

Appendix H.

ESA Section 7 Informal Consultation



October 27, 2023

IN REPLAY REFER TO:
FEMA DR-4724-HI, Direct Housing Group Sites

Lindsay Asman
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Pacific Islands Fish and Wildlife Office
U.S. Fish and Wildlife Service
300 Ala Moana Boulevard, Suite 3-122
Honolulu, HI 96822

Re: FEMA DR-4724-HI, Direct Housing Group Sites
- Waikapu County Town Group Site Location – Center GPS: 20.8468557, -156.5023828
- Pulelehua Group Site Location – Center GPS: 20.9558545, -156.6796162
- Kaanapali Group Site Location - Center GPS: 20.9414052, -156.6850641
IPAC Project Code: 2024-0006908
Request for Informal Consultation under Section 7 of ESA with USFWS

Dear Lindsay Asman:

The U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA, in response to the wildfires that resulted in Presidentially declared Major Disaster Declaration FEMA-4724-DR-HI, dated August 10, 2023 (Incident Period – August 8, 2023, through September 30, 2023, intends to pursue the development of Alternative Transportable Temporary Housing Unit (ATTHU Group Sites on previously undeveloped land. In accordance with Stafford Act Section 408 and 44 C.F.R §206.117, FEMA will provide federal direct housing assistance under the Individual Assistance's (IA Individuals and Households Program (IHP for the County of Maui.

In early August 2023, a series of wildfires quickly grew due to strong winds and dry conditions, resulting in catastrophic damage throughout Maui County, Hawai'i. The wildfires destroyed approximately 3,556 structures, of which at least 3,324 were residential, most of which occurred in Lahaina, located in West Maui. Thousands of residents have been displaced, and are currently living in short term, temporary solutions such as hotels. As of October 19, 2023, 2,308 Households within Maui County meet FEMA's requirements to receive direct assistance, of which 926 households have been approved for FEMA Direct Housing Assistance. Some of the demand for housing may be met by repairing and improving existing multi-family housing or leasing existing ready-for-occupancy residential property, to be utilized as temporary housing, however these methods will not meet the total need for direct housing assistance in Maui County. Therefore, FEMA has identified the need to develop temporary Group Housing Sites to meet the housing need for displaced survivors (Proposed Action).

FEMA is requesting informal consultation with the United States Fish and Wildlife Service (USFWS) under Section 7 of the Endangered Species Act (ESA) for the Proposed Action. This letter report describes the Proposed Action and environmental setting and analyzes the potential effects and measures to avoid and/or minimize potential adverse effects of the Proposed Action in accordance with Section 7 of the ESA (16

U.S. Code [U.S.C.] 1536) on the species listed in the official species list obtained through the USFWS Information for Planning and Consultation (IPaC) tool on October 19, 2023 (Attachment A) and technical assistance with the USFWS on October 18, 2023. The species listed are the following:

Mammals

- The endangered ‘Ōpe‘ape‘a or Hawaiian hoary bat (*Lasiurus cinereus semotus*)

Birds

- The endangered ‘akē‘akē or Band Rumped storm-petrel (*Oceanodroma castro*)
- The endangered ‘alae ke‘oke‘o or Hawaiian Coot (*Fulica alai*)
- The endangered Koloa maoli or Hawaiian Duck (*Anas wyvilliana*)
- The threatened nēne or Hawaiian Goose (*Branta sandvicensis*)
- The endangered ‘ua‘u or Hawaiian petrel (*Pterodroma sandwichensis*)
- The endangered ae‘o or Hawaiian stilt (*Himantopus mexicanus knudseni*)
- The threatened ‘a‘o or Newell’s Townsend’s shearwater (*Puffinus auricularis newelli*)

Reptiles

- The endangered Honu or green sea turtle (*Chelonia mydas*)
- The endangered honu‘ea or Hawksbill Sea Turtle (*Eretmochelys imbricata*)

Insects

- The endangered Blackburn’s Sphinx Moth (*Manduca blackburni*)

Plants

- The endangered (=native Yellow Hibiscus) Ma‘o Hau Hele (*Hibiscus brackenridgei*)
- The endangered ‘aiea (*Nothocestrum latifolium*)
- The endangered ‘ena‘ena (*Pseudognaphalium sandwicense var. molokaiense*)
- The endangered Awiwi (*Schenkia sebaeoides*)
- The endangered Carter’s Panicgrass (*Panicum fauriei var. carteri*)
- The endangered Dwarf Naupaka (*Scaevola coriacea*)
- The endangered Ihi (*Portulaca villosa*)
- The endangered Ko‘oko‘olau (*Bidens micrantha ssp. Kalealaha*)
- The endangered Ko‘oko‘ula (*abutilon menziasii*)
- The endangered Lanai Sandalwood (=‘iliahi) (*Santalum haleakalae var. lanaiense*)
- The endangered Ohai (*Sesbania tomentosa*)
- The endangered Round-leaved Chaff-flower (*Achyranthes splendens var. rotundata*)
- The endangered Spermolepis +DZDEHensis (*Spermolepis Hawai‘iensis*)
- The endangered Tetramolopium remyi (*Tetramolopium remyi*)
- The endangered Uhiuhi (*Mezoneuron kawaiense*)
- The endangered Vigna o-wahuensis (*Vigna o-wahuensis*)
- The endangered Wahine Noho Kula (*Isodendron pyriformium*)

The official species list indicated that there is no critical habitat for listed species in the proposed project area (See Attachment B).

FEMA is not consulting separately with the National Marine Fisheries Service (NMFS) because the Proposed Action would have no effect on federally listed species and/or critical habitats protected under the ESA, or Essential Fish Habitat protected under the Magnuson-Stevens Fishery Conservation and Management Act under their jurisdiction.

The following endangered and threatened species are potentially located within Maui County, HI, but experienced “**no effect**” from the project because best available data does not support their presence in the project area. Technical assistance received from the USFWS confirmed there are no listed plants expected to occur within any of the project areas.

Table 1: Federally Listed Species with a No Effect (NE) Determinations

Common Name	Scientific Name	Effects Determination
(=native Yellow Hibiscus) Ma`o Hau Hele	<i>Hibiscus brackenridgei</i>	NE
`aiea	<i>Nothoctrum latifolium</i>	NE
`ena`ena	<i>Pseudognaphalium sandwicense</i> var. <i>molokaiense</i>	NE
Awiwi	<i>Schenkia sebaeoides</i>	NE
Carter's Panicgrass	<i>Panicum fauriei</i> var. <i>carteri</i>	NE
Dwarf Naupaka	<i>Scaevola coriacea</i>	NE
Ihi	<i>Portulaca villosa</i>	NE
Ko`oko`olau	<i>Bidens micrantha</i> ssp. <i>kalealaha</i>	NE
Ko`oko`ula	<i>abutilon menziasii</i>	NE
Lanai Sandalwood (= `iliahi)	<i>Santalum haleakalae</i> var. <i>lanaiense</i>	NE
Ohai	<i>Sesbania tomentosa</i>	NE
Round-leaved Chaff-flower	<i>Achyranthes splendens</i> var. <i>rotundata</i>	NE
Spermolepis Hawai`iensis	<i>Spermolepis Hawai`iensis</i>	NE
Tetramolopium remyi	<i>Tetramolopium remyi</i>	NE
Uhiuhi	<i>Mezoneuron kavaicense</i>	NE
Vigna o-wahuensis	<i>Vigna o-wahuensis</i>	NE
Wahine Noho Kula	<i>Isodendrion pyriform</i>	NE

The following endangered and threatened species are potentially located within the project area, and may be found within the project area, but are “not likely to be adversely affected”:

Table 2: Federally Listed Species with a May Affect, Not Likely to Adversely Affect (NLAA) Determination

Common Name	Scientific Name	Effects Determination
Hawaiian Hoary Bat	<i>Lasiurus cinereus semotus</i>	NLAA
Band-rumped Storm-petrel	<i>Oceanodroma castro</i>	NLAA
Hawaiian Coot	<i>Fulica alai</i>	NLAA
Hawaiian Duck	<i>Anas wyvilliana</i>	NLAA
Hawaiian Goose	<i>Branta</i> (= <i>Nesochen</i>) <i>sandwicensis</i>	NLAA
Hawaiian Petrel	<i>Pterodroma sandwichensis</i>	NLAA
Hawaiian Stilt	<i>Himantopus mexicanus knudseni</i>	NLAA
Newell’s Townsend’s Shearwater	<i>Puffinus auricularis newelli</i>	NLAA
Hawksbill Sea Turtle	<i>Eretmochelys imbricata</i>	NLAA
Blackburn’s Sphinx Moth	<i>Manduca blackburni</i>	NLAA

1.0 Action Area

The three potential Group Sites are all located in Maui, within close proximity to the areas impacted by wildfire (See Figure 1); two located in west Maui, identified within this letter as the Pulelehua and Kaanapali locations, and one located in Central Maui, identified as the Waikapu Country Town location. All three locations are planned for future residential development projects and are in various stages of implementation. The action area (approximately 310 acres) includes corridors required for the installation of access roads and utilities and staging areas. Equipment staging would be limited to within the site boundary.

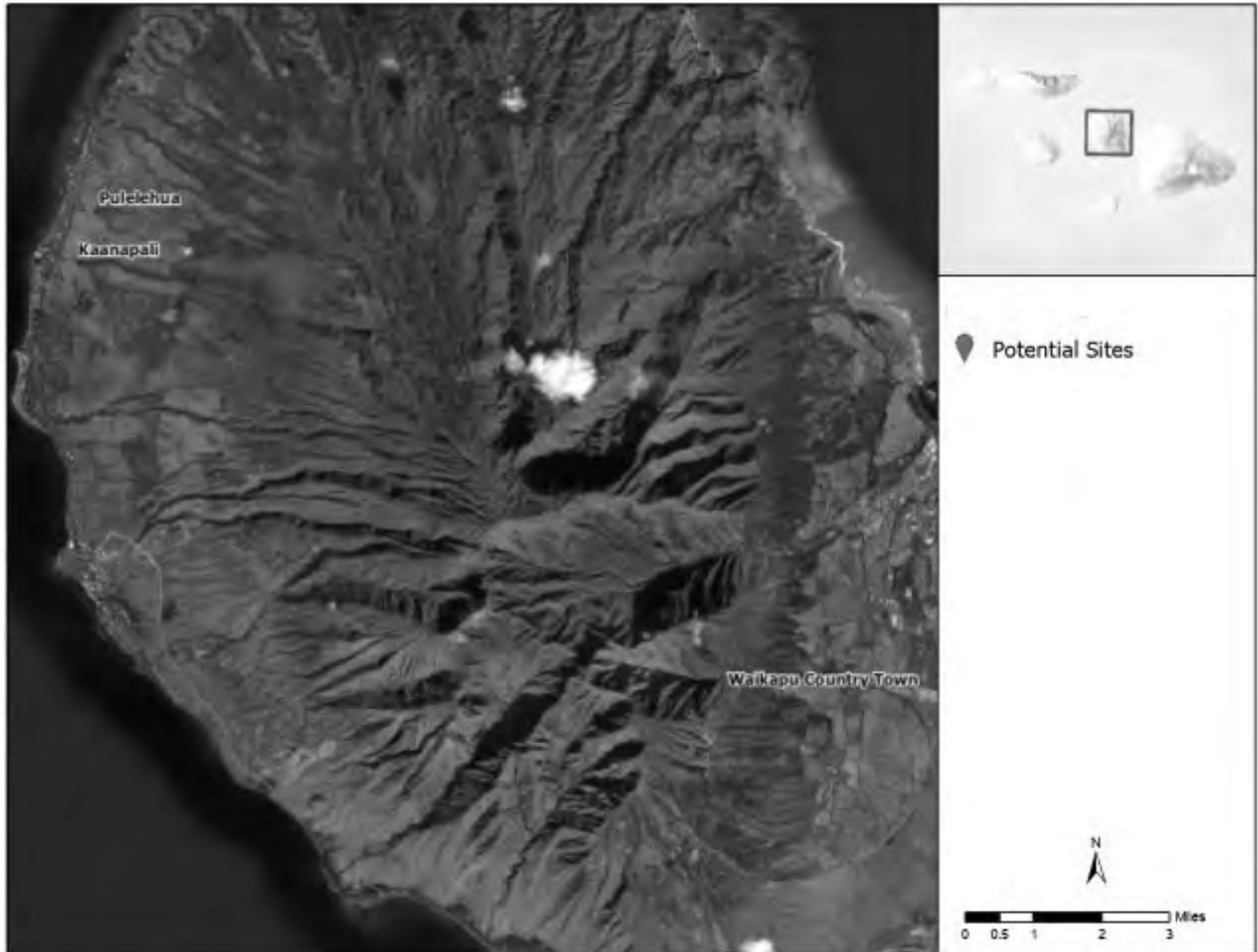


Figure 1: Locations of the 3 potential Group Sites

Waikapu Country Town Group Site

The Waikapu Country Town Group Site is (approximately 190 acres) located in Central Maui, just south of the town of Waikapu and adjacent to the Maui Tropical Plantation (See Figure 2). The proposed site is situated at Honoapiilani Hwy, Wailuku, Hawai'i 96793, on a portion of the parcel identified by the Tax Map Key Number 236002003 (Center GPS: 20.8468557, -156.5023828). The proposed group site is east of the Maui Tropical Plantation, bounded by the Honoapiilani Hwy to the west, and the proposed Wai'ale Road Extension to the east. This road leads to the existing medium density residential neighborhood to the north.

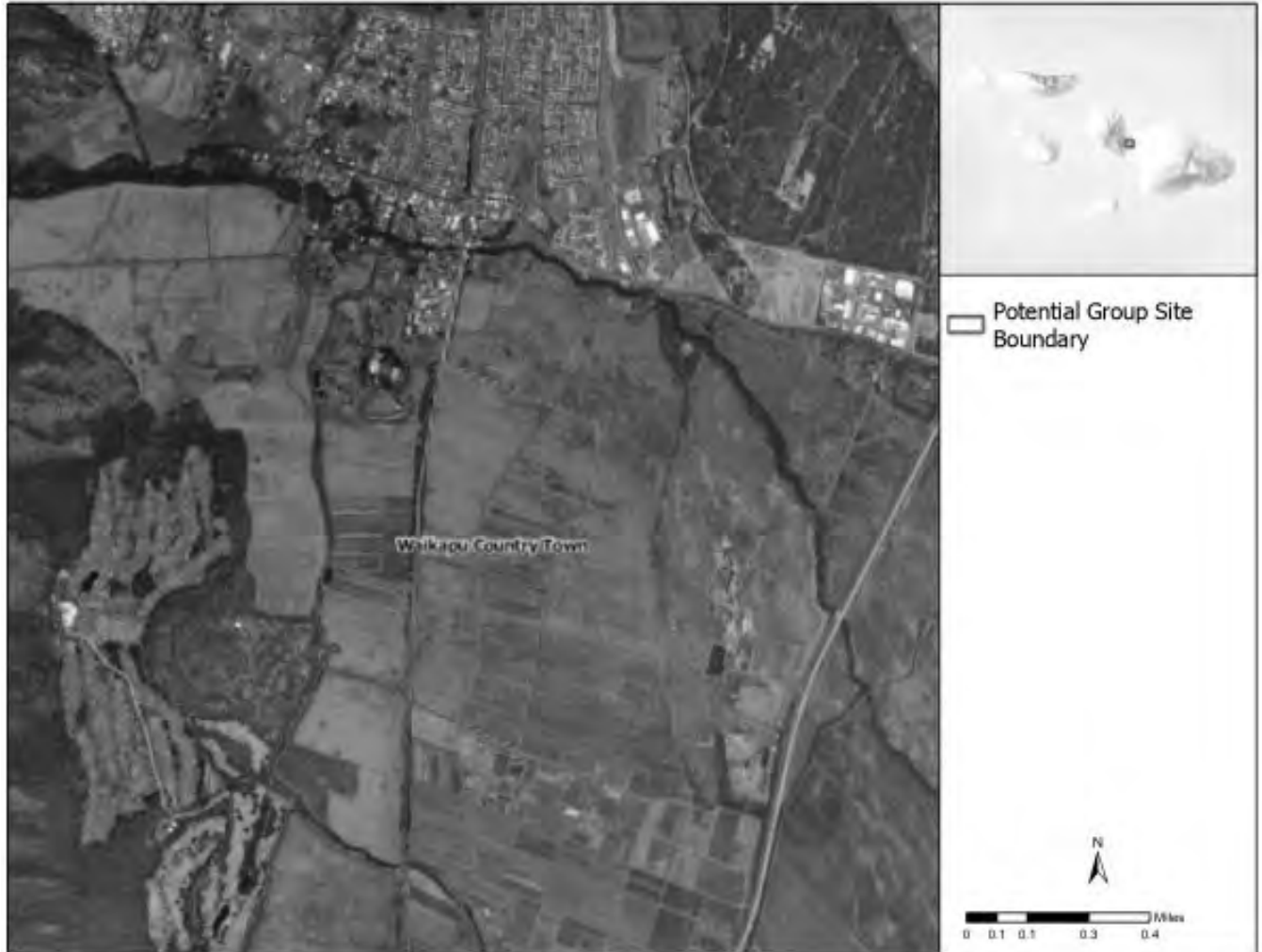


Figure 2: Waikapu Country Town location and utility line

Pulelehua Group Site

The Pulelehua Group Site is (approximately 67 acres) located in West Maui, on the eastern side of the Honoapiilani Highway, directly south of the Kapalua Airport and across the highway from Napili-Honokowai. The proposed site is situated at Honoapiilani Highway, Lahaina, Hawaii 96761, on a portion of the parcel identified by the Tax Map Key Number 43001082 (Center GPS: 20.9558545, -156.6796162) (See Figure 3). The proposed group site is South of the Kapalua Airport, bounded by the Honoapiilani Highway to the west, a dirt access road to the south, and an access road adjacent to the Mahinahina Gulch to the North. Multifamily and single-family residential neighborhood lies west of the Highway across from the proposed group site. The action area is part of the Pulelehua development within their phase II & III area.

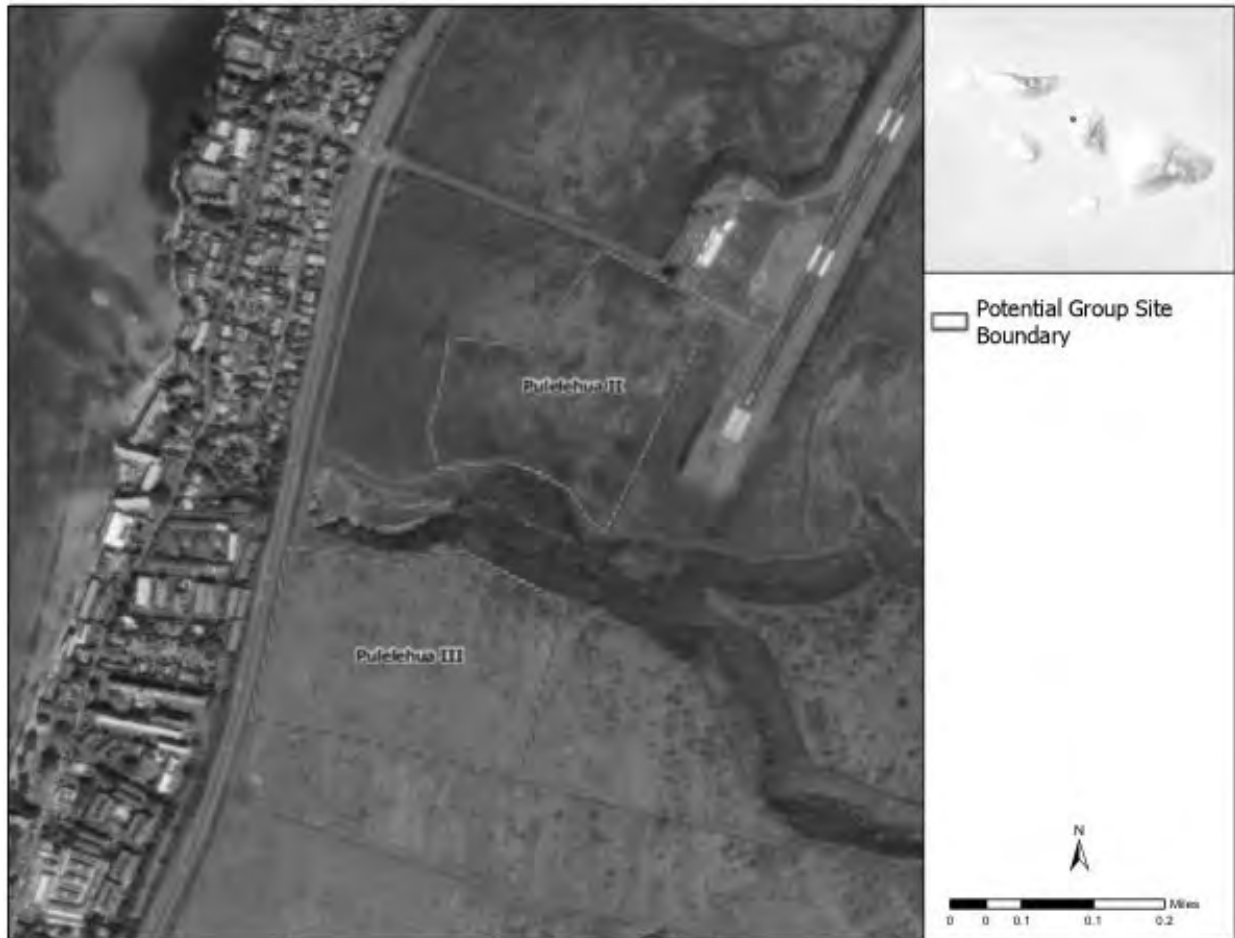


Figure 3: Pulelehua location, Phase II and III

Kaanapali Group Site

The Kaanapali Group site (approximately 53 acres) is located in West Maui, in the Kaanapali/Honokowai area. It is situated on the eastern side of the Honoapiilani Highway, north of the Kakaalaneo Dr and a new hospital undergoing construction. The proposed site is situated at Puukoolii, Lahina, HI 96761, on a portion of the parcel identified by the Tax Map Key Number 44002039 (Center GPS: 20.9414052, -156.6850641) (See Figure 4). Hotel resorts and the Kekaa Open Space Park lie west of the Highway across from the proposed group site. The action area is part of the Kaanapali 2020 development, located on the “Lower North Honokowai” portion of the proposed development.

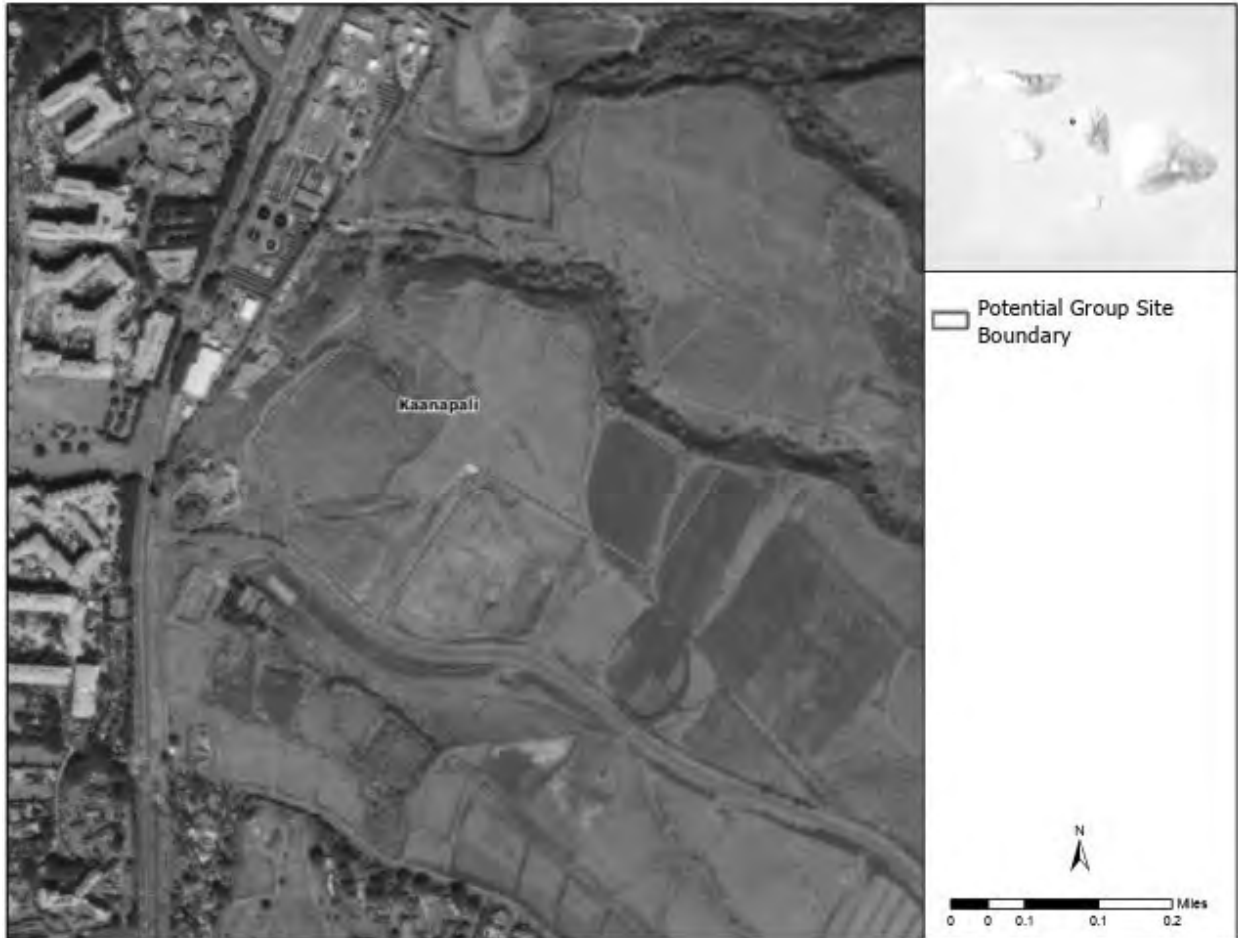


Figure 4: Kaanapali location

2.0 DESCRIPTION OF THE PROPOSED PROJECT

Group Housing Sites will involve the lease of land and the installation of ATTHUs, including construction of individual ATTHU pads; ingress, egress, and circulation roads; any necessary upgrades for individual ATTHUs to comply with the Americans with Disabilities Act; parking lots; facility lighting; water, sanitation, and electrical utilities; and a perimeter privacy fence. The sites could include appurtenant support features such as school bus shelters and mailbox units. Development of the sites will require several steps including surveying; clearing; stripping; grading; utility and access road design and installation; and surface storm water and erosion control.

In collaboration with Maui County and the State, FEMA will purchase and place ATTHUs on the Group Sites; options are currently being evaluated to select culturally sensitive options to best meet the specific needs of the community. FEMA would operate and maintain the Group Sites during the term of occupancy. When the temporary housing need ends, FEMA expects the ATTHUs would be removed from the site. All three locations have already been planned for future development, and infrastructure would be left in place, per the lease terms with the landowner.

Use of the group site locations would require grading and leveling for the installation of roads and individual gravel site pads, and to shed storm water to appropriate locations to support approximately 200 ATTHUs per location. All three properties are adjacent to the Honoapiilani Highway. Excavation for the installation of subsurface water, sanitation, and electric utilities would be required for each individual ATTHU and would extend as required to connect to existing utility tie-ins at the adjacent roads. Access roads for ingress and egress to and from the site and circulation roads to allow access to each individual unit would be constructed, and gravel pads for parking and trash, concrete parking pads for units with residents requiring upgrades to meet ADA compliance requirements, site lighting, and a perimeter privacy fence would be installed. Access routes would be constructed from the Honoapiilani Highway to the site.

Additionally, establishment of a temporary housing site at these locations will require the installation of a four-way traffic light at the entrance point to both the Pulelehua and Waikapu Country Town locations. Utilities exist within the existing right of ways adjacent to the project sites and would be extended to the project site to provide service to the proposed ATTHUs; infrastructure at each location will be established to support long term development goals to the extent practicable. The Waikapu Country Town site will need an upgrade in the existing water pipeline that connects to the site and runs adjacent to the Honoapiilani Highway to increase capacity. Equipment staging would be limited to within the site boundary and would not extend to any undisturbed ground that may be adjacent to each proposed site.

Debris generated during construction would be removed to an existing, licensed landfill. Unusable equipment, debris and material will be disposed of prior to occupancy in an approved manner and location. In the event significant items (or evidence thereof) are discovered during implementation of the project including but not limited to; petroleum products, hazardous materials, and toxic waste will be handled, managed, and disposed of in accordance with the requirements and to the satisfaction of the governing local, state, and federal agencies.

Appropriate Best Management Practices (BMPs) will be implemented during site development to minimize sediment migration from the site into nearby water bodies. Surface runoff will be controlled by using siltation controls such as silt fencing around the construction site to minimize erosion of materials into adjacent wetlands and/or waterways. Any disturbed soil will be protected with seed or sod after construction in order to decrease the amount of soil eroded by rainfall and runoff. Any fill stored on site will be appropriately covered to prevent erosion. If the project results in a discharge to waters of the State, a National Pollution Elimination System (NPDES) permit may be required in accordance with the Section 401 of the CWA. Construction work would be done in conformance with the applicable provisions of the HAR Chapter 11-54 (Water Quality Standards) and Chapter 11-55 (Water Pollution Control), the erosion and sedimentation control standards and the Maui Department of Public Works guidelines.

The exact depth of excavation and grading at the sites is unknown but would at a minimum be to the least extent necessary to facilitate construction and to comply with building code requirements. While the ATTHUs unit would likely be removed once more permanent housing solutions are found for displaced individuals and families, site improvements such as underground utilities, gravel and concrete pads, the perimeter fence, and access and circulation roads may remain.

2.1 Equipment

FEMA anticipates needing the following construction equipment for the duration of the main construction period: excavators, bulldozers, hydraulic impact hammers, backhoes, loaders, graders, dump trucks, compactors/rollers, an asphalt paver, rock crushers, rock haulers, and water trucks.

2.2 Duration and Timing of the Action

Construction of each Group Site is anticipated to take 6 months to include site preparation, road improvements, and extension of utilities onto the site, and installation of units. Construction may take place up to 24 hours 7 days per week at certain points during development due to the need to establish safe housing for displaced disaster survivors as quickly as possible. Approximate construction dates would start January 2024 through June 2024 (181 days, 4,344 hours worked). Use of a Group Site for temporary housing generally includes an initial 18 months following a disaster declaration, with options to be extended based on the needs of the survivors. Prior to construction, coordination will be done with the Hawai'i Department of Health and the County of Maui.

3.0 METHODS

The potential for federally listed species to occur in the Action Area was evaluated based on a review of the existing data, the reconnaissance survey, and technical assistance received from the USFWS Pacific Islands Fish and Wildlife Office on October 18, 2023. Sources of existing data included:

- USFWS IPaC, official species list
- USFWS Environmental Conservation Online System (ECOS)
- National Wetlands Inventory
- USGS Digital Elevation Models
- Hawaii ESI
- Hawaii's State Wildlife Action Plan¹
- Carbon Assessment of Hawaii-Land Cover and Habitat Status²
- Hawaii State GIS Vegetation Maps³
- Hawaii State GIS Threatened and Endangered Plants⁴
- Final Environmental Impact Statement for Waikapu Country Town, Prepared by Planning Consultants Hawaii, LLC, December 2016
- Final Environmental Assessment for the Proposed Wai'ale Road Extension and East Waiko Road Improvements, Prepared by Munekiyo & Hiraga, Inc, July 2014
- Final Environmental Impact Statement for the Pulelehua- A New Traditional Community, Prepared by PBR Hawaii, August 2005
- Environmental Impact Statement Preparation Notice for the Kaanapali 2020 Plan, Prepared by Munekiyo & Hiraga Inc, February 2005

The general area was evaluated through aerial imagery available on Google Earth Pro as of July 2023, other public and project information, Botanical and Faunal Surveys, and site visits conducted in early October 2023 (See Attachment C).

¹ Office of Response and Restoration, 2023: Hawaii ESI: HABITATS (Habitat and Plant Polygons), <https://www.fisheries.noaa.gov/inport/item/40321>.

² Baseline and projected future carbon storage and carbon fluxes in ecosystems of Hawai'i. Professional Paper. <https://doi.org/10.3133/pp1834>.

³ Technical Report #68, "Vegetation Maps of the Upland Plant Communities on the Islands of Hawai'i, Maui, Moloka'i, and Lana'i", June, 1989, James D. Jacobi, author.

⁴ digitized from Division of Forestry and Wildlife's mylar threatened and endangered (T&E) plant species maps. DOFAW's maps were created using The Nature Conservancy's Rare & Endangered Species maps.

The Waikapu Country Town site had 4 surveys (See Attachment D) completed for the Final Environmental Impact Statement for the development of the property (Waikapu FEIS). Two known Botanical and Avifaunal Surveys were conducted in the Waikapu Country Town project area. A walk-through botanical survey method was conducted in February 2013 (Hobdy, R.W. 2013) and in June and July of 2009 (Hobdy, R.W. 2009). A walk-through survey for fauna was conducted in conjunction with the previously mentioned botanical survey. The surveys recorded common-non-native species of no particular concern, the habitat was unsuitable for Hawaii's native forest bird, no protected seabirds were found on the property, and only widespread and common native insects were recorded during the survey. All surveys did not find any federally listed Endangered or Threaten species at the time, nor any proposed candidates to have occurred on the proposed action area.

The Pulelehua Site had two surveys (See Attachment E) completed for the Final Environmental Impact statement for development of the property (Pulelehua FEIS). A walk-through botanical survey was conducted on April 21, 2004 by a team of two botanists. A walk-through survey for fauna was April 30 and May 1 of 2004 was also completed. The surveys recorded common-non-native species of no particular concern, the habitat was unsuitable for Hawaii's native waterbirds or seabirds, no native land birds were observed, the Hoary bat was not observed on the property during the survey (Bruner 2004). Both surveys revealed no federally listed Endangered or Threaten species at the time, nor any proposed candidates were present on the parcel.

The background data review identified 10 wildlife species and 17 plant species that are federally listed as threatened or endangered, proposed to be listed as threatened or endangered. A summary of the listing status, regulatory actions, habitat, reproduction, and potential to occur in the project Action Area for the species evaluated herein is included in **Table 3**.

Table 3. Summary of Species Information

Scientific Name	Common Name	Federal Listing Status	Critical Habitat/ Recovery Plan	General Habitat	Nesting or Lactation Period /Blooming Period	Potential to Occur in the Action Area
Mammal						
<i>Lasiurus cinereus semotus</i>	Hawaiian Hoary Bat	Endangered (35 FR 16047-16048; 10/13/1970)	None/Recovery Plan for the Hawaiian Hoary Bat (05/11/1998)	Day roost and habitat for raising young is tall, shady trees; foraging is in native and non-native forests	Lactation period June 15 to September 1 (young cannot fly)	Potential to Occur: The species is present throughout the island and is known to roost in the types of trees present in the Action Area.
Seabirds						
<i>Pterodroma sandwichensis</i>	Hawaiian Petrel	Endangered (32 FR 4001; 03/11/1967)	None/Amendment to the Hawaiian Dark-rumped Petrel and Newell's Manx Shearwater Recovery Plan: Hawaiian Petrel Recovery Criteria (08/07/2019)	Nest in burrows, crevices, or cracks in lava tubes; nest chambers can be from 1 to 10 m deep.	Nesting through fledging May to December	Potential to Occur: The species may fly over or near the Action Area flying to or from nesting colonies or when fledging.
<i>Oceanodroma castro</i>	Band-rumped Storm-petrel	Endangered (81 FR 67786 67860; 10/31/2016)	None/Notice of Draft Recovery Plan for 50 Hawaiian Archipelago Species (02/24/2022)	Breeds in a variety of remote, high elevation (600 m but past 1,200 m), inland habitats. Utilize steep valleys vegetated with shrubs and grasses and barren lava flows. They nest in burrows or crevices in rocks or lava but have also been documented using artificial nest boxes.	Nesting through fledging May to October (limited information available)	Potential to Occur: The species may fly over or near the Action Area flying to or from nesting colonies or when fledging.
<i>Puffinus auricularis newelli</i>	Newell's Townsend's Shearwater	Threatened (40 FR 44149 44151; 10/28/1975)	None/Amendment to the Hawaiian Dark-rumped Petrel and Newell's Manx Shearwater Recovery Plan: Newell's Townsend's Shearwater Recovery Criteria (08/07/2019)	Nests in burrows beneath ferns and tree roots in dense forest and on steep slopes and cliffs	Nesting through fledging April to early November	Potential to Occur: The species may fly over or near the Action Area flying to or from nesting colonies or when fledging.

Scientific Name	Common Name	Federal Listing Status	Critical Habitat/ Recovery Plan	General Habitat	Nesting or Lactation Period /Blooming Period	Potential to Occur in the Action Area
Waterbirds						
<i>Fulica alai</i>	Hawaiian Coot	Endangered (35FR 16047-16048; 10/13/1970)	None/Recovery Plan for Hawaiian Waterbirds, Second Revision (10/28/2011)	Lowland wetland habitats with water less than 30 centimeters (12 inches) deep and with suitable emergent plant growth	Year-round	Potential to Occur: There is a lack of suitable habitat for the species in the Action Area. Hawaiian waterbirds may be attracted to areas of standing water that are inadvertently created during construction activities.
<i>Anas wyvilliana</i>	Hawaiian Duck	Endangered (March 11, 1967; (32 FR 4001)	None/Recovery Plan for Hawaiian Waterbirds, Second Revision (10/28/2011)	Occur in a wide variety of natural and artificial wetland habitats including freshwater marshes, flooded grasslands, coastal ponds, streams, montane pools, forest swamplands, taro, lotus, shrimp, and fishponds, irrigation ditches, reservoirs, and mouths of larger streams.	Year-round, but most nesting activity occurs between January and May.	Potential to Occur: There is a lack of suitable habitat for the species in the Action Area. Hawaiian waterbirds may be attracted to areas of standing water that are inadvertently created during construction activities.
<i>Branta (=Nesochen) sandvicensis</i>	Hawaiian Goose	Threatened (originally listed endangered 32 FR 4001; 03/11/1967) (downlisted 84 FR 69918 69947; 12/19/2019)	None/ Draft Revised Recovery Plan IRr the Nēnē Rr Hawaiian * RRVé (Branta sandvicensis) (09/24/2004)	Wide variety of native and non-native habitats from coastal to alpine except dense forest.	Nesting in all months except May, June, and July.	Known to occur within the project areas: There is potentially favorable foraging and nesting habitat for the species in the Action Area. The species may not be located within the Action Area, but they are located within the vicinity and can easily enter the project area.
<i>Himantopus mexicanus knudseni</i>	Hawaiian Stilt	Endangered (35FR 16047-16048; 10/13/1970)	None/Recovery Plan for Hawaiian Waterbirds, Second Revision (10/28/2011)	A variety of aquatic habitats primarily at lower elevations, in shallow flooded wetlands, exposed tidal flats, or taro patches.	Nesting through fledging generally from mid-February through August.	Potential to Occur: There is a lack of suitable habitat for the species in the Action Area. Hawaiian waterbirds may be attracted to areas of standing water that are inadvertently created during construction activities.

Scientific Name	Common Name	Federal Listing Status	Critical Habitat/ Recovery Plan	General Habitat	Nesting or Lactation Period /Blooming Period	Potential to Occur in the Action Area
Reptiles						
<i>Chelonia mydas</i>	Green Sea Turtle	Endangered (Pacific Population) (81 FR 20058-20090; 04/06/2016)	None in Hawaii/Recovery Plan for U.S. Pacific Populations of the Green Turtle (01/12/1998)	Shallow, protected or semi-protected, water around coral reefs and coastal areas; nesting on sandy beaches	Nesting Mid-April through September, occasionally later.	No Potential to Occur: The species would not be present in the Action Area due to the distances to a potential basking area and known nesting habitat. Project lighting, both temporary and (semi)permanent could impact sea turtles during nesting season.
<i>Eretmochelys imbricata</i>	Hawksbill Sea Turtle	Endangered (35 FR 8491 8498; 06/02/1970)	None in Hawaii/Recovery Plan for U.S. Pacific Populations of the Hawksbill Turtle (01/12/1998)	Shallow waters around reefs, bays, and inlets; nesting on beaches with a preference for areas with woody cover	Nesting late May through November	No Potential to Occur: The species would not be present in the Action Area due to the distances to a potential basking area and known nesting habitat. Project lighting, both temporary and (semi) permanent (or semi perm) could impact sea turtles during nesting season.
Insects						
<i>Manduca blackburni</i>	Blackburn's Sphinx Moth	Endangered (65 FR 4770 4779; 02/01/2000)	Designated (68 FR 34710; 06/10/2003)/ Recovery Plan for Blackburn's Sphinx Moth (09/28/2005)	Dry to mesic habitats, now usually associated with tree tobacco	N/A	The current known habitat type for the species does not occur in the Action Area and there are no reports of host plants in the project vicinity.
Plants						
<i>Hibiscus brackenridgei</i>	(=native Yellow Hibiscus) Ma'o Hau Hele	Endangered (59 FR 56333 56351; 11/10/1994)	Designated (81 FR 17789 18110; 03/30/2016)/ Recovery Plan for the Multi-Island Plants (07/10/1999)	Occurs in lowland dry to mesic forest and shrubland between sea level and 645 m (2,116 ft).	Flower continuously from early February through late May, and intermittently at other times of year	No Potential to Occur: The current known habitat type for the species does not occur in the Action Area and there are no reports of host plants in the project vicinity.

Scientific Name	Common Name	Federal Listing Status	Critical Habitat/ Recovery Plan	General Habitat	Nesting or Lactation Period /Blooming Period	Potential to Occur in the Action Area
<i>Nothocestrum latifolium</i>	`aiea	Endangered (81 FR 67786 67860; 10/31/2016)	None/Recovery Plan for 50 Hawaiian Archipelago Species (12/14/2022)	Mesic and dry forest, and mesic and dry shrubland and grassland, and in developed areas where habitat conversion has occurred.	Flowers nearly year-round and fruiting from December through April	No Potential to Occur: The current known habitat type for the species does not occur in the Action Area and there are no reports of host plants in the project vicinity.
<i>Pseudognaphalium sandwicense</i> var. <i>molokaiense</i>	`ena`ena	Endangered (81 FR 67786 67860; 10/31/2016)	None/Recovery Plan for 50 Hawaiian Archipelago Species (12/14/2022)	Coastal areas at sea level to 152 m (0 to 500 ft), in predominantly arid environments in sandy soil, directly on sand dunes, and on raised limestone plains and bare clay outcrops	May be year-round	No Potential to Occur: The current known habitat type for the species does not occur in the Action Area and there are no reports of host plants in the project vicinity.
<i>Schenkia sebaeoides</i>	Awiwi	Endangered (56 FR 55770 55786; 10/29/1991)	Designated (81 FR 17789 18110; 03/30/2016)/ Recovery Plan for the Multi-Island Plants (07/10/1999)	On Maui, typically grows in volcanic or clay soils or on cliffs in windward coastal areas at between sea level and 194 m (636 ft) elevation.	Annual life cycle, flowering in April	No Potential to Occur: The current known habitat type for the species does not occur in the Action Area and there are no reports of host plants in the project vicinity.
<i>Panicum fauriei</i> var. <i>carteri</i>	Carter's Panicgrass	Endangered (48 FR 46328 46332; 10/12/1983)	Designated (48 FR 46328 46332; 10/12/1983)/Recovery Plan for 50 Hawaiian Archipelago Species (12/14/2022)	On Maui at Wailena Gulch, west of Hakuhee Point, <i>Panicum fauriei</i> var. <i>carteri</i> occurs on sea cliffs with associated native species.	Dependent on seasonal climatic conditions because it is an annual and germinates after heavy rains which occur primarily in the winter months	No Potential to Occur: The current known habitat type for the species does not occur in the Action Area and there are no reports of host plants in the project vicinity.
<i>Scaevola coriacea</i>	Dwarf Naupaka	Endangered (51 FR 17971 17974; 05/16/1986)	None/Recovery Plan for the Maui Plant Cluster (7/29/1997)	On Maui, typically found within the coastal lithified sand dunes and associated native plant species.	Unknown	No Potential to Occur: The current known habitat type for the species does not occur in the Action Area and there are no reports of host plants in the project vicinity.

Scientific Name	Common Name	Federal Listing Status	Critical Habitat/ Recovery Plan	General Habitat	Nesting or Lactation Period /Blooming Period	Potential to Occur in the Action Area
<i>Portulaca villosa</i>	Ihi	Endangered (81 FR 67786 67860; 10/31/2016)	None/Recovery Plan for 50 Hawaiian Archipelago Species (12/14/2022)	Dry, rocky, clay, lava, or coralline reef sites, from sea level to 1,600 m (5,250 ft), in the dry coastal, dry forest, and dry grassland/shrubland.	Unknown	No Potential to Occur: The current known habitat type for the species does not occur in the Action Area and there are no reports of host plants in the project vicinity.
<i>Bidens micrantha ssp. kalealaha</i>	Ko`oko`olau	Endangered (57 FR 20772 20788; 5/15/1992)	Designated (81 FR 17789 18110; 3/30/2016)/Recovery Plan for the Maui Plant Cluster (7/29/1997)	Found in open-canopy dry montane forests to dry subalpine shrublands extending from 500 to 3,000 m (1,600 to 9,800 ft) in elevation.	Unknown	No Potential to Occur: The current known habitat type for the species does not occur in the Action Area and there are no reports of host plants in the project vicinity.
<i>abutilon menziasii</i>	Ko`oko`ula	Endangered (51 FR 34412 34415; 9/26/1986)	None/Recovery Plan for Lana'i Plant Cluster (9/29/1995)	Dryland habitat from 15 to 425 m (50 to 1,400 ft). Habitat on Maui includes the native dryland plants.	Flowering and fruiting have been observed year-round	No Potential to Occur: The current known habitat type for the species does not occur in the Action Area and there are no reports of host plants in the project vicinity.
<i>Santalum haleakalae var. lanaiense</i>	Lanai Sandalwood (= `iliahi)	Endangered (51 FR 3182 3185; 1/24/1986)	Designated (81 FR 17789 18110; 3/30/2016)/Recovery Plan for the Lana'i Plant Cluster (9/29/1995)	Occurs in mesic forest at elevations from 400 to 650 m (1300 to 2130 ft).	Unknown	No Potential to Occur: The current known habitat type for the species does not occur in the Action Area and there are no reports of host plants in the project vicinity.
<i>Sesbania tomentosa</i>	Ohai	Endangered (59 FR 56333 56351; 11/10/1994)	Designated (81 FR 17789 18110; 03/30/2016)/ Recovery Plan for the Multi-Island Plants (07/10/1999)	Found on sandy beaches, dunes, or pond margins at elevations between 0 and 212 m (0 and 694 ft). It commonly occurs in coastal dry shrublands or mixed coastal dry cliffs.	Flowering highest during the winter-spring rains	No Potential to Occur: The current known habitat type for the species does not occur in the Action Area and there are no reports of host plants in the project vicinity.

Scientific Name	Common Name	Federal Listing Status	Critical Habitat/ Recovery Plan	General Habitat	Nesting or Lactation Period /Blooming Period	Potential to Occur in the Action Area
<i>Achyranthes splendens</i> var. <i>rotundata</i>	Round-leaved Chaff-flower	Endangered (51 FR 10518 10521; 3/26/1986)	Designated (77 FR 57647 57862; 9/18/2012)/ Recovery Plan for <i>Chamaesyce skottsbergii</i> var <i>kalaeloana</i> and <i>Achyranthes splendens</i> var <i>rotundata</i> (10/05/1993)	Habitat consists of limestone substrate characterized by sinkholes and coralline rubble with only thin soils and pockets of humus present	Germination during the summer	No Potential to Occur: The current known habitat type for the species does not occur in the Action Area and there are no reports of host plants in the project vicinity.
<i>Spermolepis Hawai'iensis</i>	Spermolepis +DZD'ieQVLV	Endangered (59 FR 56333 56351; 11/10/1994)	Designated (81 FR 17789 18110; 03/30/2016)/ Recovery Plan for the Multi-Island Plants (07/10/1999)	is known from rocky, steep slopes growing on ledges and pockets between elevations of 335 and 396 m (1,100 and 1,300 ft).	Unknown	No Potential to Occur: The current known habitat type for the species does not occur in the Action Area and there are no reports of host plants in the project vicinity.
<i>Tetramolopium remyi</i>	Tetramolopium remyi	Endangered (56 FR 47686 47695; 9/20/1991)	Designated (81 FR 17789 18110; 03/30/2016)/Recovery Plan for Lana'i Plant Cluster (9/29/1995)	Occurs in lowland dry shrubland on dry, exposed ridges or flats at elevations between 52 and 550 m (171 and 1,804 ft) in <i>Heteropogon contortus</i> (pili grass) and <i>Dodonaea viscosa</i> (aalii) shrubland.	flowers between April and January	No Potential to Occur: The current known habitat type for the species does not occur in the Action Area and there are no reports of host plants in the project vicinity.
<i>Mezoneuron kavaïense</i>	Uhiuhi	Endangered (51 FR 24672 24675; 7/8/1986)	Designated (83 FR 42362 42435; 8/21/2018)/Amendment to the Recovery Plan for <i>Caesalpinia kavaïensis</i> and <i>Kokia drynarioides</i> : <i>Mezoneuron kavaïense</i> Recovery Criteria (8/7/2019)	Occurs on unweathered lava on steep slopes, ranging from 76 to 910 m (250 to 3,000 ft).	flowering and fruiting nearly year-round	No Potential to Occur: The current known habitat type for the species does not occur in the Action Area and there are no reports of host plants in the project vicinity.
<i>Vigna o-wahuensis</i>	Vigna o-wahuensis	Endangered (59 FR 56333 56351; 11/10/1994)	Designated (81 FR 17789 18110; 3/30/2016)/Recovery Plan for the Multi-Island Plants (07/10/1999)	Dry to mesic grassland and shrubland from 10 to 1,370 m (30 to 4,500 ft) in elevation.	Unknown	No Potential to Occur: The current known habitat type for the species does not occur in the Action Area and there are no reports of host plants in the project vicinity.

Scientific Name	Common Name	Federal Listing Status	Critical Habitat/ Recovery Plan	General Habitat	Nesting or Lactation Period /Blooming Period	Potential to Occur in the Action Area
<i>Isodendrion pyrifolium</i>	Wahine Noho Kula	Endangered (59 FR 10305 10325; 11/10/1994)	Designated (83 FR 42362 42435; 8/21/2018)/ Recovery Plan for the Big Island Plant Cluster (09/26/1996)	Dry to mesic forests at low elevations	After sufficient rains, the plants produce flowers with seeds ripening 1 to 2 months later	No Potential to Occur: The current known habitat type for the species does not occur in the Action Area and there are no reports of host plants in the project vicinity.

4.0 ENVIRONMENTAL SETTING

4.1 Project Action Area Vegetation

The project Action Area totals approximately 310 acres. All three Group Housing locations have been historically used for agriculture including cultivation of various crops (pineapple and sugar cane). GIS data from multiple source datasets (Heritage 2008, USFWS Rare Plant Records 2023, USFWS 2012, Oahu Army Natural Resource Program OANRP 2023) pertaining to rare and endangered species, revealed that the proposed action area does not intersect with any known areas which may have a rare or endangered species.

Vegetation for all of Hawai‘i was mapped for the Carbon Storage of Hawai‘i project (USGS 2017). The associated GIS data was used to determine the areas covered by different vegetation types in the project Area. In the project Action Area and in the general project vicinity heavily disturbed cultivated agriculture was the primary type of vegetation with smaller areas of low intensity development (the roads located through the area). No wetlands or waterbodies are present within the project Action Area.

4.2 Project Action Area General Description

Waikapu Country Town

This site is generally flat with elevations ranging from approximately 350 to 400 feet above mean sea level (MSL), sloping easterly. That area has historically been used for sugarcane cultivation for the last 150 years; however, the local fire department has been using the area for controlled burn training for the last 6 years. Several roads, dirt and a defunct paved road, run throughout the property. The property owner regularly maintains the site as evidenced by current conditions which are mowed and/or kept clear of higher vegetation. The site is currently covered in low grassy vegetation between 3”-12”.

The site is planned for future development as the Waikapu Country Town and the Wai‘ale Road Extension project will go through the parcel. As part of the Waikapu FEIS, and the Final Environmental Assessment (EA) for the Wai‘ale Road Extension and East Waiko Road Improvements Project, a walk-through botanical survey was conducted in June and July of 2009 and in February of 2013. The surveys described the vegetation in the area to consist of vegetable crop plants, pasture grasses and dense fields of sugar cane (Hobdy, R.W. 2012). The area was also on a 1.5-to-2-year cycle that involves plowing, planting, burning and harvesting that creates a highly altered agricultural environment (Hobdy, R.W. 2009).

Pulelehua

This site is generally flat with elevations ranging from approximately 100 to 200 feet above MSL, sloping westerly and towards the ocean. That area has historically been used for pineapple cultivation since the early 19th century. The action area has been used for pineapple cultivation since 1912; however, the area has been uncultivated since the 1990s and not been regularly maintained since then. Several dirt roads run throughout the action area. The site is covered in grassy vegetation between 12”-3’ and some shrub vegetation. The location is very rocky, large boulders are visible buried and partially buried throughout the site.

The site is planned for future development as the Pulelehua Community, as part of the Pulelehua FEIS prepared for the Pulelehua- A New Traditional Community, a walk-through botanical survey was conducted on April 21, 2004, by a team of two botanist. The survey described the vegetation in the area to consist of pineapple fields and gulch vegetation (Char 2004). The gulch areas adjacent to the site will not be developed.

Kaanapali

This site is generally flat with elevations ranging from approximately 40 to 200 feet above MSL. The topography in this site is characterized by gently westward sloping lands with slopes averaging approximately 10 percent. The land was formerly cultivated with sugarcane and is recently fallow or cultivated for seed corn. The site is covered in grassy vegetation between 12"-3' and some shrub vegetation.

5.0 FEDERALLY LISTED SPECIES AND CRITICAL HABITAT

The sections below describe, for each species included on the official species list for the project, the status and range, life history, and potential to occur in the project Action Area. No critical habitat is located within the proposed action area, a map of the critical habitat within a 10-mile buffer is included.

5.1 'Ōpe'ape'a or Hawaiian Hoary Bat (*Lasiurus cinereus semotus*)

Status and Range

Federal ESA listing: Endangered; No Critical Habitat

All of the major Hawaiian Islands are now recognized as providing roosting, breeding, and/or foraging habitat for the species; however, population numbers on the islands are unknown (USFWS 2023a). In most locations where acoustic monitoring has been conducted, Hawaiian Hoary Bats have been present at some point during the year, including in urban, semiurban, and agricultural areas (USFWS 2021a).

Life History

Habitat Requirements

The day-roost habitat requirement for the Hawaiian Hoary Bat is tall (crown height greater than 15 feet), shady trees. Tree species used frequently include mature native 'ōhi'a, but also include a wide variety of introduced species such as lychee (*Litchi chinensis*), various species of eucalyptus, mango (*Mangifera indica*), and numerous other tree species (Bonaccorso et al. 2015).

As described by several authors (Bonaccorso et al. 2015, Gorresen et al. 2013) foraging can occur in areas that are extremely varied in physical structure, including forest gaps and clearings, forest edges along planted windrows of trees, above forest canopies, and along roads. These areas can occur in a range of habitats including undisturbed native forest, mature eucalyptus plantations having mixed understory trees and shrubs, lowland forest dominated by introduced trees, suburban and urban areas planted with ornamental trees, grassland/pasture, river gorges, arboretums, macadamia nut orchards, and coastal bays. Although the Hawaiian Hoary Bat seems to be a habitat generalist species and occurs from sea level to the highest volcanic peaks on Hawai'i Island, there was a significant association noted between occupancy and the prevalence of mature forest cover (Gorresen et al. 2013).

Food Habits

Hoary bats in Hawai'i consume a wide variety of insects. Todd (2012) identified seven orders of insects in their diet: moths (Lepidoptera), beetles (Coleoptera), termites (Blattodea), flies (Diptera), true bugs (Hemiptera), bees and wasps (Hymenoptera), and lacewings (Neuroptera). Moths and beetles were the most frequently consumed prey.

Reproductive Strategy

Hawaiian Hoary Bats roost in native and non-native vegetation from 1 to 9 meters (3 to 29 feet) above ground level (HDLNR 2015). Females usually give birth to twins during June and mother bats likely stay with their pups until they are 6 to 7 weeks old, leaving roosts to feed at night (HDLNR 2015). Reproduction and pup rearing tend to take place in the low- to mid-elevations and movement to higher elevations occurs after pups fledge.

Potential to Occur

The Waikapu Country Town and Pulelehua locations were previously surveyed in the evenings with a bat detecting device, no evidence of bat activity was visually or auditorily observed, and no activity was detected using the bat detecting device. The Action Area lacks mature forest cover for roosting habitat for the species; however, given the tall unmaintained grasses within the Pulelehua and Kaanapali project area, the Hawaiian Hoary Bat may occur.

5.2 Nēnē or Hawaiian Goose (*Branta sandvicensis*)

Status and Range

Federal ESA listing: Threatened (downlisted from Endangered in December 2019) No Critical Habitat
Nēnē are present between sea level and 7,800 feet elevation on the islands of Hawai‘i, Maui, Kaua‘i, and Moloka‘i, and a single pair was reported on O‘ahu in 2014 (HDLNR 2022c). Historically, the species was found on all main Hawaiian Islands and was likely widespread (HDLNR 2022c). The 2017 statewide Nēnē count of individuals provided to USFWS from HDLNR was a statewide population of 3,252 individuals comprised of 627 individuals on Maui (USFWS 2023e).

On Maui Island, the species has been documented in many areas, approximately half of the population in Haleakala National Park, and the remainder distributed across areas of western Maui, southern Maui, and the northwestern slopes of Haleakala. Nēnē currently use a wide variety of habitats including coastal dune vegetation and nonnative grasslands (e.g., golf courses, pastures, rural areas), sparsely vegetated low- and high-elevation lava flows, mid-elevation native and nonnative shrubland, early successional cinderfall, cinder deserts, native alpine grasslands and shrublands, and open native and non-native alpine shrubland-woodland community interfaces (HDLNR 2022c).

Life History

Habitat Requirements

Nēnē currently use a wide variety of habitats including coastal dune vegetation and nonnative grasslands (e.g., golf courses, pastures, rural areas), sparsely vegetated low- and high-elevation lava flows, mid-elevation native and nonnative shrubland, early successional cinderfall, cinder deserts, native alpine grasslands and shrublands, and open native and non-native alpine shrubland-woodland community interfaces (HDLNR 2022c).

Food Habits

Nēnē graze and browse on the leaves, seeds, flowers, and fruits of at least 50 native and nonnative grasses, sedges, composites, and shrubs (HDLNR 2022c). Their diet varies by location and habitat, and they may require a diverse suite of food plants.

Reproductive Strategy

Nēnē pairs mate for life. They have an extended breeding season, and nesting may occur in all months except May, June, and July. Although the majority of birds nest between October and March, most clutches are laid between October and December (HDLNR 2022c). Nesting occurs in a variety of habitats, including beach strand, shrubland, grassland, and lava rock, and at a range of elevations. On the islands of Hawai‘i and Maui, most nests are built under native vegetation, such as pūkiawe (*Styphelia tameiameia*), ‘a‘ali‘i (*Dodonaea viscosa*), and ‘ōhi‘a (*Metrosideros polymorpha*) (HDLNR 2022c).

Potential to Occur

Nēnē use a wide variety of generally open habitats dominated by grasses or shrubs for foraging and nesting. There is potentially favorable foraging and nesting habitat for the species in the Action Area. Based on information from USFWS, the species may not be located within the Action Area, but they can easily enter the project area if they are within the vicinity.

5.3 Blackburn's Sphinx Moth (*Manduca blackburni*)

Status and Range

Federal ESA listing: Endangered, Critical Habitat Designated in Hawai'i Historical records indicate that Blackburn's Sphinx Moth primarily occurs in coastal, lowland, and dry forests in areas receiving less than 127 centimeters (50 inches) of rain per year (HDLNR 2015). Current information on the overall distribution of Blackburn's Sphinx Moth is based largely on incidental sightings and indicates it is present on Maui, Kaho'olawe, and Hawai'i Island.

Life History

Habitat Requirements

Blackburn's Sphinx Moth is found in dry to mesic habitats. The host plant of this endemic moth is 'aiea, which is the Hawaiian name for several indigenous tree species (genus *Nothocestrum*; its indigenous host). Most of the current Blackburn's Sphinx Moth range is now based on the presence of the host invasive tree tobacco (*Nicotiana glauca*) and is also found where remnant 'aiea trees persist (USFWS 2023h). USFWS (2022h) notes that not all areas where tree tobacco occurs are occupied because it is likely that other limiting factors determine its presence, including parasites and predators, distance from occupied areas, presence of food resources for adults, and moisture regime.

Food Habits

Rubinoff and San Jose (2010) examined larval host plant preferences for this species and confirmed findings of previous studies that Blackburn's Sphinx Moth larvae could develop on a range of native and non-native plants in the Solanaceae (nightshade) family. In addition to using known larval hosts like the native and endangered 'aiea and the invasive tree tobacco, Blackburn's Sphinx Moth also have the ability to develop on the native olohua (glossy nightshade; *Solanum americanum*) and popolo aikeakua (*Solanum sandwicense*) in a laboratory setting (Rubinoff and San Jose 2010).

Reproductive Strategy

Rubinoff and San Jose (2010) examined larval host plant preferences for this species and confirmed findings of previous studies that Blackburn's Sphinx Moth larvae could develop on a range of native and non-native plants in the Solanaceae (nightshade) family. In addition to using known larval hosts like the native and endangered 'aiea and the invasive tree tobacco, Blackburn's Sphinx Moth also have the ability to develop on the native olohua (glossy nightshade; *Solanum americanum*) and popolo aikeakua (*Solanum sandwicense*) in a laboratory setting (Rubinoff and San Jose 2010).

Potential to Occur

The majority of the current Blackburn's Sphinx Moth range is now based on the presence of its host invasive tree tobacco (*Nicotiana glauca*). The survey conducted in 2013 for Waikapu Country Town found their eggs on a tobacco plant near the northern end of the parcel which is not near the group site but could be near the waterline upgrade. Based on the lack of suitable habitat and no reports of the tree tobacco host in the area, the species is not expected to occur in the other project Action Area. After a heavy rain, there is a potential for tree tobacco growth, and could attract the species if remained unchecked/unnoticed.

5.4 Honu or Green Sea Turtle (*Chelonia mydas*)

Status and Range

Federal ESA listing: Endangered; No Critical Habitat in Hawai'i

The Central North Pacific Distinct Population Segment of the Green Sea Turtle occurs around all the Hawaiian Islands with foraging areas along the coasts of O'ahu, Moloka'i, Maui, Lanai, Hawai'i Island, Lisianski Island, and Pearl and Hermes Reef (HDLNR 2015). Ninety percent of nesting in Hawai'i occurs

on the French Frigate Shoals of the Northwest Hawaiian Islands (NWHI), with small numbers of nests on the other islands and atolls of the NWHI and Main Hawaiian Islands (MHI) (HDLNR 2015).

Life History

Habitat Requirements

Green Sea Turtles are typically found in shallow, protected or semi-protected, water around coral reefs and coastal areas with appropriate habitat for foraging (see below) and shelter from predators such as tiger sharks (HDLNR 2015). They use sandy beaches for nesting.

Food Habits

Subadult and adult turtles in nearshore benthic environments are almost completely herbivorous, feeding primarily on macroalgae and seagrasses, whereas juveniles whose habitat is the open ocean are carnivorous (HDLNR 2015).

Reproductive Strategy

Green Sea Turtles reach sexual maturity at about 35 to 40 years of age, after which the females swim onshore to excavate a nest and lay eggs once every 2 years or more (HDLNR 2015). Nesting occurs on minimally disturbed sandy beaches where females may lay up to six clutches per season, often returning to the same site for each clutch every 12 to 15 days; incubation then takes about 60 days and hatchlings emerge from their nests at night (HDLNR 2015). Green Sea Turtles often haul out on beaches to bask in the sun. Nesting in Hawai'i occurs mid-April through September; however, nesting can extend into December (USFWS 2023g).

Potential to Occur

Green Sea Turtles are most often most often found in shallow, protected or semi-protected, water around coral reefs and coastal areas. The two project Action Areas in West Maui are located across the highway approximately 0.3 miles east of the ocean. The species is not expected to occur in the project Action Area based on lack of nesting and basking habitat in the project area. The Green Sea Turtle may occur in the waters of west Maui.

The project area does not provide suitable habitat; however, the Green Sea Turtle could be affected by outdoor lighting. Hatchling sea turtles orient to the sea using a sophisticated suite of cues primarily associated with ambient light levels. Hatchlings become disoriented and misdirected in the presence of artificial lights behind (landward of) their hatching site. These lights cause the hatchlings to orient inland, whereupon they fall prey to predators, are crushed by passing cars, or die of exhaustion or exposure in the morning sun. Nesting adults are also sensitive to light and can become disoriented after nesting, heading inland and then dying in the heat of the next morning, far from the sea (USFWS 1998a).

5.5 Honu'ea or Hawksbill Sea Turtle (*Eretmochelys imbricata*)

Status and Range

Federal ESA listing: Endangered; No Critical Habitat in Hawai'i

The Hawksbill Sea Turtle nests occur in waters around the main Hawaiian Islands and is regular seen off west Maui. As summarized by Gaos et al. (2021) field monitoring efforts between 1988 and 2018 documented an annual average of 14 (range: 5 to 26) nesting females and 48 (range: 12 to 93) nests, with a cumulative total of 178 individual nesting females and 1,280 nests recorded across all years.

Life History

Habitat Requirements

Hawksbill Sea Turtles are most often seen in shallow waters around reefs, bays, and inlets, primarily around the main Hawaiian Islands (HDLNR 2015). A few beaches on Maui are used occasionally. When nesting,

they typically use areas within 5 meters (15 feet) of the high-water line on beaches and with a preference for areas with woody cover.

Food Habits

Hawksbill Sea Turtles often forage in coral reef ecosystems (Gaos et al. 2021). They are omnivorous and eat marine algae, corals, mollusks, tunicates, crustaceans, sea urchins, small fish, and jellyfish, but their preferred food in many areas is sea sponges (USFWS 2023c).

Reproductive Strategy

According to the HDLNR (2015) summary, Hawksbill Sea Turtles in Hawai'i reach sexual maturity at around 17 to 22 years of age. Sea turtles mate at sea and females nest once every 3 to 4 years from late May through November. Nesting occurs within 15 feet of the high-water line on beaches, with a preference for areas with woody cover, and sand is not necessary but often used. Females may lay up to six clutches per season, often returning to the same site for each clutch approximately every 14 to 20 days. Each clutch contains about 140 eggs. Eggs incubate for approximately 60 days.

Potential to Occur

Hawksbill Sea Turtles are most often seen in shallow waters around reefs, bays, and inlets. The two project Action Areas in West Maui are located across the highway approximately 0.3 miles east of the ocean. The species is not expected to occur in the project Action Area based on the lack of records of nesting in the area and the distance of the Action Area to the nearest nesting or basking area. The Hawksbill turtle may occur in the waters of west Maui. The project area does not provide suitable habitat; however, the Hawksbill turtle could be affected by outdoor lighting. Hatchling sea turtles orient to the sea using a sophisticated suite of cues primarily associated with ambient light levels. Hatchlings become disoriented and misdirected in the presence of artificial lights behind (landward of) their hatching site. These lights cause the hatchlings to orient inland, whereupon they fall prey to predators, are crushed by passing cars, or die of exhaustion or exposure in the morning sun. Nesting adults are also sensitive to light and can become disoriented after nesting, heading inland and then dying in the heat of the next morning, far from the sea (USFWS 1998).

5.6 'ua'u or Hawaiian Petrel (*Pterodroma sandwicensis*)

Status and Range

Federal ESA listing: Endangered; No Critical Habitat

Although the Hawaiian Petrel had once been abundant on all the Hawaiian Islands, by the 1980s the Hawaiian Petrel population had experienced a significant range contraction and today breeding colonies are found only in remote or high elevation areas on the islands of Hawai'i, Maui, Moloka'i, Lāna'i, and Kaua'i (USFWS 2023b).

Life History

Habitat Requirements

Hawaiian Petrels nest at a variety of remote, inland habitats. On the islands of Hawai'i and Maui, colonies are above 8,200 feet in xeric habitats with very sparse vegetation, with most nests in existing crevices in the lava (HDLNR 2015). Misajon et al. (2019) note that they persist only in remnant colonies at the margins of their former range where nesting birds are best able to evade introduced mammalian predators.

Food Habits

In Hawai'i, Hawaiian Petrels feed primarily on squid, but also on fish, especially goatfish and lantern fish, and crustaceans (HDLNR 2015). Satellite tagged birds have been tracked traveling vast distances on a single foraging trip, but they also make trips of several nights (USFWS 2023b).

Reproductive Strategy

Hawaiian Petrels nest in burrows, crevices, or cracks in lava tubes with nest chambers from 3 to 30 feet deep (HDLNR 2015). Petrel colonies on islands other than Hawai‘i Island and Maui are found in a very different wet forest habitat (Kaua‘i Seabird Project 2022). Most eggs (one per pair) are laid in May and June, incubated, then fed after hatching by both parents, with most birds fledging by December (HDLNR 2015).

Potential to Occur

The species nests in a variety of remote, inland habitats in Hawai‘i. Current habitat that would support Hawaiian Petrels is not known within or near the project Action Area. The species flies long distances foraging out at sea and may fly over the area at night to the nesting area. Birds flying over are subject to fallout (HDLNR 2022b), which happens when seabirds such as the Hawaiian Petrel leave their nest for the first time (and sometimes also includes adults). They use natural lighting such as moonlight to navigate out to sea to feed and can become disoriented by artificial lighting which might occur during nighttime construction or with installation of improper permanent lighting. They might then either circle lights or collide with structures, and then fall to the ground due to exhaustion or injury from collision and then also become vulnerable to predators or hit by vehicles.

5.7 ‘akē‘akē or Band-rumped Storm-petrel (*Oceanodroma castro*), Hawai‘i DPS

Status and Range

Federal ESA listing: Endangered; No Critical Habitat

The Hawai‘i Distinct Population Segment (DPS) of the Band-rumped Storm-petrel nests in the Hawaiian archipelago, and ranges throughout the Pacific Ocean basin while foraging. Due to its cryptic nature and remote nesting habitat, only four active nests have been confirmed in Hawai‘i, all on the northern slope of Mauna Loa (USFWS 2021b).

Life History

Habitat Requirements

Studies summarized by USFWS (2021b) indicate that during breeding the species use dry cliff (dry grasslands and shrublands), wet cliff (wet forest), coastal cliff, and barren lava field habitat types. On Hawai‘i Island, colonies occur on high, barren lava flows where they nest in burrows or crevices in rock.

Food Habits

The diet for Band-rumped Storm-petrels consists primarily of fish and squid (USFWS 2021b).

Reproductive Strategy

The only active nests that have been confirmed are on Hawai‘i Island at the Pōhakuloa Training Area (PTA) on the slope of Mauna Loa, at an elevation of 2,100 to 2,200 feet. Recorded calls indicate likely nesting locations in other locations within HVNP, and at Haleakala National Park, other locations on Maui, and other islands (USFWS 2021b).

Potential to Occur

The species flies long distances foraging out at sea and may fly over or near the project Action Area at night to the nesting area. Band-rumped Storm Petrels flying over are subject to fallout, a potential danger to the species in the same way as described above for the Hawaiian Petrel. Fallout can occur for the Band-rumped Storm Petrel as already described above for the Hawaiian Petrel. Based on potential flyovers, the species may occur within airspace above the project Action Area or general vicinity flying to or from nesting colonies or when fledging.

5.8 ‘a‘o or Newell’s Townsend’s Shearwater (*Puffinus auricularis newelli*)

Status and Range

Federal ESA listing: Threatened; No Critical Habitat

Kaua‘i holds most of the remaining population of the Newell’s Shearwater with smaller populations on the islands of Hawai‘i and Maui, as well as a possible breeding population on Lehua. Historically the species also bred on Moloka‘i and O‘ahu (USFWS 2023d).

Life History

Habitat Requirements

The Newell’s Shearwater nests in burrows beneath ferns and tree roots in dense forest and on steep slopes and cliffs (USFWS 2023d).

Food Habits

The Newell’s Shearwater feeds at sea eating schooling fish and squid. They forage during the day and at night (USFWS 2023d).

Reproductive Strategy

Newell’s Shearwater are thought to start visiting their breeding colonies at 2 to 3 years of age, but likely do not breed until 5 or 6 years of age, at which time pairs lay one egg (USFWS 2023d). During the breeding season from April to early November the chick develops over 5 to 7 months during which one of the parents return each night to feed it (USFWS 2023d).

Potential to Occur

The Newell’s Shearwater nests in burrows beneath ferns and tree roots in dense forest and on steep slopes and cliffs. Based on potential flyovers, the species may occur within airspace above the project Action Area or general vicinity flying to or from nesting colonies or when fledging.

5.9 ‘alae ke‘oke‘o or Hawaiian Coot (*Fulica alai*)

Status and Range

Federal ESA listing: Endangered; No Critical Habitat

The Hawaiian Coot typically occurs in coastal plain wetlands and usually below 400 meters (1,320 feet) elevation, on all the main Hawaiian Islands except for Kaho‘olawe, with most of the population on Kaua‘i and the remainder on other islands in coastal ponds, wastewater treatment ponds, and wetlands (HDLNR 2015). These include several ponds on the west side of Hawai‘i Island and in Waiākea and Loko Waka ponds in the Hilo area of Hawai‘i Island (HDLNR 2015). The population is estimated at 1,500 to 2,800 individuals (HDLNR 2015).

Life History

Habitat Requirements

The Hawaiian Coot uses lowland wetland habitats with water less than 30 centimeters (12 inches) deep and with emergent plant growth interspersed with open water, especially freshwater wetlands and taro fields, but also freshwater reservoirs, cane field reservoirs, sewage treatment ponds, brackish wetlands, and, rarely, saltwater habitats (HDLNR 2015). Ephemeral wetlands support large numbers during the nonbreeding season and may provide a key habitat requirement (HDLNR 2015).

Food Habits

Hawaiian Coots feed on seeds and leaves, snails, crustaceans, insects, tadpoles, and small fish. They also graze on grass in areas adjacent to wetlands and travel long distances, including between islands, when local food sources are depleted (HDLNR 2015).

Reproductive Strategy

Nesting habitat includes freshwater and brackish ponds, irrigation ditches, and taro fields where floating nests are constructed of aquatic vegetation in open water or are anchored to emergent vegetation, whereas nests in emergent vegetation are typically platforms constructed from buoyant stems of plants (HDLNR 2015). Nesting occurs primarily between March and September, but can occur year-round because initiation is tied to appropriate water levels, which vary with rainfall (HDLNR 2015). The young birds (from 3 to 10 eggs) hatch in an advanced stage after a 25-day incubation period (HDLNR 2015).

Potential to Occur

The Hawaiian Coot uses lowland wetland habitats with shallow water and with emergent plant growth interspersed with open water. The project Action Area and nearby adjacent areas contain no substantial standing water, either permanent or ephemeral. The project area currently does not provide these types of suitable habitats; however, Hawaiian Coots may be attracted to areas of standing water that are inadvertently created during construction activities.

5.10 Koloa maoli or Hawaiian Duck (*Anas wyvilliana*)

Status and Range

Federal ESA listing: Endangered; No Critical Habitat

Hawaiian ducks are generally found in wetland habitats from sea level to 3,000 m on all the MHI except for Kaho‘olawe. On Maui, Hawaiian Ducks are found in Kahului, Kanaha and Keālia ponds (HDLNR 2015). The population is estimated at 2,200 individuals, with 90 percent of individuals occurring on Kaua‘i. Another 350 individuals occur on O‘ahu and Maui

Life History

Habitat Requirements

Hawaiian Ducks occurs in a wide variety of natural and artificial wetland habitats, including freshwater marshes, flooded grasslands, coastal ponds, streams, montane pools, forest swamplands, taro, lotus, shrimp, and fishponds, irrigation ditches, reservoirs, and mouths of larger streams.

Food Habits

The species typically forages in shallow water (less than 13 centimeters, or 5 inches, deep). Hawaiian ducks are opportunistic, and their diet includes snails, dragonfly larvae, earthworms, grass seeds, green algae, and seeds/leaf parts of wetland plants.

Reproductive Strategy

They are usually found alone or in pairs and are wary, especially when nesting or molting, although during the winter they may gather in larger numbers to exploit abundant food resources. Nesting biology is poorly known. Nesting occurs year-round, but most activity occurs between January and May. Nests are usually on the ground near water, but few nests are found in areas frequented by humans or areas supporting populations of mammalian predators. Generally, eight to ten eggs are laid, and the precocial chicks hatch after an unknown incubation period, but likely less than 30 days.

Potential to Occur

The Hawaiian Duck uses wetland habitats and forages in shallow water. The Action Area and surrounding area contains no documented wetlands or suitable bodies of water. The species is unlikely to be present near or in the Action Area due to lack of habitat; however, the Hawaiian Duck may be attracted to areas of standing water that are inadvertently created during construction activities.

5.11 ae‘o or Hawaiian Stilt (*Himantopus mexicanus knudseni*)

Status and Range

Federal ESA listing: Endangered (proposed for downlisting to Threatened on 03/25/2021); No Critical Habitat

The Hawaiian Stilt is generally found in wetland habitats below 200 meters (660 feet) elevation on all the main Hawaiian Islands except for Kaho‘olawe (HDLNR 2015). Winter and summer surveys show a fluctuating state population, which generally increased from 1985 to 2004 and since then has been roughly stable at 1,500 to 2,000 individuals (USFWS 2023f).

Life History

Habitat Requirements

Foraging habitat consists of shallow, ephemeral freshwater, brackish water, or saltwater habitats and they frequently move among wetland habitats in search of food (HDLNR 2015). Nesting and foraging habitats differ, and individuals may move daily between the two (HDLNR 2015; see below for nesting habitat).

Food Habits

Hawaiian Stilts are opportunistic feeders and eat a wide variety of invertebrates and other aquatic organisms such as insects, worms, crabs, and fish, as available in shallow water and mudflats (USFWS 2023f).

Reproductive Strategy

Hawaiian stilts generally nest on freshly exposed mudflats interspersed with low-growing vegetation or islands in freshwater or brackish ponds (USFWS 2023f). The nesting season normally extends from mid-February through August, but the timing can vary (USFWS 2023f). Usually, 3 to 4 eggs are laid, and the chicks hatch in an advanced stage (precocial) approximately 24 days later after which both parents brood the young for several months (HDLNR 2015).

Potential to Occur

Foraging habitat consists of shallow, ephemeral freshwater, brackish water, or saltwater habitats. Nesting habitat consists of freshly exposed mudflats interspersed with low growing vegetation or islands in freshwater or brackish ponds. The project Action Area and nearby adjacent areas contain no substantial standing water, either permanent or ephemeral. The project area currently does not provide these types of suitable habitats; however, Hawaiian Stilts may be attracted to areas of standing water that are inadvertently created during construction activities.

6.0 BEST MANAGEMENT PRACTICES AND AVOIDANCE AND MINIMIZATION MEASURES

This section describes best management practices (BMPs) and Avoidance and Minimization Measures (AMMs) that FEMA Contractors will implement for the Proposed Action. The General (GEN) BMPs are drawn from the Pacific Islands Fish and Wildlife Office's (PIFWO) July 27, 2021, Programmatic Informal Consultation (PIC) with FEMA for the Hawaiian and Pacific Islands. The species-specific AMMs were drawn from the USFWS updated animal AMMs dated May 2023.

If there are situations where one or more of the avoidance and minimization measures cannot be implemented, a responsible party (i.e., FEMA) will work with PIFWO to develop alternative measures for implementation that would avoid or minimize adverse effects on federally listed species and/or critical habitat.

6.1 General Best Management Practices

The following GEN BMPs are applicable to the Proposed Action. The GEN BMPs are drawn from the PIFWO's PIC with FEMA. Where noted, and to improve clarity, these BMPs have been modified to

eliminate elements that are not applicable to this project. The name of each GEN BMP is the same as the name used in the PIC.

GEN BMP-1 General Conditions

FEMA, and its Contractors will implement the following set of general conditions for the action described in this letter. Additionally, action-specific conservation measures described herein will be required, as applicable:

- Each applicable conservation measure will be included as an enforceable part of the approval document.
- FEMA and USFWS will be provided reasonable access to projects described in this letter to monitor the compliance with and efficacy of approval conditions.
- FEMA will require that its contractors document and report all interactions with ESA-listed species to FEMA and USFWS. Should it become apparent that an ESA-listed species may be adversely affected by the project, all non-emergency work must stop pending completion of formal ESA Section 7 consultation between FEMA and USFWS for the action.
- Constant vigilance will be kept for the presence of ESA-listed species during all aspects of the approved action:
 - Any site at which listed species have been identified will have a biological monitor present during all work. The biological monitor will have the authority to stop and resume work, and enforce buffer distances.
 - No one will attempt to feed, touch (e.g., pet, relocate), or otherwise intentionally interact with any protected species.
- Project footprints will be limited to the minimum area necessary to complete the project and project work limits must be clearly defined.
- Sensitive resource areas, such as ESA-listed species, if found within the Action Area, must be visibly flagged; however, fencing with non-natural material and smaller than 3- by x3- inch mesh size, and loose-weave joints for projects on or near the coast or suitable waterbird habitat, is prohibited due to the ensnarement hazard potential that exists with this type of material.
- Project operations will cease under unusual conditions, such as large tidal events, heavy rains and strong storms, and high surf conditions, with the exception of emergency protective measures implemented to preserve life and property resulting from such conditions.
- A stormwater management plan, commensurate to the size of the project must be prepared and carried out, for any project that will produce any new impervious surface or a land cover conversion that will slow the entry of water into the soil, to ensure that effects to water quality and hydrology are minimized.
- A pollution and erosion control plan for the Action Area and adjacent areas must be prepared and carried out. As a minimum, this plan will include:
 - Proper installation and maintenance of silt fences, booms, equipment diapers, or drip pans;
 - A contingency plan to control and clean spilled petroleum products and other toxic materials;
 - Appropriate materials to contain and clean potential spills will be stored at the action area, and be readily available;
 - All project-related materials and equipment placed in the water will be free of pollutants
 - Daily pre-work inspections of heavy equipment for cleanliness and leaks, with all heavy equipment operations postponed or halted until leaks are repaired and equipment is cleaned;
 - Fueling of project-related vehicles and equipment will take place at least 50 feet away from the water, preferably over an impervious surface;
 - A plan will be developed to prevent trash and debris from entering the environment during the project; and

- All construction discharge water (e.g., concrete washout, pumping for work action area isolation, vehicle wash water, drilling fluids, etc.) must be treated prior to discharge or disposed of in an approved waste disposal facility.
- Erosion controls must be properly installed before any alteration of the action area may take place. When erosion control is necessary selecting products with biodegradable netting (natural fiber, biodegradable polyesters) is preferred as well as netting with flexible, non-welded, rectangular shaped mesh with openings no smaller than three inches by three inches. Additional options exist that include open weave textile, rolled erosion control products with woven, natural fiber netting. Erosion control products that require UV-light to biodegrade, netting with square mesh, plastic mesh are not authorized.
- Vegetation clearing will be strictly limited to that which is required for project completion. Indiscriminate clearing will not be permitted.
- Temporary access roads and drilling pads must avoid steep slopes of 15 degrees or steeper where grade, soil types, or other features suggest a likelihood of excessive erosion or failure; existing access routes must be used or improved whenever possible, in lieu of the construction of new access routes.
- All disturbed areas must be immediately stabilized in accordance with aforementioned erosion controls following cessation of actions in advance or any break in work longer than four days.
- Authorized work must comply with all applicable general, action- and species-specific conditions.

GEN BMP-2 Water Quality

The following measures will be required, as applicable, to minimize the degradation of water quality and minimize the negative consequences to fish and wildlife resources:

- Turbidity and siltation from project-related work will be minimized and contained within the vicinity of the site through the appropriate use of effective silt containment devices and the curtailment of work during adverse tidal or weather conditions.
- No contamination (trash or debris disposal, non-native species introductions, attraction of non-native pests, etc.) of adjacent habitats will result from project-related actions. This will be accomplished by implementing a litter-control plan and developing a Hazard Analysis and Critical Control Point (HACCP) Plan to prevent attraction and introduction of non-native species.
- Fueling of project-related vehicles and equipment will take place at least 50 feet away from the water and a Spill Prevention, Control, and Countermeasure (SPCC) plan to control petroleum products accidentally spilled during the project will be developed. Absorbent pads and containment booms will be stored on-site, if appropriate, to facilitate the clean-up of accidental petroleum releases.
- Any under-layer fills used in the project will be protected from erosion with stones (or core-loc units) as soon after placement as practicable.

GEN BMP-3 Utility Lines

The following conservation measures are required for actions associated with the construction, maintenance, improvement, or repair of utility lines:

- Maximum utility corridor width will be limited to the minimum width necessary for safe operation and maintenance.
- Utilities will be designed and constructed in a manner that minimizes negative consequences on aquatic and marine waters due to runoff and erosion, including adequate stormwater treatment.
- Utilities will be constructed as near as possible to pre-construction contours and elevations.

GEN BMP-4 Roads

The following conservation measures are required for actions associated with the maintenance, improvement, or repair of roads:

- Maximum road width will be limited to the minimum width necessary for safe operation.
- Road will be designed and constructed in a manner that minimizes negative consequences on surface and marine waters due to runoff and erosion, including adequate stormwater treatment.
- Roads will be constructed as near as possible to pre-construction contours and elevations.

6.2 Species-specific Avoidance and Minimization Measures

The following species-specific AMMs were developed for the project and are applicable to the Proposed Action. The species-specific AMMs are drawn from technical assistance with the USFWS on October 18, 2023, and from the USFWS updated animal AMMs dated May 2023. Where noted, and to improve clarity, these AMMs have been modified to eliminate elements that are not applicable to this project.

Blackburn's Sphinx Moth – Waikapu County Town only

- A biologist familiar with the species should survey areas of proposed activities for Blackburn's sphinx moth and its larval host plants prior to work initiation.
 - Surveys should be conducted during the wettest portion of the year (usually November-April or several weeks after a significant rain) and within 4-6 weeks prior to construction.
 - Surveys should include searches for adults, eggs, larvae, and signs of larval feeding (chewed stems, frass, or leaf damage).
 - If moths, eggs, larvae, or native 'aiea or tree tobacco over 3 feet tall, are found during the survey, please contact the Service for additional guidance to avoid impacts to this species.

If no Blackburn's sphinx moth, 'aiea, or tree tobacco are found during surveys, it is imperative that measures be taken to avoid attraction of Blackburn's sphinx moth to the project location and prohibit tree tobacco from entering the site. Tree tobacco can grow greater than 3 feet tall in approximately 6 weeks. If it grows over 3 feet, the plants may become a host plant for Blackburn's sphinx moth. We therefore recommend that you:

- Remove any tree tobacco less than 3 feet tall.
- Monitor the site every 4-6 weeks for new tree tobacco growth before, during, and after the proposed ground-disturbing activity.
 - Monitoring for tree tobacco can be completed by any staff, such as groundskeeper or regular maintenance crew, provided with picture placards of tree tobacco at different life stages.

Hawaiian Hoary Bat – Pulelehua and Kaanapali only

- Do not disturb, remove, or trim woody plants greater than 15 feet tall during the bat birthing and pup rearing season, June 1 to September 15.
- Do not use barbed wire for fencing.

Hawaiian Seabirds – All Locations (Hawaiian petrel, Newell's shearwater, band-rumped storm-petrel)

- Fully shield all outdoor lights so the bulb can only be seen from below.
- Install automatic motion sensor switches and controls on all outdoor lights or turn off lights when human activity is not occurring in the lighted area.
- Where fences extend above vegetation, integrate three strands of polytape into the fence to increase visibility.

Hawaiian Goose (Nēnē – All Locations)

- Do not approach, feed, or disturb nēnē.

- If nēnē are observed loafing or foraging within the project area during the breeding season (September through April), have a biologist familiar with nēnē nesting behavior survey for nests in and around the project area prior to the resumption of any work. Repeat surveys after any subsequent delay of work of 3 or more days (during which the birds may attempt to nest).
- Cease all work immediately and contact the Service for further guidance if a nest is discovered within a radius of 150 feet of proposed project, or a previously undiscovered nest is found within the 150-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 endangered species on-site.

Hawaiian Waterbirds – All Locations (Hawaiian stilt, Hawaiian Coot, Hawaiian duck)

- In areas where waterbirds are known to be present, post and implement reduced speed limits, and inform project personnel and contractors about the presence of endangered species on-site.
- Have a biological monitor that is familiar with the species' biology conduct Hawaiian waterbird nest surveys where appropriate habitat occurs within the vicinity of the proposed project site prior to project initiation. Repeat surveys again within 3 days of project initiation and after any subsequent delay of work of 3 or more days (during which the birds may attempt to nest). If a nest or active brood is found:
 - Contact the Service within 48 hours for further guidance.
 - Establish and maintain a 100-foot buffer around all active nests and/or broods until the chicks/ducklings have fledged. Do not conduct potentially disruptive activities or habitat alteration within this buffer.

Sea Turtles – All Locations

- Minimize the use of lighting on or near beaches and shield all project-related lights so the light is not visible from any beach.
 - If lights can't be fully shielded or if headlights must be used, fully enclose the light source with light filtering tape or filters.
- Incorporate design measures into the construction or operation of buildings adjacent to the beach to reduce ambient outdoor lighting such as:
 - tinting or using automatic window shades for exterior windows that face the beach;
 - reducing the height of exterior lighting to below 3 feet and pointed downward or away from the beach; and
 - minimize light intensity to the lowest level feasible and, when possible, include timers and motion sensors.

6.3 INVASIVE SPECIES BIOSECURITY PROTOCOL

The invasive species biosecurity protocols are applicable to the Proposed Action, they were drawn from the USFWS updated Invasive Species Biosecurity Protocols, dated April 2022. Where noted, and to improve clarity, these invasive species biosecurity protocols have been modified to eliminate elements that are not applicable to this project.

6.3.1 Invasive Species Biosecurity Protocol

1. **Cleaning and treatment:** Project applicants should assume that all project materials (i.e., construction materials, or aggregate such as dirt, sand, gravel, etc.), vehicles, machinery, and equipment contain dirt and mud, debris, plant seeds, and other invasive species, and therefore require thorough cleaning. Treatment for specific pests, for example, trapping and poison baiting for rodents, or baiting and fumigation for insects, should be considered when applicable. For effective cleaning we offer the following recommendations prior to entry into a project site: a. Project materials, vehicles, machinery, and equipment must be pressure washed thoroughly (preferably with hot water) in a designated cleaning area.

- a. Project materials, vehicles, machinery, and equipment should be visibly free of mud/dirt (excluding aggregate), seeds, plant debris, insects, spiders, frogs (including frog eggs), other vertebrate species (e.g., rodents, mongoose, feral cats, reptiles, etc.), and rubbish. Areas of particular concern include bumpers, grills, hood compartments, wheel wells, undercarriage, cabs, and truck beds. Truck beds with accumulated material are prime sites for hitchhiking invasive species.
 - b. The interior and exterior of vehicles, machinery, and equipment must be free of rubbish and food, which can attract pests (i.e., rodents and insects). The interiors of vehicles and the cabs of machinery should be vacuumed clean particularly for any plant material or seeds.
2. Inspection:
- a. Following cleaning and/or treatment, project materials, vehicles, machinery, and equipment, must be visually inspected by its user, and be free of mud/dirt (excluding aggregate), debris, and invasive species prior to entry into a project site. For example, careful visual inspection of a vehicle's tires and undercarriage is recommended for any remaining mud that could contain invasive plant seeds.
 - b. Any project materials, vehicles, machinery, or equipment found to contain invasive species (e.g., plant seeds, invertebrates, rodents, mongoose, cats, reptiles, etc.) must not enter the project site until those invasive species are properly removed/treated.
3. For all project site personnel:
- a. Prior to entry into the project site, visually inspect and clean your clothes, boots or other footwear, backpack, radio harness, tools and other personal gear and equipment for insects, seeds, soil, plant parts, or other debris. We recommend the use of a cleaning brush with sturdy bristles. Seeds found on clothing, footwear, backpacks, etc., should be placed in a secure bag or similar container and discarded in the trash rather than being dropped to ground at the project site or elsewhere.
4. Additional considerations:
- a. Consider implementing a Hazard Analysis and Critical Control Point (HACCP) plan (<https://www.fws.gov/policy/A1750fw1.html>) to improve project planning around reducing the risk of introducing or spreading invasive species.
 - b. When applicable, use pest-free or low-risk sources of plants, mulch, wood, animal feed or other materials to be transported to a project site.
 - c. Avoid unnecessary exposure to invasive species at a particular site (to the extent practical) to reduce contamination and spread. For example, if your project involves people or equipment moving between multiple locations, plan and organize timelines so that work is completed in native habitat prior to working in a disturbed location to reduce the likelihood of introducing a pest into the native habitat.
 - e. Maintain good communication about invasive species risks between project managers and personnel working on the project site (e.g., conduct briefings and training about invasive species). Ensure prevention measures are communicated to the entire project team. Also consider adding language on biosecurity into contracts or permitting mechanisms to provide clarity to all involved in the project. Report any species of concern or possible introduction of invasive species to appropriate land managers.

6.3.2 Species Specific Biosecurity Protocol: Little Fire Ants (LFA)

1. For projects involving plants from nurseries (e.g., outplanting activities, etc.), all plants should be inspected for little fire ants and other pests prior to being transported to the project site. If plants are found to be infested by ants of any species, plants should be sourced from an alternative nursery and the infested nursery should follow treatment protocols recommended by the Hawai'i Ant Lab (<https://littlefireants.com/wpcontent/uploads/2020-Management-of-Pest-Ants-in-Nurseries-min.pdf>).

2. All work vehicles, machinery, and equipment should follow steps 1 and 2 in the “Invasive Species Biosecurity Protocol” for (1) cleaning and treatment and (2) inspection for invasive ants prior to entering a project site.
3. Any machinery, vehicles, equipment, or other supplies found to be infested with ants (or other invasive species) must not enter the project site until it is properly treated (<https://littlefireants.com/how-to-treat-for-little-fire-ants-forhomeowners/#recommended-bait-products>) and re-tested. Infested vehicles must be treated following recommendations by the Hawai‘i Ant Lab (<https://littlefireants.com/resource-center/>) or another ant control expert and in accordance with all State and Federal laws. Treatment is the responsibility of the equipment or vehicle owner. Ultimately however, it is the responsibility of the action agency to ensure that all project materials, vehicles, machinery, and equipment follow the appropriate protocol(s).
4. General Vehicle Ant Hygiene: Even the cleanest vehicle can pick up and spread little fire ant. Place MaxForce Complete Brand Granular Insect Bait (1.0 percent Hydramethylnon; https://labelsds.com/images/user_uploads/Maxforce%20Complete%20Label%201-5-18.pdf) into refillable tamper resistant bait stations. An example of a commercially available refillable tamper resistant bait station is the Ant Café Pro (<https://www.antcafe.com/>). Place a bait station (or stations) in the vehicle and note that larger vehicles, such as trucks, may require multiple stations. Monitor bait stations frequently (every week at a minimum) and replace bait as needed. If the bait station does not have a sticker to identify the contents, apply a sticker listing contents to the station.
5. Gravel, building materials, or other equipment such as portable buildings should be baited using MaxForce Complete Brand Granular Insect Bait (1.0 percent Hydramethylnon; https://labelsds.com/images/user_uploads/Maxforce%20Complete%20Label%201-5-18.pdf) or AmdroPro (0.73 percent Hydramethylnon; <https://connpest.com/labels/AMDROPRO.pdf>) following label guidance.
6. Storage areas that hold field tools, especially tents, tarps, and clothing should be baited using MaxForce Complete Brand Granular Insect Bait (1.0 percent Hydramethylnon; https://labelsds.com/images/user_uploads/Maxforce%20Complete%20Label%201-5-18.pdf) or AmdroPro (0.73 percent Hydramethylnon; <https://connpest.com/labels/AMDROPRO.pdf>) following label guidance.
7. Vehicles that have entered a project site known or thought to overlap with areas infested with LFA should subsequently be tested for LFA with baiting in accordance with protocol recommended by the Hawai‘i Ant Lab (<https://littlefireants.com/survey-yourhome-for-lfa/>).
8. If LFA are detected, please report it to 808-643-PEST (Hawai‘i). Please visit <https://littlefireants.com/identificationof-little-fire-ants/> for assistance in identifying LFA.

7.0 SUMMARY OF ESA DETERMINATION

Hawaiian Hoary Bat (*Lasiurus cinereus semotus*)

Based on the lack of suitable roosting habitat, and 2) lack of evidence of bat activity was visually or auditorily observed, and no activity was detected using the bat detecting device in past surveys it is unlikely the bat will occur in the action areas. Although, there is suitable foraging habitat in the action area, with the implementation of the proposed BMPs and AMMs, *FEMA has determined that the Proposed Action may affect, but is not likely to adversely affect the Hawaiian Hoary Bat.*

Blackburn’s Sphinx Moth (*Manduca blackburni*)

Based on past surveys and present site conditions the potential group site areas lack suitable habitat. However, past survey in 2013 indicated there are tree tobacco with the moth present near the waterline at Waikapu Country. Upgrading the utility line is not expected to impact the species host plant. With the implementation of the proposed BMPs and AMMs, *FEMA has determined that the Proposed Action may affect, but is not likely to adversely affect the Blackburn’s Sphinx Moth.*

Nēnē or Hawaiian goose (*Branta sandvicensis*)

Although there is potentially favorable habitat for the species in the project Action Area, the substantial distance to the nearest populations and the few occurrences reported in the general project vicinity make it unlikely to occur there. However, Nēnē are strong flyers and could fly to the area from known populations. If they were present, they could be temporarily disturbed by project construction activities. *With implementation of the proposed BMPs and AMMs, FEMA has determined that the Proposed Action may affect, but is not likely to adversely affect the Nēnē.*

Sea Turtles

Based on the unlike potential for the Hawksbill and Green Sea turtles to occur in the Action area due to the lack of suitable habitat for the species and with the implementation of the proposed BMPs and AMMs, *FEMA has determined that the Proposed Action may affect, but is not likely to adversely affect the Hawksbill Sea Turtle (*Eretmochelys imbricata* and the Green Sea Turtle (*Chelonia mydas*).*

Hawaiian Seabirds

The Hawaiian seabirds may fly over the Action Area at night. Based on the unlikely potential for the Hawaiian Waterbirds to occur in the Action area due to the lack of suitable habitat and *with the implementation of the proposed BMPs and AMMs, FEMA has determined that the Proposed Action may affect, but is not likely to adversely affect the Newell's Shearwater (*Puffinus auricularis newelli*), Band-rumped Storm-petrel (*Oceanodroma castro*), and Hawaiian Petrel (*Pterodroma sandvicensis*).*

Hawaiian Waterbirds

The Hawaiian waterbirds are currently found in a variety of wetland habitats. The project area currently does not provide these types of suitable habitats. However, Hawaiian waterbirds may be attracted to areas of standing water that are inadvertently created during construction activities. FEMA has determined that with implementation of all the avoidance and minimization measures described in Section 6.0, the Proposed Project *may affect, but is not likely to adversely affect the Hawaiian Petrel (*Pterodroma sandvicensis*), Band-rumped Storm-petrel (*Oceanodroma castro*), Newell's Townsend's Shearwater (*Puffinus auricularis newelli*).*

FEMA has determined that the Proposed Project would result in no effect to other federally listed species or critical habitat not described above.

FFEMA requests a letter of concurrence from the Service that the project may affect, but is not likely to adversely affect the Hawaiian Hoary Bat (*Lasiurus cinereus semotus*), Blackburn's Sphinx Moth (*Manduca blackburni*), Hawaiian Goose (*Branta (=Nesochen) sandvicensis*), Hawaiian Duck (*Anas wyvilliana*), Hawaiian Coot (*Fulica alai*), Hawaiian Stilt (*Himantopus mexicanus knudseni*), band rumped Storm-petrel (*Oceanodroma castro*), Hawaiian Petrel (*Pterodroma sandvicensis*), Newell's Townsend's Shearwater (*Puffinus auricularis newelli*), and Hawksbill Sea Turtle (*Eretmochelys imbricata*). If you have questions about the Proposed Project or FEMA's request, please contact Emily Benz at (202) 704-6163 or by e-mail at emily.benz@fema.dhs.gov. Thank you in advance for your assistance.

Sincerely,

CHELSEA D KLEIN Digitally signed by CHELSEA D KLEIN
Date: 2023.10.27 09:01:42 -10'00'

Chelsea Klein
Lead Environmental and Historic Preservation Advisor
DR-4724-HI

Cc: Emily Benz, (202) 704-6163, emily.benz@fema.dhs.gov;
Kelley Liang, (202) 655-8794, kelly.liang@fema.dhs.gov

ATTACHMENTS:

Attachment A: USFWS IPAC Official Species List, dated October 19, 2023

Attachment B: Project Area and Critical Habitat within 10 miles

Attachment C: Current Site Photos & Site Conditions

Waikapu

Pulelehua

Kaanapali

Attachment D: Waikapu Country Town Surveys

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Attachment E: Pulelehua Surveys

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United States Department of the Interior



FISH AND WILDLIFE SERVICE
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122
Honolulu, Hawai'i 96850

In Reply Refer To:
2024-0006908-S7-001

November 16, 2023

Chelsea D. Klein
Lead Environmental and Historic Preservation Advisor
Federal Emergency Management Agency (FEMA) Region IX
U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

Subject: Three Temporary Housing Sites on Maui for Victims of the August 2023 Maui Wildfires (FEMA DR-4724-HI) (Locations: Waikapū, Pulelehua, and Kā'anapali)

Dear Chelsie Klein:

The U.S. Fish and Wildlife Service (Service) received your letter dated October 27, 2023, requesting concurrence with your determination that Federal Emergency Management Agency (FEMA) development of three separate temporary housing sites, or 'Group Sites', on Maui (FEMA DR-4724-HI), for victims of the August 2023 wildfires, may affect, but are not likely to adversely affect the following species:

- 'Ōpe'ape'a or Hawaiian hoary bat (*Lasiurus cinereus semotus*),
- Nēne or Hawaiian Goose (*Branta sandvicensis*),
- Hawaiian waterbirds, including the ae'o or Hawaiian stilt (*Himantopus mexicanus knudseni*), 'alae ke'oke'o or Hawaiian coot (*Fulica americana alai*), and koloa or Hawaiian duck (*Anas wyvilliana*),
- Hawaiian seabirds, including the 'ua'u or Hawaiian petrel (*Pterodroma sandwichensis*), threatened 'a'o or Newell's Townsend's shearwater (*Puffinus auricularis newelli*), and the endangered 'akē'akē or Hawai'i distinct population segment of the band-rumped storm-petrel (*Oceanodroma castro*),
- Blackburn's sphinx moth (*Manduca blackburni*), and
- Hawaiian sea turtles, including the honu'ea or Hawksbill sea turtle (*Eretmochelys imbricata*) and honu or green sea turtle (*Chelonia mydas*).

On November 15, 2023, we received supplemental information that additional conservation measures would be implemented to avoid adverse effects to the nēne may be present and

PACIFIC REGION 1

IDAHO, OREGON*, WASHINGTON,
AMERICAN SĀMOA, GUAM, HAWAI'I, NORTHERN MARIANA ISLANDS
*PARTIAL

exposed to project-related activities (see Attachment E). There is no designated critical habitat in the three project areas. This letter has been prepared under the authority of, and in accordance with, section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) as amended (ESA).

Project Description

The three proposed temporary housing sites are all located within close proximity to the areas impacted by the Lāhainā wildfire (Figure 1). The first site is located in Waikapū Country Town in central Maui (Figures 2); the second site is comprised of two parcels within close proximity in Pulelehua, makai and makai south of the Kapalua Airport on the eastern coastline of Mauna Kahālāwai (Figure 3); and the fourth site is located just north of Kā'anapali (Figure 4). All four locations are planned for future permanent residential development projects and are currently in various stages of implementation for those purposes. The combined action areas (approximately 310 acres) include corridors required for the installation of access roads and utilities and staging areas. Equipment staging would be limited to occurring within each site's boundaries.

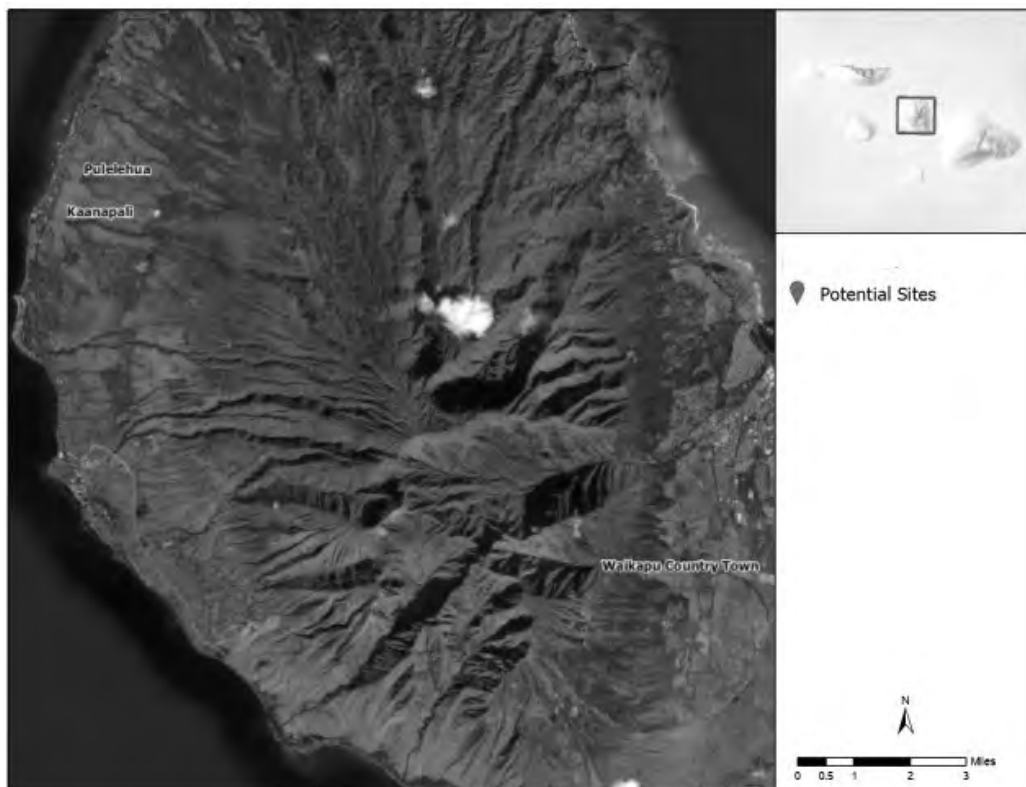


Figure 1. Three proposed temporary housing locations on Maui.

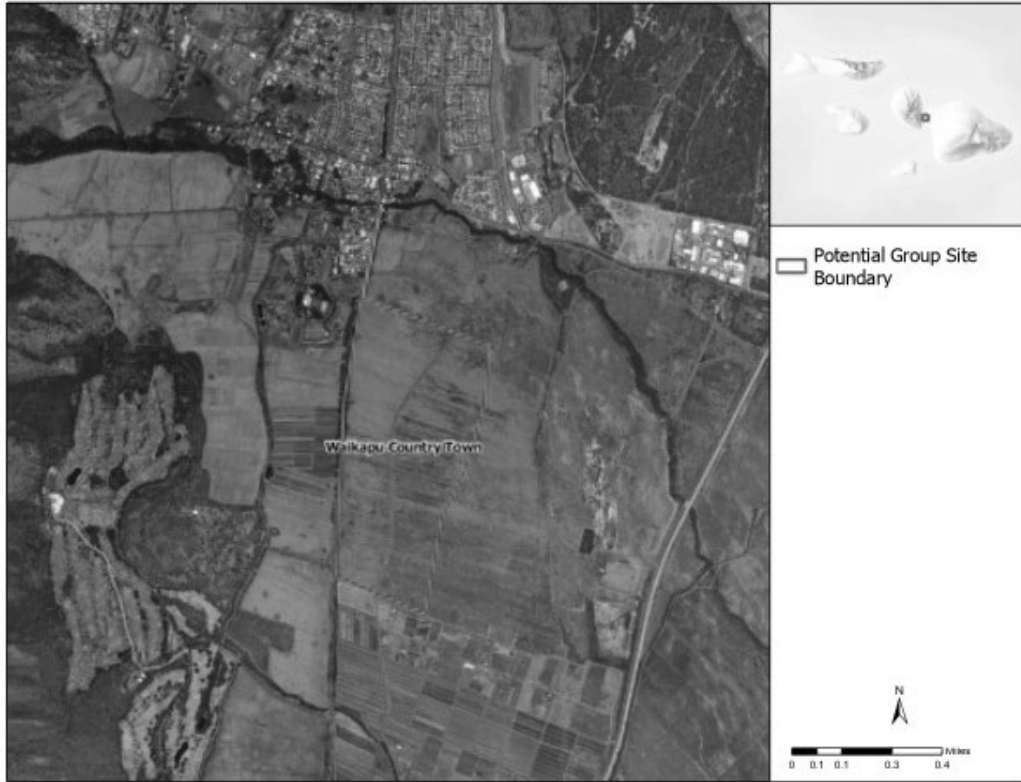


Figure 2: Waikapū Country Town site in central Maui (190 acres).

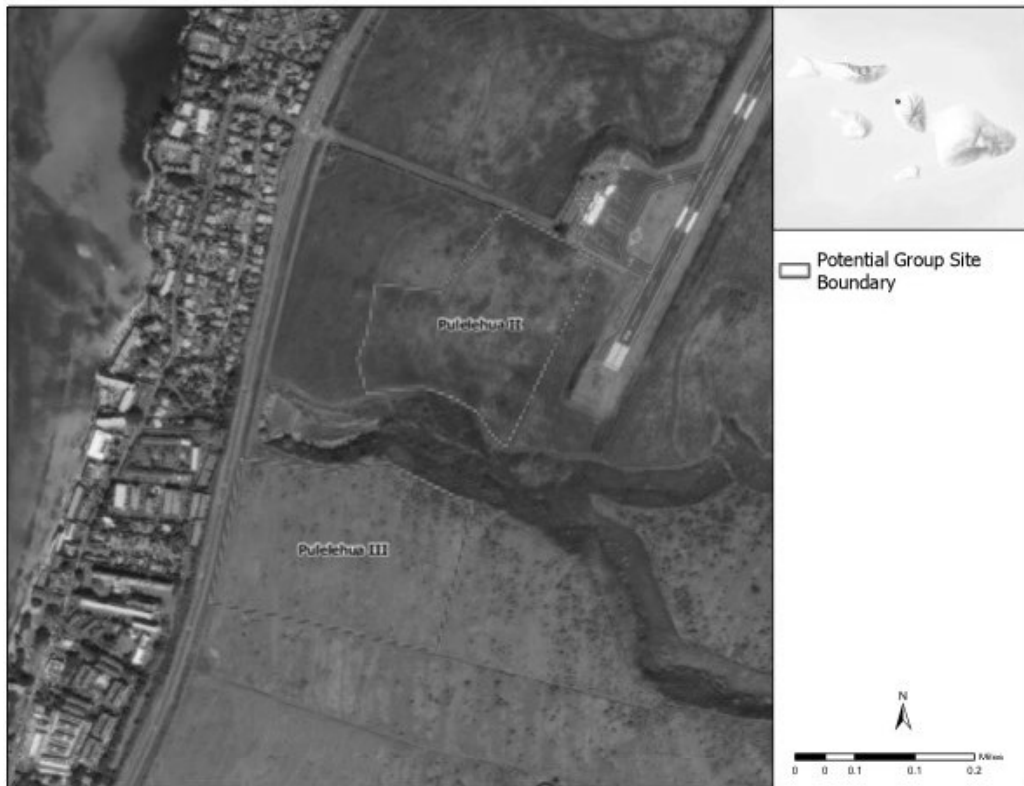


Figure 3: Pulelehua site (67 acres) on the eastern coastline of Mauna Kahālawai

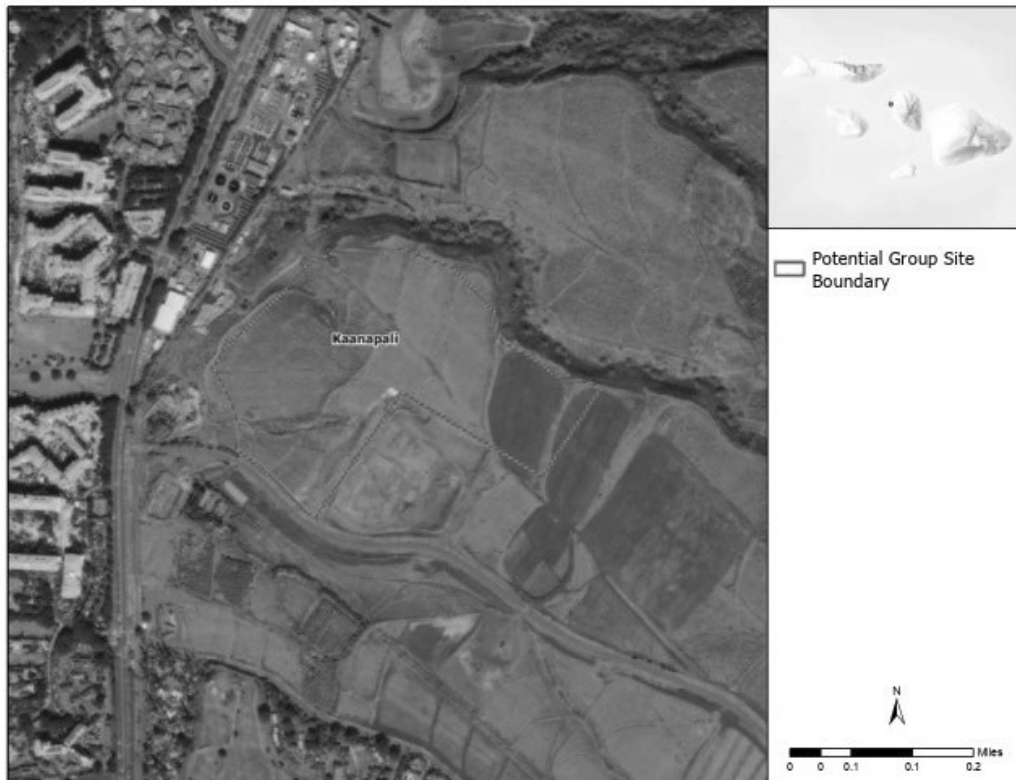


Figure 4: Kā'anapali site on the eastern coastline Kahālāwai, just Mauna south of the Pulelehua site.

The temporary housing sites will be leased land and the installation of Alternative Temporary Housing Units (Units) will include the following components: construction of individual Unit pads; ingress, egress, and circulation roads; any necessary upgrades for individual Units to comply with the Americans with Disabilities Act; parking lots; facility lighting; water, sanitation, and electrical utilities; and a perimeter privacy fence. The sites could include appurtenant support features such as school bus shelters and mailbox units. Development of the sites will require several steps including the following: surveying; clearing; stripping; grading; utility and access road design and installation; and surface storm water and erosion control.

In collaboration with Maui County and the State, FEMA will purchase and place the Units on the temporary sites and aim to select culturally sensitive options to best meet the specific needs of the community. FEMA will operate and maintain the temporary housing sites during the term of occupancy. When the temporary housing need ends, FEMA expects the Units would be removed from the site. All three locations have already been planned for future development, and infrastructure would be left in place, per the lease terms with the landowner.

The construction would require grading and leveling for the installation of roads and individual gravel site pads, and to route stormwater to appropriate locations to support approximately 200 Units per location. All three properties are adjacent to the Honoa Pi'ilani Highway. Excavation for the installation of subsurface water, sanitation, and electric utilities would be required for

each individual Unit and would extend as required to connect to existing utility tie-ins at the adjacent roads. Access roads for ingress and egress to and from the site and circulation roads to allow access to each individual unit would be constructed, and gravel pads for parking and trash, concrete parking pads for units with residents requiring upgrades to meet ADA compliance requirements, site lighting, and a perimeter privacy fence would be installed. Access routes would be constructed from the Honoa Pi'ilani Highway to the site.

Additionally, establishment of a temporary housing site at these locations will require the installation of a four-way traffic light at the entrance point to both the Pulelehua and Waikapū Country Town locations. Utilities exist within the existing right of ways adjacent to the project sites and would be extended to the project site to provide service to the proposed Units; infrastructure at each location will be established to support long term development goals to the extent practicable. The Waikapū Country Town site will need an upgrade in the existing water pipeline that connects to the site and runs adjacent to the Honoa Pi'ilani Highway to increase capacity. Equipment staging would be limited to within the site boundary and would not extend to any undisturbed ground that may be adjacent to each proposed site.

Debris generated during construction would be removed to an existing, licensed landfill. Unusable equipment, debris and material will be disposed of prior to occupancy in an approved manner and location. In the event significant items (or evidence thereof) are discovered during implementation of the project including but not limited to; petroleum products, hazardous materials, and toxic waste will be handled, managed, and disposed of in accordance with the requirements and to the satisfaction of the governing local, state, and federal agencies.

Appropriate Best Management Practices (BMPs) will be implemented during site development to minimize sediment migration from the site into nearby water bodies. Surface runoff will be controlled by using siltation controls such as silt fencing around the construction site to minimize erosion of materials into adjacent wetlands and/or waterways. Any disturbed soil will be protected with seed or sod after construction in order to decrease the amount of soil eroded by rainfall and runoff. Any fill stored on site will be appropriately covered to prevent erosion. If the project results in a discharge to waters of the State, a National Pollution Elimination System (NPDES) permit may be required in accordance with the Section 401 of the CWA. Construction work would be done in conformance with the applicable provisions of the HAR Chapter 11-54 (Water Quality Standards) and Chapter 11-55 (Water Pollution Control), the erosion and sedimentation control standards and the Maui Department of Public Works guidelines.

The exact depth of excavation and grading at the sites is unknown but would at a minimum be to the least extent necessary to facilitate construction and to comply with building code requirements. While the Units would likely be removed once more permanent housing solutions are found for displaced individuals and families, site improvements such as underground utilities, gravel and concrete pads, the perimeter fence, and access and circulation roads may remain.

FEMA anticipates using the following construction equipment for the duration of the main construction period: excavators, bulldozers, hydraulic impact hammers, backhoes, loaders, graders, dump trucks, compactors/rollers, an asphalt paver, rock crushers, rock haulers, and water trucks. Construction of each site is anticipated to take 6 months to include site preparation, road improvements, and extension of utilities onto the site, and installation of units. Construction may take place up to 24 hours 7 days per week at certain points during development due to the need to

establish safe housing for displaced disaster survivors as quickly as possible. Approximate construction dates would start January 2024 through June 2024 (181 days). The typical use of a temporary house by a displaced people includes an initial 18 months following a disaster declaration, with options to be extended based on the needs of the survivors. Prior to construction, coordination with the Hawai'i Department of Health and the County of Maui.

Effects to Federally Listed Species

‘Ōpe‘ape‘a

Woody vegetation may potentially be used year round by ‘Ōpe‘ape‘a for a roosting as they roost in woody vegetation and will leave their young unattended in trees and shrubs while foraging. Based on the lack of suitable roosting habitat in all three project sites, it is unlikely Hawaiian hoary bats will occur in the action areas. Although, suitable habitat may occur nearby the project sites, implementation of the avoidance and minimization actions outlined in the attached Conservation Measures would prevent any injury, mortality, and measurable disruptions to their normal behaviors. Therefore, impacts to the Hawaiian hoary bat are discountable and insignificant.

Nēnē

Nēnē may be observed in a variety of habitats, but prefer open areas, such as pastures, golf courses, wetlands, natural grasslands and shrublands, and lava flows. There is a breeding population at the Kapalua Airport, and scattered occurrences along the western coastline of Mauna Kahālāwai. Additionally, nēnē are strong flyers and could fly to any of the three project areas from elsewhere on Maui. If nēnē are present during construction, we expect human presence during and disturbance may cause them to leave the site. Nesting nēnē may be temporarily disturbed by human presence but are expected to resume their normal behaviors because protective buffers will be maintained that will minimize any temporary disturbances. Nēnē that are displaced from any foraging areas are expected to relocate to other areas containing foraging resources (these are not considered limiting factors). We expect that these disturbances be short term and intermittent and will not result in measurable disruptions of their normal behaviors or a measurable reduction in their reproductive success and fitness. Because FEMA will implement the avoidance and minimization measures outlined under Conservation Measures, no injury or mortality of nēnē is expected to occur. Therefore, project impacts to nēnē are insignificant.

Hawaiian Waterbirds

Hawaiian waterbirds are found in a variety of wetland habitats including freshwater marshes and ponds, coastal estuaries and ponds, artificial reservoirs, *Colocasia esculenta* (kalo or taro lo‘i or patches, irrigation ditches, and sewage treatment ponds. Ae‘o may also be found wherever ephemeral or persistent standing water may occur, such as the proposed sediment basin. The western coastline of Mauna Kahālāwai was once similar to the Mana Plain wetland habitat on Kaua‘i; however, this area on Maui is currently highly degraded ephemeral wetland habitat with some perennial streams. None of the three project areas contain existing wetland habitat; however, wetland habitat in the form of ephemeral wetlands, streams lo‘i kalo, and/or reservoirs

occur in the vicinity of all three projects. Avoidance and minimization measures, monitoring, and survey protocols will be implemented, as outlined in the attached Conservation Measures, to avoid adverse effects to Hawaiian waterbird. If Hawaiian waterbirds are present during earth moving or construction activities, we expect human presence and disturbance will cause them to temporarily leave the site. We expect that these disturbances will be short term and intermittent and will not result in measurable disruptions of their normal behaviors, nor will there be reductions in the reproductive success or fitness of the birds. Therefore, effects of the project on Hawaiian waterbirds is discountable.

Hawaiian Seabirds

Hawaiian seabirds may traverse the project area at night during the breeding, nesting, and fledging seasons (March 1 to December 15). When outdoor lighting is used seabird disorientation, fallout, and injury or mortality may occur because 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. Fledglings are particularly vulnerable to light attraction when they are traversing the project area between September 15 and December 15, as they are making their first flights from their mountain nests to the sea. Night work may be necessary to complete the three temporary housing projects expeditiously to benefit the displaced individuals. Because FEMA will implement the avoidance and minimization measures for Hawaiian seabirds outlined under Conservation Measures, no injury or mortality of Hawaiian seabirds is expected to occur. Therefore, project impacts to Hawaiian seabirds is discountable.

Blackburn's Sphinx Moth

The adult Blackburn's sphinx moth feeds on nectar from native plants, including beach morning glory (*Ipomoea pes-caprae*), 'ilie'e (*Plumbago zeylanica*), maiapilo (*Capparis sandwichiana*), and others. Blackburn's sphinx moth larvae feed on non-native tree tobacco (*Nicotiana glauca*) and native 'aiea (*Nothoestrum* spp.). To pupate, the larvae burrow into the soil and can remain in a state of torpor for a year or more before emerging from the soil. Soil disturbance can result in death of the pupae. Based on past surveys and present site conditions of the proposed Waikapū Country Town project action area, the site lacks suitable habitat. However, a 2013 survey indicated there are tree tobacco with the moth present near the waterline at Waikapū Country. Because of the implementation of the avoidance and minimization measures outlined in the attached Conservation Measures, no injury or mortality of Blackburn's sphinx moth eggs, larvae, or moths is expected to occur. Therefore, impacts to the Hawaiian hoary bat are discountable.

Hawaiian Sea Turtles

Honu are generally found in fairly shallow waters (except when migrating) inside reefs, bays, and inlets; they are attracted to lagoons and shoals with an abundance of marine grass and algae. Open beaches with a sloping platform and minimal disturbance are required for nesting. While none of the project sites are within nesting or basking habitat, the Pulelehua and Kā'anapali sites

are close enough to the shoreline to warrant the implementation of the Service's lighting avoidance and minimization measures. Because FEMA is incorporating the Service's sea turtle lighting avoidance and minimization measures, as outlined in the attached Conservation Measures, we do not expect any injury, mortality, or measurable disturbances to sea turtle normal behavior. Therefore, effects to Hawaiian sea turtles are considered discountable.

Summary

Based on the information provided, implementation of Service-recommended avoidance and minimization measures, and our assessment of potential project impacts, we expect that the potential for adverse effects to federally listed species are insignificant and discountable. Therefore, we concur with your determination that the three temporary housing projects may affect but are not likely to adversely affect these federally listed species. Reinitiation of consultation is required and shall be requested:

- If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered;
- If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the written concurrence; or,
- If a new species is listed or critical habitat designated that may be affected by the identified actions

Thank you for protecting federally listed species. If you have any questions, please contact Carrie Harrington at carrie_harrington@fws.gov or by telephone at 808-207-4698 or emailing pifwo_admin@fws.gov. When referring to this project, please include this reference number: 2024-0006908-S7-001.

Sincerely,

LINDSY Digitally signed by
LINDSY ASMAN
ASMAN Date: 2023.11.16
12:42:50 -10'00'

Lindsay Asman
Island Team Manager
Maui Nui and Hawai'i Island

cc: Emily Benz, FEMA
Kelley Liang, FEMA
Emma Gosliner, USFWS
Kevin Czachura, USFWS

Attachments

- A: Best Management Practices for Work In or Adjacent to Aquatic Environments
- B: FEMA Conservation Measure
- C: Animal Conservation Measures/Species-Specific Avoidance and Minimization Measures
- D: Biosecurity Protocols
- E: Additional Conservation Measures FEMA Will Implement to Avoid Adverse Effects to Nēne

Attachment A: U.S. Fish and Wildlife Service Standard Best Management Practices (BMPs) for Work In or Adjacent to Aquatic Environments

The U.S. Fish and Wildlife Service (Service) recommends the following measures are incorporated into project planning to avoid or minimize impacts to fish and wildlife resources. Incorporation of these BMPs may reduce negative impacts to aquatic habitats from project construction-related activities. These BMPs are recommended in addition to, and do not override any terms, conditions, or other recommendations prepared by the Service, other Federal, state, or local agencies. Please contact the Service Aquatic Ecosystems Conservation Program at 808-792-9400 with any questions.

1. Authorized dredging and filling-related activities that may result in the temporary or permanent loss of aquatic habitats should be designed to avoid indirect, negative impacts to aquatic habitats that extend beyond the planned project area.
2. Dredging/filling in the marine environment should be scheduled to avoid coral spawning and recruitment periods, and sea turtle nesting and hatching periods. Because these periods vary throughout the Pacific islands, we recommend contacting the relevant local, state, or Federal fish and wildlife resource agency for site specific guidance.
3. Turbidity and siltation from project-related work should be minimized and contained within the project area by silt containment devices and curtailing work during flooding or adverse tidal and weather conditions. The BMPs should occur for the life of the construction period until turbidity and siltation within the project area is stabilized. All project construction-related debris and sediment containment devices should be removed and disposed of at an approved site.
4. All project construction-related materials and equipment (i.e., dredges, vessels, backhoes, silt curtains, etc.) to be placed in an aquatic environment should be inspected for pollutants including, but not limited to; marine fouling organisms, grease, oil, etc., and cleaned to remove pollutants prior to use. Project related activities should not result in any debris disposal, non-native species introductions, or attraction of non-native pests to the affected or adjacent aquatic or terrestrial habitats. Implementing both a litter-control plan and a Hazard Analysis and Critical Control Point plan (HACCP – see <https://www.fws.gov/policy/A1750fw1.html>) can prevent attraction and introduction of non-native species.
5. Project construction-related materials (i.e., fill, revetment rock, pipe, etc.) should not be stockpiled in, or in close proximity to aquatic habitats and should be protected from erosion (e.g., with filter fabric, etc.), to prevent materials from being carried into waters by wind, rain, or high surf.
6. Fueling of project-related vehicles and equipment should occur away from the aquatic environment and a contingency plan to control petroleum products accidentally spilled during the project should be developed. The plan should be retained on site with the person responsible for compliance with the plan. Absorbent pads and containment booms should be stored on-site to facilitate the clean-up of accidental petroleum releases.
7. All deliberately exposed soil or under-layer materials used in the project near water should be protected from erosion and stabilized as soon as possible with geotextile, filter fabric or native or non-invasive vegetation matting, hydro-seeding, etc.

Attachment B: FEMA Conservation Measures

FEMA, and its Contractors will implement the following set of **general conditions** for the action described in this letter. Additionally, action-specific conservation measures described herein will be required, as applicable:

- Each applicable conservation measure will be included as an enforceable part of the approval document.
- FEMA and USFWS will be provided reasonable access to projects described in this letter to monitor the compliance with and efficacy of approval conditions.
- FEMA will require that its contractors document and report all interactions with ESA-listed species to FEMA and USFWS. Should it become apparent that an ESA-listed species may be adversely affected by the project, all non-emergency work must stop pending completion of formal ESA Section 7 consultation between FEMA and USFWS for the action.
- Constant vigilance will be kept for the presence of ESA-listed species during all aspects of the approved action:
 - Any site at which listed species have been identified will have a biological monitor present during all work. The biological monitor will have the authority to stop and resume work and enforce buffer distances.
 - No one will attempt to feed, touch (e.g., pet, relocate), or otherwise intentionally interact with any protected species.
- Project footprints will be limited to the minimum area necessary to complete the project and project work limits must be clearly defined.
- Sensitive resource areas, such as ESA-listed species, if found within the Action Area, must be visibly flagged; however, fencing with non-natural material and smaller than 3-by x3- inch mesh size, and loose-weave joints for projects on or near the coast or suitable waterbird habitat, is prohibited due to the ensnarement hazard potential that exists with this type of material.
- Project operations will cease under unusual conditions, such as large tidal events, heavy rains and strong storms, and high surf conditions, with the exception of emergency protective measures implemented to preserve life and property resulting from such conditions.
- A **stormwater management plan**, commensurate to the size of the project must be prepared and carried out, for any project that will produce any new impervious surface or a land cover conversion that will slow the entry of water into the soil, to ensure that effects to water quality and hydrology are minimized.
- A **pollution and erosion control plan** for the Action Area and adjacent areas must be prepared and carried out. As a minimum, this plan will include:
 - Proper installation and maintenance of silt fences, booms, equipment diapers, or drip pans;

- A contingency plan to control and clean spilled petroleum products and other toxic materials;
 - Appropriate materials to contain and clean potential spills will be stored at the action area, and be readily available;
 - All project-related materials and equipment placed in the water will be free of pollutants;
 - Daily pre-work inspections of heavy equipment for cleanliness and leaks, with all heavy equipment operations postponed or halted until leaks are repaired and equipment is cleaned;
 - Fueling of project-related vehicles and equipment will take place at least 50 feet away from the water, over an impervious surface;
 - A plan will be developed to prevent trash and debris from entering the environment during the project; and
 - All construction discharge water (e.g., concrete washout, pumping for work action area isolation, vehicle wash water, drilling fluids, etc.) must be treated prior to discharge or disposed of in an approved waste disposal facility.
- Erosion controls must be properly installed before any alteration of the action area may take place. When erosion control is necessary selecting products with biodegradable netting (natural fiber, biodegradable polyesters) is preferred as well as netting with flexible, non-welded, rectangular shaped mesh with openings no smaller than three inches by three inches. Additional options exist that include open weave textile, rolled erosion control products with woven, natural fiber netting. Erosion control products that require UV-light to biodegrade, netting with square mesh, plastic mesh are not authorized.
 - Vegetation clearing will be strictly limited to that which is required for project completion. Indiscriminate clearing will not be permitted.
 - Temporary access roads and drilling pads must avoid steep slopes of 15 degrees or steeper where grade, soil types, or other features suggest a likelihood of excessive erosion or failure; existing access routes must be used or improved whenever possible, in lieu of the construction of new access routes.
 - All disturbed areas must be immediately stabilized in accordance with aforementioned erosion controls following cessation of actions in advance or any break in work longer than four days.
 - Authorized work must comply with all applicable general, action- and species-specific conditions.

The following **water quality** measures will be required, as applicable, to minimize the degradation of water quality and minimize the negative consequences to fish and wildlife resources:

- Turbidity and siltation from project-related work will be minimized and contained within the vicinity of the site through the appropriate use of effective silt containment devices and the curtailment of work during adverse tidal or weather conditions.

- No contamination (trash or debris disposal, non-native species introductions, attraction of non-native pests, etc.) of adjacent habitats will result from project-related actions. This will be accomplished by implementing a **litter-control plan** and developing a **Hazard Analysis and Critical Control Point (HACCP)** Plan to prevent attraction and introduction of non-native species.
- Fueling of project-related vehicles and equipment will take place at least 50 feet away from the water and a **Spill Prevention, Control, and Countermeasure (SPCC)** plan to control petroleum products accidentally spilled during the project will be developed. Absorbent pads and containment booms will be stored on-site, if appropriate, to facilitate the clean-up of accidental petroleum releases.
- Any under-layer fills used in the project will be protected from erosion with stones (or core-loc units) as soon after placement as practicable.

The following **conservation measures for utility lines** are required for actions associated with the construction, maintenance, improvement, or repair of utility lines:

- Maximum utility corridor width will be limited to the minimum width necessary for safe operation and maintenance.
- Utilities will be designed and constructed in a manner that minimizes negative consequences on aquatic and marine waters due to runoff and erosion, including adequate stormwater treatment.
- Utilities will be constructed as near as possible to pre-construction contours and elevations.

The following **conservation measures for roads** are required for actions associated with the maintenance, improvement, or repair of roads:

- Maximum road width will be limited to the minimum width necessary for safe operation.
- Road will be designed and constructed in a manner that minimizes negative consequences on surface and marine waters due to runoff and erosion, including adequate stormwater treatment.
- Roads will be constructed as near as possible to pre-construction contours and elevations.

Attachment C: Species-Specific Avoidance and Minimization Measures

Blackburn's Sphinx Moth – Waikapū County Town only

- FEMA will contract a biologist familiar with the species to survey the proposed project area for host plants of the Blackburn's sphinx moth, and if any host plants are discovered, survey for the Blackburn's sphinx moth prior to initiating work.
 - Surveys should be conducted during the wettest portion of the year (usually November-April or several weeks after a significant rain) and within 4-6 weeks prior to construction.
 - Surveys should include searches for adults, eggs, larvae, and signs of larval feeding (chewed stems, frass, or leaf damage).
 - If moths, eggs, larvae, or native 'āiea or tree tobacco over 3 feet tall, are found during the survey, please contact the Service for additional guidance to avoid impacts to this species.

If no Blackburn's sphinx moth, 'āiea, or tree tobacco are found during surveys, it is imperative that measures be taken to avoid attraction of Blackburn's sphinx moth to the project location and prohibit tree tobacco from entering the site. Tree tobacco can grow greater than 3 feet tall in approximately 6 weeks. If it grows over 3 feet, the plants may become a host plant for Blackburn's sphinx moth. FEMA will implement the below avoidance and minimization measures to avoid attracting the moth to the project site:

- Remove any tree tobacco less than 3 feet tall.
- Monitor the site every 4-6 weeks for new tree tobacco growth before, during, and after the proposed ground-disturbing activity.
 - Monitoring for tree tobacco can be completed by any staff, such as groundskeeper or regular maintenance crew, provided with picture placards of tree tobacco at different life stages.

'Ōpe'ape'a (Hawaiian Hoary Bat) – Pulelehua and Kā'anapali only

- FEMA will ensure workers do not disturb, remove, or trim woody plants greater than 15 feet tall during the bat birthing and pup rearing season, June 1 to September 15.
- FEMA will not use barbed wire for fencing.

Hawaiian Seabirds ('ua'u or Hawaiian petrel, 'a'o of Newell's shearwater, and 'akē'akē or band-rumped storm-petrel) – All Locations

- FEMA will fully shield all outdoor lights so the bulb can only be seen from below.
- FEMA will install automatic motion sensor switches and controls on all outdoor lights or turn off lights when human activity is not occurring in the lighted area.
- Where fences extend above vegetation, FEMA will integrate three strands of polytape into the fence to increase visibility.

Nēnē (Hawaiian Goose) – All Locations

- FEMA will ensure workers do not approach, feed, or disturb nēnē
- If nēnē are observed loafing or foraging within the project area during the breeding season (September through April), have a biologist familiar with nēnē nesting

behavior survey for nests in and around the project area prior to the resumption of any work. Repeat surveys after any subsequent delay of work of 3 or more days (during which the birds may attempt to nest).

- FEMA will cease all work immediately and contact the Service for further guidance if a nest is discovered within a radius of 150 feet of proposed project, or a previously undiscovered nest is found within the 150-foot radius after work begins.
- In areas where nēnē are known to be present, FEMA will post and implement reduced speed limits, and inform project personnel and contractors about the presence of endangered species on-site.

Hawaiian Waterbirds (ae‘o or Hawaiian stilt, ‘alae ke‘oke‘o or Hawaiian Coot, koloa maoli or Hawaiian duck) – All Locations

- In areas where waterbirds are known to be present, FEMA post and implement reduced speed limits, and inform project personnel and contractors about the presence of endangered species on-site.
- FEMA will contract a biological monitor that is familiar with the species’ biology conduct Hawaiian waterbird nest surveys where appropriate habitat occurs within the vicinity of the proposed project site prior to project initiation. Repeat surveys again within 3 days of project initiation and after any subsequent delay of work of 3 or more days (during which the birds may attempt to nest). If a nest or active brood is found:
 - Contact the Service within 48 hours for further guidance.
 - Establish and maintain a 100-foot buffer around all active nests and/or broods until the chicks/ducklings have fledged. Do not conduct potentially disruptive activities or habitat alteration within this buffer.

Hawaiian Sea Turtles (honu‘ea or Hawksbill sea turtle and honu or green sea turtle) – Pulelehua and Kā‘anapali only

- FEMA will minimize the use of lighting on or near beaches and shield all project-related lights, so the light is not visible from any beach.
 - If lights can’t be fully shielded or if headlights must be used, fully enclose the light source with light filtering tape or filters.
- Incorporate design measures into the construction or operation of buildings adjacent to the beach to reduce ambient outdoor lighting such as:
 - tinting or using automatic window shades for exterior windows that face the beach;
 - reducing the height of exterior lighting to below 3 feet and pointed downward or away from the beach; and
 - minimize light intensity to the lowest level feasible and, when possible, include timers and motion sensors.

Attachment D: Invasive Species Biosecurity Protocol

1. Cleaning and treatment: FEMA will ensure that all project applicants assume that all project materials (i.e., construction materials, or aggregate such as dirt, sand, gravel, etc.), vehicles, machinery, and equipment contain dirt and mud, debris, plant seeds, and other invasive species, and therefore require thorough cleaning. Treatment for specific pests, for example, trapping and poison baiting for rodents, or baiting and fumigation for insects, should be considered when applicable. For effective cleaning we offer the following recommendations prior to entry into a project site:
 - a. Project materials, vehicles, machinery, and equipment must be pressure washed thoroughly (preferably with hot water) in a designated cleaning area.
 - b. Project materials, vehicles, machinery, and equipment should be visibly free of mud/dirt (excluding aggregate), seeds, plant debris, insects, spiders, frogs (including frog eggs), other vertebrate species (e.g., rodents, mongoose, feral cats, reptiles, etc.), and rubbish. Areas of particular concern include bumpers, grills, hood compartments, wheel wells, undercarriage, cabs, and truck beds. Truck beds with accumulated material are prime sites for hitchhiking invasive species.
 - c. The interior and exterior of vehicles, machinery, and equipment must be free of rubbish and food, which can attract pests (i.e., rodents and insects). The interiors of vehicles and the cabs of machinery should be vacuumed clean particularly for any plant material or seeds.
2. Inspection:
 - a. Following cleaning and/or treatment, project materials, vehicles, machinery, and equipment, must be visually inspected by its user, and be free of mud/dirt (excluding aggregate), debris, and invasive species prior to entry into a project site. For example, careful visual inspection of a vehicle's tires and undercarriage is recommended for any remaining mud that could contain invasive plant seeds.
 - b. Any project materials, vehicles, machinery, or equipment found to contain invasive species (e.g., plant seeds, invertebrates, rodents, mongoose, cats, reptiles, etc.) must not enter the project site until those invasive species are properly removed/treated.
3. For all project site personnel:
 - a. a. Prior to entry into the project site, visually inspect and clean your clothes, boots or other footwear, backpack, radio harness, tools and other personal gear and equipment for insects, seeds, soil, plant parts, or other debris. We recommend the use of a cleaning brush with sturdy bristles. Seeds found on clothing, footwear, backpacks, etc., should be placed in a secure bag or similar container and discarded in the trash rather than being dropped to ground at the project site or elsewhere.
4. Additional considerations:
 - a. Consider implementing a Hazard Analysis and Critical Control Point (HACCP) plan (<https://www.fws.gov/policy/A1750fw1.html>) to improve project planning around reducing the risk of introducing or spreading invasive species.
 - b. When applicable, use pest-free or low-risk sources of plants, mulch, wood, animal feed or other materials to be transported to a project site.

- c. Avoid unnecessary exposure to invasive species at a particular site (to the extent practical) to reduce contamination and spread. For example, if your project involves people or equipment moving between multiple locations, plan and organize timelines so that work is completed in native habitat prior to working in a disturbed location to reduce the likelihood of introducing a pest into the native habitat.
- d. Maintain good communication about invasive species risks between project managers and personnel working on the project site (e.g., conduct briefings and training about invasive species). Ensure prevention measures are communicated to the entire project team. Also consider adding language on biosecurity into contracts or permitting mechanisms to provide clarity to all involved in the project. Report any species of concern or possible introduction of invasive species to appropriate land managers.

Species Specific Biosecurity Protocol: Little Fire Ants (LFA)

1. For projects involving plants from nurseries (e.g., outplanting activities, etc.), all plants will be inspected for little fire ants and other pests prior to being transported to the project site. If plants are found to be infested by ants of any species, plants should be sourced from an alternative nursery and the infested nursery should follow treatment protocols recommended by the Hawai'i Ant Lab (<https://littlefireants.com/wpcontent/uploads/2020-Management-of-Pest-Ants-in-Nurseries-min.pdf>).
2. All work vehicles, machinery, and equipment will follow steps 1 and 2 in the “Invasive Species Biosecurity Protocol” for (1) cleaning and treatment and (2) inspection for invasive ants prior to entering a project site.
3. Any machinery, vehicles, equipment, or other supplies found to be infested with ants (or other invasive species) must not enter the project site until it is properly treated (<https://littlefireants.com/how-to-treat-for-little-fire-ants-forhomeowners/#recommended-bait-products>) and re-tested. Infested vehicles must be treated following recommendations by the + awai'i Ant Lab (<https://littlefireants.com/resource-center/>) or another ant control expert and in accordance with all State and Federal laws. Treatment is the responsibility of the equipment or vehicle owner. Ultimately however, it is the responsibility of the action agency to ensure that all project materials, vehicles, machinery, and equipment follow the appropriate protocol(s).
4. General Vehicle Ant Hygiene: Even the cleanest vehicle can pick up and spread little fire ant. Place MaxForce Complete Brand Granular Insect Bait (1.0 percent Hydramethylnon; https://labelsds.com/images/user_uploads/Maxforce%20Complete%20Label%201-5-18.pdf) into refillable tamper resistant bait stations. An example of a commercially available refillable tamper resistant bait station is the Ant Café Pro (<https://www.antcafe.com/>). Place a bait station (or stations) in the vehicle and note that larger vehicles, such as trucks, may require multiple stations. Monitor bait stations frequently (every week at a minimum) and replace bait as needed. If the bait station does not have a sticker to identify the contents, apply a sticker listing contents to the station.
5. Gravel, building materials, or other equipment such as portable buildings should be baited using MaxForce Complete Brand Granular Insect Bait (1.0 percent

Hydramethylnon;

https://labelsds.com/images/user_uploads/Maxforce%20Complete%20Label%201-5-18.pdf) or AmdroPro (0.73 percent Hydramethylnon;

<https://connpest.com/labels/AMDROPRO.pdf>) following label guidance.

6. Storage areas that hold field tools, especially tents, tarps, and clothing should be baited using MaxForce Complete Brand Granular Insect Bait (1.0 percent Hydramethylnon; https://labelsds.com/images/user_uploads/Maxforce%20Complete%20Label%201-5-18.pdf) or AmdroPro (0.73 percent Hydramethylnon; <https://connpest.com/labels/AMDROPRO.pdf>) following label guidance.
7. Vehicles that have entered a project site known or thought to overlap with areas infested with LFA should subsequently be tested for LFA with baiting in accordance with protocol recommended by the Hawai‘i Ant Lab (<https://littlefireants.com/survey-yourhome-for-lfa/>).
8. If LFA are detected, please report it to 808-643-PEST (Hawai‘i). Please visit <https://littlefireants.com/identificationof-little-fire-ants/> for assistance in identifying LFA.

[EXTERNAL] DR-4724 Temporary Housing - Additional Avoidance and Minimization Measures - Nene**Benz, Emily** <emily.benz@fema.dhs.gov>

Wed 11/15/2023 2:16 PM

To:Harrington, Carrie <carrie_harrington@fws.gov>;Yrigoyen, James <james_yrigoyen@fws.gov>
Cc:Liang, Kelley <kelley.liang@fema.dhs.gov>;Klein, Chelsea <Chelsea.Klein@fema.dhs.gov>;Asman, Lindsay <Lindsay_Asman@fws.gov>

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Good Carrie and James,

Thank you so much for the touch base this afternoon. In light of recent events, we have drafted the below additional Avoidance and Minimization Measures which will be added to the recently submitted Section 7 consultation for the Kaanapali, Pulelehua, and Waikapu County Town Group Sites:

Nēnē or Hawaiian goose (*Branta sandvicensis*) – Additional Measures

- During construction activities, an on-site biological monitor will be present each morning to conduct start of day survey for species presence.
 - If Nēnē are observed as a result of the survey, the biologist will remain on site to observe the species until they depart the area.
 - If Nēnē are observed on site, the biologist will photograph and document the presence of the individual(s), if possible, for banded birds and provide confirmation of banded foot, band color, writing color, writing on band, via high resolution photo.
 - Ensure all loose and/or staged materials are sufficiently anchored to prevent wind-blown materials from injuring birds.
- Install signage throughout construction area alerting construction crews on site of potential presence of Nēnē, and avoidance requirements.

We appreciate any feedback you are able to provide, thank you again for your continued support.

-Emily

Emily J. Benz

Environmental and Historic Preservation Advisor I DR-4724
Office of Environmental Planning & Historic Preservation (OEHP)
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Federal Emergency Management Agency
fema.gov

Appendix I.

USFWS PIFWO Programmatic Informal Consultation Best Management Practices

The U.S. Fish and Wildlife Service (Service) recommends the following measures are incorporated into project planning to avoid or minimize impacts to fish and wildlife resources. Incorporation of these BMPs may reduce negative impacts to aquatic habitats from project construction-related activities. These BMPs are recommended in addition to, and do not over-ride any terms, conditions, or other recommendations prepared by the Service, other Federal, state, or local agencies. Please contact the Service Aquatic Ecosystems Conservation Program at 808-792-9400 with any questions.

1. Authorized dredging and filling-related activities that may result in the temporary or permanent loss of aquatic habitats should be designed to avoid indirect, negative impacts to aquatic habitats that extend beyond the planned project area.
2. Dredging/filling in the marine environment should be scheduled to avoid coral spawning and recruitment periods, and sea turtle nesting and hatching periods. Because these periods vary throughout the Pacific islands, we recommend contacting the relevant local, state, or Federal fish and wildlife resource agency for site specific guidance.
3. Turbidity and siltation from project-related work should be minimized and contained within the project area by silt containment devices and curtailing work during flooding or adverse tidal and weather conditions. The BMPs should occur for the life of the construction period until turbidity and siltation within the project area is stabilized. All project construction-related debris and sediment containment devices should be removed and disposed of at an approved site.
4. All project construction-related materials and equipment (i.e., dredges, vessels, backhoes, silt curtains, etc.) to be placed in an aquatic environment should be inspected for pollutants including, but not limited to; marine fouling organisms, grease, oil, etc., and cleaned to remove pollutants prior to use. Project related activities should not result in any debris disposal, non-native species introductions, or attraction of non-native pests to the affected or adjacent aquatic or terrestrial habitats. Implementing both a litter-control plan and a Hazard Analysis and Critical Control Point plan (HACCP – see <https://www.fws.gov/policy/A1750fw1.html>) can prevent attraction and introduction of non-native species.
5. Project construction-related materials (i.e., fill, revetment rock, pipe, etc.) should not be stockpiled in, or in close proximity to aquatic habitats and should be protected from erosion (e.g., with filter fabric, etc.), to prevent materials from being carried into waters by wind, rain, or high surf.
6. Fueling of project-related vehicles and equipment should occur away from the aquatic environment and a contingency plan to control petroleum products accidentally spilled during the project should be developed. The plan should be retained on site with the person responsible for compliance with the plan. Absorbent pads and containment booms should be stored on-site to facilitate the clean-up of accidental petroleum releases.

7. All deliberately exposed soil or under-layer materials used in the project near water should be protected from erosion and stabilized as soon as possible with geotextile, filter fabric or native or non-invasive vegetation matting, hydro-seeding, etc.

General Conditions

FEMA, and its Contractors will implement the following set of **general conditions** for the action described in this letter. Additionally, action-specific conservation measures described herein will be required, as applicable:

- Each applicable conservation measure will be included as an enforceable part of the approval document.
- FEMA and USFWS will be provided reasonable access to projects described in this letter to monitor the compliance with and efficacy of approval conditions.
- FEMA will require that its contractors document and report all interactions with ESA-listed species to FEMA and USFWS. Should it become apparent that an ESA-listed species may be adversely affected by the project, all non-emergency work must stop pending completion of formal ESA Section 7 consultation between FEMA and USFWS for the action.
- Constant vigilance will be kept for the presence of ESA-listed species during all aspects of the approved action:
 - Any site at which listed species have been identified will have a biological monitor present during all work. The biological monitor will have the authority to stop and resume work and enforce buffer distances.
 - No one will attempt to feed, touch (e.g., pet, relocate), or otherwise intentionally interact with any protected species.
- Project footprints will be limited to the minimum area necessary to complete the project and project work limits must be clearly defined.
- Sensitive resource areas, such as ESA-listed species, if found within the Action Area. must be visibly flagged; however, fencing with non-natural material and smaller than 3- by x3- inch mesh size, and loose-weave joints for projects on or near the coast or suitable waterbird habitat, is prohibited due to the ensnarement hazard potential that exists with this type of material.
- Project operations will cease under unusual conditions, such as large tidal events, heavy rains and strong storms, and high surf conditions, with the exception of emergency protective measures implemented to preserve life and property resulting from such conditions.
- A **stormwater management plan**, commensurate to the size of the project must be prepared and carried out, for any project that will produce any new impervious surface or a land cover conversion that will slow the entry of water into the soil, to ensure that effects to water quality and hydrology are minimized.
- A **pollution and erosion control plan** for the Action Area and adjacent areas must be prepared and carried out. As a minimum, this plan will include:
 - Proper installation and maintenance of silt fences, booms, equipment diapers, or drip pans;
 - A contingency plan to control and clean spilled petroleum products and other toxic materials;
 - Appropriate materials to contain and clean potential spills will be stored at the action area, and be readily available;
 - All project-related materials and equipment placed in the water will be free of pollutants;
 - Daily pre-work inspections of heavy equipment for cleanliness and leaks, with all heavy equipment operations postponed or halted until leaks are repaired and equipment is cleaned;
 - Fueling of project-related vehicles and equipment will take place at least 50 feet away from the water, over an impervious surface;

- A plan will be developed to prevent trash and debris from entering the environment during the project; and
- All construction discharge water (e.g., concrete washout, pumping for work action area isolation, vehicle wash water, drilling fluids, etc.) must be treated prior to discharge or disposed of in an approved waste disposal facility.
- Erosion controls must be properly installed before any alteration of the action area may take place. When erosion control is necessary selecting products with biodegradable netting (natural fiber, biodegradable polyesters) is preferred as well as netting with flexible, non-welded, rectangular shaped mesh with openings no smaller than three inches by three inches. Additional options exist that include open weave textile, rolled erosion control products with woven, natural fiber netting. Erosion control products that require UV-light to biodegrade, netting with square mesh, plastic mesh are not authorized.
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- Temporary access roads and drilling pads must avoid steep slopes of 15 degrees or steeper where grade, soil types, or other features suggest a likelihood of excessive erosion or failure; existing access routes must be used or improved whenever possible, in lieu of the construction of new access routes.
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- Authorized work must comply with all applicable general, action- and species-specific conditions.

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- Turbidity and siltation from project-related work will be minimized and contained within the vicinity of the site through the appropriate use of effective silt containment devices and the curtailment of work during adverse tidal or weather conditions.
- No contamination (trash or debris disposal, non-native species introductions, attraction of non-native pests, etc.) of adjacent habitats will result from project-related actions. This will be accomplished by implementing a **litter-control plan** and developing a **Hazard Analysis and Critical Control Point (HACCP) Plan** to prevent attraction and introduction of non-native species.
- Fueling of project-related vehicles and equipment will take place at least 50 feet away from the water and a **Spill Prevention, Control, and Countermeasure (SPCC)** plan to control petroleum products accidentally spilled during the project will be developed. Absorbent pads and containment booms will be stored on-site, if appropriate, to facilitate the clean-up of accidental petroleum releases.
- Any under-layer fills used in the project will be protected from erosion with stones (or core-loc units) as soon after placement as practicable.

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- Maximum utility corridor width will be limited to the minimum width necessary for safe operation and maintenance.
- Utilities will be designed and constructed in a manner that minimizes negative consequences on aquatic and marine waters due to runoff and erosion, including adequate stormwater treatment.
- Utilities will be constructed as near as possible to pre-construction contours and elevations.

The following **conservation measures for roads** are required for actions associated with the maintenance, improvement, or repair of roads:

- Maximum road width will be limited to the minimum width necessary for safe operation.

- Road will be designed and constructed in a manner that minimizes negative consequences on surface and marine waters due to runoff and erosion, including adequate stormwater treatment.
- Roads will be constructed as near as possible to pre-construction contours and elevation.

Species Specific Avoidance and Minimization Measures

‘Ōpe‘ape‘a (Hawaiian Hoary Bat)

- FEMA will ensure workers do not disturb, remove, or trim woody plants greater than 15 feet tall during the bat birthing and pup rearing season, June 1 to September 15.
- FEMA will not use barbed wire for fencing.

Hawaiian Seabirds (‘ua‘u or Hawaiian petrel, ‘a‘o of Newell’s shearwater, and ‘akē‘akē or band-rumped storm-petrel)

- FEMA will fully shield all outdoor lights so the bulb can only be seen from below.
- FEMA will install automatic motion sensor switches and controls on all outdoor lights or turn off lights when human activity is not occurring in the lighted area.
- Where fences extend above vegetation, FEMA will integrate three strands of polytape into the fence to increase visibility.

Nēnē (Hawaiian Goose)

- FEMA will ensure workers do not approach, feed, or disturb nēnē.
- If nēnē are observed loafing or foraging within the project area during the breeding season (September through April), FEMA will have a biologist familiar with nēnē nesting behavior survey for nests in and around the project area prior to the resumption of any work. Repeat surveys after any subsequent delay of work of 3 or more days (during which the birds may attempt to nest).
- FEMA will cease all work immediately and contact the Service for further guidance if a nest is discovered within a radius of 150 feet of proposed project, or a previously undiscovered nest is found within the 150-foot radius after work begins.
- In areas where nēnē are known to be present, FEMA will post and implement reduced speed limits, and inform project personnel and contractors about the presence of endangered species on-site.
- During construction activities, an on-site biological monitor will be present each morning to conduct start of day survey for species presence.
 - If Nene are observed as a result of the survey, the biologist will remain on site to observe the species until they depart the area.
 - If Nene are observed on site, the biologist will photograph and document the presence of the individual(s), if possible, for banded birds and provide confirmation of banded foot, band color, writing color, writing on band, via high resolution photo.
 - Ensure all loose and/or staged materials are sufficiently anchored to prevent wind-blown materials from injuring birds.
- Install signage throughout construction area alerting construction crews on site of potential presence of Nene, and avoidance requirements.

Hawaiian Waterbirds (ae‘o or Hawaiian stilt, ‘alae ke‘oke‘o or Hawaiian Coot, koloa maoli or Hawaiian duck)

- In areas where waterbirds are known to be present, FEMA post and implement reduced speed limits, and inform project personnel and contractors about the presence of endangered species on-site.

- FEMA will contract a biological monitor that is familiar with the species' biology conduct Hawaiian waterbird nest surveys where appropriate habitat occurs within the vicinity of the proposed project site prior to project initiation. Repeat surveys again within 3 days of project initiation and after any subsequent delay of work of 3 or more days (during which the birds may attempt to nest). If a nest or active brood is found:
 - Contact the Service within 48 hours for further guidance.
 - Establish and maintain a 100-foot buffer around all active nests and/or broods until the chicks/ducklings have fledged. Do not conduct potentially disruptive activities or habitat alteration within this buffer.

Hawaiian Sea Turtles (honu'ea or Hawksbill sea turtle and honu or green sea turtle)

- FEMA will minimize the use of lighting on or near beaches and shield all project-related lights, so the light is not visible from any beach.
 - If lights can't be fully shielded or if headlights must be used, fully enclose the light source with light filtering tape or filters.
- Incorporate design measures into the construction or operation of buildings adjacent to the beach to reduce ambient outdoor lighting such as:
 - tinting or using automatic window shades for exterior windows that face the beach;
 - reducing the height of exterior lighting to below 3 feet and pointed downward or away from the beach; and
 - minimize light intensity to the lowest level feasible and, when possible, include timers and motion sensors.

Appendix J.

NHPA Section 106 Consultation



FEMA

December 1, 2023

Dr. Alan S. Downer, Ph.D.
Deputy State Historic Preservation Officer
Kakuhikewa Building
601 Kamokila Boulevard, Suite 555
Kapolei, Hawai‘i 96707
via: HICRIS

Ms. Stacy Ferreira,
Interim Ka Pouhana, Interim Chief Executive Officer
Office of Hawaiian Affairs
560 N. Nimitz Hwy., Suite 200
Honolulu, Hawai‘i 96817
via: ohacompliance@oha.org

ATTN: Jessica L. Puff, Architecture Branch Chief, SHPD
Susan A. Lebo, Archaeology Branch Chief, SHPD
Kai Markell, Compliance Enforcement Manager, OHA

Re: Alternate Transportable Temporary Housing – FEMA-4724-DR-HI
Ka’anapali: 20.941202, -156.686633 - TMK # (2) 4-4-002:039

Expedited Review for Emergency Undertakings – 5 Day Review

Dear Dr. Downer:

The U.S. Department of Homeland Security’s Federal Emergency Management Agency (FEMA), is responding to the wildfires that resulted in Presidentially declared Major Disaster Declaration FEMA-4724-DR-HI, dated August 10, 2023 (Incident Period – August 8, 2023, through September 30, 2023). The State of Hawai‘i has requested and FEMA has approved utilization of the Housing Assistance provision of the Individuals and Households Program (IHP), authorized by Section 408 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, or “Stafford Act,” as implemented in 44 C.F.R. Part 206.117 authorizes FEMA to provide Direct Assistance for temporary housing when eligible applicants are unable to obtain temporary housing with financial assistance due to a lack of available housing resources.

A potential Alternate Transportable Temporary Housing (ATTHU) site has been identified in coordination with Maui County, for the placement of temporary housing units to support disaster survivors following the wildfires within Maui County.

The proposed Undertaking is being reviewed pursuant to Section 106 of the National Historic Preservation Act (NHPA) and the Programmatic Agreement currently in effect with *Federal Emergency Management Agency (FEMA) of the U.S. Department of Homeland Security, the*

Hawai'i State Historic Preservation Officer (SHPO), the Office of Hawaiian Affairs (OHA), HI-EMA, and the Advisory Council on Historic Preservation (ACHP) (Agreement), executed in 2016, as extended through amendment in 2023.

Undertaking

The proposed Undertaking within west Maui County would take place within the boundaries of a property previously planned for the development of residential housing, identified as the Ka'anapali 2020 (Ka'anapali) location.

Use of the Ka'anapali location would require grading and leveling for the installation of roads and individual gravel site pads to support approximately 100 ATTHU's. The property is located in western Maui, east of the Honoapi'ilani Highway, and approximately three (3) miles north of Lahaina. Excavation for the installation of subsurface water, sanitation, and electric utilities would be required for each individual ATTHU and would extend as required to connect to existing utility tie-ins. Access roads for ingress and egress to and from the site and circulation roads to allow access to each individual unit would be constructed, and gravel pads for parking and trash, concrete parking pads for units with residents requiring upgrades to meet the Americans with Disabilities Act (ADA) compliance requirements, site lighting, and a perimeter fence would be installed. Additional details are provided below:

Sewer: Gravity sewer main will be installed underground within or adjacent to roads created onsite. Connect to existing Maui County sewer system near the end of Halawai Drive at an existing manhole towards the northwest portion of the site.

Water: Water mains will be installed underground within or adjacent to the roads created onsite. Connect to existing Hawaii Water Service water system near the end of Halawai Drive towards the northwest portion of the site. Fire water supply will be pulled from a separate system from the hospital.

Electric: Electric will installed underground, within or adjacent to roads created onsite. The connection to Hawaii Electric Company existing electrical system will be near the end of Halawai Drive towards the northwest portion of the site.

Stormwater: Site stormwater will be met utilizing vegetated LID drainage swales and detention-based quality controls per local quality ordinances. Post development off-site stormwater discharge rates will not exceed existing rates for up to a ten (10) year, one (1) hour storm event in accordance with local ordinances.

Site Entrance: Site access will include the extension of Halawai Drive to the site. Halawai Drive has an existing stop light system on State Route 30 Honoapi'ilani Highway. Additional site entrance will enter from Kakaalaoe Drive.

Equipment staging would be limited to within the site boundary and adjacent hardened surface roads and pads. Debris generated during construction would be removed to an existing, licensed landfill.

The exact depth of excavation and grading at the sites is not yet known but would be limited to the least extent necessary to facilitate construction and to comply with building code requirements. A previous geotechnical investigation was performed for the hospital currently under construction immediately east and adjacent to the site. Excerpts from the geotechnical report explain that

“Equipment refusal was reached as shallow as 1.5 feet at the site most southeasterly test pit, although most refusal was reached between 2 and 6 feet.” While the ATTHUs would likely be removed once more permanent housing solutions are identified for displaced individuals and families, site improvements such as underground utilities, gravel and concrete pads, perimeter fencing, and access and circulation roads may remain to facilitate the eventual planned development of the location for residential housing.

All construction activities at this location would be within the limits of the previously planned residential development, so while the exact site layout of the housing site is still being developed, the extent of the installation of temporary housing would fall within the footprint of the previously approved project.

Area of Potential Effects

FEMA has determined that the Area of Potential Effects (APE) for the proposed Undertaking includes all areas of potential ground disturbance within the perimeter of the proposed site necessary for the preparation of the individual ATTHU pads, including subgrade utilities, access routes, parking locations, lighting, and a perimeter fence, as well as all locations identified for utility upgrades required for the location to operate (Map 1). Due to the nature of this undertaking, the APE has not been expanded to include an indirect APE including viewshed as the use of this location for a survivor housing site is temporary.

Identification of Historic Properties

The APE and area surrounding the APE has been subject to a multitude of previously completed archaeological surveys and studies, including a survey completed at the Ka'anapali location specifically in support of residential site development: the *Archaeological Inventory Survey of the Ka'anapali 2020 Project Area, Located in Hanakao'o and Honokowai Ahupua'a, Lahaina District, Island of Maui TMK: 4-4-02, 4-4-04, 4-4-05, 4-4-06*, completed in 2003 by Xamanek Researches (2003 AIS). Additionally, FEMA has reviewed the information available within the Hawai'i Cultural Resource Information System (HICRIS), and conducted a records search of the National Register of Historic Places.

The 2003 AIS includes discussion of an approximately 2,700 acre study area, and subsequent Archaeological Inventory Survey conducted at the location in support of the land owners intent to develop the current project area. As a result of the 2003 AIS, no historic properties were identified within the APE of the Undertaking, however a total of 81 previously undocumented archaeological sites were identified during the inventory survey, with a high concentration of sites (10), identified in the Honokowai Gulch, located just over 400 meters (m) outside the APE. Directly east of the APE, a consolidation of identified terrace and retaining wall resources have been recorded (16), within 1,000 meters of the APE (Table 1). A small cemetery, known as the Pu'ukoli'i Cemetery (SIHP 50-50-03-02893), also sits approximately 880m east of the APE boundary. All resources identified within 1,000 meters of the APE identified in Table 1 below.

The Ka'anapali Location is located in an area that has been privately and commercially farmed for sugarcane until the late 1990's, followed by rotations of corn and alfalfa for several years. A site visit was conducted on October 10, 2023, by FEMA SOI Qualified Archaeologist, Emily Benz, to document current site conditions (See Photos 1-7). During the inspection it was observed that grass and low shrub vegetation has grown over the majority of the location. Large rocks and boulders were observed intermittently across the site, with higher density noted along the gulch that spans

the northern boundary of the parcel. The property is bisected multiple times by unimproved dirt roads, within which substantial irritation material (drip line and associated plastics) can be observed within the exposed soils. The location is accessible along the southern boundary by an existing road, Kakaalaneo Drive, which also provides access to the under-development hospital location.

Native Hawaiian Organizations

FEMA is required to consult with Native Hawaiian Organizations (NHOs) in a manner appropriate to the scale of the Undertaking and is therefore providing this documentation to NHOs who may have knowledge of cultural resources in the project area or who may have other concerns about the Undertaking. FEMA is providing this documentation concurrently to the SHPD and NHOs in accordance with Stipulation II.C of the Agreement.

Determination of Effect

FEMA has determined that there are no historic properties as defined in 36 CFR 800.16(l) within the APE and finds the Undertaking would result in **No Historic Properties Affected** and is initiating Expedited Review for Emergency Undertaking in accordance with Stipulation II.B.2.c of the Agreement.

Despite the fact that no historic properties were identified within the APE as a result of the 2003 AIS, and that the area itself has been extensively disturbed as a result of decades of agricultural practices, due to the high consolidation of historic properties within close proximity of the APE, FEMA will require an archaeological monitor who meets the Secretary of the Interior Professional Qualifications Standards for that discipline, and be based in Hawai'i, be on site during all ground disturbing activities, and ensure that appropriate avoidance measures are applied in regard to the previously recorded archaeological sites. Additionally, FEMA would condition its approval of the Ka'anapali location for temporary housing based on the condition that in the event of an inadvertent discovery, the process outlined in Stipulation III.B. of the Agreement would be followed, as briefly summarized below:

If during the course of work, archaeological artifacts (prehistoric or historic) are discovered, the Contractor shall pause work in the vicinity of the discovery and take all reasonable measures to avoid or minimize harm to the finds. The Contractor shall inform FEMA, who will in turn notify and SHPO, OHA, and participating NHOs, and initiate consultation as necessary.

If suspected human remains are discovered, the Contractor shall stop construction activities in the vicinity of the discovery and immediately notify FEMA, local law enforcement office, and coroner/medical examiner in accordance with the Hawai'i Administrative Rules (HAR) § 13-300-40 (inadvertent discovery of human remains). FEMA in turn, will immediately notify SHPD and OHA. Remains will be protected from any harm by covering them with a cloth and then a tarp, or similar material. Suspected human remains will not be photographed until after consultation occurs with known lineal or cultural descendants and appropriate Island Burial Council (IBC).

The Contractor shall not proceed with work in the vicinity of the discovery until FEMA EHP provides confirmation that work may commence.

Conclusion

Due to the urgent need to provide housing for displaced individuals and households, your prompt attention to this matter would be greatly appreciated. We respectfully request concurrence with the proposed APE and with this determination of **No Historic Properties Affected** within five (5) days from receipt of this consultation. Should you have any questions or concerns please do not hesitate to contact Emily Benz at Emily.benz@fema.dhs.gov or at (202) 704-6163.

Sincerely,

CHELSEA D
KLEIN

Digitally signed by CHELSEA D
KLEIN
Date: 2023.12.01 12:14:59
-10'00'

Chelsea Klein
FEMA – Lead Environmental and Historic
Preservation Advisor
4724-DR-HI

Enclosures:

- TABLE 1 – Historic Properties Recorded Within 1,000 Meters of the APE
- MAP 1 – Ka'anapali – ATTHU Housing Location, Maximum Area of Potential Effect
- PHOTOS 1 – 7 – Ka'anapali - Current Site Conditions, October 2023

TABLE 1 - Historic Properties Recorded Within 1,000 Meters of the APE

The contents of Table 1 have been removed to protect archaeologically sensitive information.



MAP 1 – Potential ATTHU Housing Location – Ka'anapali – Maximum Area of Potential Effect in **RED**.



Photo 1 – Facing south from the north/center of the Ka'anapali location, towards the area being developed for the hospital, October 2023.



Photo 2 – Facing east (*mauka*) from the north/center of the Ka'anapali location, October 2023.



Photo 3 – Facing west (*makai*) from the center of the Ka'anapali property, October 2023.



Photo 4 – Facing north from the southern boundary of the Ka'anapali property, overlooking site with typical (representative) site conditions and vegetative coverage, October 2023.



Photo 5 – Representative photo of disturbed ground directly north of the APE (not part of this undertaking). October 2023.



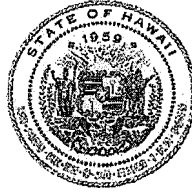
Photo 6 – Facing west from the norther boundary of the Ka'anapali property, vegetation is adjacent to the small gulch that runs north of the APE. Representative vegetative overgrowth on one of the dirt roads crossing the property. October 2023.



Photo 7 – Facing north, looking into the small gulch along adjacent to the property (nor within the APE for this undertaking). October 2023.

JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA

STATE HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING
601 KAMOKILA BLVD, STE 555
KAPOLEI, HAWAII 96707

DAWN N.S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

LAURA H.E. KAAKUA
FIRST DEPUTY

M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

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CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

December 7, 2023

IN REPLY REFER TO:
Project No.: 2023PR00979
Document No.: 2312JLP02
Architecture, Archaeology

Chelsea Klein
Lead Environmental Planning
and Historic Preservation Advisor
FEMA Region 9
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

RE: National Historic Preservation Act Section 106 Consultation
Agency: Federal Emergency Management Agency
Alternate Transportable Temporary Housing – FEMA-4724-DR-HI
Honoapiilani Highway
Ahupuaa of Honokowai, Moku of Kaanapali, Mokupuni of Maui
TMK: (2) 4-4-002:039

Thank you for the opportunity to comment on this request from the Federal Emergency Management Agency for consultation and concurrence with the determination of **no historic properties affected** for the proposed Alternate Transportable Temporary Housing project. FEMA has determined that this project is an undertaking, as defined in 36 CFR § 800.16(y), for which the *Programmatic Agreement among the Federal Emergency Management Agency, the Hawaii State Historic Preservation Office, the Office of Hawaiian Affairs, and the State of Hawaii Department of Defense* (PA) applies.

The proposed project includes grading and leveling for the purposes of establishing roads, parking pads and gravel pads to support approximately 100 Alternate Transportable Temporary Housing Units (ATTHUs). It also includes installation of subsurface water, sanitation, and electrical utilities. The site for the housing project is located in west Maui, three miles north of Lahaina, within the boundaries of the Kaanapali 2020 residential housing development, which was previously approved.

Based on the information provided, the Hawaii State Historic Preservation Officer (SHPO) has reviewed the undertaking, pursuant to Stipulation I.B.2 of the PA. The SHPO **concurs** with the determination of FEMA that the undertaking will result in no historic properties affected provided that FEMA provides archaeological monitoring by an SOI qualified archaeologist(s) during ground disturbing activities; and, in the event of an inadvertent discovery, the process outlined in Stipulation III.B of the PA is followed.

FEMA is the office of record for this undertaking. Please maintain a copy of this letter with your environmental review record. If you have any questions about this undertaking or if there is a change to the scope of work, please contact Jessica Puff, Architecture Branch Chief, at (808) 692-8022 or by email at jessica.puff@hawaii.gov.

Sincerely,

Alan Downer

Dr. Alan S. Downer
Deputy State Historic Preservation Officer
Administrator, State Historic Preservation Division

CC:

Amanda B. Calhoun, FEMA, amanda.calhoun@fema.dhs.gov
David Herdrich, FEMA, david.herdrich@fema.dhs.gov
James Burros, HIEMA, james.barros@hawaii.gov
John Ketchum, FEMA, john.ketchum@fema.dhs.gov
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Dr. Janet Six, Maui County, janet.six@co.maui.hi.us
Erin Wade, Maui County, erin.wade@co.maui.hi.us
Kawika Farm, Maui County, kawika.k.farm@co.maui.hi.us
Kaiea Medeiros, Maui County, kaiea.e.medeiros@co.maui.hi.us

Native Hawaiian Organizations Consulted

FEMA is required to consult with Native Hawaiian Organizations in a manner appropriate to the scale of the Undertaking. On December 1, 2023, FEMA sent an expedited Section 106 consultation for review for the Kaanapali Group Site to the following NHOs. The parties were identified through coordination with the Senior Advisor for Native Hawaiian Affairs for the U.S. Department of the Interior, the Office of Hawaiian Affairs, and also as a result of specific requests received directly from NHOs.

NHO Name (if Listed)	Date of Consultation	Response Received
‘Āina Momona	12/1/2023	N/A
‘Ohana Keaweamahi	12/1/2023	N/A
Aha Moku o Maui	12/1/2023	N/A
Ao Makole	12/1/2023	N/A
Association of Hawaiians for Homestead Lands	12/1/2023	N/A
Ho’oponopono O Makena	12/1/2023	N/A
Kimokeo Ohana (Family) & Community	12/1/2023	N/A
Kuloloi‘a Lineage - I ke Kai ‘o Kuloloi‘a	12/1/2023	12/1/2023
Malama Kananilua	12/1/2023	N/A
Maui Tomorrow/Aloha First	12/1/2023	N/A
Mauna Medic Healers Hui	12/1/2023	N/A
Nā ‘Aikāne o Maui	12/1/2023	N/A
Paukukalo Hawaiian Homes Community Association	12/1/2023	N/A
Waiehu Kou Phase 3 Association	12/1/2023	N/A

In addition to the NHO’s identified above, the following cultural advisors/practitioners were included in this consultation effort:

Cultural Advisor/Practitioner	Date of Consultation	Response Received
Dane Maxwell	12/1/2023	N/A
Ms. Hokulani Holt Padilla	12/1/2023	12/4/2023
Makalapua Kanuha	12/1/2023	N/A

Appendix K.

Initial Public Notice



FEMA

DR-4724-HI Public Notice 002



English

Notice Date	August 14, 2023
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The U.S. Department of Homeland Security’s Federal Emergency Management Agency (FEMA) hereby gives notice to the public of its intent to provide financial assistance to the State of Hawaii, local governments, and private nonprofit organizations under major disaster declaration FEMA-4724-DR-HI. This notice applies to the Individual Assistance (IA), Public Assistance (PA), and Hazard Mitigation Grant (HMGP) programs implemented under the authority of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. §§ 5121-5207. This public notice concerns activities that may affect historic properties, activities that are located in or affect wetland areas and the 100-year floodplain and may involve critical actions within the 500-year floodplain. Such activities may adversely affect the historic property, floodplain, or wetland, or may result in continuing vulnerability to flood damage.

I. Public Notice – Major Disaster Declaration FEMA-4724-DR-HI and Overview of Authorized Assistance

The President declared a major disaster for the State of Hawaii on August 10, 2023, as a result of Hawaii Wildfires, which began on August 8, 2023 and continuing, pursuant to his authority under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, Pub. L. No. 93-288 (1974) (codified as amended at 42 U.S.C. § 5121 *et seq.*) (Stafford Act). Maui County has been designated as adversely affected by the disaster and eligible for both Individual Assistance and Public Assistance (Category A and B) Program funding. Hawaii

County has been designated as eligible for emergency protective measures (Category B) under the Public Assistance Program.

The Hazard Mitigation Grant Program is available Statewide.

Individual Assistance is authorized by Section 408 of the Stafford Act. FEMA may provide IA program funding for disaster-related emergency housing. These actions may adversely affect a floodplain/wetland or may result in continuing vulnerability to floods. These actions may include repair, restoration, or construction of housing or private bridges, purchase and placement of travel trailers or manufactured housing units, or repair of structures as minimum protective measures. This will be the only public notice concerning these actions.

The Public Assistance Program is authorized by Sections 403, 406, and 407 of the Stafford Act. FEMA may provide financial assistance under the Public Assistance Program for the State of Hawaii local governments, and private nonprofit organizations to perform debris removal and emergency protective measures.

The Hazard Mitigation Grant Program is authorized by Section 404 of the Stafford Act. Under the Hazard Mitigation Grant Program, FEMA may provide financial assistance for the State of Hawaii local governments, and private nonprofit organizations to implement mitigation measures to reduce the risk of life and property from future disasters during the recovery from the major disaster. In the course of developing project proposals, subsequent public notices will be published, if necessary, as more specific information becomes available.

II. Public Notice – Financial Assistance for Activities that Affect Historic Properties or Located in or that Affect Wetlands Areas or Floodplains

Some of the activities for which FEMA provides financial assistance under the Individual Assistance, Public Assistance, and Hazard Mitigation Grant Programs may affect historic properties, may be located in or affect wetland areas or the 100-year floodplain, and may involve critical actions within the 500-year floodplain. In accordance with all requirements of the National Environmental Policy Act (NEPA), all federal actions must be reviewed and evaluated for feasible alternatives. FEMA must also comply with Executive Order 11988, Floodplain Management; Executive Order 11990, Protection of Wetlands; the National Historic Preservation Act of 1966, Pub. L. No. 89-655 (1966) (codified as amended at 16 U.S.C. § 470 et seq.) (NHPA); and the implementing regulations at 44 C.F.R. pt. 9 and 36 C.F.R. pt. 800. The executive orders, NHPA, and regulations require FEMA to provide public notice for certain activities as part of approving the award of financial assistance for specific projects.

A. Federal Actions in or A ecting Floodplains and Wetlands

FEMA has determined for certain types of facilities there are normally no alternatives to restoration in the floodplain or wetland. These are facilities meeting all of the following criteria: 1) FEMA's estimate of the cost of repairs is less than 50% of the cost to replace the entire facility and is less than \$100,000; 2) the facility is not located in a floodway; 3) the facility has not sustained major structural damage in a previous Presidentially declared flooding disaster or emergency; and 4) the facility is not critical (e.g., the facility is not a hospital, generating plant, emergency operations center, or a facility containing dangerous materials). FEMA intends to provide assistance for the restoration of these facilities to their pre-disaster condition, except certain measures to mitigate the effect of future flooding or other hazards may be included in the work. For example, a bridge or culvert restoration may include a larger waterway opening to decrease the risk of future washouts.

For routine activities, this will be the only public notice provided. Other activities and those involving facilities not meeting the four criteria are required to undergo more detailed review, including the study of alternate locations. Subsequent public notices regarding such projects will be published, if necessary, as more specific information becomes available.

In many cases, an applicant may have started facility restoration before federal involvement. Even if the facility must undergo detailed review and analysis of alternate locations, FEMA will fund eligible restoration at the original location if the facility is functionally dependent on its floodplain location (e.g., bridges and flood control facilities), or the project facilitates an open space use, or the facility is an integral part of a larger network which is impractical or uneconomical to relocate, such as a road. In such cases, FEMA must also examine the possible effects of not restoring the facility, minimizing floodplain or wetland impacts, and determining both an overriding public need for the facility clearly outweighs the Executive Order requirements to avoid the floodplain or wetland, and the site selected is the only practicable alternative. The State and local officials will confirm to FEMA the proposed actions comply with all applicable federal, state, and local floodplain management and wetland protection requirements.

The Public Assistance (PA) Federal Flood Risk Management Standard (FFRMS) partial implementation policy, effective for all major disasters declared on or after June 3, 2022, applies to PA projects in the 1% annual chance floodplain (1% and 0.2% annual chance floodplains for critical actions) involving new construction of structures, structures that have a substantial damage determination, or structures that require substantial improvement. The policy applies regardless of the cause of damage.

The Hazard Mitigation Assistance (HMA) FFRMS partial implementation policy applies to non-critical actions involving structure elevation, dry floodproofing, and mitigation reconstruction in the 1% annual chance floodplain. For all FEMA programs and project

types, if a state or local government has its own higher elevation standard, FEMA requires use of the higher standard. FEMA program policies also reference additional consensus codes and standards, such as ASCE-24-14, that incorporate additional elevation requirements beyond the base flood elevation.

B. Federal Actions Affecting Historic Properties

Section 106 of the NHPA requires FEMA to consider the effects of its activities (known as undertakings) on any historic property and to afford the Advisory Council on Historic Preservation (ACHP) an opportunity to comment on such projects before the expenditure of any federal funds. An Individual Assistance, Public Assistance, or Hazard Mitigation Grant Program activity is an “undertaking” for the purposes of the NHPA, and a historic property is any property which is included in, or eligible for inclusion in, the National Register of Historic Places (NRHP). For historic properties which will not be adversely affected by FEMA’s undertaking, this will be the only public notice. FEMA may provide additional public notices if a proposed FEMA undertaking would adversely affect a historic property.

III. Further Information or Comment

The Rehabilitation Act of 1973 protects the civil rights of persons with disabilities. It prohibits discrimination on the basis of disability by the federal government, federal contractors, and by recipients of federal financial assistance. Any recipient or sub-recipient of federal funds is required to make their programs accessible to individuals with disabilities. Its protections apply to all programs and businesses receiving any federal funds. This applies to all elements of physical/architectural, programmatic and communication accessibility in all services and activities conducted by or funded by FEMA. FEMA intends to comply with the Rehabilitation Act in all federally conducted and assisted programs in alignment with the principals of whole community inclusion and universal accessibility.

Executive Orders 13985 and 14008 further address the need to achieve environmental justice and equity across the federal government. The issuance of the new executive orders more than 20 years after Executive Order 12898 was signed indicates the administration’s directive to federal agencies to renew their energy, effort, resources, and attention to environmental justice. FEMA is working with applicants/sub-applicants to identify communities with Environmental Justice concerns and provide an avenue for local groups and non-profits with an Environmental Justice mission to self-identify so FEMA Programs can start to work with them on specific projects from the beginning of the application process.

FEMA also intends to provide HMGP funding to the State of Hawaii to mitigate future disaster damages. These projects may include construction of new facilities, modification

of existing, undamaged facilities, relocation of facilities out of floodplains, demolition of structures, or other types of projects to mitigate future disaster damages. In the course of developing project proposals, subsequent public notices will be published, if necessary, as more specific information becomes available.

This will be the only public notice regarding the actions described above for which FEMA may provide financial assistance under the Individual Assistance, Public Assistance, and Hazard Mitigation Grant Programs. Interested persons may obtain information about these actions or a specific project by writing to the Federal Emergency Management Agency Region RIX Office, Regional Environmental Officer, 1111 Broadway, Suite 1200, Oakland, CA 94607. All comments concerning this public notice must be submitted in writing to the Region RIX Office within 30 days of its publication.

Last updated September 15, 2023

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Appendix L.

Final Public Notice

PUBLIC NOTICE
Federal Emergency Management Agency (FEMA)
Notice of Availability of the Draft Environmental Assessment
For Alternative Temporary Transportable Housing Unit Group Site
Known as the Ka'anapali Temporary Group Site
FEMA DR-4724-HI

Under the Aug. 10, 2023, major presidential disaster declaration for the Hawai'i wildfires and high winds (FEMA-DR-4724-HI), the Federal Emergency Management Agency (FEMA) will construct a temporary group housing site for displaced individuals and families. In accordance with the National Environmental Policy Act (NEPA) of 1969, FEMA has prepared a draft environmental assessment for a proposed Alternative Temporary Transportable Unit (ATTHU) group housing site. FEMA hereby gives notice to the public of its intent to construct the Ka'anapali Temporary Group Site.

The proposed action is in response to the wildfires and high winds in Maui County for the incident period beginning Aug. 8, 2023, and ending Sept. 30, 2023. The president approved the major disaster declaration Aug. 10, 2023.

The proposed action includes developing a 63-acre site for about 214 ATTHUs to be located at Kaka'alaneo Drive, Lahaina, Hawai'i 96761 (Latitude: 20.940936; Longitude: -156.684149). Activities may include, where necessary, site clearing, grading, road construction, the placement of utilities (electricity, telephones, water, and sewer), and the transport and installation of housing units to the site. The group site, developed under FEMA's Individuals and Households Program, is intended to be operational for up to 18 months and extended depending on the needs of the disaster.

The draft environmental assessment summarizes the purpose and need for the project, site selection process, alternatives considered, the no-action alternative, the affected environment, and potential environmental consequences of the project. It assesses the potential impacts of the proposed action on the human and natural environment.

The draft environmental assessment was prepared in accordance with NEPA, the Council on Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations Parts 1500–1508), FEMA's Instruction 108-1-1 for implementing NEPA, the National Historic Preservation Act, Executive Order 11988 ("Floodplain Management"), Executive Order 11990 ("Protection of Wetlands"), and the implementing regulations of FEMA.

Additional detailed descriptions of the alternative proposed actions may be reviewed in the draft environmental assessment conducted by FEMA, which is available for public review at the FEMA website: <https://www.fema.gov/emergency-managers/practitioners/environmental-historic/region>. Printed copies are available for viewing or photocopying at the following location:

Lahaina Civic Center Gymnasium
1840 Honoapi'ilani Highway
Lahaina, Hawai'i 96761
8 a.m. to 4 p.m. Monday to Friday; 8 a.m. to 2 p.m. Saturday; closed Sundays

Due to the emergency nature of this action, the public comment period will be limited to seven days, **ending Feb. 2, 2024**. Written comments on the draft environmental assessment can be mailed or emailed to the contact listed below. If emailing, please remember to include “**Temporary Housing Ka’anapali Site**” in the subject line. If no substantive comments are received by the conclusion of the comment period, the draft environmental assessment and associated *Finding of No Significant Impact* will become final and no additional public notice will be provided. Substantive comments received will be addressed, as appropriate, in the Final Environmental Assessment/Finding of No Significant Impact, which will be posted to FEMA’s NEPA repository, concluding the NEPA review.

FEMA Region IX EHP
1111 Broadway, Suite 1200
Oakland, CA 94607-4052
Email: fema-rix-ehp-documents@fema.dhs.gov

FEMA works to ensure that information is accessible to all of our customers. If you are unable to access any information presented in the document, please contact us by email at: fema-rix-ehp-documents@fema.dhs.gov.

All other questions regarding disaster assistance or the availability of emergency housing should be directed to the FEMA Helpline at 800-621-3362, or visit www.DisasterAssistance.gov.