will be asked to attend the Endangered Species Awareness Program PowerPoint training session. Implementing

the BMP protocol ensures that everyone puts into practice effective techniques that are proven to minimize potential impacts on protected species. A printed informational brochure which include BMP protocols, will also be produced and included in the sales material, and will be displayed in conspicuous areas.

If you observe, or are informed of, any federal and/or Hawai'i-State listed species in imminent danger, immediately contact The Kaua'i Division of Forestry & Wildlife (DOFAW) Wildlife Management staff (see Section 10). In cases of emergency, directions given by DOFAW Wildlife should be followed immediately without need for additional consultation. Section 10 of this ESAP covers Wildlife Emergency Protocols.

7.1 Hawaiian Hoary Bat BMP's

The following measures can help to reduce or eliminate the chance of negatively impacting Hawaiian Hoary Bats.

7.1.1. General Protocols for the Hawaiian Hoary Bat

- Erect all fences, whether permanent or temporary, with a barbless, top-strand wire. Hawaiian Hoary Bats are prone to being entangled on fences that a have a barbed wire as their top strand. If barbed-wired fences are already present, remove the top strand of barbed wire and/or replaced it with barbless wire.
- Avoid excessive trimming, cutting and pruning of vegetation over three feet tall from June 1 to mid-September.
- Reduce outdoor lighting at night to limit the attraction of insects that bats feed on, thereby reducing the chance of collision with man-made structures.
- Limit pesticide use, both herbicides and insecticides, especially during the pupping period to avoid both directly and indirectly poisoning bats that are roosting, breeding and/or foraging in the area.
- In orchards, increase horizontal and vertical vegetative structure by enhancing windbreaks. Plant multi-species tree-shrub windbreaks with varied leaf forms and use native species.
- In tree plantations, avoid extensive clear-cuts; integrate selective harvest techniques; create gaps, bays, or irregular forest edges.
- Leave snags (dead or dying trees) and downed wood – old trees and decomposing woody debris provide good habitat for insects and other organisms eaten by bats.
- Keep cats and dogs restrained and away from bat roost sites, particularly during the breeding season.
- If unsure whether Hawaiian Hoary Bats will be impacted, contact the Biological Contractor for consultation and monitoring services to help determine if bats are present on your property.
- Get involved in community and island-wide bat conservation efforts.

7.1.2 Additional Hawaiian Hoary Bat Protocols for Workers On-site

- Refrain from long-term construction projects during the pupping period to reduce noise levels.
- From June 1 and September 15 (pupping season), no trees taller than 15 feet should be trimmed or removed. If a 15 ft. or taller tree needs to be trimmed or cut during this period, retaining a

biological monitor to conduct surveys would reduce the chance of disturbing any bats present (see Section 9 for more information on biological monitors).

- Restrict working at night under bright lights to avoid attracting insects that Hawaiian Hoary Bats feed on.
- Where clearing of vegetation in gulches occurs, all contractors will be advised to avoid clearing and grubbing in the months of June to mid-September to avoid disturbing breeding Hawaiian Hoary Bats with excessive loud noises and vibration.
- If riverbank management (e.g., dredging) is necessary, restrict management to small areas or one bank at a time; protect habitat by retaining natural meanders, shallow pools and riffles, and bank-side trees and shrubs.

7.2 Hawaiian Goose BMP's

The following measures can help to reduce or eliminate the chance of negatively impacting Hawaiian Geese.

7.2.1. General Protocols for the Hawaiian Goose

- Watch for the posted yellow "Nēnē Crossing" signs and drive slowly in these areas; collisions are a leading cause of death.
- Dispose of garbage and food items properly
- Keep recycle and trash areas around buildings clean and free of food debris.
- Pick up trash along roadways.
- Check beneath your vehicle before driving away.
- Keep pets on a leash when Hawaiian Geese are present, especially dogs.
- Do not ever feed, pet, approach or otherwise harass Hawaiian Geese. They are wild animals and can inflict injury if threatened.
- Identify and protect habitats used by the Hawaiian Goose for foraging, breeding, and flocking.
- Exclude feral ungulates through fencing, or control feral ungulate populations through trapping or hunting. This will reduce the risks of trampling of nests, eggs, and vegetation surrounding nests. It will also reduce disturbance to nest sites.
- If unsure whether Hawaiian Geese will be impacted, contact the Biological Contractor for consultation and monitoring services to help determine if these geese are present on your property (see Section 9 for more information on biological monitors).
- Get involved in the conservation of the Hawaiian Goose.

7.2.2 Additional Hawaiian Goose Protocols for Workers On-site

Hawaiian Geese may be present in areas where they are exposed to stressors including loud and unpredictable noises, vibration, sudden increases in vehicle and pedestrian traffic, flight-path obstacles, garbage and increased predation. The following BMP's address minimizing impacts to Hawaiian Geese in regards to construction parking, traffic, trash, and other peripheral construction activities.

- If an actively used nest is found, immediately halt all activity within 500 feet of the nest and contact DOFAW (see Section 10.1.1. for emergency contacts).
- If one or more Hawaiian Goose is found, immediately halt all activity within 150 feet of the bird. Do not approach the bird. Work may continue when bird leaves the area of its own accord.

- Provide construction trash cans with tight fitting covers. Secure cans to prevent them from being knocked or blown over.
    - Have sufficient sizes and numbers of trash cans as needed,
    - Increase the schedule of trash removal as needed for the project.
- Ensure that loose items of construction waste and debris are secured from wind dispersal.
- Secure building materials and tools/equipment that are susceptible to wind dispersal.
- Waste products such as wood, scrap insulation, packaging material, waste concrete, and various other construction debris must be disposed of properly.
- Enforce a speed limit of 15 miles per hour for all vehicular traffic in the construction area.
- Temporarily install speed humps when Hawaiian Geese are identified in the area, and removed or relocated them when geese are no longer present.
- Check beneath all equipment before driving away in machinery.
- Check beneath personal vehicles parked at the worksite before driving away.
- Erect signage in designated areas where geese are known to be present to point out speed limits, parking areas, food disposal sites and yellow caution "Nēnē Crossing" signs and "Please Do Not Feed the Nēnē" signs.
- Ensure that food scraps, beverage containers and other such trash items are properly disposed
- No pets at the work site.
- Cease grading, leveling, and excavation, and restrict traffic, equipment location, and vibration when geese are present in the work area.
- Erosion fencing must not block low flight paths of Hawaiian Geese or restrict known goose crossings.

8. Potential Impact to Two Federal and State Protected Seabirds

8.1 Nocturnal Seabirds on Kaua'i

During the nesting season on Kaua'i, nocturnal seabirds fly to and from their land-based nests in the dark of night to avoid predators. Nocturnal birds, in general, have acute night vision, and they use the moon and stars to navigate. On Kauai'i, there are two federally listed nocturnal seabirds that are greatly affected by artificial bright light sources:

- Hawaiian Petrel or 'Ua'u (*Pterodroma sandwichensis*) – federally and state listed as Endangered; and
- Newell's Shearwater or 'A'o (*Puffinus newelli*) – federally and state listed as Threatened.

Hawaiian Petrel or 'Ua'u

Newell's Shearwater or 'A'o

8.2 Identifying Hawaiian Petrel and Newell's Shearwater

Hawaiian Petrel and Newell's Shearwater both have dark colored backs and white underparts. Hawaiian Petrels are approximately 16 inches long with a wing span of 36 inches, and Newell's Shearwaters are approximately 12-14 inches long with a wing span of 30-35 inches.

In flight, Hawaiian Petrels are more angular in shape, with long pointed wings and tail, whereas Newell's Shearwaters have wings and a tail that appears more rounded. Distinguishing characteristics of Hawaiian Petrels include a white face patch at the base of a short black bill, and a distinct black collar partially draping the sides of the neck. Newell's Shearwaters sport a longer bill and have dark coloration on the face that extends below the eye.

8.3 General Breeding Habits

Breeding occurs from March/April until December. Both species nest in underground burrows and in deep rock crevices. Both adults participate in incubation, hatching and chick rearing duties. Arrival and departure of adults at the nest occurs throughout the night, and the single chick being raised only ventures out of the burrow at night a few times prior to fledging. Fledging occurs from September 15th to December 15th.

8.4 Nocturnal Seabirds and Nighttime Light Pollution

Hawaiian Petrels and Newell's Shearwaters become disoriented and blinded by artificial bright lights that are emitted skyward. The birds circle around lit areas until total exhaustion or until they crash into something. Seabirds have legs positioned far back on their body, making them excellent paddlers in the ocean, but awkward and inefficient land travelers.

When these nocturnal seabirds fall to the ground, a phenomenon called "fallout," they become stranded and vulnerable to threats that include predation by dogs, cats, and rats, being struck by vehicles, starvation, and hypothermia. While unnatural light sources affect adults, newly fledged chicks are impacted the most.

Biologists on Kaua'i have studied the fledgling "fallout" phenomenon in Hawaiian Petrels and Newell's Shearwaters for over 30 years. Residents of the island have a wealth of available

information on how to avoid and minimize light attraction of these imperiled seabirds. Three state-affiliated organizations that provide assistance with seabird-related matters are:

- Kaua'i Save Our Shearwaters (SOS) Program: http://kauaiseabirdhcp.com/sos/
- Kaua'i Endangered Seabird Recovery Program: http://kauaiseabirdproject.org/
- Hawai'i Wildlife Center: http://www.hawaiiwildlifecenter.org/

Importantly, if you find a grounded seabird, you can call the **SEABIRD EMERGENCY HOTLINE: (808) 635-5117**

8.5 Tips on Minimizing Impacts

Here are just a few measures to minimize and avoid harming these federally protected seabirds:

- Restrict construction activity to daylight hours during the peak of the seabird fallout period (September 15th to December 15th).
- Shield all outdoor lights on homes and patios to prevent upward radiation.
- Turn off flood lights or set them with motion detectors from dusk through dawn during peak seabird fallout (September 15th to December 15th).
- Learn about options for seabird friendly lighting from the Kaua'i Seabird Habitat Conservation Plan at: http://kauaiseabirdhcp.com/lighting-homes-businesses/

9. Biological Monitors – When to Use them and Why

9.1 What is a Biological Monitor?

Biological monitors are trained individuals qualified to conduct biological monitoring, surveys, perform predator control, and other similar functions as described in the previous sections. Biological monitors are also responsible to coordinate any protected species translocation activities undertaken by either DOFAW or USFWS.

9.2 When to Contact Biological Monitors?

If construction activity is planned to occur during the Hawaiian Goose nesting season, which typically runs from October through March, the Subject Area and individual home site areas will be surveyed by a qualified biological monitor before the onset of nesting, to determine if there is any active goose nesting activity occurring on the site. If active Hawaiian Goose nesting does occur while construction is ongoing, an Hawaiian Goose monitoring protocol will be put in place to ensure no harm befalls the birds.

On-site biological monitors should also be present and survey and areas before any vegetation removal if construction occurs during the breeding season, to identify and avoid any impacts to Hawaiian Hoary Bats (June 1st to September 15th) and Hawaiian Geese (October through March). In addition, Biological monitors will also conduct surveys immediately prior to the initiation of any mass grading.

9.3 What to Expect from Biological Monitors?

- Early on, a communication protocol between monitors, developers, landowners and construction crews will be established.

- Biological surveys will be of appropriate length and duration to confirm that the protected species are either present or absent.
- The onsite biological monitors will keep a detailed log of predator control efforts and results, if needed.
- Biological monitors will collect data on protected species and provide recommendations based on those findings.
- When Hawaiian Geese are present on the property, the onsite biological monitors will monitor their nesting activity and nesting success.
- They will record details of any incident, including documentation and description of actions taken, and report this information DOFAW Wildlife Management Staff.
- Biological monitors will be able to answer questions or concerns that landowners, constructions workers, managers, developers and ground maintenance crews may have.
- Biologists will also be the liaison between landowners, developers and project managers with the DOFAW's wildlife management staff.

9.4 How to Contact the Biological Contractor for the Subject Area

The main Biological Contractor, Tom Hamer of Hamer Environmental, can be reached at 360-899-5156 (office) or at 360-420-0607 (cell). This contact information will also be displayed in the brochure.

10. Wildlife Emergency Response Plan: What to Do in an Emergency

10. 1 Wildlife Emergency Response Protocol

As part of the conservation measures for Hawaiian Hoary Bats and Hawaiian Geese in the Property Area, an Emergency Response Protocol has been established for land owners and construction workers who encounter these species. While it is best to take precautions to minimize adversely affecting these species, the Emergency Response Protocol should be implemented upon the discovery of any injured, ill or deceased federally listed species on the property.

10.1.1 Emergency Contacts

Stop all work immediately if Hawaiian Hoary Bats and/or Hawaiian Geese are found injured, ill or dead, if roosting sites or nests are disturbed, or if individuals, their roosts/nests, or offspring/eggs are in imminent danger. If such an encounter is made, immediately contact state wildlife officials and the biological contractor.

Biological Contractor
Tom Hamer at Hamer Environmental, LP, Office Phone: 360-899-5156 and Cell: 808-726-3431.

AND

The Kaua'i Division of Forestry & Wildlife (DOFAW), Department of Wildlife Management
Thomas Kaiakapu, DOFAW Kaua'i Wildlife Manager: office: 274-3433; leave a message after hours and on weekends.

In a wildlife emergency situation involving protected species, if the Kaua'i DOFAW staff cannot be reached, contact the closest state-permitted wildlife rehabilitator:

- ❖ Joanne Woltman DVM, Kaua'i Veterinary Clinic, 1864 Haleukana Street, Puhi Industrial Park, Lihue, Kaua'i (office 245-4748; emergency 24/7 services (808)346-0655).

Any wildlife emergency response should proceed as directed by the Kaua'i DOFAW Wildlife Management staff or the permitted wildlife rehabilitator.

10.1.2 Procedures for Handling Injured or Dead Hawaiian Hoary Bats and Hawaiian Geese

Federal and state permits, or other appropriate federal and state authorizations, are required for any person handling Hawaiian Hoary Bats and Hawaiian Geese, whether the animals are alive or dead. Injured or ill animals of these species may only be captured and handled by persons who are lawfully permitted to do so, have been specifically trained in capture and collection methods, and only after approval is received from appropriate agencies.

A. Equipment

The following equipment used for responding to injured or dead Hawaiian Hoary Bats and Hawaiian Geese should be kept on hand by personnel trained and authorized for the capture and collection of these species.

- Pet carriers – 2 large carriers; line floors of each with artificial turf/outdoor carpeting
- Gloves
- Tent stakes (6)
- Digital camera
- Large plastic bags (4+)

B. Procedures for Injured or Ill Birds

If an injured or ill Hawaiian Hoary Bat or Hawaiian Geese cannot fly, do not immediately remove it from the field. Notify Kaua'i DOFAW Wildlife Management staff or the nearest state-permitted wildlife rehabilitator as soon as possible. Mark the area and monitor the bird(s)/bat(s) if possible until DOFAW staff arrives. Record the following information, and photograph the animal(s) if possible, without causing added distress:

1. Date
2. Location
3. Band numbers/colors (if banded)
4. Condition of bird(s) or bat(s) – be specific in describing the type of injury or characteristics of the illness, and the location of the animal(s). Also indicate if any predators are evident in the vicinity. All reasonable measures to eliminate the predator should be taken.
5. Any additional comments
6. Name, address, and telephone number of observer

Only personnel trained and legally authorized in the capture and collection of live or dead endangered species is allowed to handle Hawaiian Hoary Bats and Hawaiian Geese. The following procedures must be followed:

1. Gently pick up and place the animal into the carpeted carrier; only one individual per carrier
2. Mark the exact spot of find(s) with tent stake(s)
3. Transport the animal(s) pursuant to instructions received from DOFAW or the state-permitted wildlife rehabilitator.

C. Procedures for Dead Hawaiian Hoary Bats and Hawaiian Geese and Disturbed Nests/Roosts

Dead bats and disturbed roosts, and dead birds and disturbed nests must be left in place. Notify Kaua'i DOFAW Wildlife Management as soon as possible. Mark the area and monitor the bat and its roost site, or the bird and its nest until DOFAW personnel arrive.

If DOFAW is unable to respond, the consulting biologists may receive verbal permission from DOFAW or the state-permitted wildlife rehabilitator to place the specimen in a sealed plastic bag and transport the carcass to a refrigerator for later retrieval, after they record the following information:

1. Date
2. Location (collection site, as specific as possible)
3. Band numbers/colors (if banded)
4. Condition of bat/bird (e.g., type of injury)
5. Whether the animal was found dead, or died subsequent to discovery
6. Additional comments
7. Name, address and telephone number of observer
8. Photograph showing, at a minimum, the condition and location of the bat and its roost and offspring or the bird and its nest/eggs.

10.1.3 Procedures for Hawaiian Hoary Bats and Hawaiian Geese in Imminent Danger

Immediately contact Kaua'i DOFAW Wildlife Management if Hawaiian Hoary Bats, their roosting/birthing sites, or pups are in imminent danger, or if Hawaiian Geese, their nests, eggs or goslings are in imminent danger. Imminent danger may result from activities related or unrelated to construction and maintenance activities. DOFAW has the authority to make decisions in cases of emergency.

10.1.4 Modifications

This protocol may be modified if new biological information becomes available.

11. CONCLUSION

Hawai'i is home to a unique collection of species. The state harbors at least 113 endemic bird species or subspecies found nowhere else, some of the largest tropical seabird colonies in the world, and an assortment of migratory and resident waterfowl and shorebirds. Unfortunately, the majority of these bird species are known to have gone extinct in Hawaii. Many of the remaining birds are imperiled and therefore protected under the federal ESA. The Hawaiian Hoary Bat, the only native land mammal in the Hawaiian Islands, is also jeopardized by daunting threats. Habitat loss, degradation, effects of climate change such as sea level rise and storm surges, non-native predators, diseases, pesticide poisoning, artificial nighttime lighting and many other factors, may seem like insurmountable threats. In reality, most are manageable through effective long-term commitment measures.

The Endangered Species Awareness Program is one of many conservation tools employed to inform the public of:

- the likely areas endangered species may occur,
- measures that can be taken to avoid and minimize harm to the protected species,

- response procedures for any observed injury, illness, and/or death of a protected species.

This ESAP will be given to landowners purchasing parcels of land, and to all contractors working for those landowners, regardless of job, company, or position. Training will be presented as a PowerPoint presentation and hard copies of the training module will be distributed to all who attend the sessions. Awareness training will include information on all listed species that are protected under the ESA, Chapter 195D and the MBTA and an information brochure will be produced and included in sales material.