Section 7 Biological Assessment, Kūhiō Highway Short-Term Improvements; Kuamoʻo Road to Kapaʻa Temporary Bypass Road, Wailua, Island of Kauaʻi - 2015

FAP No. NH-056-1(50)

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Introduction

The State of Hawai‘i, Department of Transportation, Highways Division (HDOT), Kaua‘i District proposes to widen an approximately 1,030 meters (0.64 miles) section of the existing Kūhiō Highway between Kuamo‘o Road and the southern terminus of the Temporary Kapa‘a Bypass Road in Wailua, Kauai. In addition, improvements are proposed for Kuamo‘o Road from its intersection with the highway extending inland approximately 650-feet.

It is anticipated that the proposed project will use both federal funds administered by the U.S. Department of Transportation, Federal Highways Administration (FHWA) as well as State of Hawaii funds. The use of federal funds is the nexus that triggers a Section 7 consultation under the Endangered Species Act of 1973, as amended (ESA). This Biological Assessment has been prepared as part of that consultation.

An informal, Not Likely to Adversely Affect (NLAA) Section 7 consultation for the originally proposed project was completed in 2008, and the resulting letter of concurrenced was updated and revised in 2009 (USFWS Log # 2008-1-0018). As the proposed project has changed again and it has been more than five years since the last iteration of the consultation was finalized, the USFWS has requested that the project prepare a new Biological Assessment and go through a new Section 7 consultation. This document is part of that new process.

Project Location and Scope

The proposed Kūhiō Highway widening encompasses approximately 1,030 meters (0.64 miles) of Kūhiō Highway between mileposts 5.80 and 6.60 (Figures 1, 2, 3 and 4). Kūhiō Highway (State Route 56) is a part of the National Highway System and provides a critical connection between Līhu‘e and Kapa‘a, the two largest urban centers on Kauai. The project’s southern terminus is located just south of the intersection of Kūhiō Highway and Kuamo‘o Road, located north of the Wailua River Bridge. The proposed improvements would extend north from this intersection along the highway to the intersection of Kūhiō Highway and the Kapa‘a Temporary Bypass Road southern terminus (Figures 1, 2, 3 and 4). Proposed improvements along Kuamo‘o Road would involve extending the existing right-turn storage lane further inland (*mauka*) about 650 feet starting from its intersection with Kūhiō Highway (Figure 1).

The project includes four parcels of land identified as Tax Map Keys (TMKs) 4-01-003: 017 (por.), 039, 044 (por.), and 4-03-002: 006 (por.). TMK 4-1-03:039 consists of a strip of land used as a former cane haul road along the existing Kūhiō Highway.

The proposed project would widen the aforementioned portion of Kūhiō Highway from three to four lanes with the addition of a second southbound through-lane. Improvements would add a paved eleven-foot wide southbound lane, provide for a four-foot wide

shoulder, and include roadside landscaping. Accessory improvements would also be made to an existing drainage culvert along this highway (Figures 1, 2, 3 and 4).

Associated improvements would be made at the intersections of Kūhiō Highway with Kuamoʻo Road, Halellio Road, Papaloa Road, and Lanikai Street to improve vehicular movement through the corridor. These improvements include: 1) signalizing the intersection of Kūhiō Highway with Lanikai Street, 2) improving the highway's intersection with Kuamoʻo Road, 3) restricting left-turn movements at the southern end of Papaloa Road, and 4) modifying the traffic signal plan at Halellio Road. The signalized intersections of Kuamoʻo Road, Halellio Road, and Lanikai Street will be synchronized to optimize traffic flow through this section of the highway.

The relocation of existing utility structures due to the Kūhiō Highway widening will occur within easements established through parcels identified as TMK 4-3-02:006 and 4-1-03:044. Most improvements will occur within portions of the existing State DOT Kūhiō Highway right-of-way, with some improvements occurring within portions of parcels identified as TMK 4-1-03: 017 and 039 generally fronting the former Coco Palms Resort and near the southern terminus of the Kapaʻa Temporary Bypass Road (Figure 1and 2).

The proposed improvements along Kuamoʻo Road would start from its intersection with the Kūhiō Highway and extends *mauka* approximately 650-feet. Kuamoʻo Road is elevated above the surrounding adjacent properties, and thus constructed on fill material. Extending the right-turn storage lane would involve utilizing the existing shoulder area and property within the State DOT right-of-way. Some portions will require fill to allow establishing the storage lane. The seaward bound lane of Kuamoʻo Road will also be repaved as part of this project. Widening improvements will occur within the existing State DOT right-of-way and no acquisition of property will be required. However, an easement may be obtained for portions where some fill is required to support the roadway pavement. Accessory improvements include: 1) extending an existing drainage culvert along Kuamoʻo Road, 2) relocated guardrails and signage, and 3) repaving of existing driveways to State parcels. The driveways affected are to Wailua River Sate Park (TMK 4-1-004:024) and to retail shops (TMK 4-01-004:021) (Figure 1).

There are a total of 26 utility poles within the proposed project action area. Twenty-one of these utility poles have streetlights on them. Seventeen of the existing utility poles will be relocated approximately 2 to 15 feet *mauka* of the existing utility pole locations (Figures 1, 2, 3 and 4). The streetlights along the highway will be located 30 feet above the ground and will consist of 250 watts, cut-off luminaire (GE brand). Lighting will be installed and maintained by Kauai Island Utility Cooperative (KIUC). Since KIUC has recently received approval from the PUC to replace all of 2,900 streetlights on Kauai with low wattage LED's it is quite possible that these fixtures will be used on this project, rather than the luminaires proposed in the preceding sentence. No additional streetlights will be installed as part of this action (Table 1).

Utility poles and lines will be lowered along the entire length of the project. Those between Kumoʻo Road and the Kinipopo Shopping Center will be lower on average of five feet below existing conditions. Those from the shopping center to the temporary Kapaʻa Bypass will be lowered on average by ten feet from current existing conditions (Figure 5). The bulk of the lines from Kumoʻo Road to Kinipopo Shopping Center are shielded on both side of the road by dense vegetation. Lines between the shopping center and the bypass are shielded on the *makai* side by vegetation and resort development buildings, which are considerably higher than the proposed line and pole heights.

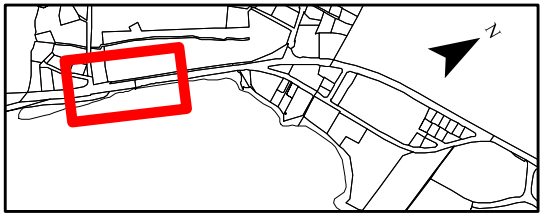
RELOCATED UTILITY POLES ALONG KUHIO HIGHWAY
Kuhio Highway Short-Term Improvements

Figure - 1

Kuamoo Road to Temporary Bypass Road
Kawaihau, Island of Kauai
Federal Aid Project No. NH - 056 - 1 (50)

0 25 50 100 150 200
Feet
1 inch = 100 feet

LEGEND
- Existing Utility Pole to be Removed
- Existing Utility Pole with St. Light to be Removed
- New Utility Pole
- New Utility Pole with St. Light
- New Pole & Wires to be Lowered by 5'



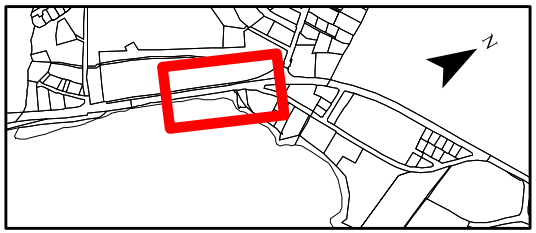
RELOCATED UTILITY POLES ALONG KUHIO HIGHWAY
Kuhio Highway Short-Term Improvements

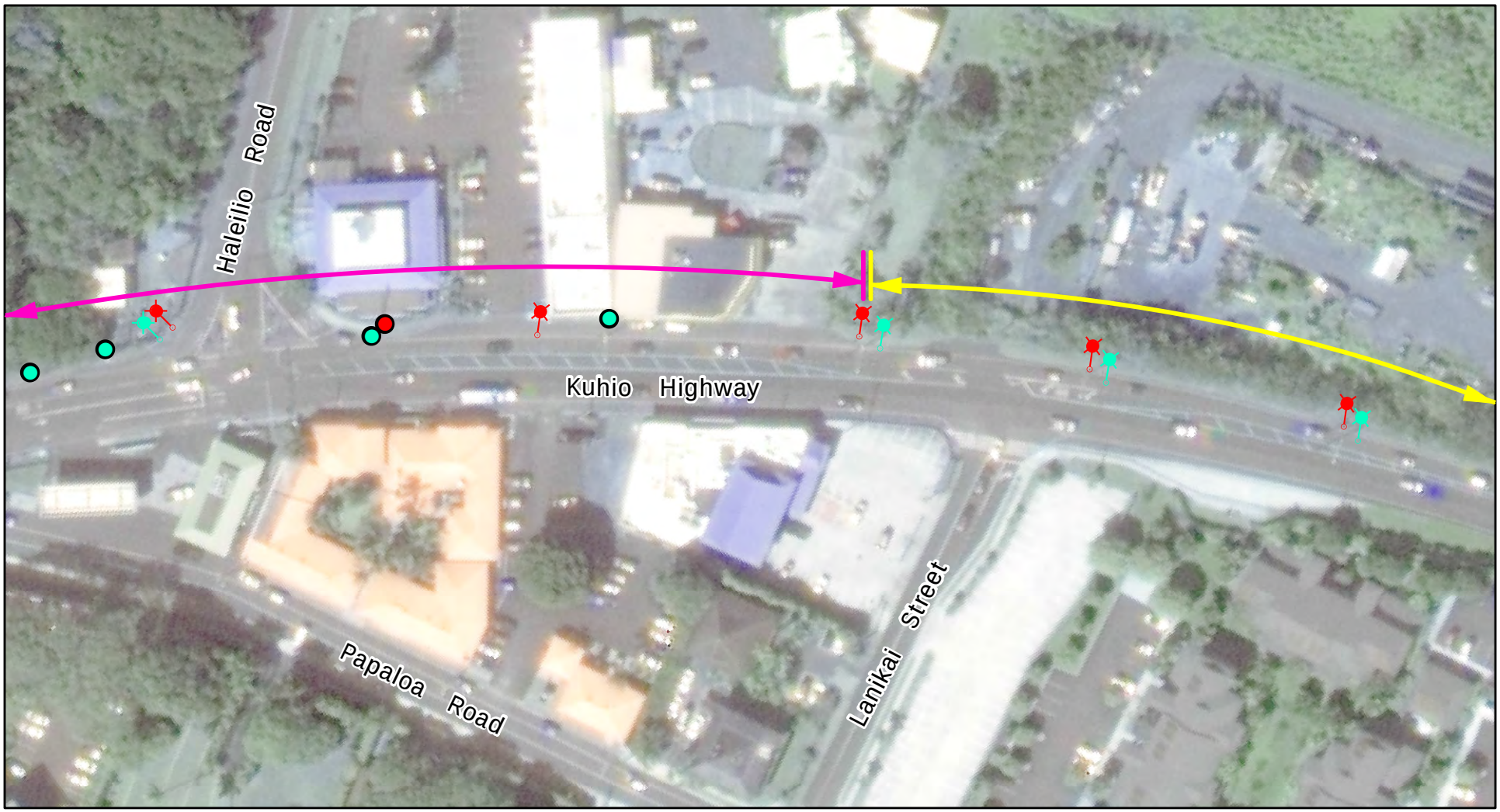
Kuamoo Road to Temporary Bypass Road
Kawaihau, Island of Kauai
Federal Aid Project No. NH - 056 - 1 (50)

0 25 50 100 150 200
Feet
1 inch = 100 feet

LEGEND
- Existing Utility Pole to be Removed
- Existing Utility Pole with St. Light to be Removed
- New Utility Pole
- New Utility Pole with St. Light
- New Pole & Wires to be Lowered by 5'

Figure - 2





RELOCATED UTILITY POLES ALONG KUHIO HIGHWAY
Kuhio Highway Short-Term Improvements

Kuamoo Road to Temporary Bypass Road
Kawaihau, Island of Kauai
Federal Aid Project No. NH - 056 - 1 (50)

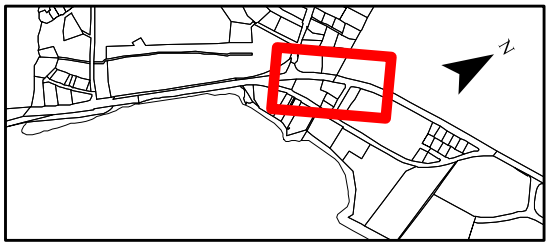
Figure - 3

0 25 50 100 150 200 Feet

1 inch = 100 feet

LEGEND

- Existing Utility Pole to be Removed
- Existing Utility Pole with St. Light to be Removed
- New Utility Pole
- New Utility Pole with St. Light
- New Pole & Wires to be Lowered by 5'
- New Pole & Wires to be Lowered by 10'



RELOCATED UTILITY POLES ALONG KUHIO HIGHWAY
Kuhio Highway Short-Term Improvements

Figure - 4

Kuamoo Road to Temporary Bypass Road
Kawaihau, Island of Kauai
Federal Aid Project No. NH - 056 - 1 (50)

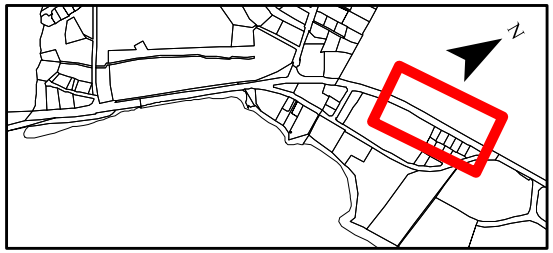
0 25 50 100 150 200 Feet

1 inch = 100 feet

N

LEGEND

- Existing Utility Pole to be Removed
- Existing Utility Pole with St. Light to be Removed
- New Utility Pole
- New Utility Pole with St. Light
- New Pole & Wires to be Lowered by 10'



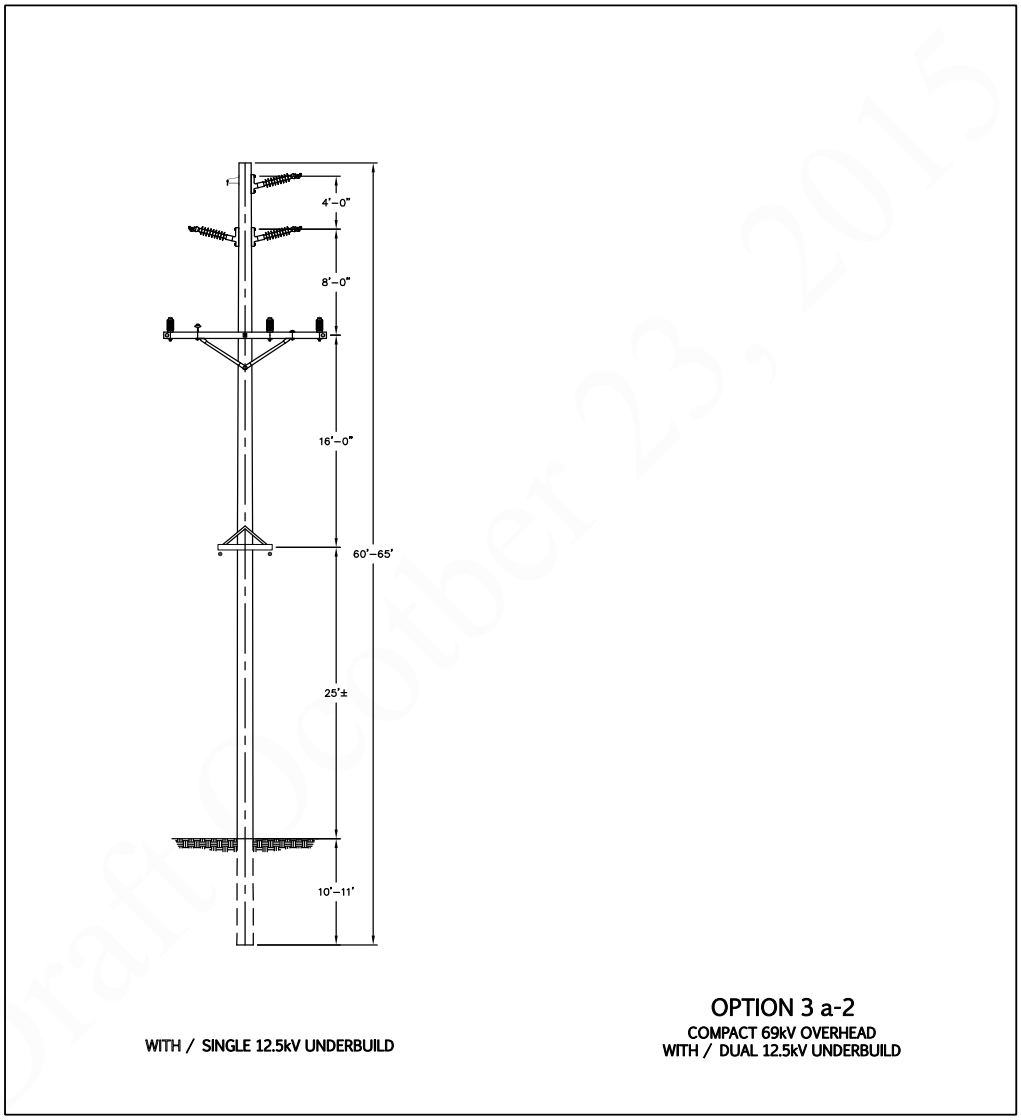


Figure 5 – Pole and line array design Kūhiō Highway Short-Term Improvements

Table 1- Existing and Proposed Street Lights and Utility Poles

	Existing	Proposed
Total Number of Utility Poles (UPs)	26	25
Number of Street Lights on UPs	21	21
Total Number of Street Lights	21	21
Number of UP Without Street Lights	5	0

Section 7 Consultation History

The project has had a long gestation period and the design has changed over the more than seven-year period that has elapsed since the original project was scoped and a Biological Assessment (BA) was prepared. The key milestones in the consultation history are as follows:

1. October 11, 2007 – The project requested the initiation of informal consultation with the USFWS.
2. November 5, 2007 – USFWS responds and assigns (USFWS Log # 2008-1-0018) for the consultation.
3. December 18, 2007 – Meeting with USFWS and HDOT, FHWA and various project consultants. Following that meeting and subsequent discussions with the USFWS it was agreed that the Section 7 consultation would address potential project impacts to the following three pelagic seabird species, Hawaiian Petrel (*Pterodroma sandwichensis*), Newell's Shearwater (*Puffinus auricularis newelli*) and Band-rumped Storm-Petrel (*Oceanodroma castro*).
4. June 30, 2009 - FHWA sends a letter to the USFWS modifying proposed project to underground the utility lines and other minimization measures seeking USFWS concurrence with FHWA's determination of a Not Likely To Adversely Affect (NLAA).
5. July 16, 2009 – USFWS sends a letter concurring with the FHWA NLAA determination.
6. July 22, 2009 – FHWA sends a letter to NMFS requesting concurrence with a "no effect" determination.
7. August 6, 2009 – NMFS letter to FHWA declining informal consultation and requesting implementation of best management practices to prevent toxins from entering Wailua River or marine waters and sediments as a result of slant drilling under the Wailua river.
8. April 29, 2015 – Meeting between HDOT, FHWA, USFWS, and KIUC to discuss the non-undergrounding of the proposed utility lines, and whether the service still considers Wailua to be a shearwater downing hotspot, and what the process to follow in re-imitating the Section 7 consultation.

9. July 29, 2015 – Meeting between the project biologist and USFWS staff member Mr. Adam Griesemer of your office on to discuss the revised project plan and the species that the service wants the project to consult over. It was agreed that the project would consult over potential impacts to the following five species, Hawaiian Petrel (*Pterodroma sandwichensis*), Newell's Shearwater (*Puffinus newelli*)[1], Band-rumped Storm-Petrel (*Oceanodroma castro*), Pacific green sea turtle (*Chelonia mydas agassizi*) and the Hawaiian hoary bat (*Lasiurus cinereus semotus*), and that the project would prepare a new BA and that the service would assign a new consultation number to the consultation as the project has changed significantly since the original consultation was completed.

Current Environmental Setting

Much of the description of the environmental setting presented in the original BA still stands. There have been some changes along proposed roadway corridor, most notably the construction of a multi-use pathway along the ocean side of Kūhiō Highway that runs from south of the project area, along Wailua Beach and ending at the intersection of Kūhiō Highway and Papaloa Road. The section of the pathway fronting Wailua beach from just north of Kuamoʻo Road to the intersection with Halellio Road has a four-foot tall wall on the inland side of the pathway.

The Coco Palms Resort remains closed, though it is expected that the existing structures will be demolished and replaced with a new hotel in the next year or two. Vegetation along the route is much the same as it was during a survey of the corridor in 2009. (David and Guinther, 2009). During that survey the biologists recorded 110 species of plants growing within and adjacent to the right-of-way. Only three of these *naupaka* (*Scaevola taccada*), *hala* (*Pandanus tectorius*) and *hau* (*Hibiscus tiliaceus*), are considered native indigenous species with another three considered early Polynesian introductions. No plants listed or proposed for listing were found, nor were any expected (David and Guinther, 2009).

[1] In July 2015 the American Ornithological Union Check-List Committee elevated the Newell's subspecies of the Townsend's Shearwater (*Puffinus auricularis newelli*) to a full species, Newell's Shearwater (*Puffinus newelli*) (Cheeser et al. 2015.)

Potential Threats to Listed Species

Seabirds

The primary cause of mortality in both Hawaiian Petrels, Newell's Shearwaters is thought to be predation by alien mammalian species at the nesting colonies (USFWS 1983, Simons and Hodges 1998, Ainley et al. 2001). Collision with man-made structures is considered to be the second most significant cause of mortality of these seabird species in Hawai'i. Nocturnally flying seabirds, especially fledglings on their way to sea in the fall, can become disoriented by exterior lighting. When disoriented, seabirds often collide with manmade structures, and if they are not killed outright, the dazed or injured birds are easy targets of opportunity for feral mammals (Hadley 1961, Telfer 1979, Sincock 1981, Reed et al., 1985, Telfer et al., 1987, Cooper and Day 1998, Podolsky et al., 1998, Ainley et al., 2001). Little is known about the breeding ecology of Band-rumped Petrels in Hawai'i, though it is probable that the primary threat that this species faces is from alien predators at their nesting sites. There is no evidence to suggest that this species collide with man-made or other structures, though an average of 0.5 birds have been recovered by the SOS program over the past 33 years on Kaua'i, almost all of which were released unharmed almost immediately.

Sea Turtles

Potential impacts to green sea turtles on Kaua'i include predation by introduced mammalian predators, compaction of nests by off-road vehicles that can damage eggs and/or prevent hatchlings from emerging from the nest, and light attraction which can cause hatchling turtles on their first trip to the sea to be confused and drawn inland and away from the ocean where they can be predated by any number of predators, be run over by vehicular traffic or become dehydrated and/or starve.

Hawaiian Hoary Bats

Potential impacts to Hawaiian hoary bats are associated with the clearing and grubbing phases of construction. The trimming and/or removal of foliage and/or trees within the construction area have the potential to temporarily displace individual bats, which may use the vegetation within the project area as a roosting location. As bats use multiple roosts within their home territories, the potential disturbance resulting from the removal of the vegetation associated with a project of this size is likely to be minimal. During the pupping season female carrying their pups may be less able to rapidly vacate a roost site as the vegetation is cleared, additionally adult female bats sometimes leave their pups in the roost tree while they themselves forage, very small pups may be unable to flee a tree that is being felled. Potential adverse effects from such disturbance can be avoided or minimized by not clearing woody vegetation taller than 4.6 meters (15-feet), between June 1 and September 15, the period in which bats are potentially at risk from vegetation clearing.

Potential Projects Impacts to Listed Species

Seabirds

The principal threat to Hawaiian Petrels, Newell's Shearwaters that construction and operation of roads on the Island of Kaua'i poses to these birds revolves around the potential that birds especially fledglings on the way to the ocean on their first flight may be attracted to, and confused by street lights, and if not grounded can collide with man-made structures.

The seabird fallout history of the general project area has changed over time as it has in many areas on the Island. Prior to hurricane Iniki that hit Kaua'i in September 1992 and the resulting closure of the Coco Palms Resort, fallout within the greater project area was occurring at levels that would now be considered indicative of a fallout hotspot. Between 1993 and 2007 a total of 28 Newell's Shearwaters were recovered from Kūhiō Highway, Kinipopo Shopping Mall, Kintaro's Restaurant and the former Sizzler Steak House, stated another way an average of less than two birds a year were downed in the greater project area during that period (David, 2009). Between 2008 and 2015 no Newell's Shearwaters have been recovered from Kūhiō Highway within the confines of the current projects' footprint Division of Forestry and Wildlife (DOFAW), Unpublished Save our Shearwater (SOS) Data 2007- 2014). Additionally, work conducted by Kauai Endangered Seabird Program (KESRP) on seabird line strike using acoustic monitors within the project limits did not record any line strikes during the course of their survey (Marc Travers, pers. com, 2015). The SOS program has recovered no Hawaiian Petrels or Band-rumped Storm-Petrels over the 33 plus years of SOS record keeping from within the greater project area (Morgan et al., 2003a, 2003b; David, 2009; DOFAW, Unpublished DOFAW data 1979-2014).

The proposed action will minimize potential impacts to seabirds through lowering the existing utility pole heights, and lines, as well as changing the line array from the existing vertical arrays to tiered horizontal arrays (Figure 5).

Pacific Green Sea Turtle & Pacific Hawksbill Sea Turtle

Wailua Beach, which fronts Kūhiō Highway in front of the former Coco Palms Hotel is an extremely popular beach and is heavily used by beach goers. Pacific green sea turtles have been recorded nesting on this beach albeit in very low numbers. One Pacific hawksbill sea turtle (*Eretmochelys imbricate bissa*) nest was discovered on the beach in 2013, Kaua'i's first such record.

Over the past forty years there have been no reports or published papers detailing that any species of sea turtle was lured onto Kūhiō Highway by lighting in the area, or harmed by vehicular traffic. It is not expected that the proposed action will result in deleterious impacts to either Pacific green sea turtles, or Pacific hawksbill sea turtles, especially since recently a four foot was erected on the *makai* side of Kūhiō Highway separating the roadway from the multi-purpose path, the beach and the dense vegetation barrier which separates the beach from the pathway (Figures 6 and 7).

Figure 6 – Multi-purpose path, barrier wall and vegetation sseperating beach from path Looking north

Figure 7 – Vegetation barrier between beach and multi-purpose path, looking north

Hawaiian Hoary Bats

The principal potential impact that construction of the Kūhiō Highway improvements poses to bats is during the clearing phase of the construction. The trimming or removal of foliage and/or trees within the construction area could potentially temporarily displace individual bats, which may use the vegetation as a roosting location. As bats use multiple roosts within their home territories, the potential disturbance resulting from the removal of the vegetation is likely to be minimal. During the pupping season female carrying their pups may be less able to rapidly vacate a roost site as the vegetation is cleared, additionally adult female bats sometimes leave their pups in the roost tree while they themselves forage, very small pups may be unable to flee a tree that is being felled. Potential adverse effects from such disturbance can be avoided or minimized by not clearing woody vegetation taller than 4.6 meters (15-feet), between June 1 and September 15, the period in which bats are potentially at risk from vegetation clearing. With that said the vegetation that is slated for clearing is not typical of the type and location of vegetation that likely is used by day roosting bats.

Minimization Measures

The project proposed to enact the following minimization measures during the course of construction activities to ensure that such activities have a minimal impact on any of the three listed seabird species discussed above.

- During the construction phase of the project any lighting necessary to conduct nighttime activities will be shielded and or directed at the ground.
- No nighttime construction will occur during the peak fallout period, namely between September 15 and December 15 annually.
- All construction personnel will be required to attend a protected wildlife awareness program prior to the initiation of construction activity.
- A pet carrier will be maintained on site at all times, and will be used to temporarily hold any downed seabird recovered in the general project area.
- If a downed seabird is found within the general project area it will be retrieved and placed in the pet carrier and maintained in a shady location until DOFAW or SOS program personnel retrieve the bird.
- DOFAW and/or the SOS program will be contacted immediately upon recovery of any downed bird.
- The USFWS shall be notified of any downed bird within 24-hours of the occurrence.
- If nighttime construction activity or equipment maintenance is proposed during the construction phases of the project, all associated lights will be shielded, and when large flood/work lights are used, they should be placed on poles that are high enough to allow the lights to be pointed directly at the ground.

Critical Habitat

There is no federally delineated Critical Habitat present on or adjacent to the property. Thus the modification of the site will not result in impacts to federally designated Critical Habitat. There is no equivalent statute under state law.