DEPARTMENT OF PLANNING AND PERMITTING CITY AND COUNTY OF HONOLULU

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RICK BLANGIARDI MAYOR



November 3, 2021

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-2021/ED-21(CK)

Ms. Mary Alice Evans, Director State of Hawaii Office of Planning and Sustainable Development **Environmental Review Program** 235 South Beretania Street, Room 702 Honolulu, Hawaii 96813

Dear Ms. Evans:

SUBJECT:	Chapter 25, Revised Ordinances of Honolulu
	Draft Environmental Assessment (DEA)
Project:	58-2 Makanale Single-Family Residences
Applicant:	John and Fumie Winebarger
Agent:	SWCA (Stephanie Nagai)
Location:	58-2 Makanale - Haleiwa
Tax Map Key (TMK):	5-8-003: 012

With this letter, the Department of Planning and Permitting hereby transmits the DEA and Anticipated Finding of No Significant Impact for the 58-2 Makanale Single-Family Residences Project, located at 58-2 Makanale Street on the North Shore of Oahu (TMK 5-8-003: 012), Oahu, for publication in the November 23, 2021, edition of The Environmental Notice.

We have uploaded an electronic copy of this letter, the publication form, and the DEA to your online submittal site.

Should you have any questions, please contact Christi Keller, of our Zoning Regulations and Permits Branch, at (808) 768-8087, or via email at c.keller@honolulu.gov.

Very truly yours,

Fak: Dean Uchida Director

Enclosures

NON-CHAPTER 343 DOCUMENT PUBLICATION FORM OFFICE OF ENVIRONMENTAL QUALITY CONTROL

Project Name: 58-2 Makanale Single-Family Residences Project

Applicable Law: Chapter 25, Revised Ordinance of Honolulu, Special Management Area (SMA)

Type of Document: Environmental Assessment (EA) and Anticipated Finding of No Significant Impact

Island: Oahu

District: Council District 2; North Shore Sustainable Communities Plan Area

TMK: (1) 5-8-003: 012

Permits Required: SMA Use Permit; Building Permits; Erosion and Sediment Control Plan; Community Noise Permit; Sewer Connection Permit; Board of Water Supply Plan Approval; Hawaiian Electric Company Plan Approval

Applicant or Proposing Agency:	John and Fumie Winebarger	
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Approving Agency or Accepting Authority: City and County of Honolulu Department of Planning and Permitting Contact: Christi Keller c.keller@honolulu.gov (808) 768-8087 650 South King Street, 7th Floor Honolulu, Hawaii 96813

Consultant: SWCA Environmental Consultants Contact: Stephanie Nagai snagai@swca.com (808) 892-3432 1200 Ala Moana Boulevard, Suite 380 Honolulu, Hawaii 96814

Status: Draft EA - Public Review and Comment

Project Summary: The Project proposes the development of two single-family detached dwelling units, two swimming pools, two garages, and landscaping elements on a 37,884-square-foot shoreline lot within the R-5 Residential District and SMA on the North Shore of Oahu (Project). The site was previously developed with a single-family dwelling, but is currently vacant and occupied with scattered vegetation. Kaunala Stream also runs through the property, and a portion of the property is located within the Coastal High Hazard Area, or Flood Zone VE. The closest structure to the Pacific Ocean is proposed to be set back approximately 90 feet from the certified shoreline, and all structures will be located outside of the Kaunala Stream building setback line.

Reasons Supporting Determination: Please refer to the analysis in the Draft EA.



Makanale Development Project Draft Environmental Assessment

PREPARED FOR
John Winebarger

PREPARED BY

SWCA Environmental Consultants

SUMMARY

Project Name:	Makanale Development Project		
Project Short Name:	Makanale Development Project		
Trigger(s):	The proposed action occurs within the Special Management Area.		
Island(s):	Oʻahu		
Judicial District(s):	Koʻolauloa, Oʻahu		
TMK(s):	5-008-003:012		
Permit(s)/Approval(s):	Special Management Area Use Permit, Building Permit, Erosion and Sediment Control Plan, and Community Noise Permit		
Approving Agency:	City and County of Honolulu Department of Planning and Permitting		
Contact Information	650 South King Street, Honolulu, HI 96831		
Applicant:	John and Fumie Winebarger		
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Consultant:	SWCA Environmental Consultants		
Contact Name, Email, Telephone, Address	Stephanie Nagai, snagai@swca.com, 1-808-892-3432, 1200 Ala Moana Boulevard #380, Honolulu, HI 96814		

PROJECT SUMMARY

The Makanale Development Project (project) is located within a subdivision (zoned as R-5 Residential) on previously developed land northeast of Sunset Beach, O'ahu, Hawai'i. The proposed construction includes two housing units, two swimming pools, two garages, and landscaping elements on a shoreline parcel (Tax Map Key [TMK] (1)5-008-003:012) that is entirely within the Special Management Area (SMA). Both single-family units would be at least 90 feet mauka of the certified shoreline and entirely outside of the 3.2-foot sea level rise inundation area. The units would be stabilized through a micropile system that is tied to substrate reef 12 to 20 feet below grade, with the lowest horizontal structures at least 18 inches above the flood line. The project would use an environmentally safe aerobic wastewater system that is approved by the Department of Health. Utilities would be tied in through existing connections on and around the property boundary. No grubbing, grading, or filling would occur, and no seawalls or shoreline hardening activities would be implemented. Landscaping on-site would complement the surroundings, and all outdoor lighting would be shielded to mitigate impacts to seabirds.

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ABBREVIATIONS

AIS	archaeological inventory survey			
BMP	best management practice			
CFR	Code of Federal Regulations			
CIA	cultural impact assessment			
CZM	Coastal Zone Management			
DLNR	Department of Land and Natural Resources			
DOH	State of Hawai'i Department of Health			
DPP	Department of Planning and Permitting			
EA	environmental assessment			
EIS	environmental impact statement			
EPA	U.S. Environmental Protection Agency			
ESA	Endangered Species Act			
ESCP	Erosion and Sediment Control Plan			
FEIS	final environmental impact statement			
FEMA	Federal Emergency Management Agency			
FONSI	finding of no significant impact			
HAR	Hawai'i Administrative Rules			
HRS	Hawai'i Revised Statutes			
КОР	key observation point			
LUO	Land Use Ordinance			
MBTA	Migratory Bird Treaty Act			
NMFS	National Marine Fisheries Service			
NPDES	National Pollutant Discharge Elimination System			
NRCS	Natural Resources Conservation Service			
NWI	National Wetlands Inventory			
OHWM	ordinary high-water mark			
project	Makanale Development Project			
ROH	Revised Ordinances of Honolulu			
SHPD	Hawai'i State Historic Preservation Division			
SMA	Special Management Area			
SMP	Special Management Area Major Use Permit			
ТМК	Tax Map Key			
USFWS	U.S. Fish and Wildlife Service			
USGS	U.S. Geological Survey			

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1 GENERAL INFORMATION

1.1 General Description

The Makanale Development Project (project) is located at 58-2 Makanale Street, Hale'iwa, Hawai'i 96712, northeast of Sunset Beach on O'ahu's North Shore (Figure 1). The project area is located adjacent to the western boundary of the Sunset Beach Colony (formerly the Kaunala Residential Subdivision), which was approved as a subdivision of a 19-acre parcel into 34 lots through a Special Management Area (SMA) Major Use Permit (SMP) in 2003. The project parcel (TMK 5-008-003:012) is 53,667 square feet and is part of a Condominium Property Regime with three lots: Lot A, Lot B, and Lot C (Appendix A). A single-family dwelling existed within Lot A and Lot B in the 1960s but was demolished in 2004. John and Fumie Winebarger (the applicants) are proposing to construct two new units within Lot A and Lot B of the Condominium Property Regime. The project would be within the R-5 Residential District and entirely within the SMA of the coastal zone (Figure 2). Both units would be occupied by the property owners and guests as a single-family residence. Detailed project drawings are included in Appendix A.

Due to the project's location within the SMA, the Project requires an SMP from the City and County of Honolulu for the proposed development. Additional county and state permits that will be required for the proposed project are listed in Table 1.

Permit or Approval	Issuing Agency
Special Management Area Major Use Permit	City and County of Honolulu Department of Planning and Permitting
Building Permit	City and County of Honolulu Department of Planning and Permitting
Erosion and Sediment Control Plan	City and County of Honolulu Department of Planning and Permitting
Septic System Approval	State of Hawai'i Department of Health
Community Noise Permit	State of Hawai'i Department of Health

Table 1. Required Relevant Permits and Approvals

Additional information regarding the general area can be found in the 2001 *Kaunala Residential Subdivision Final Environmental Impact Statement* (FEIS) (Wilson Okamoto & Associates 2001a), which was prepared for the SMP application for a subdivision located immediately east of the project area (see Appendix A).

1.1.1 Sunset Beach Colony

A portion of the project parcel (including the area immediately adjacent to Kaunala Stream, but not including the area currently planned for development) is located on the western edge of the former Kaunala Residential Subdivision, now called the Sunset Beach Colony (Appendix A).

In 2001, the FEIS was prepared for the subdivision's SMP application (Wilson Okamoto & Associates 2001a). Included as appendices in the FEIS are the results of an archaeological inventory survey (AIS) conducted by Haun & Associates (Haun & Associates 2001, Appendix B of the FEIS) to identify any historic properties present within the area of the proposed subdivision, as well as a cultural impact assessment (CIA) conducted by Wilson Okamoto & Associates (Wilson Okamoto & Associates 2001a, Appendix C of the FEIS), and a social impact assessment conducted by Earthplan (Earthplan 2001, Appendix D of the FEIS). As these studies included an extensive assessment of the cultural, archaeological, and historical resources present within the subdivision located immediately adjacent to the

present project area, these reports serve as background for the current study. In the years since the FEIS was published in 2001, the name of the subdivision was changed from the Kaunala Residential Subdivision to the Sunset Beach Colony.

1.2 Purpose of the Draft Environmental Assessment

The purpose of this draft environmental assessment (EA) is to request an SMP from the City and County of Honolulu Department of Planning and Permitting (DPP) and facilitate the agency's assessment of the project's potential environmental and ecological impacts, particularly with regard to its effect on the SMA. This Draft EA has been prepared in accordance with the requirements outlined under Chapter 25, Revised Ordinances of Honolulu (ROH). As stated in ROH Sec 25-4.2, the EA process is being conducted in accordance with the procedural requirements set forth in Hawai'i Revised Statutes (HRS) Chapter 343, as well as its implementing regulations under Title 11, Chapter 200, of the Hawai'i Administrative Rules (HAR).



Figure 1. Project parcel location.



Figure 2. Zoning in and near the project parcel.

In accordance with the procedural steps of HRS Chapter 343, this Draft EA will be used by the DPP to determine whether the proposed project would result in any significant impacts, according to the significance criteria outlined under 11-200-12 (see Section 5.1). If, after considering comments on the Draft EA, the DPP concludes that no significant impacts are expected to occur, the agency will issue a finding of no significant impact (FONSI), and the proposed project's SMP application will be reviewed by the City Council. If the agency concludes that significant impacts are expected to occur as a result of the proposed project, an environmental impact statement (EIS) will be required.

2 ALTERNATIVES

2.1 Alternative 1 (No Action Alternative)

Under the no action alternative, the project would not be implemented, and there would be no new development within the SMA at the subject property.

2.2 Alternative 2 (Proposed Action)

2.2.1 Technical Characteristics

The project would consist of two housing units (Unit A and Unit B) and outdoor/landscaped amenities on Lot A and Lot B of the project parcel. Unit A would consist of 4 bedrooms, 4.5 baths, a 3-car garage, a 1-bedroom studio, a pool, and a spa. The total living space would be 4,500 square feet. There would be 840 square feet of lānai space, a 1,000-square-foot area for the pool and spa, a 630-square-foot garage, and a 600-square-foot 'ohana unit above the garage (see Appendix A). Unit B would consist of 4 bedrooms, 4.5 baths, a 2-car garage, and a pool. The total living space would be 3,350 square feet. There would be 647 square feet of lānai space, a 450-square-foot pool and spa area, and a 560-square-foot garage. Parking for the units would be off-street and within the project parcel.

The units would be stabilized through a micropile system that is tied to substrate reef 12 to 20 feet below grade, with the lowest horizontal structures at least 18 inches above the flood line. Both units would be at least 90 feet mauka of the certified shoreline and entirely outside of the 3.2-foot sea level rise inundation area. A State of Hawai'i Department of Health (DOH)-approved aerobic wastewater system would be used for liquid waste, and solid waste would be picked up by the City and County. The project's individual wastewater system application is currently under review by the DOH and is expected to be approved after an SMA permit is granted. Utilities would be tied in through existing connections on and around the property boundary.

Construction of the project would cost around \$4,000,000 and would require approximately 1 year to complete.

2.3 Alternatives Considered but Dismissed

Previous designs and layouts for the proposed units were considered but dismissed in order to avoid impacts to Kaunala Stream and address concerns related to coastal hazards. The original project design included three houses: a main house (house #1) and two guest houses (houses #2 and #3). The layout of houses #1 and #2 (i.e., the number of bedrooms, bathrooms, garages, pools, etc.) were the same as the two houses under the proposed action, with the exception that they were located in different areas within Lot A and Lot B of the project parcel. House #3 was an additional two-story dwelling, comprising 4

bedrooms and 2 baths, with a footprint of 1,275 square feet located in Lot C of the project parcel. The footprints of all three houses were entirely outside of the shoreline setback, were above the base flood elevation VE and AE zones, and were outside of the 2.0-foot sea level rise inundation area as projected by the State of Hawai'i Sea Level Rise Viewer's interacting mapping tool by the Pacific Islands Ocean Observing System (PacIOOS) (Hawai'i Climate Change Mitigation and Adaptation Commission 2021). House #3 also overlapped a portion of the Kaunala Stream setback and riparian area. The original project design was ultimately dismissed in order to avoid development within the Kaunala Stream setback and 3.2-foot sea level rise inundation area. The project design was subsequently modified to remove house #3 and shift the footprints for houses #1 and #2 further from the shoreline so that they were entirely outside of the 3.2-foot sea level rise inundation area.

3 AFFECTED ENVIRONMENT AND IMPACTS

The Affected Environment and Impacts section analyzes the effects of the proposed action on the following resources: topography and soils, air quality, hydrology and water resources, biological resources, archaeological resources, cultural resources, transportation and traffic, visual resources, noise, climate change and coastal hazards, hazardous materials, and public infrastructure and utilities.

3.1 Topography and Soils

3.1.1 Existing Conditions

The topography of the project area consists of relatively flat terrain, surrounded by flat residential properties to the west and south, and shoreline and riparian slopes to the north and east. The project area consists of bare ground, vegetated areas, and some concrete slabs from previous construction. The project area is not landscaped at this time, but is covered with predominantly weedy, non-native species over approximately one-third of the property. The remainder of the property is either bare ground or concrete slabs.

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms. The Natural Resources Conservation Service (NRCS) soil survey data indicate three primary soil types occur in and near the project area: beaches, Jaucas sand (0 to 15 percent slopes), and Waialua silty clay (3 to 8 percent slopes) (NRCS 2020). Beaches is an excessively drained coarse sand that supports a water table greater than 80 inches. Jaucas sand is an excessively drained sand that supports a water table greater than 80 inches. Waialua silty clay is a moderately well-drained silty clay that supports a water table greater than 80 inches. Waialua silty clay is a moderately well-drained silty clay that supports a water table greater than 80 inches.

Jaucas sand is classified as Hydrologic Soil Group A. Soils in this group have a relatively low runoff potential when thoroughly wet, as water is freely transmitted through the soil. These soils typically have more than 90% sand or gravel and less than 10% clay. Some loamy sands or sandy loams may be placed in this group if they are of low bulk density, are well aggregated, or contain greater than 35% rock fragments (NRCS 2007). Waialua silty clay is classified as Hydrologic Soil Group C. Soils in this group possess a relatively high runoff potential when thoroughly wet, and transmission of water through the soil is somewhat restricted. These soils typically have 20% to 40% clay and less than 50% sand. Some silty clays may be placed in Group C if they are of low bulk density, are well aggregated, or contain greater than 35% rock fragments (NRCS 2007).

None of the soils within the project area are categorized as hydric or as unique or prime farmland (NRCS 2020).

3.1.2 Potential Impacts and Mitigation Measures

Soil disturbance increases the potential for soil erosion, compaction, soil profile mixing, and loss of soil productivity. Once vegetation is removed, soils become susceptible to wind and water erosion. Water erosion could lead to increased sedimentation in nearby drainages. During the construction period, it is anticipated some areas would be temporarily disturbed as laydown areas for equipment and spoils. However, through the use of a micropile system, no grubbing, grading, or filling would occur.

The proposed project's design features and construction would include suitable best management practices (BMPs) to prevent soil erosion, as shown in the project's Erosion and Sediment Control Plan (ESCP) (see Appendix A). The entire perimeter of the project area would be enclosed by biosock barriers, dust fencing, and silt fencing. Construction materials would be composed of environmentally inert materials to the extent practicable. During heavy storm conditions, construction would be halted, and sufficient measures would be in place to prevent runoff from the construction site even under storm conditions. All disturbed soils would be replaced and stabilized to adhere to correct water drainage and wind erosion standards. Landscaping will be installed around the proposed units. These mitigation measures would stabilize soils and prevent excessive erosion over the long term. Based on the small footprint of the disturbance, construction impacts are anticipated to be temporary and would not result in long-term soil erosion.

Permanent ground disturbance impacts would be limited to the installation of project components. The project would not change the overall topography of the site beyond the project footprint.

Construction would last approximately 1 year and would require the use of heavy machinery and equipment. Spill prevention BMPs would be implemented as part of the ESCP during construction in accordance with state and county requirements and would minimize the potential for leaks or spills of fluids from construction equipment. Therefore, the potential for soil contamination is low.

3.2 Air Quality

3.2.1 Existing Conditions

The DOH monitors air quality at four stations on the island of O'ahu; however, there are no stations located on the North Shore of O'ahu. The overall air quality in the vicinity of the project is good as there are no major sources of pollution near the site. Air quality at the site is mostly affected by air pollutants from motor vehicles, with carbon monoxide being the most abundant of the air pollutants emitted.

3.2.2 Potential Impacts and Mitigation Measures

Fugitive dust generation and on-site emissions from construction equipment would occur as a result of project construction, and air pollutants in the form of exhaust from on-site mobile construction equipment would be emitted. Neither are anticipated to create long-term impacts due to the project's short construction duration and small size.

Construction equipment would comply with state and county standards and would be in good working condition. Any on-site emissions of dust or air pollutants would be minimized through BMPs.

Air quality levels would remain at baseline when normal operations begin and construction is complete.

3.3 Hydrology and Water Resources

3.3.1 Existing Conditions

Based on review of U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) (USFWS 2020) and U.S. Geological Survey (USGS) National Hydrography Dataset (USGS 2021) data, mapped wetland or water features at the project area include Kaunala Stream and estuarine/marine wetland along the shoreline. A site visit was conducted by biologists on March 30, 2021, to verify and delineate the ordinary high-water mark (OHWM) of Kaunala Stream. Figure 3 shows the boundaries of the OHWM for Kaunala Stream within the project area. Indicators used to delineate the OHWM included bed and bank, drift deposits, lack of vegetation, change in sediment composition, and a break in slope. The portion of Kaunala Stream in the survey area appears to have connectivity to the Pacific Ocean, though direct connectivity was not observed during the survey. No wetlands were delineated during the site visit. Kaunala Stream and Kaunala Beach are in attainment with state water quality standards and are not considered water quality impaired by the DOH (2018).

A revised shoreline survey is being completed that will be submitted to the State of Hawai'i, Department of Land and Natural Resources (DLNR) for certification. The revised certified shoreline will be submitted to the DPP as soon as it is approved by the DLNR, and it will be included in the Final EA.

There are no existing well locations within or near the project area, and no new wells are proposed. The closest well location is approximately 600 feet from the project area (Hawai'i Groundwater & Geothermal Resources Center 2021).

According to the Federal Emergency Management Agency (FEMA) Flood Hazard Assessment Tool (DLNR 2021), the project is located in Zone VE and Zone AE floodplains, both of which correspond to areas subject to the 1% annual chance flood event. Flood Zone VE, which covers approximately two-thirds of the project area, is a coastal high hazard zone subject to high-velocity wave action. Flood Zone AE is considered the flood fringe area.



Figure 3. Delineated portion of Kaunala Stream in the project parcel.

3.3.2 Potential Impacts and Mitigation Measures

The proposed units would be located outside of the OHWM for Kaunala Stream as well as 90 to 120 feet mauka of the shoreline area where the NWI-mapped estuarine and marine wetlands occur. No construction work would take place within the bed or bank of the stream channel. Therefore, there would be no direct impacts to water resources.

During construction, BMPs would be implemented to reduce the potential for spills, erosion, and sedimentation of adjacent waterbodies through the ESCP. In addition, temporarily disturbed soils would be stabilized following construction to prevent any long-term erosion (see Section 3.1). Since construction of the project would not disturb more than 1 acre of land, the project does not require a National Pollutant Discharge Elimination System (NPDES) permit for construction stormwater.

The proposed units would be above the base flood elevations VE and AE. The units' foundations are designed to conform to and exceed all FEMA and National Flood Insurance programs and requirements, as described in Section 3.10. The project has a flood elevation certification and would adhere to all applicable standards in ROH Chapter 21 *Flood Hazard Areas* and ROH Chapter 16 *Building Code* to ensure the health, safety, and welfare of the residents and public.

3.4 Biological Resources

3.4.1 Existing Conditions

Official species lists were requested from the USFWS, National Marine Fisheries Service (NMFS), and DLNR to inform the analysis presented below; species lists are included in Appendix B. Biological resource surveys were performed at the project area on March 30, 2021, to document flora and fauna species and delineate water features. Survey results are summarized below. A detailed description of the survey methods and results can be found in the biological resources memorandum (SWCA Environmental Consultants 2021), which is included as Appendix C to this Draft EA. Water features are analyzed in Section 3.3.

3.4.1.1 FLORA

Vegetation in the project area consists of four vegetation types: ruderal, non-native grassland, riparian, and coastal vegetation. The project area is largely disturbed from previous land use and is dominated by plant species that are not native to Hawai'i. Other weedy species likely invaded from surrounding areas following disturbance. No federally of state-listed threatened, endangered, or candidate plant species or rare native Hawaiian plant species were observed in the survey area.

One of the non-native species occurring in the project area, devil weed (*Chromolaena odorata*), is designated as a Hawai'i noxious weed (Hawai'i Department of Agriculture 2003) and is being actively managed by local natural resource management agencies in the area. This species is not known to occur on any other islands and is not yet widespread on O'ahu. It has been prioritized for management due to its expected negative impacts to native ecosystems, agriculture, and human health, as well as the expectation that it will spread to new areas and islands.

3.4.1.2 FAUNA

No federally or state-listed threatened, endangered, or candidate species were observed in the project area. However, some special-status species have the potential to occur in and/or transit through the project area.

These include the federally endangered Hawaiian hoary bat (*Lasiurus cinereus* ssp. *semotus*), the Hawaiian monk seal (*Neomonachus schauinslandi*), and sea turtles including the hawksbill sea turtle (*Eretmochelys imbricata*) and the threatened green sea turtle (*Chelonia mydas*). The adjacent shoreline provides habitat for Hawaiian monk seals and sea turtles to haul out to rest. The Hawaiian hoary bat may roost in nearby trees. Based on the surrounding habitat, seabirds, shorebirds, water birds, and birds protected by the Migratory Bird Treaty Act (MBTA) may transit the area but are unlikely to nest or forage within the project area. However, none of these birds were observed during the site visit.

Mammals observed during surveys include dogs (*Canis familiaris*), and habitat for species such as feral cat (*Felis catus*), small Indian mongoose (*Herpestes javanicus*), house mouse (*Mus musculus*), and rat (*Rattus spp.*) was also observed. Insects and other invertebrates observed include wandering glider dragonfly (*Pantala flavescens*) and honeybee (*Apis mellifera*). Four species of birds were observed in and near the project area during surveys, none of which were native or special status.

There are no wildlife preserves within or near the project area. The nearest wildlife preserve is the Pupukea-Paumalu Forest Reserve, located approximately 2 miles south of the property.

3.4.2 Potential Impacts and Mitigation Measures

3.4.2.1 FLORA

Construction of the proposed project would require vegetation removal within ruderal and non-native grassland habitat types. Removal of these vegetation types would reduce the overall coverage of non-native and invasive plant species at the project area, thereby reducing the potential for them to spread into adjacent areas. Removal of devil weed, in particular, would contribute positively to local management efforts to limit the spread of the species in the area. Relative to other more natural habitat types within or near to the project area (e.g., riparian and coastal vegetation) the ruderal and non-native grassland habitat types are of low value to wildlife. Riparian and coastal vegetation habitat occur outside of the proposed footprint of construction; therefore, these habitat types would not be impacted.

Construction activities are known to spread invasive species to new areas through the movement of vehicles and materials. Since weedy, non-native plant species are common in the project area, the following BMPs would be implemented during construction to minimize and avoid the unintentional introduction or transport of new invasive plant species to or from the Island of O'ahu and/or the project area:

- Excess soil, mulch, or other materials from land clearing or roadway construction would not leave the site to prevent the spread of invasive species, including devil weed, to new areas of O'ahu or to other islands.
- When possible, raw materials (e.g., fill and construction materials) would be purchased from a local supplier to avoid introducing non-native species not present on the island.
- All construction equipment and vehicles would be washed and inspected before entering or exiting the survey area.
- Construction materials would also be washed and/or visually inspected (as appropriate) for excessive debris, plant materials, and invasive or harmful non-native species (plants, amphibians, reptiles, and insects).
- Inspection and cleaning activities would be conducted at a designated location. The inspector would be a qualified botanist and/or entomologist who is able to identify invasive species that are of concern relevant to the point of origin of the equipment, vehicle, or material.

• Proposed landscaping would consist of native Hawaiian plants or non-invasive plants to the maximum extent possible. If native plants do not meet landscaping objectives, plants with a low risk of becoming invasive would be substituted.

3.4.2.2 FAUNA

Although no special-status species are known to occur within the project area, potential habitat for Hawaiian hoary bat, Hawaiian monk seal, and sea turtles occurs within the project area. Should any of these species be present during construction, they could be impacted by vegetation removal, noise, and increased human activity. Regular on-site staff would be trained to identify special-status fauna with the potential to occur on-site and would know the appropriate measures to be taken if they are present.

Direct impacts to bats could occur during vegetation removal if a juvenile bat that is too small to fly but too large to be carried by a parent is present in a tree or branch that is cut down. To prevent direct impacts to Hawaiian hoary bat, the following measures would be implemented during construction:

- If felling of standing trees occurs during the bat breeding season, direct impacts could occur to juvenile bats that are too small to fly but too large to be carried by a parent. To minimize this impact, no trees taller than 4.6 m would be trimmed or removed between June 1 and September 15.
- Barbless wire would be used for all fence construction to avoid entanglement of Hawaiian hoary bat.

Monk seals and sea turtles could be disturbed by construction noise and human activity, causing them to avoid or leave the area. Nesting sea turtles and monk seal mother-pup pairs are particularly vulnerable to human disturbance, which can negatively affect their reproductive success. In addition, monk seals and sea turtles could be harmed if any construction debris poses a threat of entanglement. To prevent impacts to monk seals and sea turtles, the following measures would be implemented during construction.

- Construction activities would not take place if a Hawaiian monk seal or sea turtle is in the construction area or within 150 feet (46 m) of the construction area. Construction would only restart after the animal voluntarily leaves the area. If a monk seal/pup pair is present, a minimum 300-foot (91-m) buffer would be observed. If a monk seal or sea turtle is noticed after work has already begun, that work may continue only if, in the best judgment of the project's qualified biological monitor, there is no way for the activity to adversely affect the animal(s).
- When construction activities take place in the coastal strand vegetation type, any constructionrelated debris that may pose an entanglement threat to Hawaiian monk seals and sea turtles would be removed from the construction area at the end of each day and at the conclusion of the construction project.
- Workers would not attempt to feed, touch, ride, or otherwise intentionally interact with any listed species.

Seabirds are attracted to bright lights, which can cause them to become disoriented and grounded, making them vulnerable to mammalian predators or being struck by vehicles (DLNR 2015). The following measures would be implemented to minimize impacts to seabirds.

• No nighttime construction would occur during the seabird fledgling period from September 15 to December 15.

- All outdoor lights would be fully shielded so bulbs could only be seen from below, and all outdoor lights would be turned off when human activity is not occurring (or motion sensors would be installed).
- All permanent outdoor lighting would be shielded using a seabird-friendly light style that also protects the dark, starry skies of Hawai'i.

Direct impacts to MBTA-protected birds could occur if active nests are disturbed or damaged during vegetation removal. To prevent direct impacts to these MBTA-protected birds, the following measures would be implemented.

- Nest surveys would be conducted a maximum of 7 days before construction. If no active nests are found during the survey, further monitoring is not needed.
- Active nests of MBTA-protected species would be left in place and undisturbed until chicks have fledged.
- A qualified biologist would monitor active nests during construction activities to reduce the chances of nest abandonment by temporarily shutting down construction activities that disrupt the normal daily patterns of the birds. Once chicks have fledged, monitoring would no longer be needed.

No long-term impacts to wildlife species are anticipated to result from the proposed new units since they would be located within previously disturbed habitats and would have no effect on the long-term health and function of adjacent coastal and riparian habitats where most wildlife species are expected to occur.

3.5 Archaeological Resources

Hawai'i State historic preservation statutes (HRS 6E) and administrative rules state that projects requiring state or local government permitting must identify any significant historic properties that may be located within the project area and develop and execute plans to handle impacts to these significant historic properties in the public interest (HAR 13-275-1(a)). The State of Hawai'i considers historic properties to be "any building, structure, object, district, area, or site, including heiau and underwater site, which is over fifty years old" (HAR 13-284-2). To be considered significant and eligible for listing on the Hawai'i Register of Historic Places, a historic property must possess integrity of location, design, setting, materials, workmanship, feeling, and association and meet one or more of the following criteria (HAR 13-275-6(b)).

- Criterion "a". Be associated with events that have made an important contribution to the broad patterns of our history;
- Criterion "b". Be associated with the lives of persons important in our past;
- Criterion "c". Embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, or possess high artistic value;
- Criterion "d". Have yielded, or is likely to yield, information important for research on prehistory or history; or
- Criterion "e". Have an important value to the native Hawaiian people or to another ethnic group of the state due to associations with cultural practices once carried out, or still carried out, at the property or due to associations with traditional beliefs, events or oral accounts--these associations being important to the group's history and cultural identity.

3.5.1 Existing Conditions

The portion of the project parcel that will be impacted by the project has not been subjected to a previous archaeological survey. The remainder of the parcel (i.e., those areas bordering Kaunala Stream that form part of the original Kaunala Bay Subdivision [now the Sunset Beach Colony]) was the subject of an archaeological survey conducted in 2001 as part of the permitting for the subdivision.

In 2001, Haun & Associates undertook an AIS of the Kaunala Bay Subdivision property (Haun & Associates 2001) to identify any significant historic properties present within lands designated for the proposed subdivision development. The 2001 inventory survey consisted of pedestrian transects covering 100% of the property and the excavation of 32 backhoe trenches. This resulted in the identification of four historic properties. These sites consisted of three features associated with the historic Oahu Railway and Land Company (OR&L) railroad (State Inventory of Historic Places Site 50-80-01-5791), a historic house foundation (Site 50-80-01-5911), and the remnants of two subsurface pre-Contact cultural deposits (Site 50-80-01-5912 and Site 50-80-01-5913). The Site 5791 railway features included a railroad bed (Feature A) and two bridge foundations (Features B and C). The subsurface sites included Site 5912, a truncated hearth, and Site 5913, a subsurface cultural deposit that contained a human bone scatter (Haun & Associates 2001:15).

None of the excavated backhoe trenches discussed in the Haun & Associates 2001 AIS were situated within those portions of the project parcel that form part of the subdivision. Site 5791 Feature A, the railway bed, ended at the eastern side of Kaunala Stream. Site 5791 Feature C, the remnants of a concrete foundation for a railroad bridge, as well as a drainage spillway constructed of mortared stone and a stacked stone wall, were located within the stream bed itself (Haun & Associates 2001:20) and appear to rest within those portions of the project parcel that are not part of the current project. The other identified historic properties were all located further east within the subdivision property (Haun & Associates 2001:18).

Historic documentary research provided in Haun & Associates (2001) found that the section of remnant railroad berm (Feature A of Site 5791) was built between 1898 and 1899. The railroad bridge foundations (Features B and C of Site 5791) were found to represent subsequent improvements or repairs made in 1931 and 1932. Haun & Associates described Feature A as "altered and in poor condition," and Features B and C as "altered and in fair condition" (Haun & Associates 2001:15 and 20). Site 5791 was assessed as significant under Criterion "d" of HAR Chapter 13-284-6 (Rules Governing Procedures for Historic Preservation Review) as being historically significant for its informational content and under Criterion "a" for its association with the development of sugar plantations in the region in the late 1800s to early 1900s. Although Site 5791 is significant for multiple criteria, the site was not well preserved and lacked integrity; therefore, no further work or preservation was recommended for the site (Haun & Associates 2001 2001:41–42).

Site 5911 was located in the northeastern portion of the subdivision, well away from the current project area. It consisted of two pier blocks representing all that remained of a historic house foundation. Although no surface cultural remains were observed near the site, excavation of this site produced artifactual materials (glass, plastic, metal, shingles) probably dating to no earlier than the mid-1900s (Haun & Associates 2001:20). Site 5911 was assessed as significant solely for its informational content, and no further work or preservation was recommended for the site (Haun & Associates 2001:42).

Sites 5912 and 5913 were identified during trenching, and their contents indicated pre-Contact habitation and use of the general area. Site 5912 was interpreted as a prehistoric hearth. Excavation of the site revealed a disturbed surface deposit (Layer 1) that contained glass and plastic fragments, butchered bone, a car headlight lens, charcoal, two pieces of pig bone, a basalt core, and marine shell. Layer 1 truncated the upper portion of a basin-shaped pit composed of fine gray ash that contained fire-altered rock, charcoal, kukui nutshells, fish scales, sea urchin shell, and marine shell.

Site 5913 consisted of a truncated cultural deposit containing a disturbed human bone scatter. The site was located in the southwestern portion of the subdivision. The scatter of human skeletal remains is likely a displaced prehistoric Hawaiian burial and indicated mortuary use of the area. As noted in Section 3.1.1, the current project area consists in part of Jaucas sand. This soil type is known to have been extensively used for human burials during both the pre- and post-Contact periods. Site 5913 also included basalt flakes, fire-altered stone, charcoal, fishbone and scales, and marine shell. The radiocarbon age determinations from these sites indicated initial use of the area by the 1300s and continued use between the late 1400s and late 1600s. The dating results are consistent with previously dated sites in the surrounding region (Haun & Associates 2001:20–30).

Sites 5912 and 5913 were assessed as significant under Criterion "d" for their informational content, and Site 5913 was additionally assessed as significant under Criterion "e" for containing the remains of a probable prehistoric Hawaiian burial. No further work or preservation was recommended for Site 5912. Data recovery was recommended for Site 5913 prior to any planned construction excavation that might disturb the site.

3.5.2 Potential Impacts and Mitigation Measures

Project actions that diminish or destroy the integrity of a historic property are considered to have an adverse impact. Actions that restore, repair, and sustain a historic property are considered to have beneficial impacts. In determining whether the proposed action would have a significant effect on a resource, both the potential impacts and proposed mitigation measures are considered.

In considering the potential impacts of the project on known historic properties recorded during the 2001 AIS, the only site whose features are present within the project parcel is Site 5791. The remnants of the Site 5791, Feature C railroad bridge foundation is located in the bed of Kaunala Stream in an area of the Makanale Development Project property that will not be impacted by planned construction.

Although the two subsurface historic properties identified during the 2001 AIS (Sites 5912 and 5913) are located east and well outside the limits of the project area, they suggest that previously unidentified subsurface deposits, including human burials, could be present within the project area.

The 2001 AIS report recommended that all construction-related excavations be archaeologically monitored because of the potential for encountering remnant subsurface cultural deposits and burials. This archaeological monitoring was to be conducted in accordance with an archaeological monitoring plan reviewed and accepted by the Hawai'i State Historic Preservation Division (SHPD). Future lot owners were to be responsible for any archaeological monitoring associated with development of individual lots. These obligations were to be documented with covenants in the lot deeds (Haun and Henry 2001:42).

Based upon the findings of the Haun & Associates AIS, the 2001 FEIS made the following mitigation recommendations for the Kaunala Residential Subdivision project.

Ground disturbing activities associated with the proposed project include clearing of structures and grading for construction of the subdivision's access road. Subsequent development of residences by purchasers of lots may also require land disturbance for utility installation and building foundations. The applicant will prepare a construction monitoring plan for DLNR-SHPD review and approval. If any archaeological remains are uncovered, work in the immediate vicinity will cease and the DLNR-SHPD will be notified immediately (Wilson Okamoto & Associates 2001a:3-19).

Although those portions of the project parcel planned for current development are located outside the limits of the Kaunala Residential Subdivision/Sunset Beach Colony, the current project proposes to implement the procedures outlined in the archaeological monitoring plan developed for the Kaunala Residential Subdivision. As part of the permitting process for the current project, the project proponent will initiate HRS 6E-42 historic preservation review for the project through the SHPD.

3.6 Cultural Resources

In addition to an AIS, a CIA was conducted as part of the 2001 FEIS (Wilson Okamoto & Associates 2001a:Appendix C). This CIA, conducted by Wilson Okamoto and Associates, Inc., was prepared in accordance with the methodology outlined in the Office of Environmental Quality Control's *Guidelines for Assessing Cultural Impacts*. Additional community interviews were conducted as part of the social impact assessment for the 2001 FEIS (Earthplan 2001). The information obtained from these interviews was included in the CIA.

3.6.1 Existing Conditions

Research for the CIA included examining the cultural resources, practices, and beliefs of the ahupua'a within which the project area was located by conducting documentary research, and consulting with individuals and/or organizations with knowledge of cultural practices and the general surrounding area (Wilson Okamoto & Associates 2001b:1). The 2001 CIA notes that:

The Office of Hawaiian Affairs was contacted for references to Native Hawaiian individuals or organizations for potential consultation and subsequently provided the names and contact numbers for three organizations and one individual. Informal consultations with one organization revealed that their long-time resident and kupuna contact was no longer residing in Hawai'i, and that the information and traditions of that area were obtained from published materials. Interviews and consultations previously conducted in conjunction with published archaeological, anthropological, historical and environmental review reports and texts were also reviewed. Information related to personal use of the project site and nearby shore area was gleaned from interviews conducted as part of the Social Impact Assessment report prepared for the proposed project. In all, 36 people were interviewed as part of the social impact assessment process, 10 of which were on-site residents, and 21 of which identified themselves as active shoreline and ocean users (Wilson Okamoto & Associates 2001b:2).

The majority of the interviews conducted for the social impact assessment were conducted in person over a 2-week period. A few telephone interviews were conducted after the 2-week period. The interview questions were standardized and addressed four broad topics: feelings about the existing community, the project area, feelings about the proposed development at Kaunala, and suggestions. Although the results of the interviews revealed predominantly social insights, some interviews also contained information regarding cultural practices in the area.

The 2001 CIA noted that the Kaunala Residential Subdivision (now the Sunset Beach Colony) fronts Kaunala Bay, which was traditionally used for shoreline and ocean gathering, fishing, and recreational activities. The social impact assessment found that fishing, surfing, swimming, kayaking, camping, beach activities, and surfing contests remain the most common contemporary uses of Kaunala Bay. Subsistence fishing continues to be an important cultural activity in the area. It was noted that pole fishers go to Kaunala in the summer to fish for ulua, papio, and other nearshore fish. Free-diving spearfishing is also popular in the summer (Earthplan 2001:35). The bay is generally not conducive to swimming as its offshore bottom is lined by sections of reef and rock along almost the entire length of the bay, the only

exception being at the mouth of Kaunala Stream. The social impact assessment noted that this location is the "only small pocket where swimming is feasible" (Earthplan 2001:32). This swimming location fronts the project area. As previously described, Kaunala Stream borders the project area on the east.

A significant theme throughout the social impact assessment was the value of the North Shore surfing culture. Contemporary surfing descended and developed from he'e nalu, the traditional practice of wave riding. During the high-surf winter months, surfers and spectators flock to the many famous surfing breaks on the North Shore. The social impact assessment identified five surf breaks along the shoreline fronting the Kaunala Residential Subdivision: Backyards, Freddie's or Freddieland, Phantoms, Velzyland, and Revelations. Kaunala Beach, particularly the surf break Velzyland, has served as an amateur surf contest venue on several occasions as its waves tend to be smaller than that of the nearby Sunset Beach (Earthplan 2001:33–36).

Okamoto & Associates conclude their CIA with the following statement: "there are no continuing cultural practices occurring within the project site based on the findings of archaeological surveys conducted for the project site and surrounding areas, a site visit, and consultations" (Wilson Okamoto & Associates 2001b:16).

3.6.2 Potential Impacts and Mitigation Measures

In the 2001 CIA, Wilson Okamoto & Associates asserted that the proposed project should include provisions to provide continued access to the shoreline and ocean use areas and that construction activities within the project area should not adversely affect the shoreline and offshore resources or waters through runoff or disposal (Wilson Okamoto & Associates 2001b:16). The social impact assessment also expressed the importance of maintaining and facilitating public recognition that pedestrian shoreline access to Kaunala Bay through the construction of a paved driveway to the city's Waiale'e Beach Park, the dedication of the 1.47 acres of land to the city, and provision of the public access easement (Wilson Okamoto & Associates 2001a:320).

The CIA for the Kaunala Residential Subdivision project stated that, based on the findings of archaeological surveys of the project area and surrounding areas, construction activities should be monitored due to the likelihood of uncovering cultural remains and burials. In addition, the report stated that, in the event that cultural remains or burials are uncovered during construction activities, all work should cease and the SHPD should be contacted (Wilson Okamoto & Associates 2001b:16). Wilson

Because the Makanale Development Project property is located adjacent to the area covered by the 2001 CIA, which was inclusive of Kaunala Stream and the surrounding shoreline environment, it is anticipated that the findings of the 2001 CIA also apply to the current project area.

The physical impacts of the current project will be limited to the area at least 90 feet mauka of the certified shoreline and should have no direct effect upon shoreline, near shore ocean, or beach activities such as subsistence fishing and gathering, as well as surfing. Public shoreline access is already available, and the property does not appear to have been traditionally or recently utilized as a route of public access to the beach. As noted in Section 3.3.2, the current project should have no direct erosional impacts to the nearby ocean environment and its resources. The project should have no impact on traditional or contemporary cultural resources, practices, and beliefs.

3.7 Transportation and Traffic

3.7.1 Existing Conditions

The project is located in a residential area off Makanale Street, a dead-end cul-de-sac. The nearest main road is Kamehameha Highway, a two-lane road with intermittent traffic and commuters. There is very little traffic other than local residential traffic on Makanale Street.

3.7.2 Potential Impacts and Mitigation Measures

During construction, arrangements would be made with the homeowner for parking, and carpooling and shuttling would be considered to minimize parking requirements during construction.

There would not be considerable vehicle traffic after the construction phase. The homeowner would park all vehicles off-street, within the project's garages and driveways. Traffic levels would remain at baseline when construction is complete.

3.8 Visual Resources

3.8.1 Existing Conditions

The project would be located within an existing residential area between Kamehameha Highway (State Route 83) and the ocean. Specifically, the project is located on Makanale Street adjacent to Kaunala Beach where other houses are currently under construction. Within the 0.5-mile indirect (visual) analysis area, development is associated with residential neighborhoods, coastal recreation areas, the Kahuku Training Area, and a University of Hawai'i agricultural research station. Residential lots in the area are mostly ½ acre in size, resulting in dense residential development except along the ocean, where lots are typically ½ acre or larger in size. The area between the ocean and the northern edge of the Ko'olau Range, where the project is located, is mostly level and is defined by residences with landscaping composed of both native and non-native plant species (e.g., coconut palms, naupaka, and plumeria). The project area consists of bare ground, vegetated areas, and some concrete slabs from previous construction. The project area is not landscaped at this time, but is covered with predominantly weedy, non-native species over approximately one-third of the property. The eastern edge of the site overlaps with a portion of Kaunala Gulch between Kamehameha Highway and where the gulch enters the ocean at Kaunala Beach. The gulch introduces flowing water and a defined corridor of denser vegetation, compared with the adjacent area, into the landscape setting.

The project has the potential to modify the existing landscape character and attract attention from viewing locations in the area, including views from residences, travel routes, and recreation areas. The DPP's *Content Guide for Preparing an Environmental Assessment* identifies the requirement to analyze views from surrounding public viewpoints and from the nearest coastal highway toward the ocean (or coastal landform). Responding to this requirement, four key observation points (KOPs) were identified to assess impacts on views as outlined in Table 2 and depicted on Figure 4. Additionally, photographs from each KOP have been included to depict existing conditions (Figures 5–9). Views from State Route 83 (coastal highway) toward the project would be completely screened by dense vegetation, lava rock walls, and residential development. Since views of the project from most existing residences would also be screened by vegetation and other residences, KOP 4 was identified to assess impacts on views from residences along Makanale Street, including views toward the ocean.

KOP Number	KOP Name	Viewer Type	Location Rationale	
1	West Kaunala Beach	Recreation	Coastal views from westernmost portion of the beach before views toward the project area would be screened by topography, vegetation, or structures	
2	Central Kaunala Beach	Recreation	Coastal views from central portion of the beach where views toward the project area would be mostly unobstructed	
3	East Kaunala Beach	Recreation	Coastal views from the easternmost portion of the beach before views toward the project area would be screened by topography or vegetation	
4	Makanale Street	Residences/ travel route	Makai views (toward the ocean) from adjacent residences toward the project area	

Table 2. Key Observation Point Locations



Figure 4. Locations of key observation points.



Figure 5. Key Observation Point 1 – West Kaunala Beach: existing condition, areas of proposed activity marked in yellow.



Figure 6. Key Observation Point 2 – Central Kaunala Beach: existing condition, areas of proposed activity marked in yellow.



Figure 7. Key Observation Point 3 – East Kaunala Beach: existing condition, areas of proposed activity marked in yellow.



Figure 8. Key Observation Point 4 – Makanale Street (typical view from street): existing condition.



Figure 9. Key Observation Point 4 – Makanale Street (elevated view from across the street): existing condition.

3.8.2 Potential Impacts and Mitigation Measures

The introduction of the project, including two dwellings, site improvements, and landscaping, would generally be consistent with the area's existing landscape character. The geometric form of the proposed dwellings and ornamental landscaping would repeat the form, line, color, and texture found in the adjacent residential lots (Table 3). In the short-term, before the ornamental landscaping has matured, the proposed dwellings would generate increased visual contrast as the unscreened geometric forms would be more prominent in the landscape. After the ornamental landscaping has matured, the project would become visually subordinate in this residential landscape setting, resulting in a low long-term residual impact.

Since views of the project from Kamehameha Highway (State Route 83) would be completely screened, the visual analysis focused on views from the shoreline (Kaunala Beach) and from adjacent residences, including those along Makanale Street.

KOP Number	KOP Name	Viewer Type	Approximate Distance from Project	Viewer Position	Impact Description
1	West Kaunala Beach	Recreation	500 feet	Level	The project would be viewed in context with a row of existing dwellings along Kaunala Beach. Short-term impacts include views of the two proposed geometrically formed dwellings, which would be partially screened by existing vegetation from this location. Their geometric form would attract attention until the ornamental landscaping has matured to further screen and reduce the prominence of the dwellings' geometric forms. Once the landscaping has matured, low residual impacts on views would occur from this location as the project would repeat form, line, color, and texture common in the existing viewshed.
2	Central Kaunala Beach	Recreation	800 feet	Level	Impacts are similar to KOP 1 except, due to the orientation of the view from this portion of the crescent-shaped beach, both the existing dwellings and proposed dwellings would be more visually prominent. The landscaping adjacent to the existing dwellings soften their geometric forms. As described for KOP 1, once the proposed ornamental landscaping has matured, the project would repeat form, line, color, and texture common in the existing setting, resulting in a low residual impact.
3	East Kaunala Beach	Recreation	0.5 mile	Level	Impacts are similar to KOP 2 except, due to the distance from the project, 0.5 mile compared with 800 feet, the project would be visually subordinate. The complexity of the land forms in this view would also minimize the relative visual contrast of the proposed dwellings compared with KOP 2. Once the proposed ornamental landscaping has matured, the project would not attract attention and would result in a negligible residual impact.
4	Makanale Street	Residences/ travel route	Less than 100 feet	Level	The project would not attract attention as viewed from most of Makanale Street and adjacent residences. This is due to views being screened by vegetation or other residences. This KOP location was identified to consider impacts on views for those residences directly adjacent to the project. Similar to KOP 1, impacts on these views would be mostly associated with the prominent geometric forms of the proposed dwellings. Once the landscaping has matured, low residual impacts on views from adjacent residences would occur as the project would repeat form, line, color, and texture common in this residential neighborhood. As shown in Figure 9, an elevated viewing angle representing views from residences across the street includes views of the surf break at Velzyland Beach. The project would likely block views of this feature from those residences after construction of the proposed two- story main house and one-story quest house.

Table 3. Impacts on Views from Key Observation Point Locations

As described in Table 2, views were assessed from three locations along Kaunala Beach to identify the impacts from different viewing angles and distances. Since the project is located at the southern end of this crescent-shaped beach, views from KOP 2 would have the most unobstructed views of the geometric facade associated with the proposed dwellings. Impacts on views from KOPs 1, 2, and 3 would be

reduced over the long-term as the proposed ornamental landscaping matures and obscures the geometric forms of the dwellings, resulting in a low residual impact.

Views of the project from most residences along Makanale Street would be screened by vegetation and other residences as described in Table 2. Views from KOP 4, representing residences along Makanale Street directly adjacent to the project, would include views of the geometric forms associated with the proposed dwellings, which are common in this residential neighborhood. A few residences south of the project currently have views of the surf break at Velzyland Beach, which have the potential to become blocked by the construction of the two-story main house and one-story guest house.

The impacts on landscape character and views from the KOPs along Kaunala Beach would be reduced by planting trees or shrubs between the beach and the proposed dwellings to soften the visual contrast introduced and match the area's residential landscape character. Additionally, impacts on landscape character would be further reduced by maintaining the dense vegetation along Kaunala Gulch, which defines this distinct linear landscape element and screens views of the project to the east and southeast including potential views from Kamehameha Highway.

3.9 Noise

3.9.1 Existing Conditions

The project is located in a residential area, where the typical noise sources consist of vehicles and landscaping equipment.

3.9.2 Potential Impacts and Mitigation Measures

Construction activities would result in increased noise over the course of approximately 1 year but would occur only during normal construction hours. Construction-related noise would have only short-term, minor adverse impacts to ongoing residential activities in the surrounding neighborhood.

No long-term noise impacts are anticipated from the proposed housing units. After project construction is complete, noise levels would return to the current condition.

3.10 Climate Change and Coastal Hazards

3.10.1 Existing Conditions

The climate of O'ahu is characterized by mild temperatures throughout the year, moderate humidity, variable rainfall across the island, and infrequent severe storms. O'ahu experiences two main seasons: summer from May to October when rainfall is at its lowest and temperatures average in the high 70s, and winter from October to April when rainfall is heavier and temperatures average in the low 70s. Rainfall averages between 25 and 30 inches a year; however, certain regions receive the majority of this rainfall compared with others (National Weather Service 2021). Rainfall is generally lower on the west coast (which is leeward) and heavier on the east coast (which is windward).

Climate change and its associated effects on sea level rise, coastal flooding, and erosion are issues that have and will continue to effect Hawai'i's coastal communities, including O'ahu's North Shore where the proposed project is located. By mid-century, global sea levels are projected to rise by up to 3.2 feet; the exact timing and amount of sea level rise may vary depending on global greenhouse gas emissions
trajectories (Hawai'i Climate Change Mitigation and Adaptation Commission 2017). According to the PacIOOS Sea Level Rise Viewer (Hawai'i Climate Change Mitigation and Adaptation Commission 2021), a portion of the project area is anticipated to be subject to 0.5 foot of sea level rise in the near term, and subject to 3.2 feet of sea level rise by mid-century (Figure 10). In addition, sea level rise is likely to exacerbate the current level of flood hazard on the site in the near term. National Hurricane Storm Surge Hazard Maps (National Oceanic and Atmospheric Administration 2021) indicate that the coastal area along the project area may be subject to flooding inundation of more than 3 feet above ground level during a Category 1 or greater hurricane event. Hurricane flooding inundation boundaries would be similar to the 3.2 feet of sea level rise inundation, as shown in Figure 10. Data from the PacIOOS Sea Level Rise Viewer show that passive flooding of up to 3.2 feet would not impact the project area.

3.10.2 Potential Impacts and Mitigation Measures

The proposed project is not expected to affect the region's climate due to the small scale of the project and lack of meaningful contributions to regional greenhouse gas emissions.

The property on which the proposed houses are located is partially within a sea level rise exposure area, which could experience a sea level rise up to 3.2 feet by mid-century based on the methodology of the sea level rise modeling used in the Hawai'i Sea Level Rise Vulnerability and Adoption Report December 2017 (see Figure 10). The proposed project has been designed to avoid development within sea level rise exposure areas up to 3.2 feet by mid-century as shown in Figure 10.

The footprint for construction of both dwellings would be placed 90 to 120 feet mauka from the shoreline and would be entirely outside of the 3.2-foot sea level rise inundation area as projected by the State of Hawai'i Sea Level Rise Vulnerability and Adaptation Report (see Figure 10). The units' foundations are designed to conform to and exceed all FEMA and National Flood Insurance programs and requirements.

Climate change mitigation/avoidance measures are achieved by using micropiles for the foundation that will be drilled under every structural point load to the depth of the substrate/coral reef approximately 12 to 20 feet below grade. Because the scour depth of this area is approximately 5 feet, this design ensures that the dwellings will withstand the impact and remain intact even under worst-case scenarios, such as a 100-year flood, a 3.5-foot hurricane surge, or a tidal wave. Therefore, the project would not be significantly adversely affected by climate change and coastal hazards.



Figure 10. Projected 3.2-foot sea level rise inundation area.

3.11 Hazardous Materials

3.11.1 Existing Conditions

Based on previous site inspections, and desktop review of DOH and U.S. Environmental Protection Agency (EPA) environmental data (DOH 2015; EPA 2021), there are no known sources of water or soil contamination within the project area.

3.11.2 Potential Impacts and Mitigation Measures

During construction, hazardous materials that could be used or stored on-site include fuels for equipment and machinery, herbicides, pesticides, and fertilizers. Hazardous materials would be stored, transported, and disposed of in accordance with state and county requirements, and spill prevention and control BMPs would be implemented during construction to minimize the potential for leaks and spills. Examples of spill prevention BMPs that would be implemented during construction include the following.

- On-site storage of hazardous materials would be limited to the minimum practical quantity that is necessary to complete the job.
- Manufacturer's instructions would be followed for proper use and disposal.
- On-site vehicles and machinery would be monitored for leaks and regular maintenance would be performed to minimize leakage.
- All petroleum products, waste, debris, herbicides, pesticides, and fertilizers would be stored away from water resources.
- Fueling of construction equipment would occur in designated areas, equipped with drip pans or absorbent pads placed under vehicles/equipment.
- Vehicles that regularly enter and leave the site will be fueled off-site.
- All spills will be cleaned up immediately after discovery. Cleanup materials will be disposed of at an approved off-site facility.
- Any spills would be reported to the appropriate agencies, and the spill prevention BMPs would be adjusted, as needed, to prevent spills from reoccurring.

Over the long term, the proposed units would not present any hazardous material concerns. The houses would use an aerobic wastewater system that is approved by the DOH. The system is specifically engineered to be highly efficient and deliver an end product that is 100% environmentally safe.

3.12 Public Infrastructure and Utilities

3.12.1 Existing Conditions

The project area has been previously developed and is located within an existing residential neighborhood; therefore, utility service infrastructure already exists at or near the project area for electric, water, cable, internet, and telephone. Sewer/wastewater collection is not provided within the neighborhood.

3.12.2 Potential Impacts and Mitigation Measures

Utility services that would be required for the proposed housing units include electric, cable/internet, telephone, and water. Utility services will be set up through the appropriate utility providers once construction is complete. Given the small scale of the project and its location within an existing residential development, utility providers would not be adversely impacted by the project's ongoing utility needs. It is assumed that existing utility poles on and around the property boundary could be used to install utility lines and connections to the proposed houses. Any existing utility easements or facilities at the property would be kept clear to ensure continued access for utility providers. The houses would use an aerobic wastewater system that is approved by the DOH.

3.13 Cumulative Impacts

HAR Chapter 11 defines a cumulative impact as "the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes the other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time."

Past, present, and reasonably foreseeable actions that could have potential effects on resources within the project area and the broader North Shore community include existing and ongoing residential developments or improvements; existing and ongoing public use of beaches; existing and ongoing management of urban growth to protect agricultural, open space, and natural resources; and existing and ongoing maintenance or improvement of public roads and facilities. Based on review of the DPP's public notifications page, there are no active projects currently under review within the vicinity of the project area. Therefore, there is no other short-term construction co-occurring with construction of the project.

Past and present residential development in the North Shore is generally concentrated in small coastal communities, which has allowed the North Shore to maintain a rural character, with plenty of agricultural land, open space, recreational resources, and scenic beauty. The construction of two new houses under the proposed action would incrementally contribute to the level of residential development in the North Shore community but would have a negligible effect on overall residential density or land use development patterns.

The proposed action would result in minor, long-term vegetation removal in a previously disturbed area where natural habitat has already been reduced by construction of homes and other residential amenities. This amount of vegetation removal is negligible when compared to the total amount of natural environments and open spaces in the surrounding areas, and is not expected to cause any meaningful changes to the overall quality and quantity of natural habitats available in the North Shore community. The proposed action would also incrementally contribute to local land management efforts to reduce the spread of invasive species, particularly devil weed.

Although the project would bring some added traffic to Makanale Street, the additional traffic would be minimal and would not cause noticeable impacts to traffic patterns in the community. Past construction of roads, housing, and other residential infrastructure have contributed to changes in visual resources within the North Shore area. The long-term addition of two new houses would incrementally contribute to changes in the visual landscape but would blend in and be consistent with the existing character of the area and would therefore have little adverse impact on the overall scenic quality of the North Shore.

Climate change–related hazards (e.g., sea level rise, coastal flooding, and erosion) may have future compounding effects where the proposed project is located. However, the project would be entirely outside of the 3.2-foot sea level rise inundation area, and micropiles would be used for the foundation,

ensuring that the dwellings withstand worst-case hazard scenarios such as a 100-year flood, a 3.5-foot hurricane surge, or a tidal wave. No seawalls or shoreline hardening activities would be implemented, which minimizes erosional impacts to the nearby ocean environment and surrounding properties.

Given the project's location within an existing residential development and previously disturbed site, impacts of the proposed action on all other resources such as soils, hydrology, wildlife, archaeological, cultural, and visual, would be minor, highly localized, and oftentimes temporary (i.e., limited to the construction phase), and therefore, the project would not have any cumulative impacts to resources at the community level.

4 CONSISTENCY WITH EXISTING LAND USE, PLANS, AND POLICIES

This chapter describes the proposed project in relation to the following policies and controls, as applicable. The project area occurs on a privately owned, coastal lot within the R-5 Residential zoning district for the City and County of Honolulu, within an existing residential neighborhood. The project area is entirely within the SMA.

4.1 Federal Regulations

4.1.1 Endangered Species Act

The Endangered Species Act (ESA) provides broad protection for plants, fish, and wildlife that have been listed as threatened or endangered in the United States or elsewhere and conserves ecosystems on which these species depend (16 United States Code 1531–1544). Section 9 of the ESA prohibits the unauthorized take of any endangered or threatened species of fish or wildlife listed under the ESA. *Take* means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect species listed as endangered or threatened, or to attempt to engage in any such conduct (50 Code of Federal Regulations [CFR] 17.3). *Harm* has been defined by the USFWS to mean an act that actually kills or injures wildlife, and may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering (50 CFR 17.3). *Harass* has been defined to mean an intentional or negligent act or omission that creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns that include but are not limited to breeding, feeding, or sheltering (50 CFR 17.3). Section 10 of the ESA contains exceptions and exemptions to Section 9, if such taking is incidental to the carrying out of an otherwise lawful activity.

Due to the lack of a federal nexus, formal consultation under the ESA is not required for the project. However, official species lists were requested from USFWS and NMFS and are included in Appendix B. Biological resource surveys were performed at the project area on March 30, 2021, to document flora and fauna species and assess the site's potential to provide habitat for special-status species. A detailed description of the survey methods and results can be found in the biological resources memorandum (Appendix C). The project area is largely disturbed from previous land use and is dominated by plant species that are not native to Hawai'i. No federally or state-listed threatened, endangered, or candidate plant species or rare native Hawaiian plant species were observed in the survey area.

Although there are no special-status wildlife species known to occur within the project area, potential habitat for Hawaiian hoary bat, Hawaiian monk seal, and sea turtles occurs within the project area. In order to prevent impacts to these species during construction, regular on-site staff would be trained to

identify special-status fauna with the potential to occur on-site and would know the appropriate measures to be taken if they are present. Species-specific avoidance and minimization measures are described in Section 3.4.2.

No long-term impacts to wildlife species are anticipated to result from the proposed new units since they would be located within previously disturbed habitats and would have no effect on the long-term health and function of adjacent coastal and riparian habitats where most wildlife species are expected to occur.

Therefore, with the consideration of BMPs and species-specific measures that would be implemented during construction, the project is not anticipated to have any adverse effects on special-status species.

4.1.2 Migratory Bird Treaty Act

The MBTA prohibits the take of migratory birds. A list of birds protected under MBTA regulations is provided in 50 CFR 10.13. Unless permitted by regulations, under the MBTA it is unlawful to pursue, hunt, take, capture, or kill; attempt to take, capture, or kill; possess, offer to or sell, barter, purchase, deliver, or cause to be shipped, exported, imported, transported, carried, or received any migratory bird, part, nest, egg, or product. The USFWS does not currently have a comprehensive program under the MBTA to permit the take of migratory birds by otherwise lawful activities. On December 22, 2017, the U.S. Department of the Interior, Office of the Solicitor issued a memorandum opinion concluding that the MBTA does not prohibit incidental take of migratory birds. Conservation measures that avoid or minimize impacts to listed species would be incorporated into the project's plans and specifications.

No MBTA-protected bird species were observed in the project area during biological resource surveys (see Appendix C). However, given the property's proximity to shoreline, estuarine, and riparian habitats, there is potential for migratory birds to be present on-site or transit the area. Implementation of the MBTA-related guidelines in Section 3.4.2 is expected to avoid all direct impacts to birds protected by the MBTA.

4.2 State Regulations

4.2.1 Hawai'i Coastal Zone Management Program (HRS 205A)

The Hawai'i Coastal Zone Management (CZM) Program (HRS Chapter 205A) was promulgated in 1977 in response to the Federal Coastal Zone Management Act of 1972. Hawai'i's CZM area encompasses the entire state, including all marine waters seaward to the extent of the state's police power and management authority, including the 12-mile U.S. territorial sea and all archipelagic waters. The project is located within the SMA and requires an SMA permit. The purpose of the SMA permit is to ensure that uses, activities, and operations within the SMA are carried out in compliance with the state's CZM law (HRS 205A). SMA permits regulate permissible land uses that are already allowed by land use policies, taking into account zoning designations, county general plans, and community plans.

Projects within the SMA are required to undergo procedural steps set forth in HRS 343 prior to applying for an SMA permit.

Hawai'i's CZM program has 10 objectives and policies. Each of these objectives and policies are listed below, along with a description of how the proposed project is consistent with each of them.

• **Recreational resources**: The proposed project is located on private land and will have no adverse effect on recreational uses or public access. The project would not result in a change or adverse effect to recreational resources or public access to the beach and coastal resources.

- **Historic resources**: The archaeological inventory survey conducted as part of the 2001 FEIS found no historic properties within the Makanale Development Project area with the exception of a single historic feature (Site 5791, Feature C). This feature, which consisted of the remnants of a historic railway bridge, was located in the bed of Kaunala Stream in a portion of the property that will not be impacted by planned construction. The project area was the location of a previous private residence. Grubbing, grading, and leveling for that residence would have destroyed any surface historic properties within the planned construction area. The planned structures would be placed on micropiles to minimize subsurface impacts.
- Scenic and open space resources: The proposed units and associated landscaping would be visually consistent with the surrounding residential landscape setting (see Section 3.4.2). The project would not impact any public open space resources. Landscaping at the site would include native flora.
- **Coastal ecosystems**: The proposed units would be located outside of the OHWM and riparian setback for Kaunala Stream as well as the 60-foot shoreline setback area. Erosion and spill control BMPs would be implemented during construction to avoid and minimize potential indirect impacts to coastal ecosystems. All disturbed soils would be replaced and stabilized and landscaping would be installed around the proposed units to stabilize soils and prevent erosion over the long term.
- **Economic uses**: The proposed housing units would provide additional residential housing within the community, would generate tax revenue for the City, and would create temporary jobs during construction. The houses are appropriately located within an existing residential zoning designation and neighborhood.
- **Coastal hazards**: The units' foundations are designed to conform to and exceed all FEMA and National Flood Insurance programs and requirements. Micropiles for the foundations will be drilled under every structural point load to the depth of the substrate/coral reef approximately 12 to 20 feet below grade. This design ensures that the dwellings will withstand the impact and remain intact under disaster scenarios. In addition, the proposed project has been designed to avoid development within sea level rise exposure areas up to 3.2 feet by 2100.
- **Managing development**: The proposed project represents a residential development within an existing residential zoning designation and established residential neighborhood. The impacts of the proposed project have been analyzed and disclosed in this Draft EA as part of the SMA permitting process and will inform the City's management of development in the SMA.
- **Public participation**: In addition to the 30-day public review and comment period of the Draft EA, the project's SMA permitting process provides opportunities for public participation, including providing written notice and a presentation to appropriate neighborhood boards, providing written notice to surrounding property owners, and holding a public hearing.
- **Beach protection:** The proposed units are located outside of the shoreline setback, and there are no other forms of development proposed within the shoreline area (e.g., landscaping or seawalls). Therefore, the project would have no impact on existing beach conditions or access.
- **Marine resources**: The proposed units would have no impact on marine resources. Erosion control, spill prevention, and stormwater management measures would be implemented to protect off-site marine waters from being affected by the project.

4.2.2 Hawai'i Revised Statutes, Chapter 343

The State of Hawai'i EIS law, HRS Chapter 343, was developed "to establish a system of environmental review which will ensure that environmental concerns are given appropriate consideration in decision making along with economic and technical considerations" (HRS 343-1). This chapter requires the development of an EA or EIS that discloses the effects of a proposed action, including the cumulative and overall effects, relative to an established set of 13 significance criteria, as defined in 11 HAR 200-12.

HRS 343 also mandates that state agencies consider the potential effects of a proposed action on cultural practices as part of the environmental review process. Act 50 of the Session Laws of Hawai'i (A Bill for an Act Relating to EISs) clarifies that "the preparation of environmental assessments or environmental impact statements should identify and address effects on Hawai'i's culture, and traditional and customary rights" and stresses the need to include consideration of cultural resources, customs, practices, and beliefs as part of the EA and EIS process.

As part of the project's SMA permitting process, this Draft EA has been prepared in accordance with HRS Chapter 343, as required under ROH Chapter 25.

4.2.3 Hawai'i Land Use Law (Hawai'i Revised Statutes 205)

Hawai'i Land Use Law (HRS Chapter 205) classifies the state into four land use districts: Urban, Rural, Agricultural, and Conservation. The proposed project is located in an area classified as Urban. Private residences are permitted within the Urban district, and thus the project is consistent with its land use classification.

4.2.4 Hawai'i State Planning Act

The Hawai'i State Planning Act (HRS 226-1) was implemented in 1978, to "improve the planning process in this state, to increase the effectiveness of government and private actions, to improve coordination among different agencies and levels of government, to provide for wise use of Hawai'i's resources and to guide the future development of the State."

The project is consistent with the Hawai'i State Planning Act's objectives and policies, particularly those related to the physical environment land-based, shoreline, and marine resources; scenic, natural beauty, and historic resources; and land, air, and water quality. The project has been designed to avoid or minimize impacts to all natural resources and would not cause any long-term adverse effects to natural resources as demonstrated in this Draft EA.

4.2.5 Hawai'i State Environmental Policy (HRS Chapter 344)

The purpose of this chapter is to "establish a state policy which will encourage productive and enjoyable harmony between people and their environment, promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of humanity, and enrich the understanding of the ecological systems and natural resources important to the people of Hawaii." HRS Chapter 344 provides specific guidelines for the conservation of natural resources and enhancement of quality of life for Hawai'i's people.

The project is consistent with HRS 344 guidelines for the conservation of land, water, mineral, visual, air, and other natural resources because the project has been designed to avoid or minimize impacts to all natural resources and would not cause any significant adverse effects to natural resources as demonstrated in this Draft EA. The project is also consistent with HRS 344 guidelines for the enhancement of quality of

life since the project would create a new housing opportunity for the homeowners that is in balance with the unique natural and social environment of Hawai'i.

4.3 City and County of Honolulu Regulations

4.3.1 City and County of Honolulu General Plan

The Hawai'i State Plan (State of Hawai'i Office of Planning 1986) is implemented at the county level through county general plans. County general plans are detailed long-range plans that have been adopted by county councils. County general plans are developed with input from state and county agencies and the public, and must include information on land use, population density, public and community facilities, transportation and utilities, water and sewage systems, visitor destinations, and other topics applicable to the coordinated development of the county and regions within the county.

The General Plan for the City and County of Honolulu is a comprehensive statement of long-range social, economic, environmental, and design objectives for the welfare of O'ahu's people. The objectives contain statements of long-term desirable conditions, some of which can be achieved within an approximately 20-year time frame. The General Plan is also a statement of broad policies that facilitate the attainment of its objectives.

The plan focuses issues and policies pertaining to population, economic activity, natural environment, housing, transportation and utilities, energy, physical development and urban design, public safety, health and education, culture and recreation, and government operations and fiscal management.

The project is consistent with the below objectives.

Population

- Objective C, Policy 3: Manage physical growth and development in the urban-fringe and rural areas so that
 - o an undesirable spreading of development is prevented, and
 - their population densities are consistent with the character of development and environmental qualities desired for such areas.

Finding: The project would increase the population of an urban area by a negligible amount.

Natural Environment

• Objective A, Policy 1: Protect O'ahu's natural environment, especially the shoreline, valleys, and ridges, from incompatible development.

Finding: The proposed residential housing development is compatible with the surrounding residential development and is located within an urban land use area where this type of use is allowed. The proposed units would be located outside of the shoreline setback area and would not adversely impact shoreline habitats or resources (see Section 3.3).

• Objective A, Policy 3: Retain the Island's streams as scenic, aquatic, and recreation resources.

Finding: The proposed units would be located outside of the OHWM and riparian setback for Kaunala Stream, and erosion and spill control BMPs would be implemented during construction to avoid and minimize potential indirect impacts to streams. All disturbed soils would be replaced and stabilized, and landscaping would be installed around the proposed units to stabilize soils and prevent erosion over the long term (See Section 3.1).

• Objective A, Policy 4: Require development projects to give due consideration to natural features such as slope, flood and erosion hazards, water-recharge areas, distinctive land forms, and existing vegetation.

Finding: Site-specific conditions related to topography, coastal hazards, water resources, and vegetation were considered during project design and areas containing protected resources or hazards were excluded from the proposed footprint of development to minimize environmental impacts and hazards (see Sections 3.1, 3.3, 3.4, and 3.10).

• Objective A, Policy 5: Require sufficient setbacks of improvements in unstable shoreline areas to avoid the future need for protective structures.

Finding: The proposed units would be located outside of the shoreline setback area and would not contribute to shoreline erosion (see Section 3.3).

• Objective A, Policy 6: Design surface drainage and flood-control systems in a manner that will help preserve their natural settings.

Finding: The project's design features and construction would include suitable BMPs to prevent flooding and erosion, as described in the ESCP.

• Objective A, Policy 7: Protect the natural environment from damaging levels of air, water, and noise pollution

Finding: Construction of the project would temporarily increase air emissions and noise levels within the immediate project area but would not result in any long-term adverse impacts to air or noise (see Sections 3.2 and 3.9). Construction impacts to noise and air would be minimized through BMPs. Additionally, the project has been designed to avoid development within any water resources (i.e., Kaunala Stream) and erosion and spill control BMPs would be implemented during construction to avoid and minimize potential indirect impacts to streams. All disturbed soils would be replaced and stabilized and landscaping will be installed around the proposed units to stabilize soils and prevent erosion over the long term (see Section 3.1).

• Objective A, Policy 8: Protect plants, birds, and other animals that are unique to the State of Hawai'i and the Island of O'ahu.

Finding: Biological resource surveys were performed at the project area on March 30, 2021, to document flora and fauna species and assess the site's potential to provide habitat for special-status species (see Appendix C). The project area is largely disturbed from previous land use and is dominated by plant species that are not native to Hawai'i. No federally and state-listed threatened, endangered, or candidate plant species or rare native Hawaiian plant species were observed in the survey area.

Although no special-status wildlife species are known to occur within the project area, potential habitat for Hawaiian hoary bat, Hawaiian monk seal, and sea turtles occurs within the project area. In order to prevent impacts to these species during construction, regular on-site staff would be trained to identify special-status fauna with the potential to occur on-site and would know the appropriate measures to be taken if they are present. Species-specific avoidance and minimization measures are described in Section 3.4.2.

No long-term impacts to wildlife species are anticipated to result from the proposed new units since they would be located within previously disturbed habitats and would have no effect on the long-term health and function of adjacent coastal and riparian habitats where most wildlife species are expected to occur.

• Objective B, Policy 2: Protect O'ahu's scenic views, especially those seen from highly developed and heavily traveled areas.

Finding: In accordance with the DPP's *Content Guide for Preparing an Environmental Assessment*, four KOPs were identified to assess impacts on views from surrounding public viewpoints and from the nearest coastal highway toward the ocean. Since views of the project from Kamehameha Highway (State Route 83) would be completely screened, the visual analysis focused on views from the shoreline (Kaunala Beach) and from adjacent residences, including those along Makanale Street.

The proposed units and associated landscaping would be visually consistent with the surrounding residential landscape setting. In general, the visual contrast of the proposed dwellings would be most prominent over the short term, before the ornamental landscaping has matured. After the ornamental landscaping has matured, the project would become visually subordinate in this residential landscape setting resulting and would have little visual impact over the long term. The impacts on landscape character and views from the KOPs along Kaunala Beach would be reduced by planting trees or shrubs between the beach and the proposed dwellings to soften the visual contrast introduced and match the area's residential landscape character. Additionally, impacts on landscape character would be further reduced by maintaining the dense vegetation along Kaunala Gulch, which defines this distinct linear landscape element and screens views of the project to the east and southeast, including potential views from State Route 83 (see Section 3.8).

Housing

• Objective B, Policy 2: Discourage private developers from acquiring and assembling land outside of areas planned for urban use.

Finding: The proposed project is located in an urban area.

• Objective C, Policy 1: Encourage residential developments that offer a variety of homes to people of different income levels and to families of various sizes.

Finding: The proposed housing units would provide housing options that are consistent with the income level/family sizes of the neighborhood in which they are located.

• Objective C, Policy 4: Encourage residential development in areas where existing roads, utilities, and other community facilities are not being used to capacity.

Finding: The proposed housing units are located in an existing residential neighborhood with existing utility connections, roads, and community facilities that are not being used to capacity.

Transportation and Utilities

• Objective B, Policy 4: Encourage a lowering of the per-capita consumption of water and the percapita production of waste.

Finding: The proposed housing units would be equipped with water-saving appliances and devices wherever possible, such as toilets and showerheads.

• Objective B, Policy 5: Provide safe, efficient, and environmentally sensitive waste collection and waste disposal services.

Finding: The houses will use an aerobic wastewater system that is approved by the DOH. The system is specifically engineered to be highly efficient and deliver an end product that is 100% environmentally safe.

• Objective D, Policy 5: Require the installation of underground utility lines wherever feasible.

Finding: Since the project area has been previously developed, new utility infrastructure would not be required and existing utility infrastructure (i.e., utility poles) would be utilized for new utility connections.

• Objective E, Policy 2: Foster the development of an energy conservation ethic among O'ahu residents.

Finding: The proposed housing units would be equipped with energy-saving appliances wherever possible, such as LED lights.

Physical Development and Urban Design

- Objective E, Policy 5: Require new developments in stable, established communities and rural areas to be compatible with the existing communities and areas.
- Objective E, Policy 9: Design public structures to meet high aesthetic and functional standards and to complement the physical character of the communities they will serve.

Finding: The proposed units and associated landscaping would be visually consistent with the surrounding residential landscape setting (see Section 3.4.2). Landscaping at the site would include native flora.

Public Safety

• Objective B, Policy 2: Require all developments in areas subject to floods and tsunamis to be located and constructed in a manner that will not create any health or safety hazard.

Finding: The units' foundations are designed to conform and exceed all FEMA and National Flood Insurance programs and requirements. Micropiles for the foundations would be drilled under every structural point load to the depth of the substrate/coral reef approximately 12 to 20 feet below grade. This design ensures that the dwellings will withstand the impact and remain intact under worst-case disaster scenarios.

Culture and Recreation

• Objective B, Policy 2: Identify, and to the extent possible, preserve and restore buildings, sites, and areas of social, cultural, historic, architectural, and archaeological significance.

Finding: The 2001 archaeological inventory survey found no historic properties on the portion of the subject property that is currently planned for residential units. The area has previously been cleared and graded and no extant surface historic properties are present within the planned construction area. The units will be constructed utilizing a micropile system that is intended to minimize subsurface disturbance.

4.3.2 Revised Ordinance of Honolulu

4.3.2.1 LAND USE ORDINANCE (CHAPTER 21)

The City and County of Honolulu Land Use Ordinance (LUO), Chapter 21 of the ROH, regulates land use and development in accordance with adopted land use policies and plans, including the city's General Plan. The provisions of the LUO are also referred to as the zoning ordinance. The project area is located within the R-5 Residential zoning district, which is intended to provide areas for urban residential development, as stated in the LUO (Sec 21-3.70). According to LUO Table 21-3.2, detached two family dwellings are allowed with a minimum lot size of 7,500 square feet. Therefore, the proposed project constitutes an allowed use within the R-5 zoning district. The proposed lot is 53,667 square feet. The proposed project would comply with residential development standards outlined in LUO Article 3 (Sec 21-3.70-1) as well as applicable general development standards outlined under LUO Article 4. The following residential standards outlined in LUO Table 21-3.2 would be met:

- Setbacks: 10-foot front yard, and 5-foot side and rear yard
- Maximum building area: 50% of the lot
- Maximum building height: 25 to 30 feet

The project is also in compliance with the requirements set forth by Chapter 21A *Flood Hazard Areas* of the ROH. The new units would be above base flood elevations VE and AE.

4.3.2.2 SHORELINE SETBACKS (CHAPTER 23)

Chapter 23 of the ROH establishes standards and rules that apply to all shoreline areas of the city, and generally prohibits any construction or activity that may adversely affect beach processes, public access along the shoreline, or shoreline open space. ROH Sec 23-1.5 prohibits structures or activities in the shoreline area with exceptions granted for certain, minor structures or activities that do not affect shoreline processes or public access.

A revised shoreline survey is being completed that will be submitted to the DLNR for certification. A revised certified shoreline survey will be submitted to DPP as soon as it is approved by the DLNR, and will be included in the Final EA. The proposed units would be located 90 to 120 feet mauka of the shoreline area. Therefore, the project would be in compliance with shoreline setback requirements outlined under Chapter 23 of the ROH.

4.3.2.3 SPECIAL MANAGEMENT AREAS (CHAPTER 25)

Chapter 25 of the ROH regulates development within special management areas, including coastal zones and natural or historic wetlands. According to Sec 25-3.3, all development within the SMA is subject to review and approval by the agency and is subject to compliance with the objectives, policies, and guidelines set forth under Chapter 25 of the ROH. The project proponent requested an SMA determination from the City and County of Honolulu DPP in early 2021, and it was determined that the project would require an SMP based on the project's location within a shoreline parcel and the project's valuation in exceedance of \$500,000.00. Article 5 of the SMA regulations outlines submittal requirements for proposed developments seeking an SMP. The applicant has submitted all required materials outlined under Article 5, including but not limited to the information contained in this EA.

In accordance with Sec 25-6.3, special requirements applicable to shoreline lots, all exterior lighting for the proposed housing units would be shielded to reduce potential impacts to wildlife, and all landscaping and irrigation would be contained and maintained within the property boundaries and would not extend into the shoreline area.

4.4 Community Plans

4.4.1 North Shore Sustainable Communities Plan

The North Shore Sustainable Communities Plan (NSSCP) provides policies and guidelines for future development along the North Shore. The NSSCP covers an area that extends from Ka'ena Point to Waiale'e Gulch, with the shoreline defining the northern edge and the slopes of the Wai'anae and

Ko'olau Mountain Ranges defining the southern edge. The NSSCP Vision Statement focuses on retaining unique qualities that define the North Shore's attractiveness to residents and visitors alike, including coastal resources, scenic open spaces, and the community's heritage. While the region is to remain "country," a mix of housing units is desired to meet the needs of residents, in a manner consistent with rural design and principles of sustainability (DPP 2011).

The project is consistent with the below objectives.

Open Space and Natural Environment

- Discourage development or activities which result in beach loss, and encourage development practices or activities such as increased shoreline setbacks which result in beach preservation or enhancement.
- **Finding:** The proposed residential housing development would be located outside of the shoreline setback area and would not adversely impact shoreline habitats or resources (see Section 3.3).
- Require buildings along the shoreline to adhere to the City's and Federal Emergency Management Agency (FEMA) minimum building elevations and structural guidelines. In addition, adopt development standards that require new structures to incorporate building styles compatible with coastal hazards such as coastal erosion, tsunami and hurricane overwash.

Finding: The units' foundations are designed to conform and exceed all FEMA and National Flood Insurance programs and requirements. Micropiles for the foundations would be drilled under every structural point load to the depth of the substrate/coral reef approximately 12 to 20 feet below grade. This design ensures that the dwellings will withstand the impact and remain intact under worst-case disaster scenarios.

 Minimize soil erosion, runoff of pesticides, fertilizers and other nonpoint source contaminants into streams, wetlands, and marine habitats. In addition to stream setback, utilize erosion control devices, integrated pest management plans, and revegetation of disturbed areas. Incorporate erosion control measures and best management practices, as recommended in the State Coastal Nonpoint Pollution Control Program, to prevent pollution of wetlands, streams, estuaries, and nearshore waters.

Finding: The proposed units would be located outside of the OHWM and riparian setback for Kaunala Stream, and erosion and spill control BMPs would be implemented during construction to avoid and minimize potential indirect impacts to streams, as described in the ESCP. All disturbed soils would be replaced and stabilized, and landscaping would be installed around the proposed units to stabilize soils and prevent erosion over the long term (see Section 3.3).

• Adopt outdoor night lighting standards that encourage efforts to minimize glare and stray light, and reinforce the differences between urban and rural communities.

Finding: All outdoor lights would be fully shielded so bulbs could only be seen from below, and all outdoor lights would be turned off when human activity is not occurring (or motion sensors would be installed). All permanent outdoor lighting would be shielded using a seabird-friendly light style that also protects the dark, starry skies of Hawai'i.

• Encourage the use of indigenous vegetation that is slow growing and thus minimizes the need to use herbicides for vegetation control.

Finding: Proposed landscaping would consist of native Hawaiian plants or non-invasive plants to the maximum extent possible. If native plants do not meet landscaping objectives, plants with a low risk of becoming invasive would be substituted.

Historic and Cultural Resources

• Consider the particular qualities of a site and its relationship to its physical surroundings when determining the appropriate treatment for a site. Determine appropriate preservation measures, site boundaries and setbacks, and development restrictions on a site-by-site basis in consultation with the State Historic Preservation Division.

Finding: The 2001 AIS found no historic properties on the portion of the subject property that is currently planned for residential units. The area has previously been cleared and graded and no extant surface historic properties are present within the planned construction area. The units will be constructed utilizing a micropile system that is intended to minimize subsurface disturbance. As part of the permitting process for the current project, the project proponent will initiate HRS 6E-42 historic preservation review for the project through the SHPD.

Rural Residential Communities

• Densities range from five to eight units per acre, or up to 10 units per acre for alternative development options which enhance rural character and maximize consolidated, usable open space.

Finding: Two units would be constructed on a parcel that is 1.23 acres, and both units would be located toward the mauka side of the property. The project would not impact any public open space resources.

• Use rural development standards to determine appropriate scale and character, smaller building footprints, greater setbacks, and more landscaping (use of hedges to create walls and grassed front yards, and rural roadways with no sidewalk, curbs, and gutters).

Finding: The proposed residential housing development is compatible with the surrounding residential development. The footprint for construction of both dwellings would be placed 90 to 120 feet mauka from the shoreline and would be entirely outside of the 3.2-foot sea level rise inundation area. The proposed units and associated landscaping would be visually consistent with the surrounding residential landscape setting. Landscaping at the site would include native flora.

• Avoid monotonous rows of garages and driveways along neighborhood street frontages by employing features such as varied building setbacks and shared driveways.

Finding: The project would include two garages with different setbacks and a shared driveway.

• Plan and design new or infill housing development, as well as modifications to existing homes, to be generally compatible with the predominant form and character of existing homes on adjacent properties and with the neighborhood as a whole.

Finding: The proposed residential housing development is compatible with the surrounding residential development and income level/family sizes of the neighborhood.

• Use plantation architectural features such as pitched roofs in varied forms, exterior colors and finishes, building orientation, floor plans and architectural details to provide visual interest and

individual identity and accentuate the rural setting. In general, buildings are to be less than two stories or 25 feet, although the height may vary in response to required flood elevation, slope, or other physical site constraints.

Finding: The architecture style of the proposed project is Hawaii-Modern. Natural woods and earth-toned colors would be used for both units, and neither unit is greater than 25 feet above base flood elevation, as per building code.

5 FINDINGS AND ANTICIPATED DETERMINATION

5.1 Significance Criteria

A FONSI is anticipated for this project, based on the following analysis:

1. No irrevocable commitment to loss or destruction of any natural or cultural resource would result.

The project is not expected to irrevocably commit to the loss or destruction of any natural or cultural resources. The project area has been previously disturbed, and the proposed units have been designed to avoid sensitive and protected resource areas. BMPs would be implemented during construction to further avoid or minimize potential construction impacts to natural or cultural resources.

2. The Proposed Action would not curtail the range of beneficial uses of the environment.

The project is not expected to curtail the range of beneficial uses of the environment.

3. The Proposed Action would not conflict with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, Hawai'i Revised Statutes.

The project would be in conformance with the State's long-term environmental policies and goals expressed under HRS 344 (see Section 4.2.5).

4. The Proposed Action would not substantially affect the economic or social welfare of the community or State.

The project is not anticipated to cause substantial, adverse effects to the economic or social welfare of the community or State. The project would increase tax revenue for the City and will create temporary jobs during construction.

5. The Proposed Action would not affect public health.

The project is not anticipated to affect public health.

6. No substantial secondary impacts, such as population changes or effects on public facilities, are expected.

The project is not expected to result in substantial secondary impacts to population or public facilities.

7. No substantial degradation of environmental quality is expected due to the Proposed Action.

The project is not anticipated to cause substantial degradation of environmental quality.

8. No cumulative effect on the environment or commitment to larger actions would be involved.

The project is not anticipated to have adverse cumulative environmental effects and it is not linked to any larger action.

9. No rare, threatened, or endangered species or their habitats would be adversely affected.

Although no special-status species are known to occur within the project area, potential habitat for Hawaiian hoary bat, Hawaiian monk seal, and sea turtles occurs within the project area. In order to prevent impacts to these species during construction, regular on-site staff would be trained to identify special-status fauna with the potential to occur on-site and would know the appropriate measures to be taken if they are present. Long-term impacts are not anticipated. Therefore, it is not anticipated that the project would adversely impact any rare, threatened, or endangered species or their habitats.

10. The Proposed Action would not detrimentally affect air or water quality, or ambient noise levels.

The project is not anticipated to adversely affect air or water quality or ambient noise levels. Construction of the project would temporarily increase air emissions and noise levels within the immediate project area, but would be minimized through BMPs. The project has been designed to avoid development within any water resources (i.e., Kaunala Stream) and erosion and spill control BMPs would be implemented during construction to avoid and minimize potential indirect impacts to streams. Compliance with all state and local regulations would be followed to ensure that the impacts are less than significant.

11. The Proposed Action would not detrimentally affect environmentally sensitive areas such as floodplains, tsunami zones, beaches, erosion-prone areas, geologically hazardous lands, estuaries, fresh waters, or coastal waters.

The project has been designed to avoid impacts to, and development within, environmentally sensitive areas including costal hazard areas, coastal shorelines and setbacks, waters features, and riparian buffers, and the units would be above the base flood elevations VE and AE. BMPs would be implemented to minimize potential erosion due to construction activities.

12. The Proposed Action would not substantially affect scenic vistas and view planes identified in county or state plans or studies.

The project would not adversely impact scenic vistas and view planes. The proposed units and associated landscaping would be visually consistent with the surrounding residential landscape setting.

13. There would be no requirement for substantial energy consumption.

The project would not require substantial energy consumption. The proposed houses would increase energy consumption within the overall community by small amount, and energy saving appliances would be utilized.

5.2 Anticipated Determination

Based on a review of the significance criteria in HRS Chapter 343, and HAR Section 11-200.1-13, it is anticipated that the project would not result in significant adverse effects on the natural or human environment.

6 CONSULTATION

Pre-assessment consultation letters were mailed on August 26, 2021, to the stakeholders listed in Table 4 as part of the scoping process. Copies of all pre-assessment consultation responses are provided in Appendix D. The applicant will present on the project during the North Shore Neighborhood Board monthly meeting and the Sunset Beach Community Association monthly meeting. Any comments received on the Draft EA during the 30-day public review period will be addressed in and appended to the Final EA.

Table 4. Stakeholders Consulted

	Pre-Assessment	Comments Received	Draft EA
Federal Agencies			
U.S. Fish and Wildlife Service	Х	х	Х
National Marine Fisheries Service	Х		Х
U.S. Army Corps of Engineers	Х		Х
State of Hawai'i Agencies			
Department of Health	Х	х	Х
Department of Land and Natural Resources (DLNR)	Х	х	Х
DLNR State Historic Preservation Division	Х		Х
Public Utilities Commission	Х		Х
Office of Hawaiian Affairs	Х		х
City and County of Honolulu			
Department of Environmental Services	Х		х
Board of Water Supply	Х	Х	х
Fire Department (Fire Station 11 Sunset Beach)	Х		х
Police Department (Kahuku Police Station)	Х		Х
Department of Parks and Recreation	Х		х
Department of Planning and Permitting	Х	Х	х
Department of Design and Construction	Х	Х	Х
Elected Officials			
U.S. Senator Brian Schatz	Х		Х
U.S. Senator Mazie Hirono	Х		х
U.S. Representative Kaiali'i Kahele	Х		х
State Senator Gil Riviere	Х	Х	х
State Representative Sean Quinlan	Х		х
Council Member Heidi Tsuneyoshi	Х		х
Neighborhood Board Chair Kathleen Pahinui	Х	Х	Х
Other			
Sunset Beach Community Association	X	X	X
Island Burial Council of Oʻahu	X		X
Historic Hawai'i Foundation	X		х

	Pre-Assessment	Comments Received	Draft EA
Ke One O Kakuhihewa	Х		Х
Aha Moku o Oʻahu	Х		Х
Surfrider Foundation	Х		Х
Keep the North Shore Country	Х		Х
Hawaiian Telcom	Х		Х
Hawaiian Electric Company (HECO)	Х	х	Х

7 LITERATURE CITED

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APPENDIX A

Project Drawings



ISLAND MAP OF OAHU

NOT TO SCALE



WINEBARGER VELZYLAND







Tax Map Keys: 5-8-03:12, and 25 Scale: 1 inch = 40 feet Date: June 14, 2019 Owner: Makanale Investment LLC

NOTES:

1. Only improvements shown were located.

- Dashed lines indicated do not represent the boundary of a legally subdivided lot. They represent either a limited common element area or common element area.
 If this sheet is less than 11" X 17" it is
- If this sheet is less than 11" X 17", it is not to scale, the 11" X 17" sheet must be examined to obtain the accurate scale.
- The spatial coordinates identified in each of the LCE refer to a point at the center of each box shown on this map. The dimensions of each box is 6 feet X 6 feet X 6 feet.

All units must comply with all zoning and building ordinance and codes and othe permitting requirements pursuant to the Land Use Ordinance of the City and County of Honolulu.

5. LCE = Limited Common Element

Parcel 115 (TMK:5-8-03:115) KAMEHAMEHA

ADVANCE COPY SUBJECT TO CHANGE

This work was prepared by me or under my direct supervision.



SINCE 1930













NORTHEAST ELEVATION SCALE: 3/32" = 1'-0"



2 NORTHWEST ELEVATION SCALE: 3/32" = 1'-0"

WINEBARGER VELZYLAND









SOUTHEAST ELEVATION

SCALE: 3/32" = 1'-0"

2

WINEBARGER VELZYLAND

58-1 MAKANALE STREET | PUPUKEA | HALEIWA | OAHU | 96712 | TMK: 5-8-003:012



◆FLOOD LINE VE20

+31'-9" UPPER LEVEL







WINEBARGER VELZYLAND





WINEBARGER VELZYLAND





WINEBARGER VELZYLAND




WINEBARGER VELZYLAND





58-1 MAKANALE STREET | PUPUKEA | HALEIWA | OAHU | 96712 | TMK: 5-8-003:012

_25' MAX. BUILDING HEIGHT









WINEBARGER VELZYLAND





NORTHWEST ELEVATION

SCALE: 3/32" = 1'-0"

WINEBARGER VELZYLAND





WINEBARGER VELZYLAND





APPENDIX B

Protected Species Lists

From:	Brown, Narrissa P
To:	Stephanie Nagai
Cc:	Alexander Lau
Subject:	01EPIF00-2021-TA-0239 Response to Request for Technical Assistance for Residential Development at Makanale Street, Hale'iwa, Hawai'i
Date:	Thursday, April 8, 2021 1:26:22 PM
Attachments:	2021-TA-0239 Makanale Development Project Haleiwa Oahu.pdf

EXTERNAL: This email originated from outside SWCA. Please use caution when replying.

Dear Ms. Nagai,

Attached you will find the FWS Pacific Islands Fish and Wildlife Office's response to your species list request for the above named project.

We thank you for your efforts to conserve listed species and native habitats. Please contact me should you have any questions pertaining to this response or require further guidance. When referring to this project, please include this reference number: 01EPIF00-2021-TA-0239.

Narrissa P Brown (She/her/hers) Fish and Wildlife Biologist Oʻahu, Kauaʻi, Papahānaumokuākea, and American Samoa Island Team Pacific Islands Fish and Wildlife Office 300 Ala Moana Boulevard, Room 3-122 Honolulu, Hawaiʻi 96850 narrissa_brown@fws.gov office: (808) 792-9420



United States Department of the Interior

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



In Reply Refer To: 01EPIF00-2021-TA-0239 April 8, 2021

Ms. Stephanie Nagai Project Manager SWCA Environmental Consultants 1200 Ala Moana Boulevard, #380 Honolulu, Hawai'i 96814

Subject: Response to Request for Technical Assistance for Residential Development at Makanale Street, Hale'iwa, Hawai'i

Dear Ms. Nagai:

Thank you for your recent correspondence requesting technical assistance on species biology, habitat, or life requisite requirements. The Pacific Islands Fish and Wildlife Office (PIFWO) of the U.S. Fish and Wildlife Service (Service) appreciates your efforts to avoid or minimize effects to protected species associated with your proposed actions. We provide the following information for your consideration under the authorities of the Endangered Species Act (ESA) of 1973 (16 U.S.C. 1531 *et seq.*), as amended.

Due to significant workload constraints, PIFWO is currently unable to specifically address your information request. The table below lists the protected species most likely to be encountered by projects implemented within the Hawaiian Islands. Based on your project location and description, we have noted the species most likely to occur within the vicinity of the project area, in the 'Occurs In or Near Project Area' column. Please note this list is not comprehensive and should only be used for general guidance. We have added to the PIFWO website, located at https://www.fws.gov/pacificislands/promo.cfm?id=177175840 recommended conservation measures intended to avoid or minimize adverse effects to these federally protected species and best management practices to minimize and avoid sedimentation and erosion impacts to water quality. If your project occurs on the island of Hawai'i, we have also enclosed our biosecurity protocol for activities in or near natural areas.

If you are representing a federal action agency, please request an official species list following the instructions at our PIFWO website

INTERIOR REGION 9 COLUMBIA–PACIFIC NORTHWEST IDAHO, MONTANA*, OREGON*, WASHINGTON *PARTIAL INTERIOR REGION 12 Pacific Islands American Sāmoa, Guam, Hawai'i, Northern Mariana Islands <u>https://www.fws.gov/pacificislands/articles.cfm?id=149489558</u>. You can find out if your project occurs in or near designated critical habitat here: <u>https://ecos.fws.gov/ipac/.</u>

Under section 7 of the ESA, it is the Federal agency's (or their non-Federal designee) responsibility to make the determination of whether or not the proposed project "may affect" federally listed species or designated critical habitat. A "may affect, not likely to adversely affect" determination is appropriate when effects to federally listed species are expected to be discountable (i.e., unlikely to occur), insignificant (minimal in size), or completely beneficial. This conclusion requires written concurrence from the Service. If a "may affect, likely to adversely affect" determination is made, then the Federal agency must initiate formal consultation with the Service. Projects that are determined to have "no effect" on federally listed species and/or critical habitat do not require additional coordination or consultation.

Implementing the avoidance, minimization, or conservation measures for the species that may occur in your project area will normally enable you to make a "may affect, not likely to adversely affect" determination for your project. If it is determined that the proposed project may affect federally listed species, we recommend you contact our office early in the planning process so that we may assist you with the ESA compliance. If the proposed project is funded, authorized, or permitted by a Federal agency, then that agency should consult with us pursuant to section 7(a)(2) of the ESA. If no Federal agency is involved with the proposed project, the applicant should apply for an incidental take permit under section 10(a)(1)(B) of the ESA. A section 10 permit application must include a habitat conservation plan that identifies the effects of the action on listed species and their habitats and defines measures to minimize and mitigate those adverse effects.

We appreciate your efforts to conserve endangered species. We regret that we cannot provide you with more specific protected species information for your project site. If you have questions that are not answered by the information on our website, you can contact PIFWO at (808) 792-9400 and ask to speak to the lead biologist for the island where your project is located.

Sincerely,

Aaron Nadig Digitally signed by Aaron Nadig Date: 2021.04.08 12:30:44 -10'00'

Island Team Manager Pacific Islands Fish and Wildlife Office

Enclosures (2)

cc: Alex Lau, SWCA

The table below lists the protected species most likely to be encountered by projects implemented within the Hawaiian Islands. For your guidance, we have marked species that may occur in the vicinity of your project, this list is not comprehensive and should only be used for general guidance.

Scientific Name	tific Name Common Name /		May Occur In Project
	Hawalian Name	<u>Status</u>	<u>In Project</u> Area
Mammals			
Lasiurus cinereus semotus	Hawaiian hoary	E	\boxtimes
	bat/'ōpe'ape'a		
Reptiles			
Chelonia mydas	green sea turtle/honu	Т	\boxtimes
	- Central North Pacific		
	(DPS)		
Eretmochelys imbricata	hawksbill sea turtle/	E	\boxtimes
	honu 'ea or 'ea		
Birds			
Anas wyvilliana	Hawaiian duck/koloa	E	
Branta sandvicensis	Hawaiian goose/nēnē	Т	
Fulica alai	Hawaiian coot/'alae	E	\boxtimes
	ke'oke'o		
Gallinula galeata	Hawaiian gallinule/`alae	E	\boxtimes
sandvicensis			
Himantopus mexicanus knudseni	Hawaiian stilt/ae'o	E	\boxtimes
Oceanodroma castro	band-rumped storm-petrel	E	\boxtimes
	Hawai'i DPS/'akē'akē		
Pterodroma sandwichensis	Hawaiian petrel/'ua'u	E	\boxtimes
Puffinus auricularis newelli	Newell's shearwater/'a'o	Т	\boxtimes
Ardenna pacificus	wedge-tailed	MBTA	
	shearwater/'ua'u kani		
Buteo solitarius	Hawaiian hawk/'io	MBTA	
Gygis alba	white tern/manu-o-kū	MBTA	
Insects			
Hylaeus anthracinus	Yellow-faced bee	E	\boxtimes
Hylaeus longiceps	Yellow-faced bee	E	\boxtimes
Megalagrion xanthomelas	orangeblack Hawaiian	E	
	damselfly		
Megalagrion nigrohamatum	blackline Hawaiian	E	
nıgrolineatum	damselfly		

Enclosure 1. Federal Status of Animal Species

Plants				
<u>Scientific Name</u>	Common Name	Federal	Locations	<u>May</u>
	<u>or</u>	<u>Status</u>		Occur In
	Hawanan Name			<u>Project</u>
Abutilon menziesii	koʻoloaʻula	Е	O. L. M. H	
Achyranthes splendens	'ewa hinahina	E	0	
var. <i>rotundata</i>	e wa mhamha	Ľ	U U	
Bonamia menziesii	no common name	Е	K, O, L, M, H	
Canavalia pubescens	ʻāwikiwiki	Е	Ni, K, L, M	
Colubrina oppositifolia	kauila	Е	O, M, H	
Cyperus trachysanthos	pu'uka'a	Е	K, O	
Gouania hillebrandii	no common name	Е	Mo, M	
Hibiscus brackenridgei	ma'o hau hele	Е	O, Mo, L, M, H	
Ischaemum byrone	Hilo ischaemum	Е	K, O, Mo, M, H	
Isodendrion pyrifolium	wahine noho kula	Е	О, Н	
Marsilea villosa	ʻihiʻihi	Е	Ni, O, Mo	
Mezoneuron kavaiense	uhiuhi	Е	О, Н	
Nothocestrum breviflorum	'aiea	Е	Н	
Panicum fauriei var.	Carter's	Е	Molokini Islet (O),	
carteri	panicgrass		Мо	
Panicum niihauense	lau'ehu	E	K	
Peucedanum sandwicense	makou	E	K, O, Mo, M	
Pleomele (Chrysodracon)	halapepe	E	Н	
hawaiiensis	(·1 ·	Б	1 11	
Portulaca sclerocarpa	1h1	E	L, H	
Portulaca villosa	ʻihi	E	Le, Ka, Ni, O, Mo, M, L, H, Nihoa	
Pritchardia affinis	loulu	E	Н	
(maideniana)				
Pseudognaphalium	'ena'ena	E	Mo, M	
sanawicensium var. molokajense				
Scaevola coriacea	dwarf naupaka	Е	Mo, M, O	
Schenkia (Centaurium)	'āwiwi	Е	K. O. Mo. L. M	
sebaeoides			7 - 7 - 7 7	
Sesbania tomentosa	ʻōhai	Е	Ni, Ka, K, O, Mo, M,	
			L, H, Necker, Nihoa	
Tetramolopium rockii	no common name	Т	Mo	
Vigna o-wahuensis	no common name	E	Mo, M, L, H, Ka	

Enclosure 2. Federal Status of Plant Species

Location key: O=Oʻahu, K=Kauaʻi, M=Maui, H=island of Hawaiʻi, L=Lānaʻi, Mo=Molokaʻi, Ka=Kahoʻolawe, Ni=Niʻihau, Le=Lehua

From:	Joshua Rudolph - NOAA Federal
То:	Stephanie Nagai
Cc:	Alexander Lau; Stuart Goldberg - NOAA Federal; Ron Dean - NOAA Federal
Subject:	Re: Species request letter - Makanale Street project
Date:	Wednesday, March 24, 2021 1:51:47 PM
Attachments:	image001.png image002.png image003.jpg

EXTERNAL: This email originated from outside SWCA. Please use caution when replying.

Hi Stephanie,

Thanks for the information. As we discussed, even though a federal nexus hasn't been identified at this time, in preparation for your biological surveys in the area the species we'd expect that could potentially be present in the nearshore or that might bask/rest on the nearby shoreline would be: the central north pacific green sea turtle, hawksbill sea turtle, and hawaiian monk seal. I hope that gives you an idea of what may be encountered.

If a federal nexus is identified I'd recommend that the action agency reach out to USFWS as well. Their list of trust resources is different from ours and we share jurisdiction on sea turtles (USFWS are responsible for them on land whereas we are responsible for them in the water).

If no federal nexus is present, then ESA consultation would not be required.

Respectfully, -Josh

Joshua Rudolph, M.Sc.

Endangered Species Biologist Protected Resources Pacific Island Regional Office NOAA Fisheries | U.S. Department of Commerce Office: (808) 725-4518 www.fisheries.noaa.gov

From:	<u>Matsuoka, Koa</u>
То:	Alexander Lau
Cc:	Stephanie Nagai
Subject:	Re: Species request letter - Makanale street project
Date:	Monday, March 29, 2021 12:29:01 PM
Attachments:	image001.png

EXTERNAL: This email originated from outside SWCA. Please use caution when replying.

Aloha Alex,

Mahalo for your patience. There are no State listed plant or insect species known in the vicinity of the proposed project area.

The State listed Hawaiian Hoary Bat or 'Ōpe'ape'a (Lasiurus cinereus semotus) has the potential to occur in the vicinity of the project area and may roost in nearby trees. If any site clearing is required this should be timed to avoid disturbance during the bat birthing and pup rearing season (June 1 through September 15). If this cannot be avoided, woody plants greater than 15 feet (4.6 meters) tall should not be disturbed, removed, or trimmed without consulting DOFAW.

We note that artificial lighting can adversely impact seabirds that may pass through the area at night by causing disorientation. This disorientation can result in collision with manmade artifacts or grounding of birds. For nighttime lighting that might be required, DOFAW recommends that all lights be fully shielded to minimize impacts. Nighttime work that requires outdoor lighting should be avoided during the seabird fledging season from September 15 through December 15. This is the period when young seabirds take their maiden voyage to the open sea. For illustrations and guidance related to seabird-friendly light styles that also protect the dark. starry skies of Hawaiʻi please visit: https://dlnr.hawaii.gov/wildlife/files/2016/03/DOC439.pdf.

DOFAW recommends minimizing the movement of plant or soil material between worksites, such as in fill. Soil and plant material may contain invasive fungal pathogens (e.g. Rapid 'Ōhi'a Death), vertebrate and invertebrate pests (e.g. Little Fire Ants, Coconut Rhinoceros Beetles), or invasive plant parts that could harm our native species and ecosystems. We recommend consulting the O'ahu Invasive Species Committee at (808) 266-7994 in planning, design, and construction of the project to learn of any high-risk invasive species in the area and ways to mitigate spread. All equipment, materials, and personnel should be cleaned of excess soil and debris to minimize the risk of spreading invasive species. Gear that may contain soil, such as work boots and vehicles, should be thoroughly cleaned with water and sprayed with 70% alcohol solution to prevent the spread of Rapid 'Ōhi'a Death and other harmful fungal pathogens.

DOFAW recommends using native plant species for landscaping that are appropriate for the area (i.e. climate conditions are suitable for the plants to thrive, historically occurred there, etc.). Please do not plant invasive species. DOFAW recommends consulting the Hawai'i-Pacific Weed Risk Assessment website to determine the potential invasiveness of plants proposed for use in the project (<u>https://sites.google.com/site/weedriskassessment/home</u>). We recommend that you refer to <u>www.plantpono.org</u> for guidance on selection and evaluation for landscaping plants.

We appreciate your efforts to work with our office. Should the scope of the project change significantly, or should it become apparent that threatened or endangered species may be impacted, please contact us.

Mahalo,

Коа

Koa Matsuoka Protected Species Habitat Conservation Planning Associate Pacific Cooperative Studies Unit in cooperation with Department of Land and Natural Resources Division of Forestry and Wildlife 1151 Punchbowl Street, Room 325 Honolulu, HI 96813

APPENDIX C

Biological Resources Technical Memorandum



1200 Ala Moana Boulevard, #380 Honolulu, Hawaii 96814 Tel 808.548.7922 Fax 808.548.7923 www.swca.com

TECHNICAL MEMORANDUM

То:	John and Fumie Winebarger
From:	SWCA Environmental Consultants
Date:	May 2021
Re:	Makanale Development Project: Biological Survey

LOCATION

The survey area is in the Ko'olauloa District, on the north side of the island of O'ahu, at the end of Makanale Street in Sunset Beach. The survey area is located within TMK 5-8-003:012 and is bordered by coastline to the north, Kaunala Stream to the north and east, and private properties to the south and west.

METHODS

SWCA reviewed available scientific and technical literature regarding natural resources in and near the survey area. This literature review encompassed a thorough search of referenced scientific journals, technical journals and reports, environmental assessments, environmental impact statements, relevant government documents, U.S. Fish and Wildlife Service (USFWS) online data, and unpublished data that provide insight into the area's natural history and ecology. SWCA also reviewed available geospatial data, aerial photographs, and topographic maps of the survey area.

Flora

SWCA conducted a pedestrian flora (botanical) survey to document all vascular plant species and vegetation types present in the survey area. Areas more likely to support native plants (e.g., coral outcrops and shady areas) were more intensively examined.

Plants recorded during the survey are indicative of the season (rainy versus dry) and the environmental conditions at the time of the survey. It is likely that additional surveys conducted at a different time of the year would result in minor variations in the species and abundance of plants observed.

Fauna

Fauna surveys consisted of a meandering pedestrian (foot) ground survey of the survey area. Ground surveys were conducted on March 30, 2021 and consisted of visual observations (aided by 10×42 –mm binoculars) and auditory vocalization identifications. All birds, mammals, reptiles, amphibians, fish, and invertebrate species seen or heard, as well as any sign (scat or tracks), were noted. Field surveys for the endangered Hawaiian hoary bat, or 'ope'ape'a (*Lasiurus cinereus semotus*), were conducted by noting areas of suitable foraging and roosting habitat as indicators of potential presence; acoustic surveys were not conducted.

Ordinary High-Water Mark

SWCA biologists conducted the Ordinary High-Water Mark (OHWM) delineation fieldwork on March 30, 2021, by visually assessing conditions at the site for the OHWM criteria described in the *Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (Lichvar and McColley 2008) and its updated datasheet (Curtis and Lichvar 2010), as well as the U.S. Army Corps of Engineers (USACE) Regulatory Guidance Letter 05-05 (USACE 2005). Indicators of an OHWM can be physical or vegetative and include benches, shelving, drift lines, natural lines impressed on the bank, changes in the character of soil, transitions in vegetation type and density, destruction of terrestrial vegetation (matted-down vegetation), sediment deposition, presence of litter and debris (drift), presence of wrack lines, multiple observed flow events, scour, sediment sorting, and water staining (Lichvar and McColley 2008; USACE 2005).

RESULTS

Flora

No federally and state-listed threatened, endangered, or candidate plant species or rare native Hawaiian plant species were observed in the survey area. In all, 31 plant species were recorded in the survey area, five of which are native to the Hawaiian Islands. Table 1 provides a list of all plant species observed by an SWCA botanist during the March 30, 2021, survey.

The vegetation in the survey area consists of four vegetation types: ruderal (Figure 1), non-native grassland (Figure 2), riparian, and coastal vegetation.

Invasive Species

One of the non-native species occurring in the survey area, devil weed (*Chromolaena odorata*), warrants special attention. Local natural resource management agencies have been actively managing a population of this species in the area, including the population within the survey area (Figure 3). This species is not known to occur on any other islands and is not yet widespread on O'ahu. It has been prioritized for management due to its expected negative impacts to native ecosystems, agriculture, and human health, as well as the expectation that it will spread to new areas and islands. It has been designated as a Hawai'i noxious weed (Hawai'i Department of Agriculture 2003).

Family	Scientific Name and Authorship	Status*	Hawaiian and/or Common Name
Monocots			
Arecaceae	Cocos nucifera L.	Р	niu, ololani, coconut
Cyperaceae	Cyperus rotundus L.	Х	nut grass, kiliʻoʻopu, mauʻu mokae
Poaceae	Cenchrus echinatus L.	Х	common sandbur, 'ume'alu, mau'u kukū
Poaceae	Chloris barbata Sw.	Х	swollen fingergrass, mauʻu lei
Poaceae	Cynodon dactylon (L.) Pers.	Х	Bermuda grass, mānienie, mānienie haole
Poaceae	Sporobolus virginicus (L.) Kunth	I	ʻakiʻaki, ʻaki, mahiki, māhikihiki, mānienie, mānienie ʻaki'aki, mānienie māhikihiki, mānienie maoli, seashore rushgrass
Poaceae	<i>Stenotaphrum secundatum</i> (Walter) Kuntze	Х	St. Augustine grass, buffalo grass, ʻakiʻaki haole, mānienie ʻaki'aki, mānienie ʻaki'aki haole, mānienie māhikihiki

Table 1. Plants Observed by SWCA in and near the Survey Area

Family	Scientific Name and Authorship	Status*	Hawaiian and/or Common Name
Poaceae	Urochloa maxima (Jacq.) R.D.Webster	Х	Guinea grass
Poaceae	Urochloa mutica (Forssk.) T.Q.Nguyen	Х	California grass, Para grass
Dicots			
Acanthaceae	Asystasia gangetica (L.) T.Anderson	Х	Chinese violet, coromandel
Aizoaceae	<i>Tetragonia tetragonioid</i> es (Pall.) Kuntze	Х	New Zealand spinach
Asteraceae	<i>Bidens alba</i> var. <i>radiata</i> (Sch.Bip.) Ballard ex Melchert	Х	Spanish needle, beggartick
Asteraceae	Sonchus oleraceus L.	Х	sow thistle, pualele
Boraginaceae	Heliotropium procumbens var. depressum (Cham.) Fosberg	Х	
Casuarinaceae	Casuarina equisetifolia L.	Х	common ironwood, paina
Combretaceae	Terminalia catappa L.	Х	tropical almond, Indian almond, false kamani, kamani haole, kamani 'ula
Convolvulaceae	Ipomoea obscura (L.) Ker Gawl.	Х	morning glory
Convolvulaceae	<i>lpomoea pes-caprae</i> subsp. <i>brasiliensis</i> (L.) Ooststr.	I	põhuehue, puhuehue, beach morning glory
Cucurbitaceae	Coccinia grandis (L.) Voigt	Х	ivy gourd, scarlet-fruited gourd
Cucurbitaceae	Momordica charantia L.	Х	balsam pear, bitter melon
Euphorbiaceae	Phyllanthus debilis Klein ex Willd.	Х	niruri
Fabaceae	Desmanthus pernambucanus (L.) Thell.	Х	slender mimosa, virgate mimosa
Fabaceae	Leucaena leucocephala (Lam.) de Wit	Х	koa haole
Fabaceae	Medicago polymorpha L.	Х	bur clover
Goodeniaceae	Scaevola taccada (Gaertn.) Roxb.	I	naupaka kahakai, huahekili, naupaka kai, auaka (Ni'ihau)
Malvaceae	Hibiscus tiliaceus L.	I	hau
Malvaceae	Thespesia populnea (L.) Sol. ex Corrêa	I	milo, portia tree
Polygonaceae	Coccoloba uvifera (L.) L.	Х	sea grape
Primulaceae	Anagallis arvensis L.	Х	scarlet pimpernel, poor man's weatherglass
Rubiaceae	Morinda citrifolia L.	Р	noni, Indian mulberry
Turneraceae	Turnera ulmifolia L.	Х	yellow alder

Source: The taxonomy and nomenclature used in this table are in accordance with Wagner et al. (1999), and Wagner and Herbst (2003). Recent name changes are those recorded in Wagner et al. (2012).

Note: P-Polynesian introduced, I- indigenous, X- non-native.



Figure 1. Typical ruderal vegetation in the survey area.



Figure 2. Non-native grassland vegetation in the foreground, with riparian vegetation in the background.



Figure 3. Devil weed (Chromolaena odorata) in the survey area.

Fauna

No federally and state-listed threatened, endangered, or candidate species were observed in the survey area. However, some special-status species have the potential to occur in and/or transit through the survey area. These include federally endangered Hawaiian hoary bat (*Lasiurus cinereus* subsp. *semotus*), Hawaiian monk seal (*Neomonachus schauinslandi*), sea turtles including Hawksbill Sea Turtle (*Eretmochelys imbricata*), and the threatened Green Sea Turtle (*Chelonia mydas*). The adjacent shoreline provides habitat for the Hawaiian monk seals and sea turtles to haul out to rest. The Hawaiian hoary bat may roost in nearby trees.

Mammals observed include dogs (*Canis familiaris*), and habitat for species such as feral cat (*Felis catus*), small Indian mongoose (*Herpestes javanicus*), house mouse (*Mus musculus*), and rat (*Rattus spp.*). Insects

and other invertebrates observed include wandering glider dragonfly (*Pantala flavescens*) and honeybee (*Apis mellifera*).

Four species of birds were observed by SWCA in and near the survey area. Table 2 presents a list of these species.

Common Name	Scientific Name	Status⁺	MBTA [†]
Common myna	Acridotheres tristis	NN	-
Red-vented bulbul	Pycnonotus cafer	NN	_
Red-crested cardinal	Paroaria coronata	NN	_
Spotted dove	Streptopelia chinensis	NN	_
Total		4	0

Table 2. Birds Observed by SWCA in and near the Survey Area

Note:

* Status designations: M = migrant; NN = non-native permanent resident.

[†]MBTA = protected under the Migratory Bird Treaty Act

Ordinary High-Water Mark

Indicators of an OHWM were observed in the survey area, which includes a portion of Kaunala Stream, and a delineation of OHWM was performed. Figure 4 shows the boundaries of the OHWM for Kaunala Stream. Standing water was observed with a bank, drift deposits, lack of vegetation, and change in sediment composition throughout various sections of the OHWM (Figures 5 through 7). A change in soil type and texture occurs where the stream bank transitions to the coastal zone, and the bed and bank are dominated by sand. In this coastal zone, the location of the OHWM is influenced by the Mean Higher High-Water mark and the shifting of sand as it accumulates and erodes in the area. The primary indicator of the OHWM in this area was a break in slope. Collecting field data to delineate the OHWM was not feasible beyond a certain point in the mauka portion of the survey area. For these areas we delineated the OHWM using 5-foot contour data (City and County of Honolulu 2003).



Figure 4. Delineation of the OHWM in the survey area.



Figure 5. Standing water, change in vegetation, change in sediment composition, and bank features in a portion of Kaunala Stream in the survey area.



Figure 6. Drift deposits in the survey area.



Figure 7. Kaunala Stream and the transition to coastal conditions near the Pacific Ocean.

RECOMMENDATIONS

Flora

Vegetation in the survey area is largely disturbed from previous land use and is dominated by plant species that are not native to Hawai'i. Other weedy species likely invaded from surrounding areas following disturbance. Special-status species do not occur within the survey area.

Weedy, non-native plant species are common in the survey area. Most of these weedy species are widespread in Hawai'i, and their control is not expected to result in a significant decrease in their number or distribution. Construction activities are known to spread invasive species to new areas through the movement of vehicles and materials. Due to the presence of these weeds, as well as the Hawai'i state-listed noxious weed, devil weed, SWCA recommends the following invasive species minimization measures to avoid the unintentional introduction or transport of new invasive plant species to or from the Island of O'ahu and/or the survey area:

- Excess soil, mulch, or other materials from land clearing or roadway construction must not leave the site to prevent the spread of invasive species, including devil weed, to new areas of O'ahu or to other islands.
- When possible, raw materials (e.g., fill and construction materials) should be purchased from a local supplier to avoid introducing non-native species not present on the island.
- All construction equipment and vehicles should be washed and inspected before entering or exiting the survey area.
- Construction materials should also be washed and/or visually inspected (as appropriate) for excessive debris, plant materials, and invasive or harmful non-native species (plants, amphibians, reptiles, and insects).

• Inspection and cleaning activities should be conducted at a designated location. The inspector should be a qualified botanist and/or entomologist who is able to identify invasive species that are of concern relevant to the point of origin of the equipment, vehicle, or material.

If landscaping occurs as part of the project, native Hawaiian plants or non-invasive plants should be used to the maximum extent possible. If native plants do not meet landscaping objectives, plants with a low risk of becoming invasive could be substituted. Additional information on selecting appropriate plants for landscaping can be obtained from the following online sources:

- <u>https://plantpono.org/pono-plants/</u>
- <u>http://www.nativeplants.Hawaii.edu/</u>

Fauna

Regular on-site staff should be trained to identify special-status fauna with the potential to occur on-site and should know the appropriate measures to be taken if they are present. This section discusses species that may occur in the survey area and measures that should be followed to minimize potential impacts on these species.

Hawaiian Hoary Bat (Lasiurus cinereus subsp. semotus)

Little is known regarding threats to the Hawaiian hoary bat. The presumed decline of the species may be due to the decrease in canopy cover during historical and modern times (Nowak 1994; Tomich 1986). The main observed mortality of the Hawaiian hoary bat has been from bats snagging on barbed wire and colliding with wind turbines. Other threats may include pesticide use (Clark et al. 1978), and the introduction of non-native species such as introduced invertebrates, which alter the bat's possible prey composition (Beard et al. 2009; Bernard 2011). Direct impacts to bats could occur during vegetation removal if a juvenile bat that is too small to fly but too large to be carried by a parent is present in a tree or branch that is cut down. To prevent direct impacts to Hawaiian hoary bat, the following measures are recommended:

- If felling of standing trees occurs during the bat breeding season, direct impacts could occur to juvenile bats that are too small to fly but too large to be carried by a parent. To minimize this impact, no trees taller than 4.6 m should be trimmed or removed between June 1 and September 15.
- The use of barbless wire is recommended for all fence construction to avoid entanglement of Hawaiian hoary bat.

Hawaiian Monk Seal (Neomonachus schauinslandi) and Sea Turtles (Eretmochelys imbricata, Chelonia mydas)

- All regular on-site staff working in coastal strand vegetation will be trained to identify the Hawaiian monk seal and sea turtles and the appropriate steps to take if these species are present on-site.
- Construction activities will not take place if a Hawaiian monk seal or sea turtle is in the construction area or within 150 feet (46 m) of the construction area. Construction will only restart after the animal voluntarily leaves the area. If a monk seal/pup pair is present, a minimum 300-foot (91-m) buffer will be observed. If a Hawaiian monk seal or sea turtle is noticed after work has already begun, that work may continue only if, in the best judgment of the project's qualified biological monitor, there is no way for the activity to adversely affect the animal(s).

- When construction activities take place in the coastal strand vegetation type, any constructionrelated debris that may pose an entanglement threat to Hawaiian monk seals and sea turtles will be removed from the construction area at the end of each day and at the conclusion of the construction project.
- Workers will not attempt to feed, touch, ride, or otherwise intentionally interact with any listed species.

Ordinary High-Water Mark

The portion of Kaunala Stream in the survey area appears to have connectivity to the Pacific Ocean, though direct connectivity was not observed during the survey. Based on these observations, 'Aiea Stream appears to be a tributary to Traditional Navigable Waters (TNW) (within a close enough proximity to have chemical, biological, or hydrological influence on the TNW) and is therefore likely subject to USACE jurisdiction under the Clean Water Act and the Navigable Waters Protection Rule.

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APPENDIX D

Pre-Assessment Consultation Responses

DAVID Y. IGE GOVERNOR OF HAWAII





SUZANNE D. CASE CHAIRPERSON BOARD OF LAND AND NATURAL RESOURCES COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES LAND DIVISION

POST OFFICE BOX 621 HONOLULU, HAWAII 96809

September 13, 2021

LD 0984

SWCA Environmental Consultants 1200 Ala Moana Blvd., #380 Honolulu, HI 96814

Via email: snagai@swca.com

Attn: Stephanie Nagai, Natural Resources Manager

To Whom It May Concern:

SUBJECT: Pre-Assessment Consultation for the Makanale Development Project Draft Environmental Assessment 58-2 Makanale Sreet, Haleiwa, Island of O'ahu, Hawai'i

Thank you for the opportunity to review and comment on the subject project. The Land Division of the Department of Land and Natural Resources (DLNR) distributed copies of your request to various DLNR divisions, as indicated on the attached, for their review and comment.

Attached are comments received from our (a) Division of Aquatic Resources (b) Engineering Division, and (c) Land Division, Oahu District. Should you have any questions, please feel free to contact Barbara Lee via email at barbara.j.lee@hawaii.gov. Thank you.

Sincerely,

Russell Tsuji

Russell Y. Tsuji Land Administrator

Attachments

Cc: Central Files

DAVID Y. IGE GOVERNOR OF HAWAI





SUZANNE D. CASE CHAIRFERSON BOARD OF LAND AND NATURAL RESOURCES COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES LAND DIVISION

POST OFFICE BOX 621 HONOLULU, HAWAII 96809

August 30, 2021

LD 0984

MEMORANDUM

FROM: TO:

TO:

DLNR Agencies:

X Div. of Aquatic Resources (via email: kendall.l.tucker @hawaii.gov) Div. of Boating & Ocean Recreation X Engineering Division (via email: DLNR.Engr@hawaii.gov) X Div. of Forestry & Wildlife (via email: rubyrosa.t.terrago@hawaii.gov) Div. of State Parks X Commission on Water Resource Management (via email: DLNR.CWRM@hawaii.gov) Office of Conservation & Coastal Lands X Land Division - Oahu District (via email: DLNR.Land@hawaii.gov) Russell Tsuji FROM: Russell Y. Tsuji, Land Administrator SUBJECT: Pre-Assessment Consultation for Draft Environmental Assessment for Makanale Development Project (as part of a Special Management Area **Permit Application Process**)

LOCATION: 58-2 Makanale Street, Hale'iwa, Island of Oahu, Hawaii; TMK: (1) 5-8-003:012 **SWCA Environmental Consultants** APPLICANT:

Transmitted for your review and comment is information on the above-referenced project. Please review the attached information and submit any comments by the internal deadline of 12:00 pm on September 13, 2021 to the Land Division at DLNR.Land@hawaii.gov, and copied to barbara.j.lee@hawaii.gov.

If no response is received by the above due date, we will assume your agency has no comments at this time. If you have any questions, please contact Barbara Lee at barbara.j.lee@hawaii.gov. Thank you.

()	We have no objections.
()	We have no comments.
()	We have no additional comments.
(√) med:	Comments are attached.
int Name:	Carty S. Chang, Chief Engineer
vision:	Engineering Division
te:	Sep 7, 2021

Attachments Cc: Central Files

Sig Pri Di Da

DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION

LD/Russell Y. Tsuji

Pre-Assessment Consultation for Draft Environmental Assessment for Ref: Makanale Development Project (as part of a Special Management Area **Permit Application Process**) Location: 58-2 Makanale Street, Haleiwa, Island of Oahu, Hawaii TMK(s): (1) 5-8-003:012 **Applicant: SWCA Environmental Consultants**

COMMENTS

The rules and regulations of the National Flood Insurance Program (NFIP), Title 44 of the Code of Federal Regulations (44CFR), are in effect when development falls within a Special Flood Hazard Area (high-risk areas). Be advised that 44CFR, Chapter 1, Subchapter B, Part 60 reflects the minimum standards as set forth by the NFIP. Local community flood ordinances may stipulate higher standards that can be more restrictive and would take precedence over the minimum NFIP standards.

The owner of the project property and/or their representative is responsible to research the Flood Hazard Zone designation for the project. Flood zones subject to NFIP requirements are identified on FEMA's Flood Insurance Rate Maps (FIRM). The official FIRMs can be accessed through FEMA's Map Service Center (msc.fema.gov). Our Flood Hazard Assessment Tool (FHAT) (http://gis.hawaiinfip.org/FHAT) could also be used to research flood hazard information.

If there are questions regarding the local flood ordinances, please contact the applicable County NFIP coordinating agency below:

- Oahu: City and County of Honolulu, Department of Planning and Permitting (808) 768-8098.
- Hawaii Island: County of Hawaii, Department of Public Works (808) 961-8327. 0
- Maui/Molokai/Lanai County of Maui, Department of Planning (808) 270-7139. \bigcirc
- Kauai: County of Kauai, Department of Public Works (808) 241-4849. 0

CARTY S. CHANG, CHIEF ENGINEER Signed: Sep 7, 2021

Date:

DAVID Y. IGE GOVERNOR OF HAWAII





SUZANNE D. CASE CHAIRPERSON BOARD OF LAND AND NATURAL RESOURCES COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES LAND DIVISION

POST OFFICE BOX 621 HONOLULU, HAWAII 96809

August 30, 2021

LD 0984

MEMORANDUM

TO:	DLNR Agencies:
	X Div. of Aquatic Resources (via email: kendall.l.tucker @hawaii.gov)
	Div. of Boating & Ocean Recreation
	X Engineering Division (via email: DLNR.Engr@hawaii.gov)
	X Div. of Forestry & Wildlife (via email: rubyrosa.t.terrago@hawaii.gov)
	Div. of State Parks
	X Commission on Water Resource Management (via email: DLNR.CWRM@hawaii.gov)
	Office of Conservation & Coastal Lands
	X Land Division – Oahu District (via email: DLNR.Land@hawaii.gov)
FROM:	Russell Y. Tsuji, Land Administrator
SUBJECT:	Pre-Assessment Consultation for Draft Environmental Assessment for
	Makanale Development Project (as part of a Special Management Area
	Permit Application Process)
LOCATION:	58-2 Makanale Street, Hale'iwa, Island of Oahu, Hawaii; TMK: (1) 5-8-003:012
APPLICANT:	SWCA Environmental Consultants

Transmitted for your review and comment is information on the above-referenced project. Please review the attached information and submit any comments by the internal deadline of 12:00 pm on September 13, 2021 to the Land Division at DLNR.Land@hawaii.gov, and copied to barbara.j.lee@hawaii.gov.

If no response is received by the above due date, we will assume your agency has no If you have any questions, please contact Barbara Lee at comments at this time. barbara.j.lee@hawaii.gov. Thank you.

()	We have no objections.
()	We have no comments.
()	We have no additional comments
(🗹) Signed:	Comments are attached.
Print Name	Brian J. Neilson-Administrator
Division:	Aquatic Resources
Date:	Sep 9, 2021

Attachments Cc: Central Files

DAVID Y. IGE GOVERNOR OF HAWAII





SUZANNE D. CASE CHARPERSON BOARD OF LAND AND NATURAL RESOURCES OMMISSION ON WATER RESOURCE MANAGEMENT

> ROBERT K. MASUDA FIRST DEPUTY

M. KALE O MANUEL DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES B GATING AND OCEAN RECREATION B UREAU OF CONVERTANCES COMMESSION ON WATER RESOURCE MANAGEMENT C CONSERVATION AND COASTAL LANDS CONSERVATION AND RESOURCES ENFORCEMENT ENGINEERING FORESTRY AND WILDLIFE HISTORIC PRESERVE COMMESSION LAND STATE PARES

STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES DIVISION OF AQUATIC RESOURCES 1151 PUNCHBOWL STREET, ROOM 330 HONOLULU, HAWAII 96813 Date: <u>9/8/2021</u> DAR # **AR0105**

MEMORANDUM

TO: Brian J. Neilson DAR Administrator

FROM: Kimberly Fuller , Aquatic Biologist

SUBJECT:Pre-Assessment Consultation for Draft Environmental Assessment for
Makanale Development Project (SMA Permit Application)

Request Submitted by: SWCA Environmental Consultants

58-2 Makanale Street, Hale'iwa, Island of Oahu, Hawaii; TMK: (1) 5-8-003:012

Location of Project:

Brief Description of Project:

SWCA Environmental Consultants are preparing a draft environmental assessment for proposed residential development at 58-2 Makanale Street, Hale'iwa, Hawai'i. This is a coastal Special Management Area lot northeast of Sunset Beach and falls under Coastal Zone Management regulations. It is a previously developed lot, although it appears as though no structures currently exist on the lot. The proposed construction includes two housing units, two swimming pools, two garages, and other landscaping elements. The units will be stabilized with a micropile system that is tied to substrate reef 12-20 ft below grade. The buildings will be built 18 inches higher than the flood line and 90 ft mauka of the shoreline (outside of the 3.2ft sea rise inundation zone).

Comments:

Comments Approved:

Thank you for providing DAR the opportunity to review and comment on the proposed project. Should there be any changes to the project plan, DAR requests the opportunity to review and comment on those changes.

m.In

Date: Sep 9, 2021

Brian J. Neilson DAR Administrator
DAR# **AR0105**

Brief Description of Project

A State of Hawai'i Department of Health- approved aerobic wastewater system will be used for liquid waste and solid waste will be picked up by the City and County. Utilities will be tied in from the boundary of the unit and parking stalls built will be off the street and within the parcel. Judging from satellite imagery, there is a freshwater/ brackish water source adjacent to the property that may connect or discharge into the ocean. DAR# **AR0105**

Comments

This is a pre-assessment request for comments, thus DAR needs more information to provide adequate comments.

Things to address in the Environmental Assessment:

Erosion and Land Based Source of Pollution (LBSP) Mitigation:

DAR recommends that best management practices for mitigation of erosion and LBSP be followed. The close proximity to the ocean and other natural waterways should be considered. Landscape design and leveling should be such that long term erosion and LBSP are minimized.

During construction these measures would include any type of barrier (e.g. sediment barriers/bags, petroleum absorption diapers, etc.) that limits the amount of sediment or LBSP (e.g. petroleum products, chemicals, debris, etc.) to the maximum extent practicable. DAR recommends that all construction materials be composed of environmentally inert materials to the extent practicable. The Contractor shall consider the weather while performing construction. Some work may be performed during low rain conditions, but all construction would be halted during storm conditions or when storm conditions threaten the watershed. There should be sufficient measures in place to prevent runoff from the construction site even under storm conditions.

DAR would like to request notification and photo-documentation of any occurrence where above-average amounts of sediment or pollution have entered the water, in order to assess impact, if any.

Protected Marine Species:

In the event that protected species such as the Hawaiian monk seal, other marine mammal or sea-turtle is observed in close proximity to the construction/repair site, and the activities being conducted may be considered as a "negligent or intentional act which results in disturbing or molesting a marine mammal". Contractors should take appropriate action to modify activities in order to avoid disturbance to the regular behavior and activities of the animal. Appropriate action would include but is not limited to ceasing construction activity until the animal leaves the area.

DAR# **AR0105**

Comments

Any interaction between a protected species and the construction and repair activity proposed should be reported to the NOAA Protected Species Division and State of Hawaii DOCARE:

NOAA Marine Mammal Response Coordinators (Oahu): 808-220-7802

NOAA Sea Turtles (Oahu): Monday-Friday, 7:30am-4pm NOAA National Marine Fisheries Service - PIFSC Marine Turtle Biology and Assessment Program: (808) 725-5730

State of Hawaii Department of Land and Natural Resources (DLNR) Division of Conservation and Resources Enforcement (DOCARE): 808-643-3567

Entanglement Prevention:

DAR recommends that applicant utilize best management practices to eliminate any potential for incidental entanglement of any marine organism. Entanglement prevention practices will include but are not limited to: minimizing the amount of in-water structures or components that may potentially cause entanglement during research operations (loops, holes, slack lines). Keeping potential entanglement hazards confined to the construction site and in a manner that would not allow them to enter coastal or marine habitat. If incidental entanglement of protected species occurs DAR and the appropriate federal agency should be notified immediately.

Construction:

DAR should be notified to assess impact should any event occur during construction that could negatively impact marine resources. Examples of this type of event include but are not limited to excess turbidity from construction, release of liquids such as oil or gas into the water, and live rock or coral damage.

DAVID Y. IGE GOVERNOR OF HAWAI





SUZANNE D. CASE CHARPERSON BOARD OF LAND AND NATURAL RESOURCES COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES LAND DIVISION

POST OFFICE BOX 621 HONOLULU, HAWAII 96809

August 31, 2021

LD 0984

MEMORANDUM

TO:

DLNR Agencies:

X Div. of Aquatic Resources (via email: kendall.l.tucker @hawaii.gov) Div. of Boating & Ocean Recreation X Engineering Division (via email: DLNR.Engr@hawaii.gov) X Div. of Forestry & Wildlife (via email: rubyrosa.t.terrago@hawaii.gov) Div. of State Parks X Commission on Water Resource Management (via email: DLNR.CWRM@hawaii.gov) X Office of Conservation & Coastal Lands (via email: sharleen.k.kuba@hawaii.gov) X Land Division - Oahu District (via email: DLNR. Land@hawaii.gov) Ruscall Toui

FROM:	Russell Y. Tsuji, Land Administrator
SUBJECT:	Pre-Assessment Consultation for Draft Environmental Assessment for
	Makanale Development Project (as part of a Special Management Area
	Permit Application Process)
LOCATION:	58-2 Makanale Street, Hale'iwa, Island of Oahu, Hawaii; TMK: (1) 5-8-003:012
APPLICANT:	SWCA Environmental Consultants

Transmitted for your review and comment is information on the above-referenced project. Please review the attached information and submit any comments by the internal deadline of 12:00 pm on September 13, 2021 to the Land Division at DLNR.Land@hawaii.gov, and copied to barbara.j.lee@hawaii.gov.

If no response is received by the above due date, we will assume your agency has no comments at this time. If you have any questions, please contact Barbara Lee at barbara.j.lee@hawaii.gov. Thank you.

	()	We have no objections.	
	(-)	We have no comments.	
	()	We have no additional comme	ents.
	(Z) Signed:	Comments are added, below.	8 C
	Print Name: Division: es Date:	Patti Miyashiro	
Attachments		LAND DIVISION - ODLO	
Cc: Central Files		Aug 31, 2021	

**COMMENTS: ANY WORK AND/OR USE OF STATE LANDS MAKAI OF THE TITLE BOUNDARY AND/OR CERTIFIED SHORELINE WILL REQUIRE DISPOSITION FROM THE BOARD OF LAND AND NATURAL RESOURCES.

ADDITIONAL INFORMATION FOR LD 0984, Pre-Assessment Consultation for Makanale Development Plan Environmental Assessment

58-2 Makanale Street, Hale'iwa, Island of Oahu; TMK: (1) 5-8-003:012

1. City and County of Honolulu, Department of Budget and Fiscal Services, Real Property Assessment Division website (click on hyperlinks for more information):

Parcel Information Map



Parcel ID - 580030120000 Alt Id - 580030120000 Address - MAKANALE ST Owner - RATHBURN ESTATES Acres - 1.232 Feedback View: Report | Google Maps opens in a new tab

2. View from Google Earth:



DAVID Y. IGE GOVERNOR OF HAWAII





SUZANNE D. CASE CHAIRPERSON BOARD OF LAND AND NATURAL RESOURCES COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES LAND DIVISION

POST OFFICE BOX 621 HONOLULU, HAWAII 96809

September 14, 2021

LD 0984

SWCA Environmental Consultants 1200 Ala Moana Blvs., #380 2153 North King Street, Suite 200 Honolulu, HI 96819-4554

Via email: snagai@swca.com

Dear Sirs:

SUBJECT: Additional Comments for Pre-Assessment Consultation for the Makanale Development Project, Draft Environmental Assessment 58-2 Makanale Street, Haleiwa, Island of Oahu, Hawai'i

Thank you for the opportunity to review and comment on the above subject. In addition to previous comments sent to you from the Department of Land and Natural Resources (DLNR) dated September 13, 2020, enclosed are additional comments received from DLNR's Commission on Water Resources Management.

Should you have any questions, please feel free to contact Barbara Lee at 587-0453 or barbara.j.lee@hawaii.gov. Thank you.

Sincerely,

Russell Tsuji

Russell Y. Tsuji Land Administrator

Enclosure cc: Central Files



SUZANNE D. CASE

MICHAEL G. BUCK ELIZABETH A. CHAR, M.D. NEIL J. HANNAHS AURORA KAGAWA-VIVIANI, PH.D. WAYNE K. KATAYAMA PAUL J. MEYER

M. KALEO MANUEL

STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES COMMISSION ON WATER RESOURCE MANAGEMENT

HONOLULU, HAWAII 96809

September 13, 2021

REF: RFD.5773.3

TO:	Mr. Russell Tsuji, Administrator
	Land Division

FROM: M. Kaleo Manuel, Deputy Director Commission on Water Resource Management

 SUBJECT:
 Pre-Assessment Consultation for Draft Environmental Assessment for Makanale Development

 Project (as part of a Special Management Area Permit Application Process)

FILE NO.: RFD.5773.3 TMK NO.: (1) 5-8-003:012

Thank you for the opportunity to review the subject document. The Commission on Water Resource Management (CWRM) is the agency responsible for administering the State Water Code (Code). Under the Code, all waters of the State are held in trust for the benefit of the citizens of the State, therefore all water use is subject to legally protected water rights. CWRM strongly promotes the efficient use of Hawaii's water resources through conservation measures and appropriate resource management. For more information, please refer to the State Water Code, Chapter 174C, Hawaii Revised Statutes, and Hawaii Administrative Rules, Chapters 13-167 to 13-171. These documents are available via the Internet at http://dlnr.hawaii.gov/cwrm.

Our comments related to water resources are checked off below.

- We recommend coordination with the county to incorporate this project into the county's Water Use and 1. Development Plan. Please contact the respective Planning Department and/or Department of Water Supply for further information. We recommend coordination with the Engineering Division of the State Department of Land and Natural 2. Resources to incorporate this project into the State Water Projects Plan. We recommend coordination with the Hawaii Department of Agriculture (HDOA) to incorporate the reclassification of agricultural zoned land and the redistribution of agricultural resources into the State's Agricultural Water Use and Development Plan (AWUDP). Please contact the HDOA for more information. We recommend that water efficient fixtures be installed and water efficient practices implemented throughout the development to reduce the increased demand on the area's freshwater resources. Reducing the water usage of a home or building may earn credit towards Leadership in Energy and Environmental Design (LEED) certification. More information on LEED certification is available at http://www.usgbc.org/leed. A listing of fixtures certified by the EAP as having high water efficiency can be found at http://www.epa.gov/watersense. Х
 - 5. We recommend the use of best management practices (BMP) for stormwater management to minimize the impact of the project to the existing area's hydrology while maintaining on-site infiltration and preventing polluted runoff from storm events. Stormwater management BMPs may earn credit toward LEED certification. More information on stormwater BMPs can be found at http://planning.hawaii.gov/czm/initiatives/low-impact-development/
 - 6. We recommend the use of alternative water sources, wherever practicable.
 - 7. We recommend participating in the Hawaii Green Business Program, that assists and recognizes businesses that strive to operate in an environmentally and socially responsible manner. The program description can be found online at http://energy.hawaii.gov/green-business-program.
 - 8. We recommend adopting landscape irrigation conservation best management practices endorsed by the Landscape Industry Council of Hawaii. These practices can be found online at

Mr. Russell Tsuji Page 2 September 13, 2021

		http://	www.hawaiiscape.com/wp-content/uploads/2013/04/LICH_Irrigation_Conservation_BMPs.pdf.
X	9.	There appro devel	e may be the potential for ground or surface water degradation/contamination and recommend that wals for this project be conditioned upon a review by the State Department of Health and the oper's acceptance of any resulting requirements related to water quality.
	10	The p a Wat requir	roposed water supply source for the project is located in a designated water management area, and ter Use Permit is required prior to use of water. The Water Use Permit may be conditioned on the rement to use dual line water supply systems for new industrial and commercial developments.
	11	A We work.	Il Construction Permit(s) is (are) are required before the commencement of any well construction
	12	A Pur the pr	np Installation Permit(s) is (are) required before ground water is developed as a source of supply for oject.
	13	There affect abanc	e is (are) well(s) located on or adjacent to this project. If wells are not planned to be used and will be ed by any new construction, they must be properly abandoned and sealed. A permit for well donment must be obtained.
	14	Grour stand	nd-water withdrawals from this project may affect streamflows, which may require an instream flow ard amendment.
Х	15	A Stre and/o	eam Channel Alteration Permit(s) is (are) required before any alteration can be made to the bed r banks of a steam channel.
31	16	A Stre altere	eam Diversion Works Permit(s) is (are) required before any stream diversion works is constructed or d.
	17	A Petition to Amend the Interim Instream Flow Standard is required for any new or expanded diversion(s) of surface water.	
	18	The p deterr water	lanned source of water for this project has not been identified in this report. Therefore, we cannot mine what permits or petitions are required from our office, or whether there are potential impacts to resources.
X	отн	ER:	The subject parcel is located adjacent to Kaunala Gulch which is defined by the National Hydrography Dataset as an intermittent stream. Any proposed work on the bed and/or banks of the stream channel may require a Stream Channel Alteration Permit from the Commission.

If you have any questions, please contact Neal Fujii of the Planning Branch at 587-0216, Ryan Imata of the Regulation Branch at 587-0225 or Dean Uyeno of the Stream Protection and Management Branch at 587-0234.

DAVID Y. IGE BOVERNOR OF HAWAII



STATE OF HAWAII DEPARTMENT OF HEALTH P. O. BOX 3378 HONOLULU, HI 96801-3378

September 3, 2021

ELIZABETH A. CHAR, M.D. DIRECTOR OF HEALTH

In reply, please refer

LUD – 1 5 8 003 012 58-002 Makanale Street WWB LUD 5783

Ms. Stephanie Nagai Natural Resources Project Manager SWCA Environmental Consultants 1200 Ala Moana Boulevard # 380 Honolulu, Hawaii 96814 Email: snagai@swca.com

Dear Ms. Nagai:

Subject: Pre-Assessment Consultation for the Makanale Development Project Draft Environmental Assessment, TMK (1) 5-8-003: 012

Thank you for allowing the Department of Health (Department) the opportunity to provide comments for the pre-assessment consultation for the subject project.

The Department's records indicate we have an individual wastewater system (IWS) application, File No. 6603, for an aerobic treatment unit (ATU) system at Unit A under review as of February 5, 2021. Please note that new IWS for this project will not be approved for construction until the Special Management Area (SMA) permit is issued by the City and County of Honolulu (CCH).

The proposed project involves the construction of two (2) dwellings, two (2) swimming pools, and two (2) garages. An IWS may serve up to five (5) bedrooms, whether they are in one (1) dwelling unit or two (2). Also, there shall be 10,000 square feet of land area for each IWS.

Plans for the new IWS shall be submitted to the Department for review and approval after the SMA permit is issued by CCH. A licensed engineer will be required to be retained to prepare and submit the IWS plans to the Department.

Please be informed that the proposed wastewater systems for the development may have to include design considerations to address any effects associated with the construction of and/or discharges from the wastewater systems to any public trust, Native Hawaiian resources or the exercise of traditional cultural practices. In addition, all wastewater plans must conform to applicable provisions of the Hawaii Administrative Rules, Chapter 11-62, "Wastewater Systems."

Should you have any questions, please call Mr. Mark Tomomitsu of my staff at (808) 586-4294.

Sincerely,

Sur RL

SINA PRUDER, P.E., CHIEF Wastewater Branch

LM/MST:Imj

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813 PHONE: (808) 768-8000 • FAX: (808) 768-6041 DEPT. WEB SITE: <u>www.honoluludpp.org</u> • CITY WEB SITE: <u>www.honolulu.gov</u>

RICK BLANGIARDI MAYOR



September 10, 2021

DEAN UCHIDA DIRECTOR

DAWN TAKEUCHI APUNA DEPUTY DIRECTOR

EUGENE H. TAKAHASHI DEPUTY DIRECTOR

2021/ELOG-1736(CK)

Ms. Stephanie Nagai Natural Resources Project Manager SWCA Environmental Consultants 1200 Ala Moana Boulevard, Suite 380 Honolulu, Hawaii 96814

Dear Ms. Nagai,

SUBJECT: Request for Pre-Consultation Comments Environmental Assessment for Residences on Shoreline Lot 58-2 Makanale Street - Haleiwa Tax Map Key 5-8-003: 012

This is in response to your letter, received August 30, 2021, requesting comments on the scope and content to be addressed in a Draft Environmental Assessment (DEA) that is required under the Special Management Area (SMA) Ordinance, Chapter 25, Revised Ordinances of Honolulu (ROH). The request is to allow for the construction of two new two-story single-family residences with garages and swimming pools on a shoreline lot located in the R-5 Residential District and SMA on the North Shore of Oahu (Project). The following items should be addressed in the DEA:

General Comments

- 1. <u>Early Public Outreach</u>: In order to facilitate understanding of the current Project proposal within the surrounding community, please contact the North Shore Neighborhood Board No. 27 as well as any relevant neighborhood associations or commissions to request an opportunity to present the Project proposal at the board and association meeting(s). A summary of these outreach efforts and actions taken to address any community concerns should be included in the DEA and ultimately the SMA Use Permit Application.
- 2. <u>Chapter 21, Land Use Ordinance (LUO), ROH</u>: Proposed development activities must comply with the development standards applicable to the R-5 Residential

District. Project compliance with these standards should be presented and evaluated in the DEA. We recommend that the discussion of the Project's compliance with the applicable standards be presented in both written and table format. If exact dwelling unit dimensions are unknown at this time, the maximum planned dimensions should be evaluated. The LUO is available on our website at: www.honoluludpp.org/ApplicationsForms/ZoningandLandUsePermits.

- Long-term Planning Policies and Objectives: The DEA should address the proposed Project's consistency with the relevant policies of the General Plan and the North Shore Sustainable Communities Plan.
- <u>SMA Regulations</u>: The DEA should include in its analysis all of the required components and issue area discussions for an SMA Use Permit under both the SMA Ordinance, Chapter 25, ROH, and the Coastal Zone Management Act, Chapter 205A, Hawaii Revised Statutes (HRS), as amended under Act 16 (2020).

Chapter 25, ROH, is available online at: www.honolulu.gov/rep/site/ocs/roh/ROH_Chapter_25_article_1_12.pdf

The revised text of Chapter 205A, HRS, as amended by Act 16 (2020) is available online at: https://www.capitol.hawaii.gov/session2020/bills/SB2060 HD2 .htm

5. <u>Flood Zones and Wetlands</u>: The DEA should identify the subject property's Flood Zone, as mapped by the Federal Emergency Management Agency, and evaluate the proposed Project's compliance with the City's Flood Hazard Areas Ordinance (Chapter 21A, ROH), which is available online at: https://www.honolulu.gov/rep/site/ocs/roh/ROH_Chapter_21A_.pdf

The DEA should also discuss the history of wetlands on and around the site and describe the existing and proposed condition of the site.

6. <u>Shoreline Setback</u>: All development must be located outside of the shoreline setback area, which currently extends 60 feet mauka of the Certified Shoreline at the subject property. This setback distance from the shoreline must be confirmed on a shoreline survey certified by the State of Hawaii, and must also be reflected in the plans submitted for the SMA Use Permit to confirm compliance with the Shoreline Setback Ordinance (Chapter 23, ROH). A draft shoreline survey should be included and evaluated in the DEA. A certified shoreline survey should be included in the Final EA. Alternatively, if the Applicant seeks to waive the requirement for a certified shoreline survey and locate all development more than 75 feet from an uncertified (presumed) shoreline, the DEA should include a shoreline survey and plans that identify and label the proposed distance from the presumed shoreline. Under this approach, the Applicant must provide evidence documenting the location of the presumed shoreline. Such information may include, but is not limited to, a previously certified shoreline survey, erosion and/or accretion information, historic versus current photographs, and physical or geographic markers such as survey pins or trees that document the level of change in the shoreline since the most recent certified shoreline survey. Please note that a waiver of the requirement for a certified shoreline survey is subject to the discretion of the Director of the Department of Planning and Permitting (DPP).

Chapter 23, ROH, is available online at: www.honolulu.gov/rep/site/ocs/roh/ROH_Chapter_23__.pdf.pdf

The DPP Rules Relating to Shoreline Setbacks and the SMA are available online at: www.honoluludpp.org/Portals/0/AboutDPP/administrativerules/DppRules03Sho reline.pdf

7. <u>Coastal Hazards</u>: The Project site, as a shoreline lot intersected by a stream, may be susceptible to coastal hazards related to climate change. Mayor's Directive 18-2, issued on July 16, 2018, requires all City departments and agencies to use the Hawaii Sea Level Rise (SLR) Vulnerability and Adaptation Report, the SLR Guidance and the Climate Change Brief in planning decisions. As a result, proposed development activities within the SMA must be evaluated not only for potential impacts to sensitive SMA resources, but also for current and future susceptibility to coastal hazards such as active and passive flooding, SLR, wave action, coastal erosion, tsunami, and storm surge.

The recent amendments to Chapter 205A, HRS, under Act 16 (2020), further reiterate the need to evaluate potential impacts related to coastal hazards and SLR. As such, both the DEA and subsequent SMA Use Permit application should evaluate the site's existing topographic, geologic, and shoreline environment, and show whether and how a proposed development can safely be located outside of the areas subject to coastal hazards. The analysis should describe potential impacts and mitigation measures associated with implementation of the Project including, but not limited to, the following.

 SLR - Potential impacts relating to SLR at the subject property, based on review of the State's SLR Exposure Area Mapping Tool, of 3.2 feet of SLR by mid-century.

- Active and Passive Flooding Potential impacts related to active and passive surface water and/or groundwater flooding, based on existing site conditions and flood mapping projections available on the State's SLR Mapping Tool.
- Storm Surge Potential impacts of hurricane storm surge inundation levels at the subject property during Category 1 through 4 hurricane events, based on review of the National Oceanic and Atmospheric Administration's (NOAA) National Hurricane Storm Surge Hazard Maps.
- Potential cumulative impacts of coastal hazards and property inundation should SLR or global climate change exacerbate existing flooding or other coastal hazards that may occur at the subject property.

Relevant sources of information are available online at the following links:

- SLR Vulnerability and Adaptation Report: http://climate.hawaii.gov/wp-content/uploads/2019/02/SLR-Report_Dec2017-with-updated-disclaimer.pdf
- State SLR-Exposure Area Mapping Tool: www.pacioos.hawaii.edu/shoreline/slr-hawaii/
- Guidance for Using the SLR-Exposure Area: https://climate.hawaii.gov/wp-content/uploads/2020/12/Guidance-for-Using-the-Sea-Level-Rise-Exposure-Area.pdf
- Honolulu Office of Climate Change, Sustainability and Resiliency Climate Ready Oahu Web Explorer: www.resilientoahu.org/water
- NOAA Storm Surge Mapping tool: https://www.nhc.noaa.gov/nationalsurge/
- Historic and Archeological Resources: Please be advised that in December 2020, the State Historic Preservation Division (SHPD) began using a new online system to better track consultation requests: https://shpd.hawaii.gov/hicris/landing.

Because the new tracking system requires agency-to-agency requests, the DPP has created a generic request letter that consultants/property owners may use for projects that will eventually require DPP approval. This letter may be completed by a consultant or property owner and submitted to SHPD directly via their online

system to initiate requests before permit applications are submitted to the DPP. The letter includes a general DPP contact number and email, as well as blank fields where the property owner or their consultant can enter their contact information. The generic request letter is available online at: https://tinyurl.com/h7yvc7vp.

Site-Specific Comments

- Project History: According to our records, the site has a long permit history and several complicated land use issues, as previously provided to the Project Applicant, that should be addressed in the DEA and SMA Use Permit Application.
 - On March 13, 1995, Subdivision No. 94/SUB-201 was approved to consolidate Lot 180 of Land Court Application 1095 and an approximately 99-foot segment of Makanale Street into Lot A. An eroded area of 7,409 square feet was also removed, such that the resulting lot area of Lot A was listed as 29,123 square feet (0.669 acre). Lot A, at that time, was the western portion of the subject site (see Exhibit A). [Note: Prior to this, Lot A was identified as Lot 180 and the 'Lot 180' label continued to appear on several documents after 1995.]
 - SMA Permit No. 2001/SMA-32 (Resolution No. 01-250, CD1, FD1) was approved by the City Council on August 28, 2001, to allow the consolidation and resubdivision of 19.1-acres of land to the east of Lot A into 34 lots. The western portion of the subject site (i.e., Lot A) was designated on Exhibit E of the approved Resolution "to be granted to adjacent landowner (see Exhibit B)".
 - On May 16, 2003, as a result of the SMA approval, Subdivision No. 2001/SUB-181 was approved to allow the consolidation and resubdivision of the 19.1-acre area into 34 lots. The Subdivision created Lot 34 of 21,084 square feet to be consolidated with adjacent "Lot 180" (i.e., Lot A) (see Exhibit C). [Note: Lot 180 is shown on the approved Subdivision Map as Lot A.]
 - Concurrently with the above, on May 16, 2003, Subdivision File No. 2002/SUB-10 was approved to consolidate Lot A with Lot 34. The resulting lot, Lot 34-A, was shown as being 50,205 square feet, less 12,321 square feet dedicated to Easement F-1 (flowage easement). The resulting net area of Lot 34-A is 37,884 square feet. The subdivision map also showed the building setback line from Kaunala Stream, which encompasses most of Lot 34 (see Exhibit D).

- The shoreline survey certified by the State of Hawaii on July 30, 2020 contains outdated information that doesn't reflect the approved subdivision actions indicated above. It still shows Lot 34 and Lot 180, including the erosion area that was removed from the lot under Subdivision No. 94/SUB-201, and not including the portion of Makanale Street that was consolidated within the zoning lot. It also appears that the certified shoreline is shown somewhat makai of the actual Lot 34-A property line based on the erosion area and measurements listed on the 1994 Subdivision map (see Exhibit A). This all needs to be updated on any new site and shoreline surveys.
- Lot 34-A is subject to a building setback line along Kaunala Stream. The stream and its surrounding riparian area are classified as Freshwater Forested / Shrub Wetland. Associated setbacks and any mitigation requirements are subject to review under a request for a jurisdictional determination by the U.S. Army Corps of Engineers.

Copies of documents pertaining to the Project site history can be obtained through a request to our Data Access and Imaging Branch (DAIB). Any request for permit research and/or copies (e.g., a Certificate of Occupancy, or a specific land use or building permit) must be accompanied with a research request fee. A money order or certified check in the amount of \$5.00, made payable to the City and County of Honolulu, will initiate the process of researching and copying the specific records you are interested in obtaining. There will also be a copy charge of \$0.50 for the first page of every record, and \$0.25 for each page of the same record, thereafter. In addition to the copy charge, there is a research fee of \$5.00 per 10 minutes, or fraction thereof, of research time. Shipping and handling charges will also be added to your total cost for this type of request. These charges will be imposed separately from the zoning clearance and confirmation request fee. Please contact our DAIB at (808) 768-8272 for cost estimates to initiate the request.

Thank you for the opportunity to comment on this proposal. Should you have any questions, please contact Christi Keller, of our staff, at (808) 768-8087, or c.keller@honolulu.gov.

Very truly yours,

Fak: Dean Uchida Director

Enclosures: Exhibits A through D





EVHTRIT F





DEPARTMENT OF DESIGN AND CONSTRUCTION CITY AND COUNTY OF HONOLULU 650 SOUTH KING STREET, 11TH FLOOR HONOLULU, HAWAII 96813 Phone: (808) 768-8480 • Fax: (808) 768-4587 Web site: www.honolulu.gov

RICK BLANGIARDI MAYOR



ALEX KOZLOV, P.E. DIRECTOR

HAKU MILLES, P.E. DEPUTY DIRECTOR

September 8, 2021

Ms. Stephanie Nagai Natural Resources Project Manager SWCA Environmental Consultants 1200 Ala Moana Boulevard, #380 Honolulu, Hawaii 96814

Dear Ms. Nagai:

Subject: Pre-Assessment Consultation for the Makanale Development Project Draft Environmental Assessment TMK: (1) 5-008-003:012

Thank you for the opportunity to review and comment. The Department of Design and Construction has no comments to offer at this time.

Should you have any further questions, please contact me at 768-8480.

Sincerely,

- Hell.

Alex Kozlov, P.E. Director

AK:krn (861009)

From:	<u>Kim, Jiny</u>
To:	Stephanie Nagai
Cc:	Brown, Narrissa P
Subject:	Pre-Assessment Consultation for the Makanale Development Project Draft Environmental Assessment, Haleiwa, Oahu [TMK: (1) 5-008-003:012]
Date:	Wednesday, September 1, 2021 10:45:48 AM
Attachments:	2021-TA-0239 Makanale Development Project Haleiwa Oahu.pdf SWCA Pre-Assessment Consultationforthe Makanale Development Project Draft Environmental Assessment Haleiwa Oahu.pdf

EXTERNAL: This email originated from outside SWCA. Please use caution when replying.

Dear Ms. Nagai,

Attached please find our previous response letter (reference number: 01EPIF00-2021-TA-0239) for the above referenced project.

We thank you for your efforts to conserve listed species and native habitats. Please contact me should you have any questions pertaining to this response or require further guidance.

Mahalo,

Jiny Kim Biologist Oʻahu, Kauaʻi, Papahānaumokuākea, and American Samoa Pacific Islands Fish and Wildlife Service U.S. Fish and Wildlife 300 Ala Moana Boulevard, Room 3-122 Honolulu, Hawaiʻi 96850 Aloha Joyce,

Access to the project site is through Makanale Street. Happy to answer any other questions you may have.

Thank you, Stephanie

From: Joyce Lin <jlin@hbws.org>
Sent: Tuesday, September 7, 2021 11:40 AM
To: Stephanie Nagai <SNagai@swca.com>
Subject: Pre-Assessment Consultation Makanale Development DEA

EXTERNAL: This email originated from outside SWCA. Please use caution when replying.

Hi Stephanie,

I'm Joyce with the Board of Water Supply, currently reviewing your request for comments on the proposed Makanale Development project.

I wanted to double check with you on the access to this parcel. Is it through Makanale Street or Kamehameha Highway?

Thank you, Joyce

Joyce Lin, P.E. | Civil Engineer Honolulu Board of Water Supply Water Resources Division Project Review Branch 630 South Beretania Street Honolulu, Hawaii 96843

From:	Margarete Olson
To:	Stephanie Nagai
Subject:	Re: Makanale Development Project Draft EA
Date:	Thursday, September 2, 2021 4:27:30 PM
Attachments:	image001.png

EXTERNAL: This email originated from outside SWCA. Please use caution when replying.

Mahalo! We'll follow up if we have any questions. Have a great rest of the week!

Margarete Olson Office Manager Senator Gil Riviere, District 23 Oahu's North and Windward Shores Hawaii State Capitol 415 S Beretania St, Room 217 Honolulu, HI 96813

From: Stephanie Nagai <SNagai@swca.com>
Sent: Thursday, September 2, 2021 10:40 AM
To: Margarete Olson <m.olson@capitol.hawaii.gov>
Subject: RE: Makanale Development Project Draft EA

Aloha Margarete,

Thank you for your interest in the project. I have attached the project drawings for Senator Riviere's review. A Draft Environmental Assessment with detailed analyses of potential impacts will be published for public review and comment in the coming months.

If you have any preliminary questions, please feel free to call the homeowner, John Winebarger. Mr. Winebarger currently resides in the and can be reached at the second s

Take care, Stephanie

Stephanie Nagai Project Manager / Environmental Planner

SWCA Environmental Consultants 1200 Ala Moana Blvd Suite 380 Honolulu, HI, 96814



From: Margarete Olson <m.olson@capitol.hawaii.gov>
Sent: Monday, August 30, 2021 11:02 AM
To: Stephanie Nagai <SNagai@swca.com>
Subject: Makanale Development Project Draft EA

EXTERNAL: This email originated from outside SWCA. Please use caution when replying.

Aloha Stephanie,

I hope you're well! We received the attached notice regarding an environmental assessment for the Makanale Development. Senator Riviere is the senator for this district and would like more details on the project. Do you have a sketch? Can you please send over more detailed information on the project? Please advise.

Mahalo and take care!

Margarete Olson Office Manager Senator Gil Riviere, District 23 Oahu's North and Windward Shores Hawaii State Capitol 415 S Beretania St, Room 202 Honolulu, HI 96813 Email: <u>M.Olson@Capitol.Hawaii.Gov</u>

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