

# **Environmental Assessment**

## *Kīlauea Point National Wildlife Refuge Geotechnical Investigations*

January 2024

Prepared by

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# Environmental Assessment for Kīlauea Point NWR

## Geotechnical Investigations

**Date: January 2024**

This Environmental Assessment (EA) is being prepared to evaluate the effects associated with the proposed action and complies with the National Environmental Policy Act (NEPA) in accordance with Council on Environmental Quality regulations (40 CFR 1500–1509) and Department of the Interior (43 CFR 46; 516 DM 8) and U.S. Fish and Wildlife Service (550 FW 3) regulations and policies. NEPA requires examination of the effects of proposed actions on the natural and human environment.

### Proposed Action

The U.S. Fish and Wildlife Service (Service) is proposing to conduct geotechnical investigations to inform future transportation infrastructure updates to enhance visitor safety and access in accordance with Kīlauea Point National Wildlife Refuge’s Comprehensive Conservation Plan (CCP, USFWS 2015). The infrastructure updates will go through a separate NEPA and compliance process. The geotechnical investigations discussed in this EA are necessary steps for collecting information on soil and subsurface conditions to inform infrastructure planning and design.

### Background

National wildlife refuges are guided by the mission and goals of the National Wildlife Refuge System (NWRS), the purposes of an individual refuge, Service policy, and laws and international treaties. Relevant guidance includes the National Wildlife Refuge System Administration Act (NWRSA) of 1966, as amended by the National Wildlife Refuge System Improvement Act (Improvement Act) of 1997, Refuge Recreation Act of 1962, and selected portions of the Code of Federal Regulations (CFR) and Fish and Wildlife Service Manual.

The Kīlauea Point National Wildlife Refuge (KPNWR, Refuge) was established in 1985 when the U.S. Coast Guard transferred about 31 acres to the Service for the protection of migratory birds and wildlife.

The purposes of the Refuge include:

- “... particular value in carrying out the national migratory bird management program.” (16 U.S.C. § 667b, An Act Authorizing the Transfer of Certain Real Property for Wildlife, or other purposes),
- “... suitable for— (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species...”(16 U.S.C. § 460k-1)

- “... the Secretary ... may accept and use ... real ... property. Such acceptance may be accomplished under the terms and conditions of restrictive covenants imposed by donors ...” (16 U.S.C. § 460k-2, Refuge Recreation Act (16 U.S.C. § 460k-460k-4), as amended)
- “... to conserve (A) fish or wildlife which are listed as endangered species or threatened species .... or (B) plants ...” (16 U.S.C. § 1534, Endangered Species Act of 1973 (ESA))
- “(1) the protection and recovery of endangered Hawaiian waterbirds and other endangered birds, including the nēnē (Hawaiian goose); and (2) the conservation and management of native coastal strand, riparian, and aquatic biological diversity.” (Public Law 108-481, Kīlauea Point National Wildlife Refuge Expansion Act of 2004).

The mission of the NWRS, as outlined by the NWRSA, as amended by the Improvement Act (16 U.S.C. 668dd et seq.), is “... to administer a national network of lands and waters for the conservation, management and, where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.”

Additionally, the NWRSA mandates the Secretary of the Interior in administering the NWRS (16 U.S.C. 668dd(a)(4)) to

- Provide for the conservation of fish, wildlife, and plants, and their habitats within the NWRS;
- Ensure that the biological integrity, diversity, and environmental health of the NWRS are maintained for the benefit of present and future generations of Americans;
- Ensure that the mission of the NWRS described at 16 U.S.C. 668dd(a)(2) and the purposes of each refuge are carried out;
- Ensure effective coordination, interaction, and cooperation with owners of land adjoining refuges and the fish and wildlife agency of the states in which the units of the NWRS are located;
- Assist in the maintenance of adequate water quantity and water quality to fulfill the mission of the NWRS and the purposes of each refuge;
- Recognize compatible wildlife-dependent recreational uses as the priority general public uses of the NWRS through which the American public can develop an appreciation for fish and wildlife;
- Ensure that opportunities are provided within the NWRS for compatible wildlife-dependent recreational uses; and
- Monitor the status and trends of fish, wildlife, and plants in each refuge.

## **Purpose and Need for the Action**

The Kīlauea Point NWR entrance road, parking areas, and overlook north slope require rehabilitation and stabilization due to asphalt damage, erosion, drainage, and runoff issues from past storms and regular wear and tear. Before updates to the transportation infrastructure can be proposed to improve Refuge management and visitor safety and access, the Refuge needs to understand existing site conditions.

The purpose of the proposed action is to determine the soil and subsurface conditions of the current entrance road, parking area, overlook north slope, and adjacent areas to inform planning and design for transportation infrastructure improvements.

## **Alternatives**

### **Alternative A – Current Management (No Action Alternative)**

The no action alternative represents the current management of the Refuge, meaning no actions would be taken and the geotechnical investigations would not occur.

### **Alternative B – Geotechnical Investigations (Proposed Action Alternative)**

Under Alternative B, geotechnical investigations would be conducted to assess soil and subsurface conditions to inform subsequent transportation design and road repairs. The geotechnical investigations would be conducted by contractors during 2–4 days, during daylight hours. A Service-contracted engineer would observe the excavation or drilling, log test holes, collect soil samples for lab testing, and ensure that test holes are properly backfilled. A Refuge staff member would be present to ensure limited impacts to nesting birds and sensitive wildlife habitat. Specific details for each individual geotechnical investigation follow.

#### **Entrance Road, Parking Areas, and Adjacent Areas**

This geotechnical investigation would consist of digging up to 7 test holes, approximately 12–20 inches in diameter and up to 8 feet deep. An auger or geoprobe mounted on a wheeled or rubber-tracked excavator would dig the holes. The holes would be backfilled with the original material immediately after the investigation. Access to test hole locations would primarily be via the existing entrance road and parking area. The excavator's reach would be 4–6 feet, depending upon terrain, so the holes would be approximately that distance away from the road or parking area. The contractors would avoid driving the excavator into vegetated areas adjacent to the entrance road and parking area, but may need to move several feet off the roadway shoulder to complete the work. This geotechnical investigation would occur on days that the Refuge is already closed to visitors.

Three test holes are intended to be sited on the uphill (cut) side of the road (Figures 1 and 2; test holes TP1, TP3, and TP4). These would primarily be used to determine bedrock depth as there is some exposed bedrock in the area. These test holes are anticipated to be fairly shallow.

Test holes TP2, TP5, TP6 and TP7 are in areas where road and parking area expansion would be considered (Figure 1 and 2). These test holes would be located outside of the existing road and parking footprint.

All locations shown on the maps are approximate and may be adjusted up to 10 feet away, if there are nearby bird nests or other sensitive habitat present.

The action area for the entirety of the entrance road and parking area rehabilitation and stabilization, including the geotechnical investigation, is approximately 4.6 acres (Figure 1).

### **North Slope of Overlook and Turnaround Area**

The geotechnical investigation would consist of drilling up to 9 test holes adjacent to the concrete walkway and in the paved turnaround area at the overlook (Figure 3). The holes would be approximately 4.5–6 inches in diameter depending upon in-situ soil characteristics and up to 10–20 feet deep depending upon bedrock depth. A geoprobe mounted on a rubber-tracked drill rig would create the holes. The holes would be backfilled with the drill tailings. Damaged asphalt would be removed and cold patched.

Access to test hole locations would be via the existing concrete or paved areas of Kīlauea Road and the overlook. The east side of the turnaround would be expected to be closed and several of the painted, paved parking stalls would be unavailable due to the presence of heavy equipment. However, the west side of the turnaround would still provide ingress and egress to the Refuge entrance road, and parking for approximately 20 vehicles could be accommodated along the dirt/gravel section of Kīlauea Road that visitors often use as overflow parking. Flagging, cones, and staff/contractors wearing high visibility clothing would help direct traffic to promote safety and minimize disruptions to traffic flow.

The action area for the entirety of the north slope stabilization, including the geotechnical investigation, is approximately 0.35 acres (Figure 4). All test hole locations shown on the maps are approximate.

### **Mitigation Measures to Avoid Conflicts**

#### **Threatened nēnē (Hawaiian goose, *Branta sandvicensis*):**

- Minimize approach and disturbance of nēnē. Do not feed these birds.
- Have a Refuge staff member familiar with nēnē nesting behavior survey for nests in and around the project area prior to any work during the breeding season (September through April).
- Cease all work immediately and contact the Service for further guidance if a nest is discovered within a radius of 75 feet of proposed project, or a previously undiscovered nest is found within the 75-foot radius after work begins.
- In areas where nēnē are known to be present, post and implement reduced speed limits, and inform project personnel and contractors about the presence of threatened species on-site.

### **Cultural Resources and Geology and Soils:**

- If any prehistoric, historic, or other cultural resources are encountered during ground disturbing activity, the ground disturbing activity would be immediately discontinued and the Refuge manager would be notified. The Refuge manager would contact an archaeologist or paleontologist to review the finding and determine the appropriate action to preserve the resource. Collecting and removing any prehistoric or historic artifacts is prohibited.
- If iwi (skeletal human remains) are encountered, the activity will be immediately stopped and the Refuge manager, police, and Hawai'i Department of Land and Natural Resources would be notified.

### **Water Quality and Contaminants:**

- Service staff, contractors, and sub-contractors would exercise every reasonable precaution to protect species and their habitats from pollution due to fuels, oils, lubricants, and other hazardous or harmful materials. E.g., all equipment would be inspected for leaks, faulty hydraulic systems, etc. prior to entering the proposed project site. Service staff, contractors, and sub-contractors would have a plan for the emergency clean-up of any spills of fuel or other material available on site (e.g., spill absorbance and containment system readily available on site).

### **Invasive Species Spread Prevention:**

- Service staff, contractors, and sub-contractors would implement best management practices, as appropriate and practicable, described in the Region 1 Practices to Minimize the Introduction of Invasive Species by Service Activities (USFWS 2017) to prevent the colonization and spread of invasive plant species during the proposed action.

Additional mitigation measures for ESA species present on the Refuge but not present in the project area and therefore not impacted by the proposed action can be found in the ESA section 7 consultation and Biological Opinion for the proposed action. This alternative fulfills the Service's mandate under the NWRSA. The Service has determined that the geotechnical investigations (Alternative B) are compatible with the purposes of Kīlauea Point NWR and the mission of the NWRS.

## **Affected Environment and Environmental Consequences**

This section is organized by affected resource categories and for each affected resource discusses both (1) the existing environmental and socioeconomic baseline in the action area for each resource and (2) the effects and impacts of the proposed action and any alternatives on each resource. The effects and impacts of the proposed action considered here are changes to the human environment, whether adverse or beneficial, that are direct, indirect, or cumulative.

This EA includes the written analyses of the environmental consequences on a resource only when the impacts on that resource could be more than negligible and therefore considered an “affected resource.” Any resources that will not be more than negligibly impacted by the action have been dismissed from further analysis.

Kīlauea Point National Wildlife Refuge is approximately 198 acres and is located in Kīlauea, Kaua’i, Hawai’i (USFWS 2022). The Refuge primarily consists of coastal woodland-grassland habitat, with sea cliffs along the coastline and beach strand just above the tidal zone. The proposed action is located on and next to the access road that serves as both the entrance and exit of the Refuge, and a smaller section of the adjacent parking lot, as well as the overlook area at the end of Kīlauea Road (Figures 1–4).

For more information regarding and the general characteristics of the Refuge’s environment, please see Chapters 3, 4, and 5 of the Refuge’s Comprehensive Conservation Plan (CCP), which can be found here: <https://ecos.fws.gov/ServCat/Reference/Profile/87650>. The CCP is also incorporated into this document by reference.

## **Natural Resources**

### **Terrestrial Wildlife and Aquatic Species**

#### **Affected Environment**

Migratory seabirds including mōlī (Laysan albatross, *Phoebastria immutabilis*), ‘ā (red-footed boobies, *Sula sula*), koa’e ‘ula (red-tailed tropicbird, *Phaethon rubricauda*), koa’e kea (white-tailed tropicbird, *Phaethon lepturus*), ‘iwa (great frigatebirds, *Fregata minor*), and ‘ua’u kani (wedge-tailed shearwaters, *Puffinus pacificus*) use the Refuge for nesting, foraging, or resting. Additionally, migratory shorebirds, such as the kōlea (Pacific golden plover, *Pluvialis fulva*), can be seen from August to May. The pueo (Hawaiian short-eared owl, *Asio flammeus sandwichensis*) is an endemic species of owl that can sometimes be seen hovering or soaring over open areas of the Refuge.

#### **Impacts on Affected Resource**

##### **Alternative A – No Action**

Under the No Action Alternative, the Service would not conduct the geotechnical investigations. Regular refuge management and visitor activity would continue on the existing transportation infrastructure and no change in impacts to non-listed wildlife species would occur.

##### **Alternative B – Geotechnical Investigations**

The additional ground disturbance and people present during the geotechnical investigations may temporarily disturb wildlife, potentially altering wildlife behavior and causing them to temporarily leave the project area. The excavator or drill rig would only be present on the Refuge for two to four days. The additional disturbance caused by the use of the equipment would be minimal and temporary. The test holes would also be dug in or adjacent to areas where people and vehicle traffic are frequently present. Wildlife in the project area are



habituated to regular human presence and therefore would be less impacted by the additional equipment and people.

The test holes may impact breeding areas of 'ua'u kani by damaging or destroying burrows; however, the proposed action would occur outside their breeding season and each test site would be backfilled and returned to its natural condition.

Due to the short duration and limited area of the proposed action, impacts to wildlife would be minimal and negligible.

## **Threatened and Endangered Species, and Other Special Status Species**

### **Affected Environment**

Based on the project location, the following ESA-listed species may occur in the ESA Action Area: the federally endangered 'ōpe'ape'a (Hawaiian hoary bat, *Lasiurus cinereus semotus*), 'ua'u (Hawaiian petrel, *Pterodroma sandwichensis*), and Hawai'i Distinct Population Segment of the 'akē'akē (band-rumped storm petrel, *Oceanodroma castro*), the threatened 'a'o (Newell's shearwater, *Puffinus auricularis newelli*) (hereafter referred to as Hawaiian seabirds), and the threatened nēnē (Hawaiian goose, *Branta sandvicensis*). There is no designated critical habitat for these species located within action area.

#### **Hawaiian hoary bat:**

The Hawaiian hoary bat roosts in woody vegetation across all islands and will leave their young unattended in trees and shrubs when they forage. If trees or shrubs 15 feet or taller are cleared during the pupping season, June 1 through September 15, there is a risk that young bats could inadvertently be harmed or killed, since they are too young to fly or move away from disturbance. Hawaiian hoary bats forage for insects from as low as 3 feet to higher than 500 feet above the ground and can become entangled in barbed wire used for fencing.

#### **Hawaiian seabirds:**

Hawaiian seabirds may traverse the project area at night during the breeding, nesting and fledging seasons (March 1 to December 15). Outdoor lighting could result in seabird disorientation, fallout, and injury or mortality. Seabirds are attracted to lights and after circling the lights they may become exhausted and collide with nearby wires, buildings, or other structures or they may land on the ground. Downed seabirds are subject to increased mortality due to collision with automobiles, starvation, and predation by dogs, cats, and other predators. Young birds (fledglings) traversing the project area between September 15 and December 15, in their first flights from their mountain nests to the sea, are particularly vulnerable to light attraction.

#### **Hawaiian goose:**

Nēnē are found on the islands of Hawai'i, Maui, Moloka'i, and Kaua'i. They are observed in a variety of habitats, but prefer open areas, such as pastures, golf courses, wetlands, natural grasslands and shrublands, and lava flows. Threats to the species include introduced mammalian and avian predators, wind facilities, and vehicle strikes.

## **Impacts on Affected Resource**

### **Alternative A – No Action**

Under the No Action Alternative, the Service would not conduct the geotechnical investigations. Regular refuge management and visitor activity would continue on the existing transportation infrastructure, resulting in no new impacts to the ESA-listed species within the action area.

### **Alternative B – Geotechnical Investigations**

An informal ESA section 7 consultation concluded that the proposed action would result in a “may affect but is not likely to adversely affect” the following four listed species, federally endangered ‘ōpe‘ape‘a (Hawaiian hoary bat, *Lasiurus cinereus semotus*), ‘ua‘u (Hawaiian petrel, *Pterodroma sandwichensis*), the Hawai‘i Distinct Population Segment of the ‘akē‘akē (band-rumped storm petrel, *Hydrobates castro*), and the threatened ‘a‘o (Newell’s shearwater, *Puffinus newelli*).

The proposed action would be conducted outside of the Hawaiian hoary bat birthing/pupping season so impacts to the bats should be minimal. Similarly, the proposed action would be conducted outside of Hawaiian seabird breeding, nesting, and fledging season, minimizing impacts to seabirds. All known out of season nesting or burrowing locations for ‘a‘o and ‘ua‘u are outside of the proposed action area and would not be impacted.

A formal ESA section 7 consultation was conducted, and a biological opinion was prepared for nēnē because active nests are within the proposed action area and may be disturbed by the geotechnical investigation. The overall effect of the action is expected to have direct adverse effects on nēnē due to the location of the action and the timing of the action, which would occur during the nēnē nesting season. Geotechnical investigation activities are anticipated to occur for approximately two to four days in February 2024, so the effects of this action are a short-term event whose effects are relaxed almost immediately. The likely impacts to nēnē occurring from the proposed action include: 1) nest disturbance from excavation activities resulting in adults flushing the nest and exposing eggs to predation or nest failure; and 2) eggs, goslings, or adults accidentally crushed by vehicles or equipment.

The Service's biological opinion that the Geotechnical Investigations Project, as proposed, is not likely to jeopardize the continued existence of the nēnē and is not likely to destroy or adversely modify designated critical habitat. Due to the proposed actions proximity to active nests, and avoidance and minimization measures that would be implemented prior to and during geotechnical investigations, there would be minimal take of nēnē, a moderate impact that would not result in significant impact to the population as a whole.

## **Habitat and Vegetation (including vegetation of special management concern)**

### **Affected Environment**

The Refuge primarily consists of coastal woodland-grassland habitat with sea cliffs along the coastline. The entrance road and parking areas is primarily composed of woody vegetation and

grassland species. Woody vegetation is dominated by ironwood, and haole koa intermixed with patches of hala, naupaka kahakai, 'akoko, 'ilima, pōhinahina, and anapanapa. The grasslands are dominated by introduced species such as Kikuyu grass, Guinea grass, Jamaican vervain, and lantana. Native vegetation grows right up to the edges of the current entrance road and parking area.

### **Impacts on Affected Resource**

#### **Alternative A – No Action**

Under the No Action Alternative, the Service would not conduct the geotechnical investigations, which would result in no change to existing conditions.

#### **Alternative B – Geotechnical Investigations**

The excavator or drill rig would stay on concrete or paved surfaces as much as possible limiting impacts to the vegetation, however some additional vegetation may be trampled if there is a need to drive off-road. All potentially impacted vegetation would be directly adjacent to the current concrete or paved surfaces, which is regularly disturbed by human presence compared to other vegetative habitat around the refuge. Overall, the minimal size of the test holes and location of the project area would result in negligible to low impact to vegetation.

### **Geology and Soils**

#### **Affected Environment**

Kīlauea Point is the geologic remnant of the former Kīlauea volcanic vents from the Koloa volcanic series that formed the island of Kaua'i. The volcanic vents created the volcanic cone complex that now makes up the unique geology of the Refuge. The soils of Kīlauea Point and the adjoining Crater Hill consist primarily of Līhu'e Silty Clay. Mōkōlea Point, Makapilli Rock, and the ocean cliff surrounding Kīlauea Point are exposed bedrock consisting of basalt and andesite. The soils around the refuges entrance road and parking areas are eroded and have drainage issues due to storm damage and aging infrastructure.

### **Impacts on Affected Resource**

#### **Alternative A – No Action**

Under the No Action Alternative, the Service would not conduct the geotechnical investigations, which would result in no change to existing conditions.

#### **Alternative B – Geotechnical Investigations**

The proposed action would temporarily remove soil and other material from up to 7 test holes that may be up to 20 inches in diameter and 8 feet deep in the entrance road area and up to 9 test holes that may be up to 6 inches in diameter and 20 feet deep in the overlook area. The material would be backfilled into the same holes after the investigations. The test holes would be mostly dug in areas where the soil was previously disturbed during the construction and maintenance of the current road, parking area, or overlook. Overall, the minimal size and backfilling test pits with native soils would result in a minor, temporary impact to the soils, and no impact to geologic features of the Refuge.

## **Visitor Use, Land Use and Refuge Operations**

### **Affected Environment**

The Refuge is widely regarded for its scenic cliff views, birdwatching, and photography opportunities. Up to 500,000 visitors come to the Refuge every year, with the vast majority of them being non-local. The most common activities that draw visitors to the Refuge are photography and observation of native wildlife, particularly whales and seabirds. Currently, private vehicle is the only way to safely access the Refuge, as shuttles and buses are not permitted, and a bicycle/pedestrian route does not exist. Traffic flow on the narrow access road is challenging for visitors. Parking issues are most prevalent during the winter tourism season, and overflow parking is frequently utilized. A vehicle reservation system is in place to help manage the crowds and limit impacts to the refuge. The Refuge is open to visitors Wednesday through Saturday.

The Refuge is located 2 miles north of the town of Kīlauea, at the very end of Kīlauea Road, which is maintained by the County. The Refuge overlook is at the end of the road and includes paved, painted parking stalls as well as information displays about the native wildlife and plants that can be seen in the area. Dirt and gravel shoulders on Kīlauea Road provide overflow parking for visitors. A large, automatic gate controls public entry to the Refuge. Following the gate is a narrow, steep, single-lane road that is 16 feet in width. Pedestrians and large vehicles exceeding 25 passengers (such as school or tour buses) are not permitted on the access road. Approximately 0.20 miles down the access road is a parking area consisting of two paved parking areas and two gravel sections, which together can accommodate up to 51 vehicles and 15-passenger vans. The main area of the Refuge features a paved walkway, fee booth, and a visitor center that was built in 1988. The visitor center has educational displays, a bookstore, storage space, and restrooms. Out on the Point, visitors are able to tour the historic lighthouse and there is a former radio beacon building that has been converted to an interpretive site with informational displays and videos (CCP 2015).

### **Impacts on Affected Resource**

#### **Alternative A – No Action**

Under the No Action Alternative, the Service would not conduct the geotechnical investigations. The existing transportation-related challenges to visitor's experiences would continue unchanged and there would be no new impact to visitor experience or Refuge management.

#### **Alternative B – Geotechnical Investigations**

The geotechnical investigation in the entrance road area would occur during a 1–2 day period when the Refuge would already be closed to visitors or during closed hours, resulting in no impact to visitor use. The geotechnical excavator would temporarily block the use of the entrance road and parking areas to Refuge staff. This blockage will be temporary and complete after the test holes are dug and refilled.

Visitation to the Refuge overlook at the end of Kīlauea Road (a cul-de-sac, or turnaround) would be temporarily affected by the geotechnical investigation of the north slope during 1–2 days. The east side of the turnaround would be expected to be closed and several of the painted, paved parking stalls would be unavailable due to the presence of heavy equipment. However, the west side of the turnaround would still provide ingress and egress to the Refuge entrance road, and parking for approximately 20 vehicles could be accommodated along the dirt/gravel section of Kīlauea Road that visitors often use as overflow parking. Flagging, cones, and staff/contractors wearing high visibility clothing would help direct traffic to promote safety and minimize disruptions to traffic flow.

The increase in noise due to geotechnical investigations would be short term, lasting only the duration of the digging, drilling, or backfilling. Overall, minor negative impacts to visitor use and refuge operations are expected during the geotechnical investigations.

## **Cultural and Historic Resources**

### **Affected Environment**

Cultural and historic resources for the Refuge have been summarized previously in the Refuge's CCP and are incorporated here by reference (USFWS 2015). As part of the cultural and historic review the Service's Zone Archeologist conducted a literature review of existing archaeological studies to identify historic resources that may fall in the affected area. The review identified one historic district within the APE, the Kīlauea Point Light Station (State Inventory of Historic Places (SIHP) #30-04-300) which is listed on the National Register of Historic Places. The Kīlauea Point Light Station was originally listed in 1979 as the Kīlauea Point Lighthouse. In 2006 an addendum was submitted to change the property's name; clarify the boundaries; expand the significance; increase the number of contributing resources; and include additional contextual information that reflects the broader significance of the station.

The nearest historic buildings are the three Keeper's Quarters which are outside of the action area. These buildings are identical 37 by 43-foot single story volcanic rubble stone bungalows with hipped roofs. All have been repurposed for Refuge activities. The existing paved road is mentioned in the National Register nomination and is described to generally follow the same routes established in 1913.

### **Impacts on Affected Resource**

#### **Alternative A – No Action**

Under the No Action Alternative, the Service would not conduct the geotechnical investigations, resulting in no impact to historic and cultural resources.

#### **Alternative B – Geotechnical Investigations**

Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, requires federal agencies to consider the impact of their actions on historic properties in accordance with 36 CFR 800, the implementing regulations of Section 106 of the NHPA.

Based on the Service’s archeologist’s review, the project is an activity that does not have the potential to cause effects (NPTCE). Therefore, the Service has no further obligations under Section 106.

This conclusion is made because the excavations would be below grade and backfilled to their original levels once the investigation is completed. There would be no change to the character of the historic district. Furthermore, no interaction with historic buildings or structures within the district would occur.

If cultural or historic resources are found during the digging of the test holes all work would be stopped and a qualified archeologist would be contacted to determine the appropriate course of action, including categorizing the artifact.

### **Environmental Justice**

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing disproportionately high or adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities.

### **Affected Environment**

Kīlauea Point National Wildlife Refuge is located adjacent to the town of Kīlauea, an unincorporated community with a population of 3,014 residents as of the 2020 census. Kīlauea had a median household income of \$86,765 in 2021 compared to the national average of \$69,021 (USFWS 2023). However, Kīlauea had a higher share of families in poverty, at 17.7% compared to the national average of 8.9%. According to the USFWS Headwaters Economic Tool, Kīlauea has a minority population slightly above national average (43.3% vs. 40.6%) due to a large Asian community, and those who classify as two or more races.

### **Impacts on Affected Resource**

#### **Alternative A – No Action**

Under the No Action Alternative, the Service would not conduct the geotechnical investigations. Current Refuge management would continue. Minority or low-income communities would not be affected by the no action alternative.

#### **Alternative B – Geotechnical Investigations**

The Service has not identified any potential high and adverse environmental or human health impacts from the proposed action. Minority or low-income communities would not be disproportionately affected by the proposed action.

### **Cumulative Impacts**

The proposed action would inform design for a potential future update to Refuge transportation infrastructure. The updates, if implemented, would contribute to an incremental improvement to damaged infrastructure as well as improvements to overall visitor experience

and refuge management capability. Full impacts of a larger transportation project, if proposed, would be addressed in a separate NEPA document.

No other reasonably foreseeable past, present, or future projects within the Refuge vicinity would incrementally increase impacts resulting from implementation of the proposed action.

## **Monitoring**

Refuge staff will be present during the geotechnical investigations to monitor and assess impacts to the sensitive wildlife within the project area. Specifically, Refuge staff would monitor if nesting threatened nēnē are disrupted and abandoning their nests during implementation of the proposed action. Work would be stopped and adjusted if it is found that nēnē are abandoning their nests to ensure that impacts are minimized. Additional monitoring is not necessary because the proposed action would be completed in 2–4 days and the mitigation measures would limit any long-term impacts.

## **Summary of Analysis**

### **Alternative A – Current Management (No Action Alternative)**

Under the no action alternative, the Service would not conduct the geotechnical investigations and an updated transportation infrastructure design could not be developed. The transportation infrastructure on the refuge would continue to degrade and limit access to the Refuge for visitors and staff.

The no action alternative would not meet the purpose and need for the project because existing site conditions would remain unknown and design development could not appropriately move forward without risk to project success. Without the geotechnical investigations, site suitability for potential transportation infrastructure updates and repairs could not be determined and design could not progress.

### **Alternative B – Geotechnical Investigations – [Proposed Action Alternative]**

Under Alternative B, the geotechnical investigations would be conducted, and could inform a larger transportation project that would be proposed and analyzed in a separated NEPA document.

As described above the geotechnical investigations would result in negligible to moderate short-term and temporary construction related impacts to resources such as soil via soil displacement and compaction, wildlife via disturbance from equipment noise and presence, vegetation via trampling and removal, and visitor use and refuge operations via equipment noise and presence. The proposed action would occur in known ESA-listed threatened nēnē nesting sites. The construction equipment and additional people may disturb adult and fledgling nēnē resulting in some nest abandonment or take. These impacts would be temporary and confined to a small area, resulting in moderate impacts to on-site nēnē, and negligible

impacts to the nēnē population as a whole. However, the proposed action includes a number of mitigation measures for listed species, biological resources, and cultural resources that would further limit impacts. Overall, the impacts would be temporary and minor.

Alternative B meets the purpose and need for the project because it would provide the necessary soil and bedrock information to inform design for a potential future transportation infrastructure update.

## List of Preparers

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Elyse Sachs, Ecological Services, USFWS

## Public Outreach, Native Hawaiian Consultation, State Coordination

Due to the small size of the proposed action and minor overall impacts, this EA will not be put out for public review and comment. The final EA and decision document will be publicly posted on the refuge website and hard copies can be made available upon request.

A more robust public involvement process related to a larger transportation infrastructure update may occur once necessary feasibility and site design work is completed, including but not limited to scoping, public meetings, public comment, and consultation. The State of Hawaii and interested Native Hawaiian organizations will also be notified and will continue to be involved as site analysis and design progress.

## Determination

*This section will be filled out upon completion of the public comment period and at the time of finalization of the Environmental Assessment.*

- The Service's action will not result in a significant impact on the quality of the human environment. See the attached "**Finding of No Significant Impact**".
- The Service's action **may significantly affect** the quality of the human environment and the Service will prepare an Environmental Impact Statement.



## References

- Headwaters Economics. 2023. U.S. Fish and Wildlife Service Socioeconomic Profile. Economic Profile System (EPS) for Kīlauea, HI. Accessed 2023 from <https://headwaterseconomics.org/tools/usfws-indicators/>
- USFWS. 2022. Statistical Data Tables for Fish & Wildlife Service Lands (as of 9/30/2022). <https://www.fws.gov/sites/default/files/documents/2022-annual-report-of-lands-with-data-tables.pdf>.
- USFWS. 2017. Region 1 Practices to Minimize the Introduction of Invasive Species by Service Activities. Department of the Interior, Fish and Wildlife Service, Portland, OR. 40 pp. <https://ecos.fws.gov/ServCat/Reference/Profile/132877>.
- USFWS. 2015. Kīlauea Point National Wildlife Refuge: Draft Comprehensive Conservation Plan and Environmental Assessment. U.S. Fish and Wildlife Service, Pacific Northwest Planning Team. Accessed via <https://ecos.fws.gov/ServCat/DownloadFile/173944>

## Appendix A: Other Applicable Statue, Executive Orders & Regulations

### Cultural and Historic Resources

American Indian Religious Freedom Act, as amended, 42 U.S.C. 1996 - 1996a; 43 CFR Part 7

Archaeological Resources Protection Act of 1979, 16 U.S.C. 470aa-470mm; 18 CFR Part 1312; 32 CFR Part 229; 36 CFR Part 296; 43 CFR Part 7

National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470-470x-6; 36 CFR Parts 60, 63, 78, 79, 800, 801, and 810

In accordance with section 106 of the National Historic Preservation Act the Service conducted a cultural resources compliance assessment. Technical review indicates that the overall undertaking warrants a no historic properties affected finding under 36 CFR § 800.4(d)(1). However, internal review by the FWS Cultural Resources Team has determined that the FWS Interim Determination Letter (IDL) applies. In accordance with the IDL, FWS is treating the undertaking as an activity that does not have the potential to cause effects (NPTCE). Therefore, the FWS has no further obligations under Section 106.

Paleontological Resources Protection Act, 16 U.S.C. 470aaa-470aaa-11

Native American Graves Protection and Repatriation Act, 25 U.S.C. 3001-3013; 43 CFR Part 10

Executive Order 11593 – Protection and Enhancement of the Cultural Environment, 36 Fed. Reg. 8921 (1971)

Executive Order 13007 – Indian Sacred Sites, 61 Fed. Reg. 26771 (1996)

## **Fish and Wildlife**

Bald and Golden Eagle Protection Act, as amended, 16 U.S.C. 668-668c, 50 CFR 22

Migratory Bird Treaty Act, as amended, 16 U.S.C. 703-712; 50 CFR Parts 10, 12, 20, and 21

The proposed action is consistent with the Migratory Bird Treaty Act and Bald and Golden Eagle Act.

Endangered Species Act of 1973, as amended, 16 U.S.C. 1531-1544; 36 CFR Part 13; 50 CFR Parts 10, 17, 23, 81, 217, 222, 225, 402, 450

Based on the project location, the following ESA-listed species may occur in the ESA Action Area: the federally endangered 'ōpe'ape'a (Hawaiian hoary bat, *Lasiurus cinereus semotus*), 'ua'u (Hawaiian petrel, *Pterodroma sandwhichensis*), and Hawai'i Distinct Population Segment of the 'akē'akē (band-rumped storm petrel, *Oceanodroma castro*), the threatened 'a'o (Newell's shearwater, *Puffinus auricularis newelli*) (hereafter referred to as Hawaiian seabirds), and the threatened nēnē (Hawaiian goose, *Branta sandvicensis*). There is no designated critical habitat for these species located within the ESA Action Area. A formal section 7 consultation has been requested for the potential impacts to nesting Nene.

## **Natural Resources**

Wilderness Act, 16 U.S.C. 1131 et seq.

The Refuge does not contain any designated wilderness areas.

Wild and Scenic Rivers Act, 16 U.S.C. 1271 et seq.

The Refuge does not contain any designated wild and scenic rivers.

Executive Order 11988 – Floodplain Management, 42 Fed. Reg. 26951 (1977)

The proposed action is consistent with Executive Order 11988, because implementation of the proposed action would not result in the modification or destruction of floodplains.

Executive Order 11990 – Protection of Wetlands, 42 Fed. Reg. 26961 (1977)

The proposed action is consistent with Executive Order 11990 because implementation of the proposed action would not impact wetlands.

# Appendix B: Maps

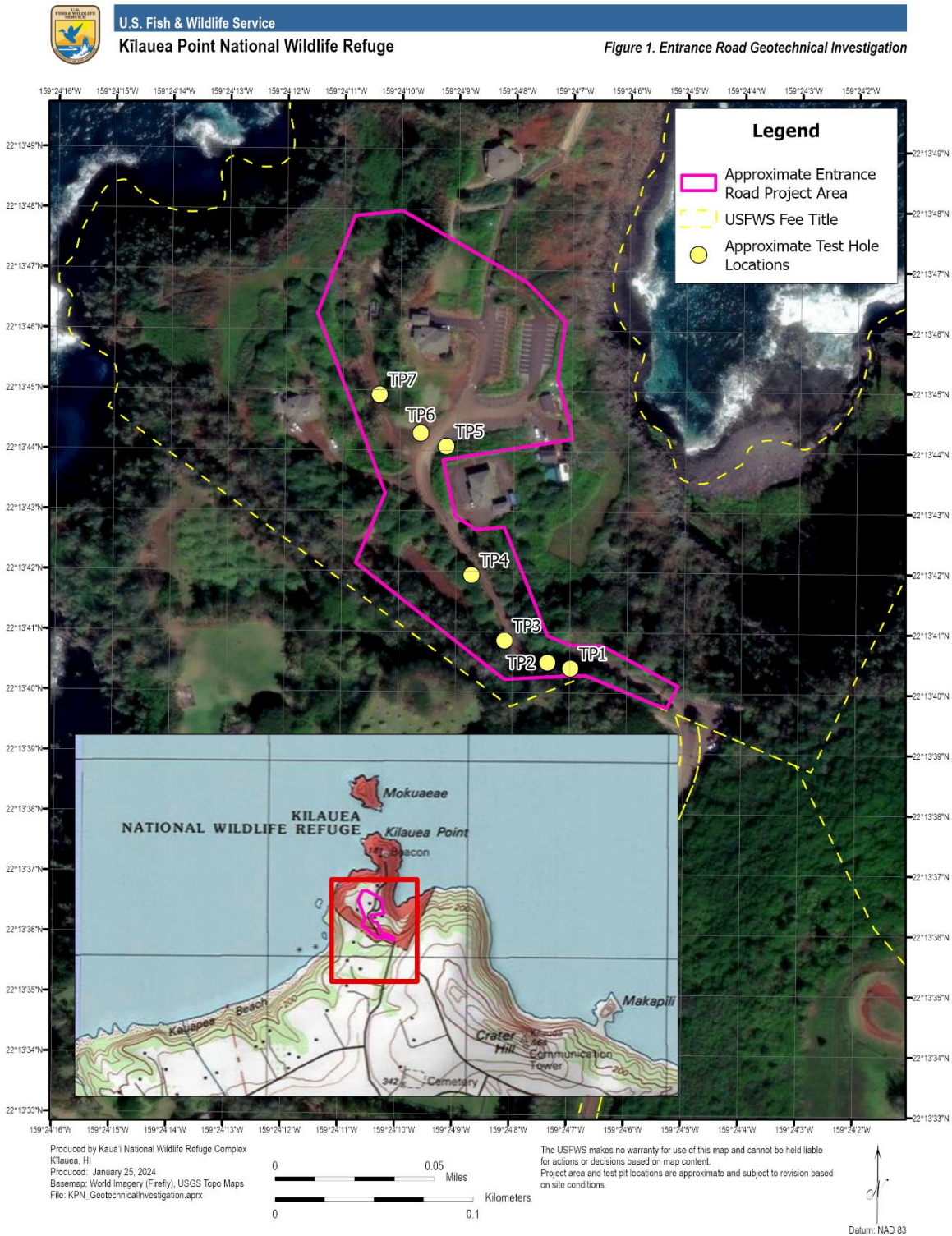


Figure 1: Kilauea Point NWR entrance road geotechnical investigation project area.

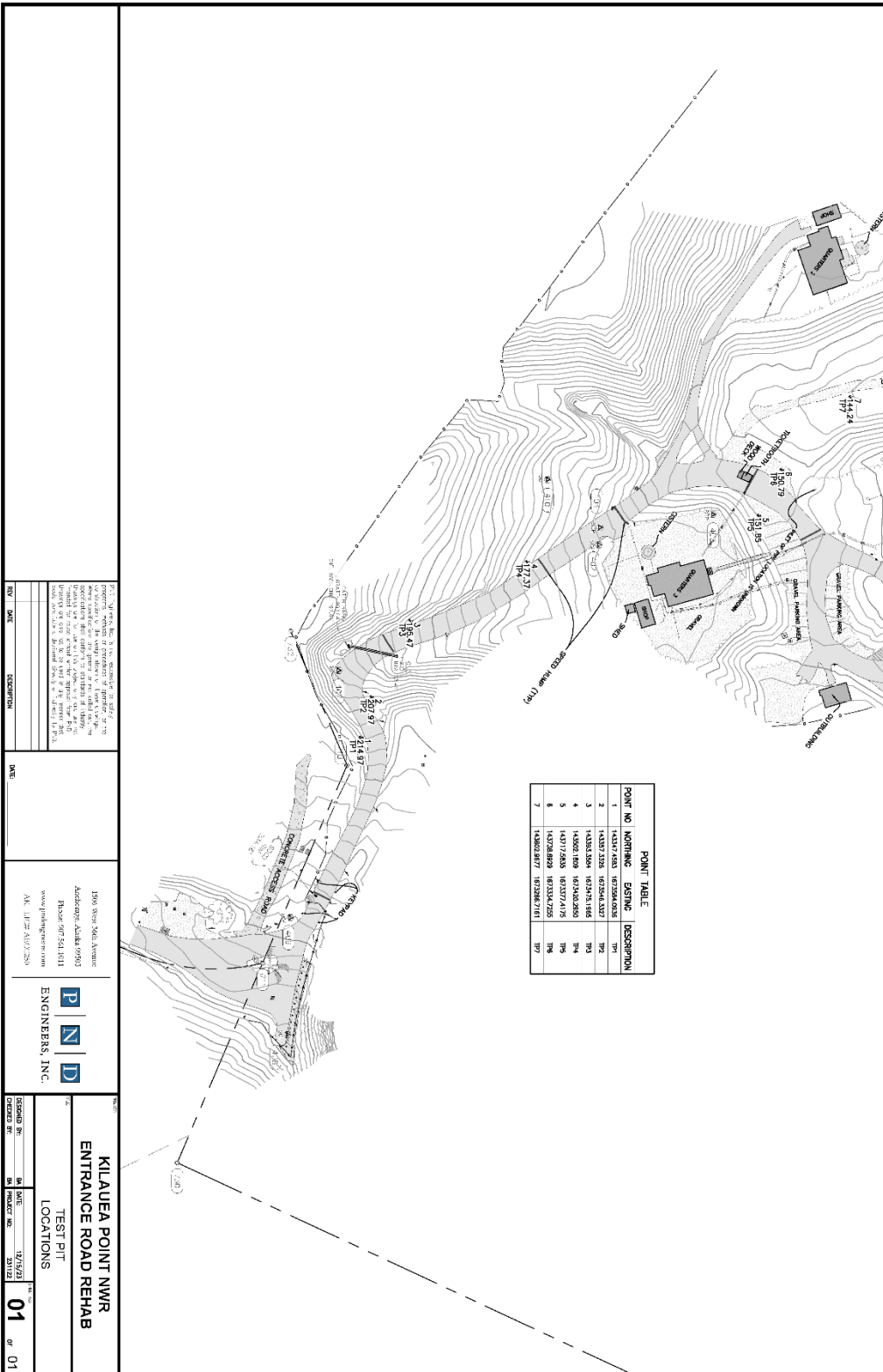


Figure 2: Kilauea Point NWR entrance road geotechnical investigation test hole locations.

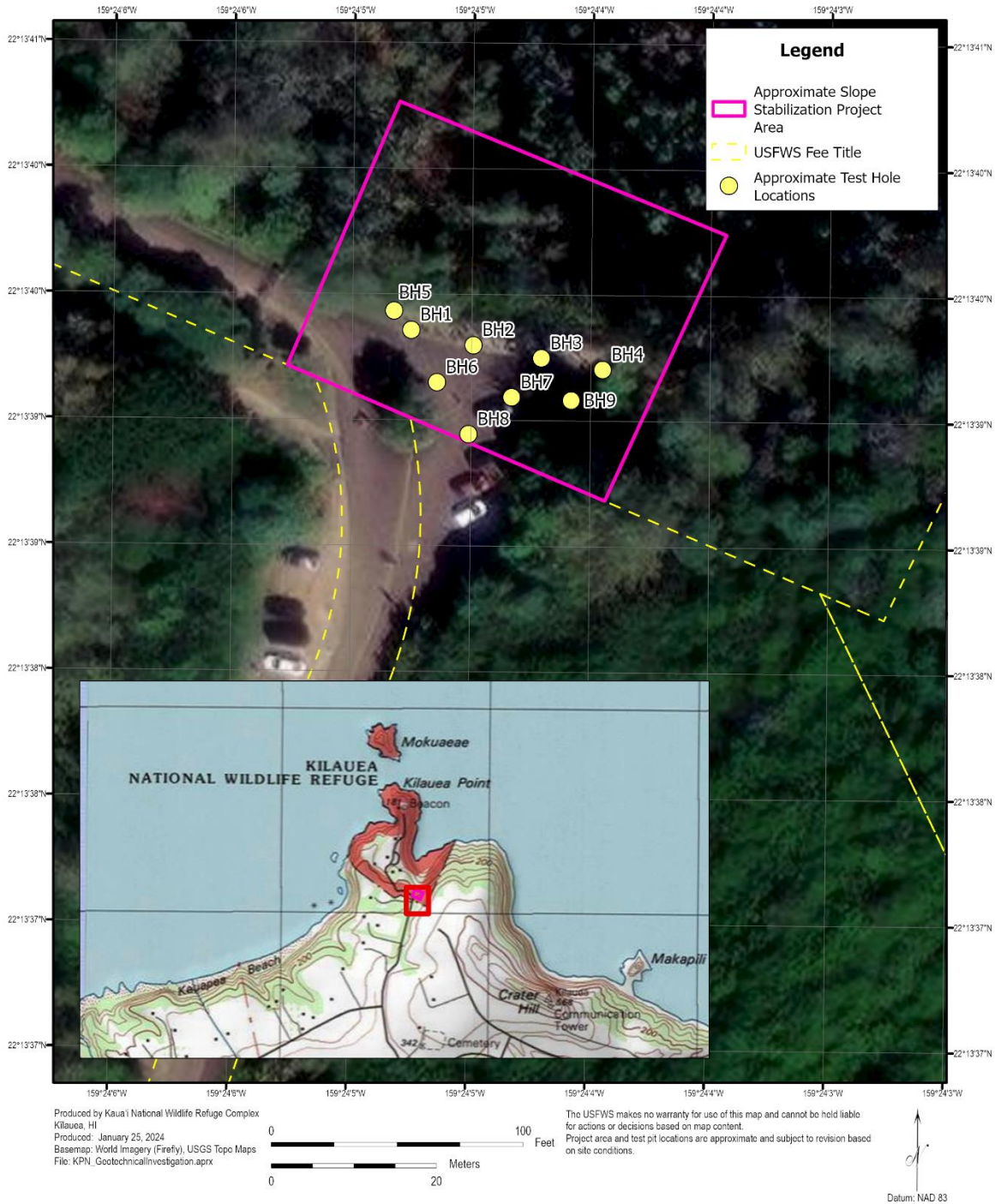


Figure 3: Kilauea Point NWR slope stabilization geotechnical investigation project area.

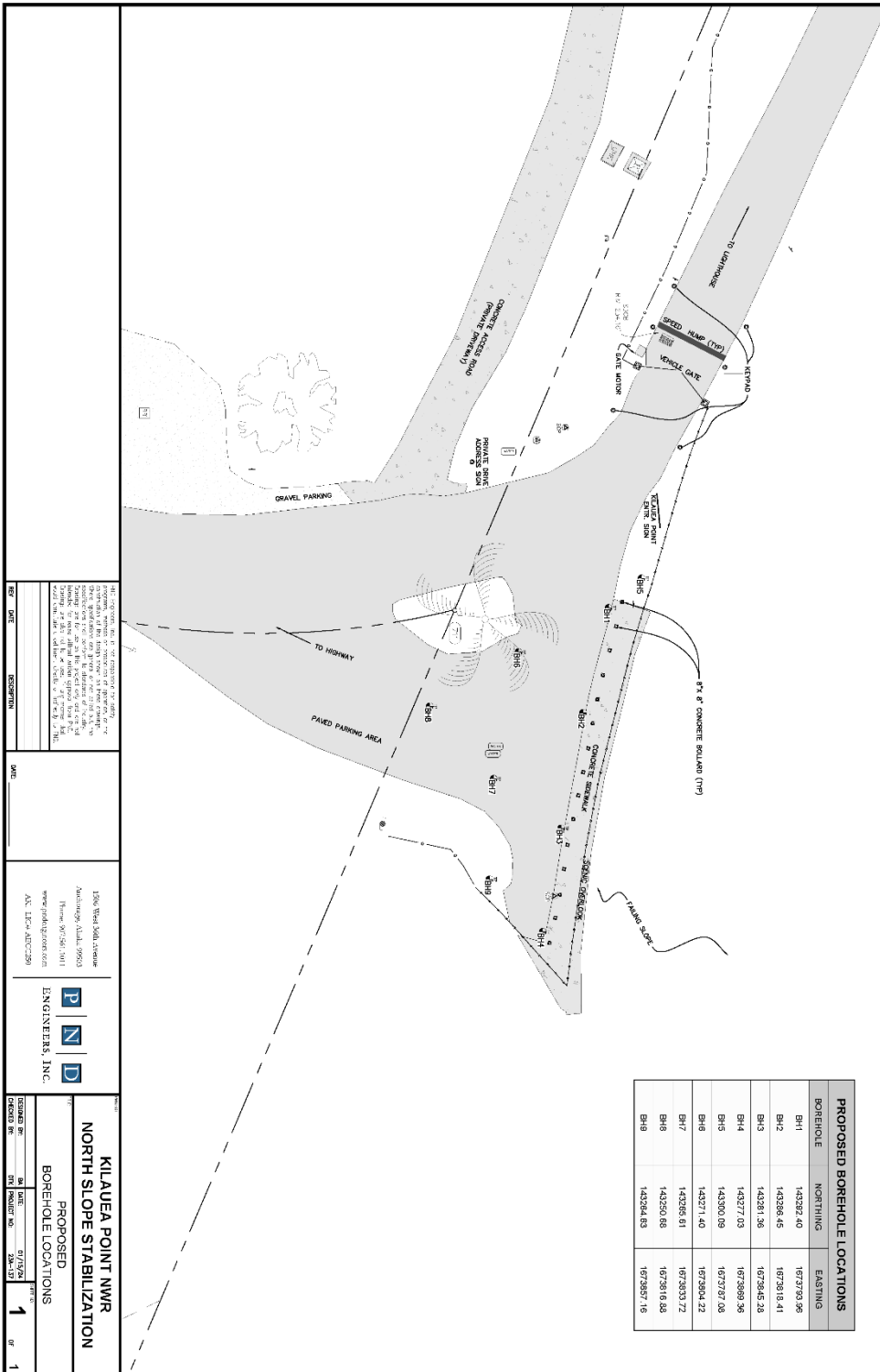


Figure 4: Kilauea Point NWR slope stabilization geotechnical investigation test hole locations.