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CITY AND COUNTY OF HONOLULU

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IN REPLY REFER TO:
WEC.PE 25-035

September 16, 2025

Ms. Mary Alice Evans, Director
Office of Planning and Sustainability Development
State of Hawai'i
235 South Beretania Street, 6th Floor
Honolulu, Hawai'i 96813

Dear Ms. Evans:

SUBJECT: Wai'anae Wastewater Treatment Plant - Fuel Storage Tank
Improvement
TMK 8-6-001: 044
Wai'anae, O'ahu

The City and County of Honolulu, Department of Environmental Services is transmitting the subject Draft Environmental Assessment and Anticipated Finding of No Significant Impact (DEA-AFONSI) for the subject project. The DEA-AFONSI has been prepared pursuant to Chapter 343, Hawai'i Revised Statutes, and Chapter 11-200.1, Hawai'i Administrative Rules.

We respectfully request that the DEA-AFONSI be published in the next available issue of the Environmental Notice. Materials required for the publication are being provided via the Environmental Review Program's online form.

Should you have any questions, please contact Audrey Uyema Pak from our Division of Wastewater Engineering and Construction at (808) 768-8766.

Sincerely,


Digitally signed by
Babcock, Roger W
Date: 2025.09.17
12:05:45 -10'00'

Roger Babcock, Jr., Ph.D., P.E.
Director

Enclosure

cc: ENV/OAS

From: dbedt.opsd.erp@hawaii.gov
To: [DBEDT OPSD Environmental Review Program](#)
Subject: New online submission for The Environmental Notice
Date: Friday, February 13, 2026 9:09:20 AM

Action Name

Fuel Storage Tank Improvements Wai'anae Wastewater Treatment Plant

Type of Document/Determination

Draft environmental assessment and anticipated finding of no significant impact (DEA-AFNSI)

HRS §343-5(a) Trigger(s)

- (1) Propose the use of state or county lands or the use of state or county funds

Judicial district

Wai'anae, O'ahu

Tax Map Key(s) (TMK(s))

(1) 8-6-001:044

Action type

Agency

Other required permits and approvals

SMA

Proposing/determining agency

Department of Environmental Services

Agency jurisdiction

City and County of Honolulu

Agency contact name

Audrey Uyema Pak

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Agency contact phone

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Agency address

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Kapolei, HI 96707
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[Map It](#)

Is there a consultant for this action?

Yes

Consultant

Townscape, Inc.

Consultant contact name

Gabrielle Sham

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900 Fort Street Mall, Suite 1160
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Action summary

The Wai'anae Wastewater Treatment Plant has an underground storage tank that supplies fuel to a standby generator. The generator automatically activates during a power outage and provides electricity for the entire pump station, including the sewage pump, support equipment, and lighting. To comply with current fuel storage regulations and strengthen environmental protection, the City Department of Environmental Services, Division of Wastewater Engineering and Construction, is proposing to replace the existing underground fuel storage tank with a new 6,000-gallon aboveground fuel storage tank. Additionally, the project includes replacing the underground fuel piping, fuel monitoring panel, and all associated sensors.

Reasons supporting determination

Refer to Section 6.

Attached documents (signed agency letter & EA/EIS)

- [Waianae-WWTP-Draft-EA_to_ERP_Ada1.pdf](#)
- [WEC.PE-25-034_Waianae-WWTP_Ada1.pdf](#)

ADA Compliance certification (HRS §368-1.5):

The authorized individual listed below certifies that documents submitted are unlocked, searchable, and ADA compliant. Audio files include transcripts, captions, or alternative descriptions.

Action location map

- [Project-Site1.zip](#)

Authorized individual

Gabrielle Sham

Authorized individual email

gabrielle@townscapeinc.com

Authorized individual phone

(808) 536-6999

Authorization

- The above named authorized individual hereby certifies that he/she has the authority to make this submission.

**Draft Environmental Assessment
for the
Fuel Storage Tank Improvements
Wai'anae Wastewater Treatment Plant
in Wai'anae, Island of O'ahu, Hawai'i**



Prepared For:

City and County of Honolulu
Department of Environmental Services



CITY AND COUNTY OF
HONOLULU



Prepared By:



TOWNSCAPE, INC.
Environmental & Community Planning

February 2026

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**Draft Environmental Assessment
Fuel Storage Tank Improvements
Wai'anae Wastewater Treatment Plant
in Wai'anae,
Island of O'ahu, Hawai'i**

Tax Map Key (1) 8-6-001:044

This environmental document has been prepared pursuant to
Chapter 343, Hawai'i Revised Statutes.

Prepared For:

City and County of Honolulu
Department of Environmental Services
1000 Ulu'ōhi'a Street Suite 308
Honolulu, Hawai'i 96707

Prepared By:

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February 2026

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LIST OF ABBREVIATIONS

Abbreviation	Definition
AST	Aboveground Storage Tank
ATS	Automatic Transfer Switch
BMPs	Best Management Practices
CRB	Coconut Rhinoceros Beetle
CSH	Cultural Surveys Hawai'i, Inc.
DLNR	Department of Land and Natural Resources
DOFAW	Division of Forestry and Wildlife
EA	Environmental Assessment
FONSI	Finding of No Significant Impact
HAR	Hawai'i Administrative Rules
HECO	Hawaiian Electric Company, Inc.
HFD	City and County of Honolulu Fire Department
HPD	City and County of Honolulu Police Department
HRS	Hawai'i Revised Statutes
LRFI	Literature Review and Field Inspection
LUO	Land Use Ordinance
MGD	Million gallons per day
NFPA	National Fire Protection Association
ROH	Revised Ordinances of Honolulu
SCADA	Supervisory Control and Data Acquisition
SCP	Sustainable Communities Plan
SHPD	State Historic Preservation Division
SMA	Special Management Area
UST	Underground Storage Tank
WWPS	Wastewater Pump Station
WWTP	Wastewater Treatment Plant

PROJECT SUMMARY

Project Name:	Fuel Storage Tank Improvements Wai‘anae Wastewater Treatment Plant
Proposing and Determining Agency:	City & County of Honolulu Department of Environmental Services 1000 Ulu‘ōhi‘a Street Suite 308 Kapolei, Hawai‘i 96707
HRS, Chapter 343 Trigger	Use of County lands
Location:	Wai‘anae, O‘ahu, Hawai‘i
Tax Map Key:	(1) 8-6-001:044
Project Address:	86-100 Farrington Highway Wai‘anae, Hawai‘i 96792
Land Area:	18.0360 acres (or 785,648 square feet) parcel area
Recorded Fee Owner:	City & County of Honolulu
Existing Use:	Wastewater Treatment Plant
Proposed Use:	Wastewater Treatment Plant
Community Plan Region:	Wai‘anae Sustainable Communities Plan
Land Use Designations: State Land Use County Zoning	Urban I-2 Intensive Industrial District
Special Management Area:	In Special Management Area
Proposed Action:	The proposed project involves replacing the existing underground fuel storage tank with a new 6,000-gallon aboveground fuel storage tank. Additionally, the project includes replacing the underground fuel piping, fuel monitoring panel, and all associated sensors.
Agency Determination:	Anticipated Finding of No Significant Impact

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1. SETTING AND PROJECT DESCRIPTION

1.1. Background and Need

The Waiʻanae Wastewater Treatment Plant (WWTP) is owned and operated by the City and County of Honolulu and was put in service in 1968, serving the communities of Nānākuli, Lualualei, Māʻili, Waianae, and Mākaha. Wastewater from these areas is collected and conveyed to the WWTP, via a sewer line that runs parallel to Farrington Highway, after which it is treated at the facility. The WWTP has a 6,000-gallon Underground Storage Tank (UST) that stores fuel for the standby generator, which automatically activates during an outage. The generator provides full operational power to the facility, including the sewage pump, support equipment, and lighting.

To comply with current fuel storage regulations and to strengthen environmental protection efforts, the City Department of Environmental Service's Division of Wastewater Engineering and Construction is proposing to upgrade the existing UST along with making other related improvements. Pursuant to Hawai'i Administrative Rules (HAR) 11-280.1, all USTs and piping must provide secondary containment and must use interstitial monitoring as a method to detect release from the tanks and piping by July 15, 2028. Without the backup power system, the WWTP could experience downtime and sewage backups, both of which are costly and environmentally harmful.

In addition to improving the existing UST, upgrades to the fuel monitoring panels are needed. The fuel monitoring panels detect fuel levels and inform the City when fuel is low. Monitoring fuel levels allows for timely refueling, which helps to ensure the generator is ready to use. The new panel will include fuel level sensors that provide real-time data on fuel levels within the storage tanks.

Environmental review of this project is required by Hawai'i Revised Statutes (HRS) Chapter 343. The statutory trigger for the preparation of this Environmental Assessment (EA) is the use of State and County funds and lands. Given the parcel's proximity to the shoreline, the proposed project must comply with Revised Ordinances of Honolulu (ROH) Chapter 25 (Special Management Areas).

1.2. Proposed Action

To meet the State's mandate, the City proposes to replace the existing UST system and piping with a new 6,000-gallon aboveground storage tank (AST). The project will replace the underground fuel piping, fuel monitoring panel, and all associated sensors, and will connect the new fuel monitoring panel to the Supervisory Control and Data Acquisition (SCADA) system.

1.3. Site Location and Description

The Wai'anae WWTP facility is located at 86-100 Farrington Highway in the ahupua'a of Wai'anae, district of Wai'anae, on the island of O'ahu in the state of Hawai'i. It is located north of Pu'u Mā'ilī'ili and south of Wai'anae Mall. Farrington Highway (State Route 93) borders the property to the west on the makai side and Leihoku Street to the north (see Figure 1).

Located mauka of Farrington Highway, the property is surrounded by chain-link fence on all sides, with trees serving as a visual barrier on the side which fronts the highway. The WWTP parcel is approximately 18 acres. Vehicular access to the project site is via Farrington Highway.

The State land use designation for the project site is Urban (see Figure 2). Which is characterized by city-like concentrations of people, structures and services. Urban land uses are subject to the City's land use policies and controls. The City's Land Use Ordinance (LUO) classifies the project site as I-2 Intensive Industrial District (see Figure 3). According to LUO §21-3.130, the purpose of the industrial districts is "to recognize the importance of industrial uses to the welfare of city residents by providing areas for industrial uses without undue competition from other uses and ensuring compatibility with nonindustrial areas."

1.4. Facility Description

This section includes information described in the Wai'anae WWTP Operations Manual (R.M. Towill Corporation, 1996), the Wai'anae Sustainable Communities Plan Update (Limtiaco Consulting Group, 2023), and the Draft Preliminary Engineering Report (Okahara and Associates, Inc., 2025). An existing site plan of the WWTP facility is provided in Figure 4.

The WWTP has a capacity of 5.2 million gallons per day (mgd) with a peak capacity of 13.8 mgd. The facility was upgraded in 1996 with secondary treatment capabilities. Secondary treatment is a standard for wastewater treatment which adds biological processes directed at removing dissolved and non-settleable pollutants. More than 85 percent of the land area that conveys wastewater to the WWTP is zoned either agricultural or preservation. The collection system includes two Wastewater Pump Stations (WWPSs): Lualualei and Nānākuli.

Sludge produced at the WWTP is digested, dewatered, and either converted to energy at H-POWER or disposed of at the Waimānalo Gulch Sanitary Landfill. Treated wastewater is discharged through an ocean outfall located 6,184 feet offshore at an average depth of 107.5 feet.

In the event of power outages, the facility has an emergency generator building. The generator building is a single-story building, located on the southwest corner of the property, and it is approximately 1,182 square feet. The finished flood elevation is approximately 17 feet above mean sea level. The generator building contains two rooms, the generator room which is approximately 498 square feet, and the switchgear room which is approximately 667 square feet. The generator room houses the standby generator, fuel day tank, and fuel monitoring panels. The switchgear room houses the switchboard and provides power to a section of the WWTP.

1.4.1. Power and Fuel Systems

The facility is served by electricity provided by Hawaiian Electric Company, Inc. (HECO). In the event of a loss of power by HECO, the facility contains a backup power system which includes a standby generator and an automatic transfer controller.

Fuel is supplied to the standby generator from a 6,000-gallon UST located makai (west) of the generator room. The UST is located approximately five feet above mean sea level along the southwest section of the property.

The UST is equipped with a sump leak sensor and a fuel inventory sensor, both monitored by a fuel monitoring control panel. The fuel system is refilled when below 50 percent, and must be maintained at or above 75 percent during the months of July to November (hurricane season). Fuel from the UST is pumped to the day tank located above ground in the generator room. Supply and return fuel piping runs underground from the UST to the outside of the generator room. From there, the fuel piping runs aboveground and into the day tank, with the supply line passing through a fuel filter.

The Automatic Transfer Switch (ATS) located in the facility's Secondary Operations building can detect power line failures. When said event occurs, the ATS signals the standby generator to power the station. When power is restored, the ATS detects the changes and transfers the facility from the generator back to the HECO grid.

1.4.2. Electrical and Monitoring Systems

Part of the WWTP is powered by a switchboard which is in the switchgear room that serves as an electrical room, next to the Generator Room. The switchboard service is 2,500 amperes at 480Y/277V, 3-phase, 4W and provides power to the Feeder

Breaker Switchboard Section 4A1. Panel 2E, a 208Y/120V, 3-phase, 4-wire power panel with a 3-phase, 80-ampere main circuit breaker is powered by the Feeder Breaker Switchboard Section 4A1. Both the SCADA cabinet and fuel monitoring panel receive power from Panel 2E.

The fuel monitoring panel, which connects to the SCADA cabinet in the Switchgear Room, monitors the sump leak sensor and fuel inventory sensor. The SCADA cabinet signals various equipment including the fuel monitoring control panel. It has an existing path and wiring for the fuel monitoring control panel but does not have an interactive display.

1.5. Project Details

The proposed project includes the following actions (see Figures 5 to 9):

Civil

- Excavate and trench area to remove the existing UST, including associated fuel lines and vent line. Conduit to be abandoned in place. Backfill to the bottom of the surface restoration layer.
- Excavate and trench area to install the new 6,000-gallon AST, fuel lines, housekeeping pad, and pipe bollards. Restore the surface of the excavated area to match adjacent surfaces including the crushed gravel surface.
- Install 20 new steel pipe bollards to protect the AST from vehicular traffic.

Architectural

- Paint existing exterior masonry walls and miscellaneous surface incidental to scope using existing colors.
- Paint a minimum of one prime coat and two finish coats on all interior surfaces incidental to scope, conforming to existing standard color palette.

Structural

- Install a concrete pad for the new AST. The AST requires 12-inch pedestals at the tank supports.
- Install galvanized steel tank stairs and platform to access the top of the AST.
- Maintain and extend the existing equipment pad in the Generator Room to accommodate the day tank.

Mechanical

- Replace the existing 6,000-gallon UST with a new 6,000-gallon Core Engineered Solutions AST where the current UST is situated, which was selected as the only suitable location as all other proposed areas would interfere with routine personal access and transportation. The AST will be a double wall steel tank encased in concrete measuring 17 feet 7.5 inches long, 8 feet 9.75 inches high, and 8 feet 0.5 inches wide.
- Remove existing underground fuel supply and fuel return piping and install new aboveground fuel supply and return piping (1.5-inch Type 316 Stainless Steel) from the AST to the day tank. Existing pipe penetrations will be reused where feasible, otherwise, a new penetration will be made.
- Install a temporary fuel storage solution near the existing UST during construction.
- Replace fuel monitoring panel.
- Install interstitial monitoring and inventory sensors on the AST and integrated with the new fuel monitoring panel.
- Replace the existing 50-gallon fuel oil day tank with a new 60-gallon day tank with two supply pumps, one return pump, and one hand pump.

1.6. Project Schedule

The project will be executed in multiple phases with other WWPSs and WWTPs, with construction expected to start in April 2027 for 12 months.



Location of AST near the existing concrete pad and UST (facing makai)

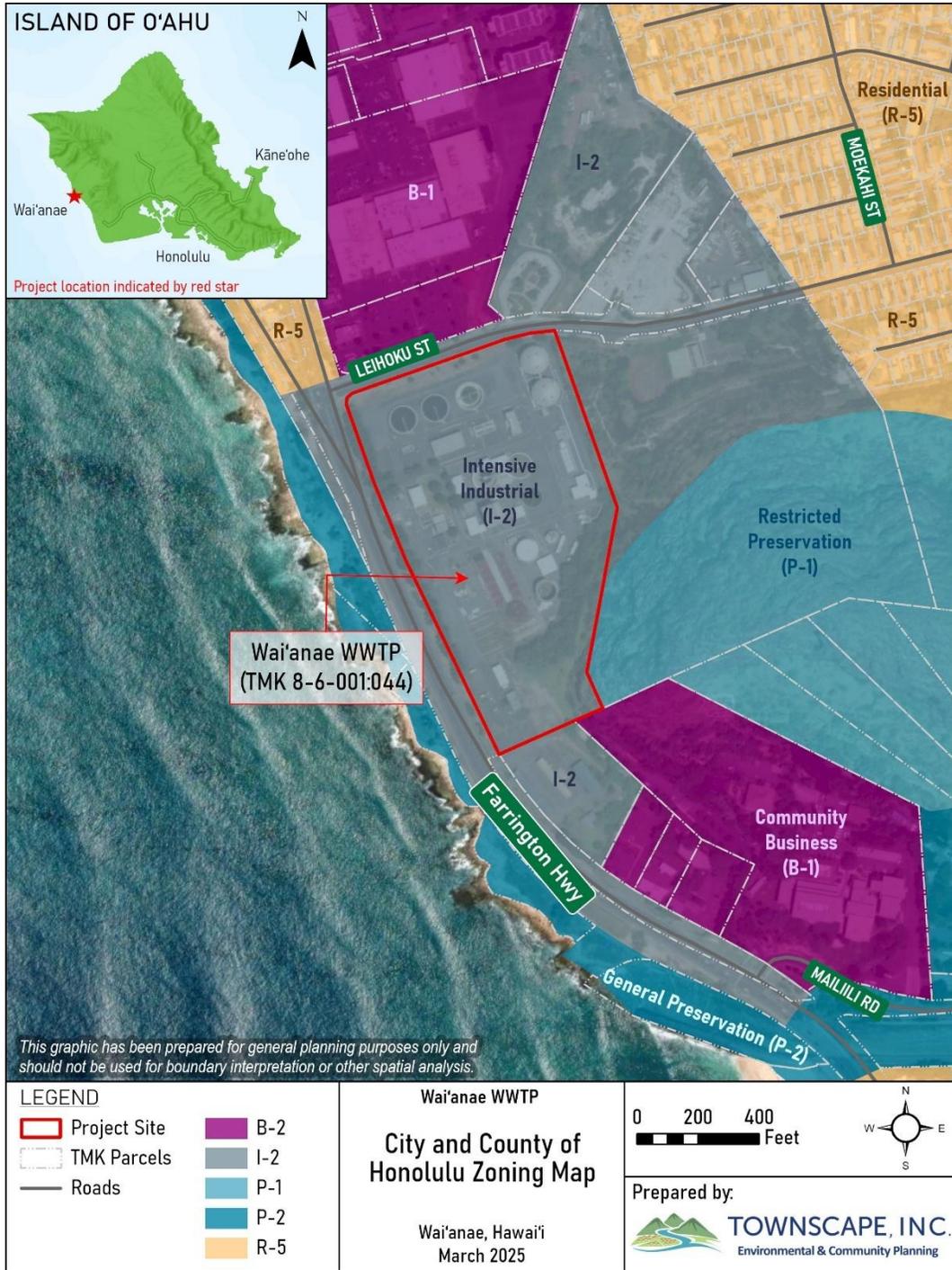
Figure 1 Location and Vicinity Map



Figure 2 State Land Use Map

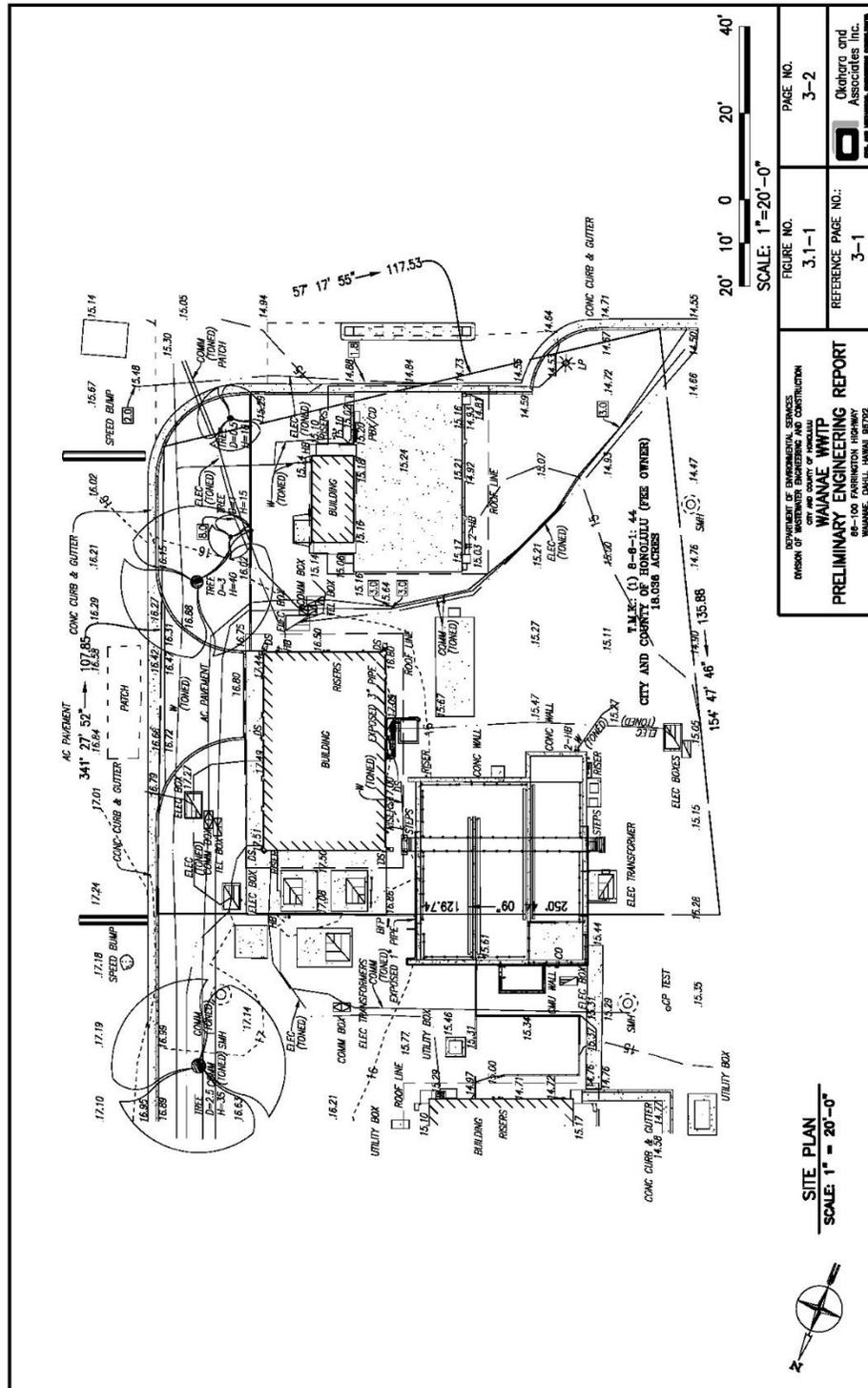


Figure 3 City Zoning Map



Fuel Storage Tank Improvements Wai'anae Wastewater Treatment Plant

Figure 4 Existing Site Plan



Source: Okahara and Associates, Inc., 2025

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2. DESCRIPTION OF EXISTING ENVIRONMENT, PROJECT IMPACTS, AND MITIGATION

2.1. Physical Environment

2.1.1. Climate and Rainfall

The climate in the State of Hawai'i is generally characterized by a two-season year: the summer period is warm and dry, whereas the winter season is cool and wet. Rainfall distribution across Hawai'i varies greatly according to geographic conditions, elevation, and long-term climatic cycles.

The project site is along the coast of Wai'anae, which has a mild semi-tropical climate similar to the rest of the State of Hawai'i. Average temperatures at the project site range from 70 degrees Fahrenheit in February to 77 degrees Fahrenheit in August, while the average annual rainfall at the project site is estimated to be between 20 to 33 inches (Giambelluca et al., 2014). Trade winds in the project vicinity are generally from the northeast. Strong winds are known to occur in connection with storm systems that disrupt climatic patterns. During the winter months, the trade winds become less frequent and are replaced by the lighter southwest Kona winds.

Impacts and Mitigation Measures

The proposed project is not anticipated to affect or be significantly affected by the existing climatic conditions of the area and region. No mitigation is proposed.

2.1.2. Topography, Geology and Soils

The Island of O'ahu is composed of the Wai'anae and Ko'olau mountain ranges, which are connected by a central plateau. The older Wai'anae mountain range spans a distance of around 20 miles across the western third of O'ahu, while the younger Ko'olau mountain range extends for 37 miles in a northwest to southeast alignment across the eastern two-thirds of the island.

The WWTP is located on the leeward side of the Wai'anae range, with elevations ranging from around 8 feet above mean sea level on the western end to 36 feet above mean sea level on the eastern end of the parcel.

According to the Soil Survey of the Islands of Kaua'i, O'ahu, Maui, Moloka'i, and Lana'i, State of Hawai'i (U.S. Department of Agriculture, Soil Conservation Service, 1972), the project area consists of Mokulē'ia clay soil (Mtb). Mokulē'ia clay soil is an alluvium typically found in coastal plains at elevations of 0 to 100 feet in areas of

mean annual precipitation of 20 to 80 inches. The soil is well drained with low runoff. Figure 10 depicts the soil classifications and topographic map.

The project site ground surface primarily consists of crushed gravel surfaces. A vegetated area exists north of the pump station buildings but is outside of the proposed limits of disturbance.

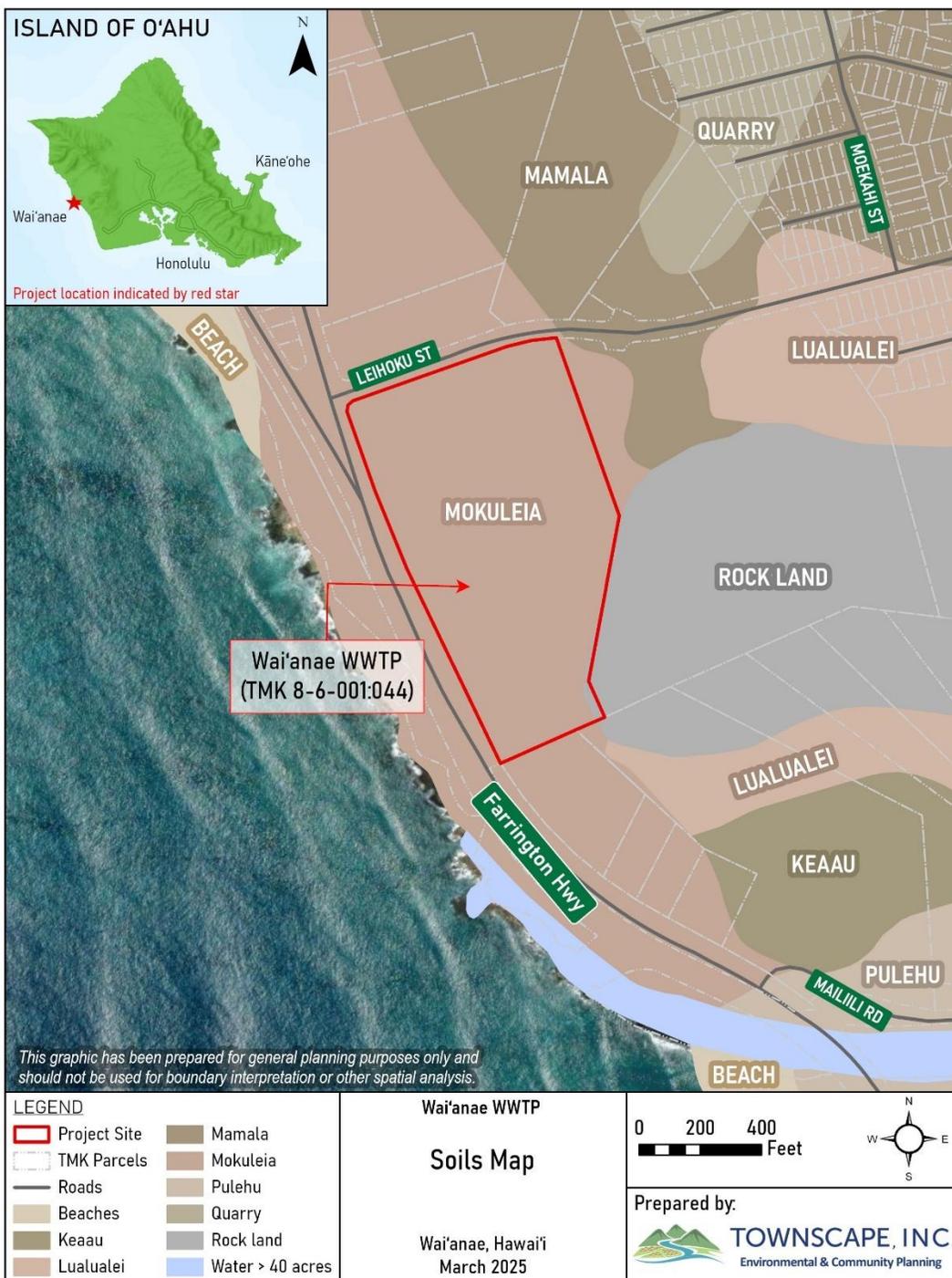
Impacts and Mitigation Measures

Project actions are expected to retain the overall topographic profile of the site. Minimal soil erosion and runoff are expected as the project site is relatively flat. The project will adhere to Erosion and Sediment Control measures in accordance with HAR 11-55 and the City's Storm Water Best Management Practice Manual, Construction, Draft, dated August 2017.

In a letter from the State of Hawai'i's Office of Planning and Sustainable Development dated April 15, 2025, it was recommended that Best Management Practices (BMPs) should be implemented during and after construction to contain any soils and sediment to prevent damage to near shore waters and marine ecosystems in accordance with HAR Chapter 11-54. At minimum, the following BMPs are proposed (see Figure 11):

- All exposed disturbed areas to be permanently stabilized with appropriate ground covering such as vegetation, gravel, or pavers.
- Sediment fences or barriers to be installed along the perimeter of all disturbed areas where there is potential for runoff from the project site. Specifically, twelve-inch compost filter socks around the disturbed area will be used to protect the site and prevent runoff flow.
- Environmentally inert construction materials to be utilized to the extent practicable.
- Construction activities to be scheduled with consideration for weather conditions, preferably during low rain conditions. All construction work is to be suspended during storm events or when storm conditions threaten the watershed.

Figure 10 Soils and Topography



2.1.3. Natural Hazards

Tsunamis

The WWTP lies within the Tsunami Evacuation Zone and Extreme Tsunami Evacuation Zone (see Figure 12), highlighting the area's vulnerability to tsunami events due to its proximity to the coast and elevation (Hawai'i State Civil Defense, 2025). The tsunami evacuation zone maps identify low lying areas where evacuation is recommended since extensive damage to life and property may occur from seismic sea waves.

Hurricanes

The project area, similar to the rest of Hawai'i, is susceptible to hurricanes, particularly during the Pacific hurricane season from June through November. The State of Hawai'i has a 68.5 percent chance of a hurricane of any magnitude occurring within 60 nautical miles in any given year (Hawai'i Emergency Management Agency, 2023). While direct hits are relatively rare, hurricanes can bring strong winds, heavy rainfall, and storm surges, which could impact the region.

Sea Level Rise

Sea level rise has the potential to threaten life and property in coastal and low elevation areas. The *Sea Level Rise II* guidance document (Climate Change Commission, 2022) recommends that the Intermediate High Sea level rise scenario (1.78 m, 5.8 ft by 2100) be set as the benchmark for all City planning and public infrastructure projects. Under this scenario, the Wai'anae WWTP would not be inundated according to the Sea Level Rise Viewer web service. The property would also not be affected by 2.0 or 3.2 feet of sea level rise (NOAA, 2025).

Flooding

According to the Flood Hazard Assessment Tool (2025) provided by the Department of Land and Natural Resources (DLNR), the project site is within Flood Zone AE and Flood Zone D (see Figure 13). Flood Zone AE corresponds to areas subject to inundation by a one-percent-annual-chance flood event, and Flood Zone D corresponds to areas of undetermined flood risk. Only a narrow strip of the parcel fronting Farrington Highway is in Flood Zone AE, while the remainder of the property is in Flood Zone D.

Wildfires

The Division of Forestry and Wildlife (DOFAW) of DLNR oversees a fire management program that classifies the project area as having a high wildfire risk. Located on the leeward side of the island, the likelihood of wildfire occurrence in this area is high.

Impacts and Mitigation Measures

The threats to people and property from unpredictable natural events will always be present. The likelihood and potential severity of tsunami and hurricane-related impacts will be no greater than elsewhere in the region, and the planned activities will not exacerbate their associated hazards. The location and planned activities do not introduce any significant factors that would elevate the likelihood of wildfire or flooding in the area. The proposed project is not expected to affect or exacerbate the occurrence of naturally occurring hazards.

The project will comply with the requirements of ROH Chapter 21A, the Flood Hazard Areas Ordinance. The existing grade at the lowest corner within the tank footprint is approximately 15.4 feet, while the FEMA Base Flood Elevation for the site is 14 feet. In accordance with the ordinance requirement to provide a minimum of three feet of freeboard above the Base Flood Elevation for structures located within special flood hazard areas, the required pad elevation is 17.0 feet. Accordingly, the tank pad height will be elevated approximately 1.6 feet above the existing grade to meet this minimum standard.

In a letter from DOFAW dated May 2, 2025, it is recommended that the Contractor engage in BMPs to best prevent the risk of wildfire. These BMPs include wetting down the area before and continuously throughout the task as needed, having a fire extinguisher on hand during all activities, and having a spotter on hand while engaged in any activities that may impair vision (such as wearing welding goggles).

Figure 12 Tsunami Evacuation Zones

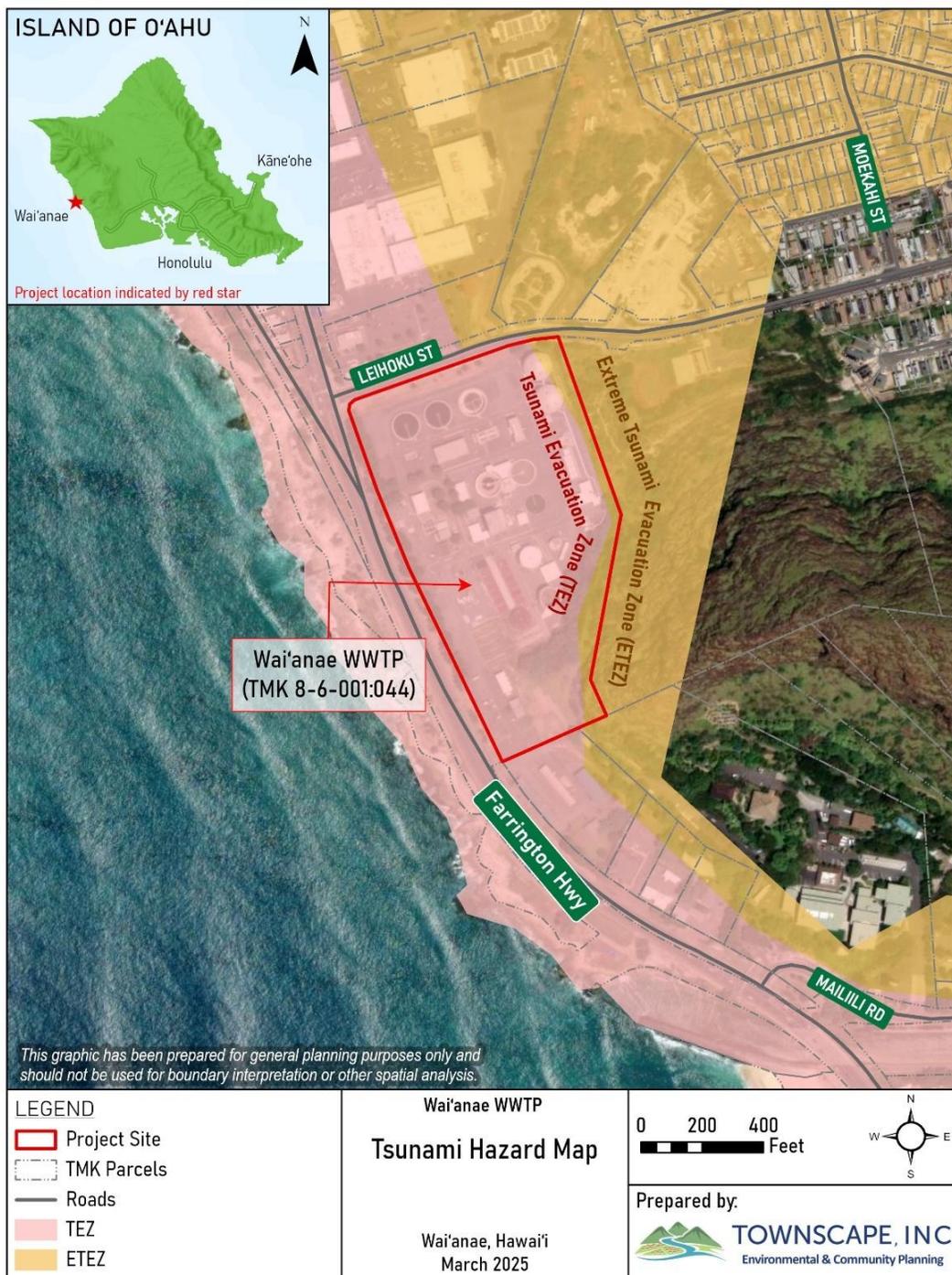
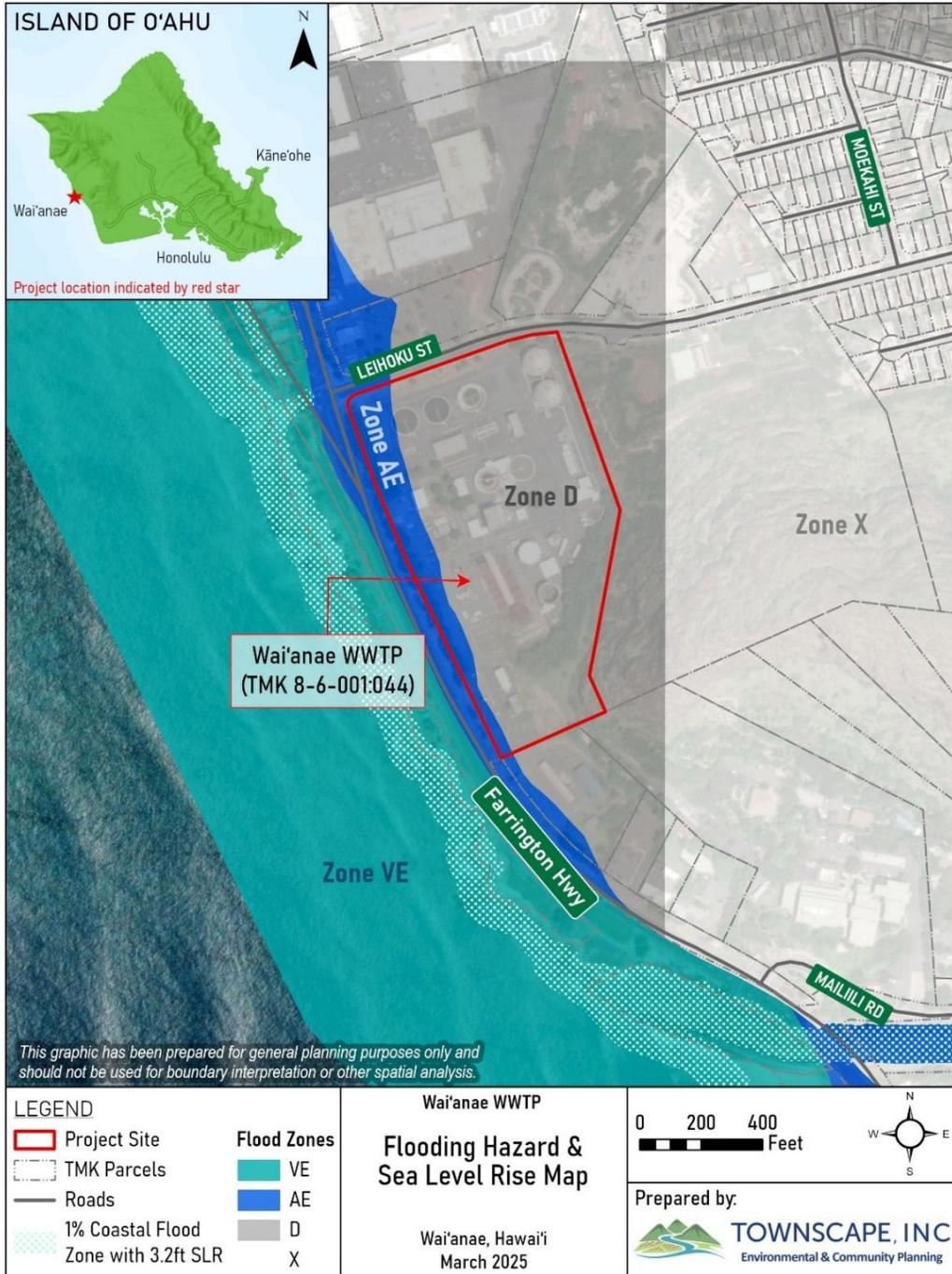


Figure 13 Flooding and SLR



2.2. Archaeological, Architectural and Cultural Resources

On March 19, 2025, Cultural Surveys Hawai'i (CSH) conducted a pedestrian survey of the Wai'anae WWTP. This effort was documented in a Literature Review and Field Inspection (LRFI) report that included a historical overview of the area and a review of prior archaeological studies completed in the surrounding area. The section below summarizes the Literature Review and Field Inspection report prepared by CSH (see Appendix A) unless otherwise noted.

The ahupua'a of Lualualei, which the Wai'anae WWTP project site is situated within, is known for its wahi pana (storied places) and traditional abundance of crops and fish. While the shoreline area historically saw dry conditions, the abundance of fish in the ocean as well as kalo (taro) and 'uala (sweet potato) that were grown upland and across the plains more than met the needs of the community (Handy and Handy, 1972). The Wai'anae WWTP project site, however, is situated within the arid coastal area. The nearest waterway to the Wai'anae WWTP is the Mā'ili'ili drainage channel approximately 300 meters away, formerly the site of the historical Mā'ili'ili stream, which was fed by several upland tributaries. The historical Mā'ili'ili stream was named for its many 'ili'ili (smooth pebbles) and is situated between Pu'u Mā'ili'ili (Pebbly Hill) and Pu'u o Hulu (Hulu's Hill). Pu'u Mā'ili'ili and Pu'u o Hulu are said to have been formed when a mo'ō (reptilian water deity) turned the two twin sisters into hills (Sterling and Summers, 1978). The Wai'anae WWTP is located makai of the foot of one of the sister hills, Pu'u Mā'ili'ili.

Following Western Contact, Lualualei and the greater Wai'anae area experienced a decline in population from disease and migration to Honolulu. The landscape and climate conditions in the region changed as well. Land use transitioned from traditional agricultural activities to ranching and large-scale sugar plantation agriculture during the late 19th century. The first cattle were brought to O'ahu in 1809 by Kamehameha I and John Young, and Lualualei was utilized as one of the first sites on island for ranching. By 1880, ranching and grazing occupied approximately 17,000 acres of land in Lualualei that were leased from the Crown.

In 1879, the Wai'anae Sugar Plantation was established and later extended into Lualualei. The Wai'anae Sugar Plantation was one of the first plantations to be serviced by a railroad. The plantation would send sugar by boat to Honolulu until the OR&L railroad was constructed, which ran near the existing Farrington Highway. Prior to the construction of the OR&L railroad and Farrington Highway, the site was formerly a traditional Hawaiian coastal trail. It is unclear whether the railroad had ever passed through the Wai'anae WWTP project site, but there are no remnants of the trail or railroad in the immediate vicinity of the Wai'anae WWTP project site.

CSH identified several archaeological studies that have been conducted in the immediate vicinity of the project area—including that of Perzinski et al. (2002), Sinoto and Pantaleo (1990), Flood and Dixon (1994), and McElroy (2008), Thurman and Hammatt (2009), and Blahut and Hammatt (2009)—yet no historic properties have been identified within one kilometer of the project site. However, archaeological artifacts and cultural sites were found during investigations further from the Wai'anae WWTP project site. These include some burials, shelters, a cave, and the Kū'īlioloa Heiau (the Long Dog Kū temple), located approximately 1.2 kilometer from the project site. The Kū'īlioloa Heiau in particular was located on the south point of Pōka'i Bay, the political and religious center of the region (McAllister, 1933; Tao, 1979; Merrin et al., 2002). This heiau was named for a legendary dog who was known to protect travelers passing through the area.

Impacts and Mitigation Measures

No impacts to existing archaeological, architectural, or cultural resources are anticipated. The installation of the AST and removal of the existing tank will not require expansion of the existing site nor disturbance to the land beyond what has already been displaced. Functionally, the new installation will have generally the same use and properties.

In the event that any unexpected iwi or other historical remains are uncovered during the various phases of construction (e.g. excavation and trenching), the Contractor will be required to halt construction activities and to immediately notify the State Historic Preservation Division (SHPD) of the discovery.

The LRFI report supports a City and County of Honolulu Environmental Services determination as per HAR §13-275- 7(a)(1) of “No historic properties affected” and for no further historic preservation study. Early consultation with the SHPD archaeology and architecture branches (with submittal of the LRFI) is recommended.

2.3. Floral and Faunal Resources

In a letter from DOFAW on May 2, 2025, it states that there are no Federally declared critical habitats in the vicinity of this project nor any other Federal administered lands in the area. However, the following State listed species may occur within the project area: 1) 'ōpe'ape'a, or Hawaiian hoary bat (*Lasiurus semotus*), 2) several species of seabirds, 3) honu or green sea turtle (*Chelonia mydas*), and 4) 'Īlio holo i ka uaua or Hawaiian monk seal (*Monachus schauinslandi*).

According to the U.S. Fish and Wildlife Service's map for the Information for Planning and Consultation, there are several species identified as potentially occurring in the general vicinity or passing through the area:

- Hawaiian Hoary Bat – *Lasiurus cinereus semotus*
- Band-Rumped Storm-petrel – *Hydrobates castro*
- Hawaiian Common Gallinule – *Gallinula galeata sandvicensis*
- Hawaiian Coot (Ke'oke'o) – *Fulica alai*
- Hawaiian Duck – *Anas wyvilliana*
- Hawaiian Petrel – *Pterodroma sandwichensis*
- Hawaiian Stilt – *Himantopus mexicanus knudseni*
- Newell's Shearwater – *Puffinus newelli*
- Green Sea Turtle (Honu) – *Chelonia mydas*
- Hawksbill Sea Turtle – *Eretmochelys imbricata*

The following migratory birds are known to pass through the region:

- 'Apanepane – *Himatione Sanguinea*
- Laysan Albatross – *Phoebastria Immutabilis*
- O'ahu 'Amakihi – *Chlorodrepanis Flava*
- Wandering Tattler – *Tringa Incana*

The following flora species have also been identified for this region:

- 'Akoko – *Euphorbia celastroides var. kaenana*
- 'Akoko – *Euphorbia skottsbergii var. skottsbergii*
- 'Ena'ena – *Pseudognaphalium sandwicense var. molokaiense*
- Awiwi – *Schenkia sebaeoides*
- Dwarf Naupaka – *Scaevola coriacea*
- Ihi – *Portulaca villosa*
- Ohai – *Sesbania tomentosa*

- Popolo – *Solanum nelsonii*
- Pu'uka'a – *Cyperus trachysanthos*
- Round-leaved Chaff-flower – *Achyranthes splendens var. rotundata*
- Ihi'ihi – *Marsilea villosa*

Impacts and Mitigation Measures

Construction will occur entirely within the existing City property on land that has been previously disturbed and no vegetation removal is anticipated

A letter from DOFAW dated May 2, 2025 recommends several best practices for preventing harm to the local ecosystem or to migratory species in the area. The following guidelines are provided to minimize environmental impacts:

Endangered Species:

- Prior to initiating construction and before restarting construction after a delay, a qualified personnel with seabird biology experience should conduct surveys of nearby areas for signs of active nesting or brooding. If a nest or brood is found, a 100-foot buffer around the area will be created.
- For nighttime work that might be required, use fully shielded lights angled downward to reduce the risk of harm to native seabirds.
- Nighttime work that requires outdoor lighting should be avoided during the seabird fledging season (September 15 through December 15) when young seabirds make their maiden voyage to sea.
- If nighttime construction is required, a qualified biologist should be present at the project site to monitor and assess the risk of seabirds being attracted or grounded due to the lighting.
- Permanent lighting also poses a risk of seabird attraction and should be minimized or eliminated. If needed, permanent lighting should be shielded or angled downward.
- Out of concern for seabirds and other species attracted to the site by construction activity, measures should be taken to minimize predator presence on site (i.e. remove cats, place bait stations for rodents and mongoose, and provide covered trash receptacles).
- If landscaping work is to be done, it is recommended that native species appropriate for the project area are used as opposed to

invasive species. DOFAW recommends that contractors refer to www.plantpono.org for guidance in this process.

Invasive Species:

- DOFAW recommends minimizing movement of plant or soil material between worksites to prevent the transport of fungal pathogens, vertebrate, invertebrate pests, and invasive plant species. Consultation is recommended with the O‘ahu Invasive Species Committee to help design and plan the project.
- It is recommended that the import of soil or plant material from off-island that may contain fungi and other pathogens be avoided. Consultation is recommended with the Hawai‘i Interagency Biosecurity Plan in the construction process.
- To prevent infestation of the Coconut Rhinoceros Beetle (CRB), the movement of CRB-host material, including a) entire dead trees, b) mulch, compost, trimmings, fruit and vegetative scraps, and c) decaying stumps, is prohibited under the Hawai‘i Department of Agriculture’s Plant Quarantine Interim Rule 22-1. In addition, host plants for CRB include the live palm plants of the following genera, Washingtonia, Livistona, and Pritchardia (all commonly known as fan palms), Cocos (coconut palms), Phoenix (date palms), and Roystonea (royal palms), all of which may contain CRB infestations.

2.4. Environmental Quality

2.4.1. Visual Resources

The project site is located on the mauka side of Farrington Highway, at the base of a ridgeline. Wai‘anae Mall lies to the north of the project site and Maili‘ili Beach is to the west. The existing Wai‘anae WWTP is a prominent fixture in the area. Landscaping has been added to reduce its visibility from both the highway and nearby Wai‘anae town.

Impacts and Mitigation Measures

The proposed project is not expected to have a significant impact on existing visual resources, as it will take up a relatively small space within a property that is already developed. Viewsheds of the coastline and mountain would not be affected by the proposed project.

2.4.2. Acoustic Characteristics

Noise from the project site is influenced by its proximity to Farrington Highway, a major State roadway that serves as the only access point to the Wai'anae Coast. Traffic along Farrington Highway is a prominent source of background noise in the area, with passing vehicles contributing significantly to the overall sound environment.

Impacts and Mitigation Measures

Temporary audible noise from the project is expected to be intermittent and unavoidable due to the presence of construction vehicles, heavy equipment, and excavation activities. Ambient noise levels are expected to briefly increase during construction, primarily from work vehicles and machinery.

To mitigate noise impacts, construction work will be scheduled during daytime hours, thereby avoiding excessive noise during the nighttime. Given the existing noise environment from vehicles passing along Farrington Highway, the construction is not expected to significantly increase overall noise levels.

The Contractor will be required to follow BMPs to control noise levels at all times. Temporary noise reduction measures during construction may include, but are not limited to, the use of sound-walls, sound blankets and curtains, equipment mufflers and low-noise generators.

2.4.3. Air Quality

The air quality at the WWTP is generally consistent with ambient conditions typical of coastal area on the Wai'anae Coast. Emissions from nearby traffic along Farrington Highway may contribute to localized air pollutants. Since the WWTP is in an open area, prevailing trade winds typically help disperse odors and maintain good air circulation.

Impacts and Mitigation Measures

No significant impacts to air quality nor measurable adverse effect on climatic conditions is anticipated from the project. Ambient air quality may be temporarily affected by construction-related vehicles, equipment, and activities that would generate fugitive dust and emissions. To prevent air pollution and dust control because of the demolition of structures, the Contractor shall sprinkle exposed soils with water to maintain moistness.

2.4.4. Hazardous Materials

The proposed AST will store up to 6,000 gallons of diesel fuel for the WWTP facility operations. Stored fuel is regulated under National Fire Protection Association (NFPA) 30 (Flammable and Combustible Liquids Code), the Honolulu Fire Code, ROH Chapter 66, and Clean Water Act Spill Prevention, Control and Counter Measures or Spill Prevention, Control, and Countermeasure rule (40 Code of Federal Regulation 112).

Impacts and Mitigation Measures

The primary tank will be constructed of steel and encased by a secondary tank to provide secondary containment with interstitial monitoring in compliance with regulatory requirements. The double-walled tank will be encased in concrete to ensure corrosion, fire, and impact resistance. The secondary containment serves as a barrier between the steel and concrete.

The proposed fuel storage tank will be designed, installed, and maintained in accordance with all applicable federal, state, and county regulations. With appropriate containment and emergency measures in place, the project is not expected to result in significant adverse impacts related to hazardous materials. The upgrades of the storage tank system shall be in strict accordance with the guidelines and requirements set forth in the Federal Register 40, Code of Federal Regulation PART 280 and API recommended practice 2015 "safe entry and cleaning of petroleum storage tanks" and shall adhere to all required safety precautions.

If there are any fuel spillages or existing leaks found as a result of construction, the Contractor shall report it to the Hazard Evaluation and Emergency Response Unit of the Department of Health.

A letter dated April 21, 2025 from the Honolulu Fire Department (HFD) requires the project to follow all applicable requirements of the ROH Chapter 20 regarding Flammable and Combustible Liquid Storage Tanks be in effect at the issuance of the building permit application.

Twenty steel pipe bollards will be installed around the AST to protect it from accidental vehicle collisions to reduce the risk of spills, leaks, or structural damage. Pipe bollards will be sized and spaced with proper clearances to meet the minimum NFPA requirements, including:

- Three feet minimum horizontal clearance between the edge of the AST and the outer edge of the pipe bollard.

- Three feet maximum spacing, on-center, between adjacent pipe bollards.
- Three feet minimum height of bollard, as measured from finish grade to the top of the bollard.

2.5. Public Infrastructure & Services

2.5.1. Site Access, Circulation and Traffic

Vehicular access to the WWTP is provide via a gated entrance located off of Farrington Highway, the primary access roadway to the Wai'anae Coast. The entrance allows for controlled access for authorized personnel and service vehicles. Internal circulation within the WWTP facility is facilitated by paved roads that provide access to all the buildings.

Impacts and Mitigation Measures

Construction vehicles hauling materials and workers to and from the WWTP may contribute to traffic volume on Farrington Highway, and it is recommended that construction deliveries be scheduled to avoid peak hours. Temporary impacts to traffic may occur during construction of the proposed project, but the impacts are anticipated to be minimal.

2.5.2. Potable Water and Wastewater

Water service is supplied by the Honolulu Board of Water Supply. An 8-inch water line runs on Farrington Highway.

Wastewater to the property is transported by a 36-inch influent sewer line and treated water is conveyed out by a 36-inch effluent gravity line.

Impacts and Mitigation Measures

In an early consultation letter dated April 24, 2025, the Board of Water Supply indicated that the existing water system is adequate to accommodate the proposed development.

The proposed upgrades will not alter the capacity or operations of the WWTP, but will improve the reliability of service so the community can expect continued reliable wastewater services, which support the economic and social welfare of the communities served by the WWTP. Since no significant impacts to the utilities are anticipated, no mitigation is proposed.

2.5.3. Power and Communications

HECO provides power to the WWTP. The emergency power system is used to provide backup power when normal HECO service fails. The system consists of two major components: the emergency generator and the automatic transfer controller (as described in Section 1.4).

Communication systems consist of the following: Telemetry and SCADA, and telephone service. The telemetry and SCADA system provides local and remote monitoring of the facility. Telephone service is used for normal telephone communications and as a mechanism for telemetry to SCADA.

Impacts and Mitigation Measures

No significant adverse impacts to power and communications are anticipated. In an e-mail response dated May 9, 2025 from HECO during the early consultation process, HECO stated that coordination may be required for system extensions or service upgrades depending on the final design and electrical load requirements. Access to HECO facilities within or adjacent to the site will be maintained at all times for safe operation, maintenance, and emergency response.

2.5.4. Emergency Service Facilities and Shelters

Law enforcement services are provided by the Honolulu Police Department (HPD). The nearest police station is the Wai'anae Police Station, located at 85-939 Farrington Highway, approximately 0.8 miles from the project site.

HFD provides fire protection and first responder emergency services. The nearest fire station is Wai'anae Fire Station 26, located at 85-645 Farrington Highway, approximately 2.8 miles from the project site.

The Wai'anae Coast Comprehensive Health Center, located at 86-260 Farrington Highway, is approximately 0.5 miles from the project site.

Impacts and Mitigation Measures

No significant adverse impacts to police, fire, or medical services are anticipated to occur from the proposed project at the Wai'anae WWTP. A letter from HPD dated April 14, 2025 stated that they do not have any concerns at this time and a letter dated April 21, 2025 from the HFD requested that all applicable requirements of the ROH Chapter 20 be in effect at the time the building permit application for the project is issued.

2.5.5. Recreational Resources

The Wai'anae WWTP is located across Farrington Highway from Lualualei Beach Park, which is managed by the City Department of Parks and Recreation. This beach park is a narrow 18-acre City park containing a public bathroom building. It is sandy, but also contains a rocky shoreline. The beach park is mostly used by local fishermen.

Impacts and Mitigation Measures

The proposed project is not anticipated to have any significant impact on the functioning or quality of existing recreational resources in the area. The project will be confined to the existing WWTP facility. Lualualei Beach Park is located across Farrington Highway from the WWTP and is physically separated from the project area by the roadway.

2.6. Socio-Economic Characteristics

The project site is situated on the Wai'anae Coast on O'ahu, within the Wai'anae Neighborhood Area. This region is predominately home to Native Hawaiian and Pacific Islander populations. The area has a resident population of 26,085 people and contains 7,265 total households, with an average household size of 3.45 individuals. The median household income is \$64,426. (Department of Planning and Permitting, 2023)

Impacts and Mitigation Measures

The project will involve construction activities that will create short-term jobs in design and construction. The project will not affect population levels or housing. The proposed upgrades will not alter the capacity or operations of the WWTP. The community can expect continued reliable wastewater services, which support the economic and social welfare of the community served by the WWTP.

3. RELATIONSHIP TO PLANS, POLICIES, AND CONTROLS

3.1. Hawai'i State Plan

The Hawai'i State Plan (Chapter 226, HRS) outlines broad goals, policies, and objectives to serve as guidelines for the future growth and development of the State. It also provides a basis for determining priorities, allocating limited resources, and improving coordination of State and County plans, policies, programs, projects, and regulatory activities. The Hawai'i State Plan establishes a set of themes, goals, objectives, and policies that are meant to guide the State's long-range growth and development activities. Applicable sections of HRS Chapter 226 to the proposed project are discussed below.

§226-13 Objectives and policies for the physical environment--land, air, and water quality.

- Objective 1. Maintenance and pursuit of improved quality in Hawai'i's land, air, and water resources.
 - Policy 2. Promote the proper management of Hawai'i's land and water resources.
 - Policy 3. Promote effective measures to achieve desired quality in Hawai'i's surface, ground, and coastal waters.
 - Policy 5. Reduce the threat to life and property from erosion, flooding, tsunamis, hurricanes, earthquakes, volcanic eruptions, and other natural or man-induced hazards and disasters.

§226-14 Objective and policies for facility systems--in general.

- Policy 1. Accommodate the needs of Hawai'i's people through coordination of facility systems and capital improvement priorities in consonance with state and county plans.

§226-15 Objectives and policies for facility systems--solid and liquid wastes.

- Objective 1. Maintenance of basic public health and sanitation standards relating to treatment and disposal of solid and liquid wastes.
- Objective 2. Provision of adequate sewerage facilities for physical and economic activities that alleviate problems in housing, employment, mobility, and other areas.

Discussion:

The proposed project complies with the elements of the Hawai'i State Plan by providing essential upgrades to critical public infrastructure and enhancing its resiliency against future disruptions or disasters. By upgrading the fuel tank storage infrastructure to reduce the risk of fuel leaks into the environment, the project supports the State's objectives to maintain sewage facilities that meet public health and sanitation standards.

3.2. State Land Use District

The State Land Use Law (Chapter 205, HRS) is intended to preserve, protect, and encourage the development of lands in the State for uses which are best suited to the public health and welfare for Hawai'i's people. All lands in the State are classified into four land use districts by the State of Hawai'i, Land Use Commission: Urban, Rural, Agricultural, and Conservation.

The project site is entirely located within the Urban District, which is regulated by county zoning (see Section 3.8 City and County of Honolulu LUO). The proposed project is a permissible public use and structure within the Urban District, which has residential neighborhoods, commercial enterprises, industrial development, and community facilities such as public buildings.

3.3. State Coastal Zone Management Program

In 1977, Hawai'i enacted HRS Chapter 205A, Hawai'i Coastal Zone Management Program, to implement the state's coastal policies and regulations. The program was designed to coordinate federal, state, and county agency efforts in the comprehensive management of Hawai'i's coastal resources. It is administered by the State of Hawai'i, Office of Planning and Sustainable Development, while the four individual counties are responsible for local implementation through the Special Management Area (SMA) permit.

The objective of the act is to protect, preserve, and restore recreational, historic, and scenic resources as well as implement the State's ocean resources management plan and protect coastal ecosystems. Provided below are the objectives and policies from HRS Chapter 205A-2, along with a discussion of how the project conforms to these objectives and policies.

Recreational Resources

Objective: Provide coastal recreational opportunities accessible to the public.

Policies:

- (A) Improve coordination and funding of coastal recreational planning and management; and
- (B) Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:
 - (i) Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;
 - (ii) Requiring replacement of coastal resources that have significant recreational and ecosystem value, including but not limited to coral reefs, surfing sites, fishponds, sand beaches and coastal dunes, when these resources will be unavoidably damaged by development; or requiring monetary compensation to the State for recreation when replacement is not feasible or desirable;
 - (iii) Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;
 - (iv) Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;
 - (v) Ensuring public recreational uses of county, state, and federally owned or controlled shoreline lands and waters having recreational value consistent with public safety standards and conservation of natural resources;
 - (vi) Adopting water quality standards and regulating point and nonpoint sources of pollution to protect, and where feasible, restore the recreational value of coastal waters;
 - (vii) Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, and artificial reefs for surfing and fishing; and
 - (viii) Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the land use commission, board of land and natural resources, and county authorities; and crediting such dedication against the requirements of section 46-6.

Discussion:

The proposed project will not impact access to the shoreline. Existing recreational uses in the vicinity of the project site are not anticipated to be adversely affected by the proposed project.

Historic Resources

Objective: Protect, preserve, and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.

Policies:

- (A) Identify and analyze significant archaeological resources;
- (B) Maximize information retention through preservation of remains and artifacts or salvage operations; and
- (C) Support state goals for protection, restoration, interpretation, and display of historic resources.

Discussion:

There are no known cultural or historic resources within the site boundary, which has been previously graded, but recommendations by the SHPD will be followed to protect cultural resources, should any be discovered during construction.

Scenic and Open Space Resources

Objective: Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.

Policies:

- (A) Identify valued scenic resources in the coastal zone management area;
- (B) Ensure that new developments are compatible with their visual environment by designing and locating those developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;
- (C) Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources; and

- (D) Encourage those developments that are not coastal dependent to locate in inland areas.

Discussion:

The potential for adverse visual impacts is anticipated to be minimal. The proposed project involves replacing an existing underground fuel storage tank with an aboveground fuel storage tank, which will be located within a facility that is screened from view by landscaping fronting Farrington Highway. This vegetative barrier serves to minimize visibility from the primary public view corridor. Site grading will be limited to preserve the natural contours of the land.

Coastal Ecosystems

Objective: Protect valuable coastal ecosystems, including reefs, beaches, and coastal dunes, from disruption and minimize adverse impacts on all coastal ecosystems.

Policies:

- (A) Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources;
- (B) Improve the technical basis for natural resource management;
- (C) Preserve valuable coastal ecosystems of significant biological or economic importance, including reefs, beaches, and dunes;
- (D) Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs; and
- (E) Promote water quantity and quality planning and management practices that reflect the tolerance of fresh water and marine ecosystems and maintain and enhance water quality through the development and implementation of point and nonpoint source water pollution control measures.

Discussion:

This project replaces outdated infrastructure with a new fuel storage system that complies with current state regulations. The proposed AST will provide improved monitoring, maintenance and containment capabilities, thereby reducing the risk of fuel leaks that could impact coastal waters and marine ecosystems. The AST will be equipped with built-in secondary containment systems to capture any potential spills and minimize the risk of environmental contamination.

In addition, the project enhances accessibility and monitoring capability, which supports a more proactive and data-driven approach to resource management. The AST will include leak detection sensors and meet the latest standards for fuel storage safety, which is particularly important near sensitive coastal areas.

Economic Uses

Objective: Provide public or private facilities and improvements important to the State's economy in suitable locations.

Policies:

- (A) Concentrate coastal dependent development in appropriate areas;
- (B) Ensure that coastal dependent development and coastal related development are located, designed, and constructed to minimize exposure to coastal hazards and adverse social, visual, and environmental impacts in the coastal zone management area; and
- (C) Direct the location and expansion of coastal development to areas designated and used for that development and permit reasonable long-term growth at those areas, and permit coastal development outside of presently designated areas when:
 - (i) Use of presently designated locations is not feasible;
 - (ii) Adverse environmental effects are minimized; and
 - (iii) The development is important to the State's economy.

Discussion:

The proposed project supports a coastal-related public utility facility that is essential for treating wastewater collected and conveyed from the communities of Nānākuli, Lualualei, Mā'ili, Waianae, and Mākaha. By upgrading the infrastructure, the project ensures continued operation during power outages, thus supporting public health, safety, and economic stability.

Coastal Hazards

Objective: Reduce hazard to life and property from coastal hazards.

Policies:

- (A) Develop and communicate adequate information about the risks of coastal hazards;
- (B) Control development, in planning and zoning control, in areas subject to coastal hazards;
- (C) Ensure that developments comply with requirements of the Federal Flood Insurance Program; and
- (D) Prevent coastal flooding from inland projects.

Discussion:

The AST includes secondary containment to control potential fuel leaks and protect against point source pollution. The project will comply with all applicable flood requirements, including locating equipment above base flood elevations and ensuring that anchoring and construction standards meet flood zone regulations. In addition, the project will not increase runoff or alter drainage patterns in a way that could contribute to coastal flooding.

Managing Development

Objective: Improve the development review process, communication, and public participation in the management of coastal resources and hazards.

Policies:

- (A) Use, implement, and enforce existing law effectively to the maximum extent possible in managing present and future coastal zone development;
- (B) Facilitate timely processing of applications for development permits and resolve overlapping or conflicting permit requirements; and
- (C) Communicate the potential short and long-term impacts of proposed significant coastal developments early in their life cycle and in terms understandable to the public to facilitate public participation in the planning and review process.

Discussion:

The project will require several permits and regulatory approvals, including compliance with the Coastal Zone Management Act, Department of Health requirements for fuel storage, floodplain management standards, and the Chapter 343 Environmental Review process. The project team has coordinated with relevant regulatory agencies and provided public access to project information through the EA, which outlines potential short-term impacts and long-term benefits of the project. The EA process, as well as the SMA permitting process, will provide an opportunity for the public to review and comment on the proposed project.

Public Participation

Objective: Stimulate public awareness, education, and participation in coastal management.

Policies:

- (A) Promote public involvement in coastal zone management processes;
- (B) Disseminate information on coastal management issues by means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal related issues, developments, and government activities;
- (C) Organize workshops, policy dialogues, and site-specific mediations to respond to coastal issues and conflicts.

Discussion:

The proposed project fosters public awareness and participation by promoting communication and engagement through the EA process. Additional opportunities for public participation will be provided through the SMA permitting process.

Beach Protection

Objective: Protect beaches for public use and recreation.

Policies:

- (A) Locate new structures inland from the shoreline setback to conserve open space, minimize interference with natural shoreline processes, and minimize loss of improvements due to erosion;

- (B) Prohibit construction of private shoreline hardening structures, including seawalls and revetments, at sites having sand beaches and at sites where shoreline hardening structures interfere with existing recreational and waterline activities;
- (C) Minimize the construction of public shoreline hardening structures, including seawalls and revetments, at sites having sand beaches and at sites where shoreline hardening structures interfere with existing recreational and waterline activities;
- (D) Minimize grading of and damage to coastal dunes;
- (E) Prohibit private property owners from creating a public nuisance by inducing or cultivating the private property owner's vegetation in a beach transit corridor; and
- (F) Prohibit private property owners from creating a public nuisance by allowing the private property owner's unmaintained vegetation to interfere or encroach upon a beach transit corridor.

Discussion:

The proposed project conserves open space by being sited within an already developed area, thus avoiding impacts to natural shoreline processes. It does not involve any erosion-protection structures seaward of the shoreline and preserves public access to, and recreational use of, the beaches.

Marine Resources

Objective: Promote the protection, use, and development of marine and coastal resources to assure their sustainability.

Policies:

- (A) Ensure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;
- (B) Coordinate the management of marine and coastal resources and activities to improve effectiveness and efficiency;
- (C) Assert and articulate the interests of the State as a partner with federal agencies in the sound management of ocean resources within the United States exclusive economic zone;
- (D) Promote research, study, and understanding of ocean and coastal processes, impacts of climate change and sea level rise, marine life, and

other ocean resources to acquire and inventory information necessary to understand how coastal development activities relate to and impact upon ocean and coastal resources; and

- (E) Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.

Discussion:

See discussion above for Coastal Ecosystems.

3.4. Special Management Area

The purpose of the SMA is to “preserve, protect, and where possible, to restore the natural resources of the coastal zone of Hawai’i” (HRS §205A). Any action defined as “development,” pursuant to HRS §205A-22, requires an SMA (minor or major) Use Permit. On O’ahu, the SMA permit is administered by Department of Planning and Permitting. The project area is in the SMA and an SMA permit is required.

3.5. Shoreline Setback Area

The Shoreline Setback Area is a buffer zone inland from the certified shoreline, within which development is restricted or regulated to prevent adverse impacts. ROH Chapter 26 regulates the location and type of development allowed within shoreline setback areas to minimize hazards, protect coastal ecosystems, and preserve public shoreline access. The proposed project is not located in the shoreline setback area, as it is located more than 60 feet inland from the shoreline.

3.6. City and County of Honolulu General Plan

The O’ahu General Plan (2021) contains aspirational objectives and policies that address the physical, social, cultural, economic, and environmental concerns affecting the City. The Honolulu City Council adopted the General Plan on December 1, 2021 and the Mayor signed it on January 14, 2022. Applicable objectives and policies from the General Plan relevant to the project are provided below.

III. Natural Environment and Resource Stewardship

Objective A: To protect and preserve the natural environment.

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

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

V. Transportation and Utilities

Objective C: To maintain a high level of service for all utilities.

Policy 1: Maintain and upgrade utility systems in order to avoid major breakdowns and service interruptions.

Policy 2: Provide improvements to utilities in existing neighborhoods to reduce substandard conditions, and increase resilience to fluctuations, natural hazards, extreme weather, and other climate impacts.

Objective D: To maintain transportation and utility systems which will help O'ahu continue to be a desirable place to live and visit.

Policy 1: Give primary emphasis in the capital-improvement program to the maintenance and improvement of existing roads and utilities.

Policy 4: Evaluate the social, economic, and environmental impact of additions to the transportation and utility systems before they are constructed.

IX. Health and Education

Objective A: To protect the health and well-being of residents and visitors.

Policy 3: Coordinate City and County health codes and other regulations with State and Federal health codes to facilitate the enforcement of air, water, and noise pollution controls.

Discussion:

The Wai'anae WWTP project aligns with the objectives and policies of the City and County of Honolulu General Plan. The project aims to minimize negative impacts on the natural environment and to maintain a high level of wastewater service for residents by replacing outdated equipment to meet current regulations and protect public health. The proposed improvements are designed to be compatible with the surrounding area.

3.7. Wai'anae Sustainable Communities Plan

The City and County of Honolulu has divided O'ahu into eight planning areas by ordinance, each with a Development Plan or a Sustainable Communities Plan (SCP) that outlines the vision, objectives, and goals for future development in the area. These community-oriented plans are intended to help guide land use planning and development on O'ahu. The Wai'anae SCP encompasses the leeward coast of O'ahu from Nānākuli to Ka'ena Point, an area that includes the Wai'anae WWTP.

The Wai'anae SCP was updated in 2012 and is currently being updated. It incorporates input from representatives and community leaders from the Wai'anae community into broader statewide public and private objectives. The key elements of the vision for the 2012 Wai'anae SCP are summarized below:

- Recognize the traditional ahupua'a of the Wai'anae District and adapt the ahupua'a concept as a framework for land use and open space planning.
- Delineate the four major land use types: Preservation Lands, Agricultural Lands, Rural Community Areas, and Coastal Lands.
- Restrict coastal urban, suburban, or resort development makai of Farrington Highway.
- Preserve all lands north of Kepuhi Point as open space lands.
- Preserve and restore streams and stream corridors.
- Preserve and protect cultural sites and cultural landscapes.
- Improve transportation systems within the District.
- Designate, plan, and develop Town Centers and Community Gathering Places for Wai'anae, Nānākuli, Lualualei, and Mākaha.
- Develop and support community-based businesses.
- Government agencies should partner with community-based organizations in order to better manage Wai'anae's natural and cultural resources.

The plan outlines several policies principles for sustainability to promote the long-term health of the land and its people, and its community resources for current and future generations. These principles include:

- Encourage planning, development, and construction technologies that minimize negative environmental impacts.
- Guide the process of change. Strive to make decisions based on an understanding of the effects such decisions will have on the land and community resources.

- As an integral part of the planning process, consider the long-term impact of proposed actions and prepare plans that can accommodate the needs of future generations accordingly.

Policy 4.3.2.2 pertains to the Wai'anae WWTP and states to:

Improve the Wai'anae Wastewater Treatment Plant

Implement landscaping improvements to the Wai'anae WWTP to minimize this facility's visual impact on the community. Monitoring of the operations that contribute to odor problems should be continued and operational improvements should be implemented if needed to minimize odor impacts.

Additionally, Policy 4.1.2.2. focuses on beautifying Farrington Highway and states that actions should be taken to screen visually unattractive industrial facilities such as Wai'anae WWTP.

Discussion:

The Wai'anae WWTP project supports the vision and policies outlined in the plan by upgrading vital community infrastructure to prevent future risk to the land and surrounding coastal resources. The project is aligned with Section 4.3 of the SCP, which promotes enhancements to wastewater infrastructure to improve system performance, safety, and resilience. The AST allows for easier access to the fuel tanks for necessary maintenance and repairs and avoids the risk of leakage into the soil.

3.8. City and County of Honolulu Land Use Ordinance

The LUO regulates land use in accordance with adopted land use policies, including the City's General Plan and the Development/Sustainable Community Plans. The project site is located within the I-2 Intensive Industrial District (Figure 3) and is considered a public use and structure, which are permitted in the I-2 District. The intent of the I-2 Intensive Industrial District is, "to set aside areas for the full range of industrial uses necessary to support the city. It is intended for areas with necessary supporting public infrastructure, near major transportation systems and with other locational characteristics necessary to support industrial centers."

Wastewater system infrastructure is a utility installation that is a permitted use. The definition of utility installations includes uses or structures, including all facilities, devices, equipment, or transmission lines, used directly in the distribution of utility services, such as water, gas, electricity, telecommunications other than broadcasting antennas, and refuse collection other than facilities included under waste disposal and processing. Pursuant to §21-2.130 of the City's LUO, the Director of the Department of Planning and Permitting may waive the strict application of

development or design standards for public or public/private uses and structures, and utility installations.

The proposed action is consistent with the development standards requiring a minimum lot area of 7,500 square feet, minimum lot width and depth of 60 feet, a minimum front yard setback of 5 feet, and a maximum building height of 80 feet.

4. POSSIBLE ALTERNATIVES

4.1. No Action

The no action alternative would maintain the status quo. No improvements would be made to the WWTP. However, since this project aims to provide important upgrades to the emergency fuel storage system as required by the passage of HAR Chapter 11-280.1, this option is not feasible. The City is legally required to upgrade the fuel storage tank. To forestall this action would increase the risk to the environment and public health due to non-compliant equipment.

4.2. Delayed Action

A delayed action implies that a project of similar scope and size to the proposed action would occur at an unspecified future date. As with the “no action” alternative, this would increase the risk for long term harm to the environment and public health of the surrounding community. In addition, as stated in HAR Chapter 11-280.1, these improvements must be completed before July 15, 2028. Postponing the construction would result in not meeting this deadline; therefore, this is not a feasible option.

4.3. Replace Existing UST with a compliant UST

This alternative would replace the existing UST with a new, compliant UST to meet regulatory requirements. However, it is not a preferred alternative because USTs are more difficult to inspect, maintain, and monitor for leaks or structural damage compared to ASTs. USTs are also more vulnerable to groundwater infiltration, particularly as groundwater levels rise. While a UST would have no visual presence and would be less susceptible to damage from vehicles, it would pose a greater risk of soil contamination and potential impacts to water quality.

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5. PERMITS AND APPROVALS

The exact permitting and approval requirements will be determined during the design phase, and the following list contains permits and approvals that may be required for the proposed project.

State of Hawai'i

- AST Notification
- Noise Permit
- Non-Covered and/or Covered Source Permit
- Oversized and Overweight Vehicles on State Highways Permit
- Disability and Communication Access Board Review
- State Historic Preservation Division Review

City and County of Honolulu

- Application and Permit for Tank Installation
- Building Permit
- Grubbing, Grading, and Stockpiling Permit
- Erosion Control Plan/Best Management Practices
- Flammable/Combustible Liquid Permit
- Special Management Area Use Permit

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6. DETERMINATION

According to HAR §11-200.1-13, an agency must determine whether an action may have a significant impact on the environment, considering all phases of the project, its expected primary and secondary impacts, cumulative effects with other projects, and its short- and long-term effects. In making this determination, the rules establish “significance criteria” to guide the consideration of potential environmental effects.

The proposed project is not likely to have a significant impact on the physical or human environment based on the analysis presented in this document. The City’s Department of Environmental Services anticipates that the appropriate determination is a Finding of No Significant Impact (AFONSI). The supporting rationale for this finding as set forth in HAR §11-200.1-13 is discussed below.

(1) *Irrevocably commit a natural, cultural, or historic resource;*

The proposed project is not expected to result in the loss of or damage to natural, cultural, or historic resources. Instead, it aims to provide protection against the harmful effects to the environment and public health that would occur as a result of deterioration or malfunction if the project were not undertaken. The project proposes to upgrade an existing underground fuel storage tank to an aboveground fuel storage tank system with mandated secondary containment and interstitial monitoring in an area that has been previously disturbed by grading, utility lines and road construction. The proposed work is to take place within an existing pump station facility and will not extend the footprint of the property. Biological resources may exist in the area and recommendations by DLNR DOFAW will be followed to mitigate any impact on these resources.

(2) *Curtail the range of beneficial uses of the environment;*

The proposed project does not limit nor prevent future beneficial uses of the surrounding environment for recreational, cultural, or preservation use. Its scope is limited to land which has already been developed, and does not entail the expansion of that area beyond existing boundaries.

(3) *Conflicts with the State’s environmental policies or long-term environmental goals established by law;*

The project does not conflict with the State’s environmental policies or long-term environmental goals. Rather, it aligns with Hawai’i’s environmental goals

by reducing the risk of fuel leakage to the surrounding soils. Provision of the AST will ensure that the facility is operable during an emergency power outage to prevent wastewater back-up.

(4) Have a substantial adverse effect on the economic welfare, social welfare, or cultural practices of the community or State;

The project is not expected to have an adverse effect on economic, social, or cultural welfare. Through the use of BMPs during construction, disturbances to the surrounding community are expected to be minimal. The upgrades to the WWTP prevent future system failures that would cause significant disruptions to the local infrastructure. The ability to better monitor and administer needed repairs to the fuel storage system will help to protect the general welfare of the community.

(5) Have a substantial adverse effect on public health;

The project is not projected to have an adverse effect on public health. Instead, it aims to safeguard public health by reducing the possibility of system failure within the WWTP. Through the use of BMPs, temporary impacts such as fugitive dust, noise, and intermittent traffic, during the construction process is expected to be negligible.

(6) Involve adverse secondary impacts, such as population changes or effects on public facilities;

No major adverse secondary impacts are expected as a result of the proposed project. Construction work will occur within the site boundaries and is not expected to significantly disrupt traffic. Upgrades are expected to positively impact the environmental sustainability of the existing public facility.

(7) Involves a substantial degradation of environmental quality;

No major degradation of environmental quality is expected as a result of the proposed project. The installation of the AST and removal of the existing UST will occur in a previously developed area. Through the use of BMPs, construction work will limit impacts such as erosion or runoff. The project will

serve the purpose of protecting the environment by reducing the risk of fuel spillage and malfunction.

- (8) Be individually limited but cumulatively has substantial adverse effect upon the environment or involves a commitment for larger actions;

The project is limited in scope. No larger or cumulative impact on the environment is expected from the project.

- (9) Have a substantial effect on rare, threatened, or endangered species, or its habitat;

The project area is not located within any critical habitats. No major impact on rare, threatened, or endangered species, or critical habitats is expected. Through the use of BMPs, construction work is expected to mitigate any disturbances to regional species to a minimal effect.

- (10) Have a substantial adverse effect on air or water quality or ambient noise levels;

No substantial adverse effect on air or water quality or ambient noise levels are expected. Any potential impacts will be temporary and limited to construction-related disturbances, which will be mitigated through BMPs.

- (11) Have a substantial adverse effect or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters;

The project is situated in an environmentally sensitive area within a tsunami zone. It is also in Flood Zone AE and Flood Zone D. Flood Zone AE corresponds to areas subject to inundation by a one-percent-annual-chance flood event, and Flood Zone D corresponds to areas of undetermined flood risk. Only a narrow strip of the parcel fronting Farrington Highway is in Flood Zone AE, while the remainder of the property is in Flood Zone D. The project will comply with the requirements of ROH Chapter 21A, the Flood Hazard Areas Ordinance

- (12) Have a substantial adverse effect on scenic vistas and view planes identified in county or state plans or studies; or

No substantial adverse effect on scenic vistas or view planes is expected as a result of the project. The proposed project will take place within a fenced parcel.

- (13) Require substantial energy consumption or emit substantial greenhouse gas.

The project will not require substantial energy consumption or emit substantial greenhouse gases. Installation of the AST and piping would take place during a limited time period and would not require substantial energy consumption. Greenhouse gas emissions from diesel-power construction equipment and generators would occur during the temporary period of construction. No mitigation is proposed for temporary impacts. In the long term, permanent fuel tank system infrastructure represents a continuation of current operations.

7. PUBLIC AGENCY REVIEW AND CONSULTATION

An Early Consultation Letter and Handout was sent on April 1, 2025, to initiate the environmental review process. A list of consulted agencies, organizations, and interest groups are listed below. There were ten (10) formal responses to the early consultation letter, as indicated by the ✓ below. A copy of the Early Consultation Letter, Handout, and Responses are included in Appendix B.

State of Hawai'i

- Department of Hawaiian Home Lands
- Department of Health
- Department of Land and Natural Resources
 - Aha Moku Advisory Committee
 - Commission on Water Resource Management ✓
 - Division of Forestry and Wildlife ✓
 - Engineering Division ✓
 - Land Division ✓
- Department of Transportation
- Hawai'i Emergency Management Agency
- Office of Hawaiian Affairs
- Office of Planning and Sustainable Development ✓
- Senate District 22 (Senator Samantha Decorte)
- House District 45 (Representative Christopher Muraoka)

City and County of Honolulu

- Board of Water Supply ✓
- Department of Climate Change, Sustainability, and Resiliency
- Department of Design and Construction ✓
- Department of Emergency Management
- Department of Environmental Services
- Department of Land Management

Fuel Storage Tank Improvements Wai'anae Wastewater Treatment Plant

Department of Facilities Maintenance

Department of Parks and Recreation

Department of Planning & Permitting

Department of Transportation Services

Honolulu City Council District 1 (Andria Tupola)

Honolulu Fire Department ✓

Honolulu Police Department ✓

Other

Hawaiian Electric Company ✓

Wai'anae Coast Neighborhood Board No. 24

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Appendix A

Archaeological Literature Review and Field Inspection Report

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Draft

**Archaeological Literature Review and Field Inspection
for a Waianae Wastewater Treatment Plant
Improvements Project,
Lualualei Ahupua‘a, Wai‘anae District, O‘ahu
TMK: (1) 8-6-001:044 por.**

**Prepared for
Townscape, Inc.
on behalf of the
City and County of Honolulu (C&C) Department of Environmental Services (ENV)**

**Prepared by
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and
Hallett H. Hammatt Ph.D**

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April 2025

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Management Summary

Reference	Archaeological Literature Review and Field Inspection for the Waianae Wastewater Treatment Plant Improvements Project, Lualualei Ahupua'a, Wai'anae District, O'ahu, TMK: (1) 8-6-001:044 por. (Shideler and Hammatt 2025)
Date	April 2025
Project Number(s)	Cultural Surveys Hawai'i, Inc. (CSH) Job Code: LUALUALEI 40
Investigation Permit Number	CSH completed the fieldwork component of this study under archaeological fieldwork permit number 25-04, issued by the Hawai'i State Historic Preservation Division (SHPD) per Hawai'i Administrative Rules (HAR) §13-13-282.
Agencies	SHPD
Project Proponent	City and County of Honolulu (C&C) Department of Environmental Services (ENV)
Project Funding	C&C
Project Location	<p>The project is located in the west/central portion of the Waianae Wastewater Treatment Plant (WWTP) at 87-100 Farrington Highway, Wai'anae, Hawai'i 96792 in Lualualei Ahupua'a, Wai'anae District on the Island of O'ahu (TMK: [1] 8-6-001:044). The Waianae WWTP is located just south of Wai'anae Town on the central Wai'anae coast, northwest of the nose of coastal headland Pu'umā'ili'ili Ridge. It is bounded on the southwest by Farrington Highway and on the north by Leihoku Street. The Waianae WWTP and the project area is depicted on a portion of a 2017 Waianae U.S. Geological Survey (USGS) 7.5-minute series topographic quadrangle (Figure 1), a tax map plat (Figure 2), and a 2019 aerial photograph (Figure 3).</p> <p>The specific project within the central Waianae WWTP is to replace an underground storage tank (UST) for diesel fuel with an aboveground storage tank (AST) in the immediate area adjacent to the southwest of the Generator Building and immediately northwest of the Chlorination Building with new above ground fuel piping along the south side of the Generator Building as depicted on a plan map of a portion of the Waianae WWTP (Figure 4) and as explicated in two annotated photographs (Figure 5 and Figure 6).</p>
Land Jurisdiction	C&C
Project Acreage	The Waianae WWTP project area is approximately 17.93 acres (7.26 hectares). The actual area of the project is estimated at approximately 20 square meters (sq m).
Project Description and Ground Disturbance	The C&C ENV proposes the following site improvements:

	<ul style="list-style-type: none"> • Replace an underground storage tank (UST) with aboveground storage tank (AST) • Replace fuel piping • Replace fuel monitoring panel and all sensors <p>A project plan is provided in Figure 4 with two annotated photographs supplied in Figure 5 and Figure 6 to explain the layout.</p>
Historic Preservation Regulatory Context	<p>This is a state/municipal “governmental” project needing review under Hawai‘i Revised Statutes (HRS) §6E-8 and HAR §13-275</p>
Document Purpose	<p>This investigation was designed—through detailed historical, cultural, and archaeological background research and a field inspection of the project area—to determine the likelihood that historic properties may be affected by the project and based on findings, consider cultural resource management recommendations. This document is intended to facilitate the project’s planning and support the project’s historic preservation environmental review compliance. This investigation does not fulfill the requirements of an archaeological inventory survey investigation, per HAR §13-276.</p>
Natural and Built Environment	<p>The Waianae WWTP is located approximately 150 m inland from the coast just north of Kalaeokakao Point at an elevation of less than 40 feet (ft) above sea level. While the WWTP lies immediately west of the Pu‘umā‘ili‘ili headland, it is relatively flat with only the southeast edge rising slightly ascending the landform.</p> <p>Soils within the project area (Figure 7) are Mokuleia clay (Mtb):</p> <p style="padding-left: 40px;">This series consists of well-drained soils along the coastal plains on the islands of Oahu and Kauai. These soils formed in recent alluvium deposited over coral sand. [...] These soils are used for sugarcane, truck crops, and pasture. The natural vegetation consists of kiawe, klu, koa haole, and bermudagrass in the drier areas and napiergrass, guava, and joe in the wetter areas. [Foote et al. 1972:95]</p> <p>Mtb soils are further described as: “Permeability is slow in the surface layer, workability is difficult because of the sticky, plastic clay” (Foote et al. 1972:95).</p> <p>The project area receives approximately 404 mm (15.9 inches) annual rainfall which is insufficient for non-irrigated agriculture (Giambelluca 2013).</p> <p>While the culverted Mā‘ili‘ili drainage channel is only 300 m southeast of the project area and approximates the former channel of Mā‘ili‘ili Stream, this stream is understood to have been intermittent and the water is believed to have been of questionable potability. This is one of the hottest, driest, least watered places on O‘ahu.</p>

<p>Background Research Methods</p>	<p>Background research included a review of previous archaeological studies on file at the SHPD; review of documents at Hamilton Library of the University of Hawai‘i, the Hawai‘i State Archives, the Mission Houses Museum Library, the Hawai‘i Public Library, and the Bishop Museum Archives; study of historic photographs at the Hawai‘i State Archives and the Bishop Museum Archives; and study of historic maps at the Survey Office of the Department of Accounting and General Services. Historic maps and photographs from the CSH library were also consulted. In addition, Māhele records were examined from the Waihona ‘Aina database (Waihona ‘Aina 2025).</p> <p>This literature review and field inspection study (LRFI) views the entire Waianae WWTP as the background study area but the fieldwork focused exclusively on the project area.</p>
<p>Cultural Context</p>	<p>Lualualei and the community of Nānākuli just to the south were amongst the driest places on O‘ahu and were sparsely populated. The main population center of Lualualei, as small as it was, was at Pūhāwai nearly 6 km to the north at the base of the northern rim of the valley where there was water sufficient for limited agriculture and human life (Figure 8). There were undoubtedly temporary fishing camps at the coast and some burials in the coastal sands but a generally low level of evidence of traditional Hawaiian activity would be expected.</p> <p>Today’s Farrington Highway follows a traditional Hawaiian coastal trail developed over time for horses, buggies carts, cars, and the Oahu Rail and Land (OR&L) railroad which was a major feature of coastal development.</p> <p>The political and religious center of the Wai‘anae coast was at coastal Wai‘anae Ahupua‘a just back of Pōka‘i Bay only a kilometer to the northwest.</p> <p>Lualualei contains many places associated with traditions of the Polynesian demi-god Māui including Pu‘u Heleakalā, Hina’s cave, and the celebrated Māui <i>Pōhaku</i> (boulder).</p>
<p>Land Commission Awards (LCAs)</p>	<p>In the Māhele land division of 1848, Lualualei was part of the crown lands owned by Kamehameha III (McGrath et al. 1973:28). Twelve land claims were made in Lualualei, but only six were awarded. All six Land Commission Awards (LCAs) were located upland in the <i>‘ili</i> (land division smaller than an <i>ahupua‘a</i>) of Pūhāwai, located approximately 6 km northeast of the Waianae WWTP in the extreme north corner of the <i>ahupua‘a</i> (land division typically running from the mountains to the sea) (shown on Figure 8). No native tenant land titles were claimed near the coast. From the claims, it can be determined that at least eight families were living in Pūhāwai at the time of the Māhele in 1848. Together, they cultivated a minimum of 163 <i>lo‘i</i> (wetland agriculture plot). The numerous <i>lo‘i</i> mentioned in the claims indicate the land was</p>

	<p>ideal for growing wetland taro and that this livelihood was actively pursued by the awardees. In addition, dryland crops were grown on the <i>kula</i> (plains), <i>wauke</i> (paper mulberry, <i>Broussonetia papyrifera</i>), was being cultivated, and one claimant was making salt.</p> <p>There were several native tenant LCAs in Wai‘anae Ahupua‘a arrayed back of Pōka‘i Bay approximately 1.0 km to the north (Figure 9).</p>
<p>Historical Background Focused on a Review of Historic Maps and Aerial Photographs</p>	<p>In pre-Contact times, the district of Wai‘anae was known for its plentitude of fish and for the independent lifestyle and attitudes of its inhabitants. This independence was a factor in many of the political struggles of the pre- and early post-Contact periods, when the district was the scene of battles and rebellions and often the refuge of dissident and/or contentious factions. This independent spirit is often attributed to the conditioning of generations having to cope with the marginal environments of many areas of Wai‘anae, including Lualualei, which were notorious for their inhospitable climates.</p> <p>Although the dry, arid coast of Wai‘anae presented a dismal forecast, the ocean provided an abundant supply of fish (Handy and Handy 1972:468). The lowlands provided <i>‘uala</i> (<i>Ipomoea batatas</i>; sweet potato) and <i>niu</i> (<i>Cocos nucifera</i>; coconut), while the inland valley areas were planted in <i>kalo</i> (<i>Colocasia esculenta</i>; taro) and <i>wauke</i> (<i>Broussonetia papyrifera</i>; paper mulberry). The upland forest regions provided various woods for making weapons and canoes.</p> <p>By 1811, sandalwood (<i>Santalum</i> sp.; <i>‘iliahi</i>) merchants began actively exploiting the Hawai‘i market, and large amounts of sandalwood were exported to China. Traditionally, Hawaiians used sandalwood for medicinal purposes and as a scent to perfume their <i>kapa</i> (barkcloth). The sandalwood trade greatly impacted Hawaiian culture, and the traditional lifestyle of the Hawaiians was altered drastically. However, the sandalwood era was short-lived, and by 1829, the majority of the sandalwood trees had been harvested; the bottom fell out of the trade business. Although it is unclear how extensive Lualualei’s sandalwood resources were, the effects of sandalwood gathering, the population shifts, and the disruption of traditional lifestyles and subsistence patterns would undoubtedly have affected the population of Lualualei (‘Ī‘ī 1959; Kamakau 1992).</p> <p>The missionaries were the first to gather systematic population statistics throughout the various districts on each island. The first census figures were gathered from 1831–1832 and 1835–1836. Population figures for Lualualei were not given; however, population numbers for all of Wai‘anae were 1,868 and 1,654, respectively (Schmitt 1973:9).</p> <p>Following the western encroachment into the Wai‘anae Coast, a swift decline in population occurred as a result of disease and a “tendency to</p>

move to the city where there was more excitement” (McGrath et al. 1973:25). In 1855, the Wai‘anae tax collector recorded 183 taxpayers on the leeward coast, which is thought to represent a total population of about 800 people. This catastrophic depopulation facilitated the passing of large tracts of land into the hands of a few landholders and led to the decline of the traditional economy that once supported the region (Hammatt et al. 1993:10–11).

The Organic Acts of 1845 and 1846 initiated the process of the Māhele, the division of Hawaiian lands that introduced private property into Hawaiian society. In 1848, the crown, the Hawaiian government, and the *ali‘i* (chiefly class) received their land titles. The common people (*maka‘āinana*) received their *kuleana* awards (individual land parcels) in 1850. It is through records for Land Commission Awards (LCAs) generated during the Māhele that the first specific documentation of life in Wai‘anae as it had evolved up to the mid-nineteenth century comes to light.

At the time of the Māhele, the *ahupua‘a* (traditional land division) of Wai‘anae, which included Lualualei, was listed as Crown lands and was claimed by King Kamehameha III as his personal property (Board of Commissioners 1929:28). The Kuleana Act of 1850 confirmed and protected the rights of native tenants. However, not everyone who was eligible to apply for *kuleana* lands did so, and, likewise, not all claims were awarded. Of the 12 land claims made in Lualualei, six were awarded. All six awards were upland in the *‘ili* (smaller land division) of Pūhāwai, far *mauka* (inland, toward the mountains) of the current project area; no quiet land titles were claimed near the coast (Waihona ‘Aina 2025).

The first longhorn cattle were brought to O‘ahu from Hawai‘i Island in 1809 by John Young and Kamehameha I (Kamakau 1992:268). One of the first areas to be utilized for ranching on the Wai‘anae coast was Lualualei. The Hawai‘i Bureau of Land Conveyances (B.C.) 1845–1869 records (archived at the Department of Land and Natural Resources [DLNR]) show that William Jarrett leased approximately 17,000 acres of land from Kamehameha III in 1851; this was the beginning of Lualualei Ranch.

The sugar industry came to the Wai‘anae coast in 1878, when the first sugarcane was planted in upper Wai‘anae Valley. With strong financial backing from King Kalākaua, Hermann A. Widemann, a German immigrant, was able to initiate the Waianae Sugar Plantation in 1879. This plantation would eventually extend into Lualualei.

The 1881 Covington map (Figure 10) gives a feeling for how undeveloped the vicinity is with no place names or development indicated on the coast. Just to the north Wai‘anae town had an

<p>anchorage at Pōka'i Bay with coastal settlement at Pōka'i and just up the coast at Kamaile. The indicated traditional coastal trail on the seaward side of the Waianae WWTP location would evolve into modern Farrington Highway.</p> <p>The 1884 Jackson map (Figure 11) shows the new sugar mill in Wai'anae town with rail lines radiating out including a rail line seaward of the Waianae WWTP location (smack on the coast) extending into Lualualei valley south of the Pu'umā'ili'ili headland to reach new fields. The "Solitary Coconut" indicated in the Waianae WWTP lands conveys a lack of habitation and enterprise.</p> <p>By 1892, at least 300 acres of cane were planted in Lualualei. In addition to the cultivated lands, a railroad, irrigation ditches and flumes, reservoirs, and plantation housing were constructed to support the sugar industry.</p> <p>Although it was never a large-scale plantation by modern standards, it was one of the first and last to be served by a plantation railroad. Some 15 miles of 30-inch, narrow gauge railroad delivered harvested cane to the mill. The sugar was shipped by inter-island vessels to Honolulu departing from Wai'anae Landing until the OR&L railroad was extended to Wai'anae and beyond in 1895. The railroad line generally ran along the <i>makai</i> (seaward) boundary of the sugarcane fields.</p> <p>The 1899 Beasley map (Figure 12) shows the relatively new OR&L railroad connecting to Honolulu on the coast side of the coastal road with a parallel plantation railroad arcing around the base of Pu'umā'ili'ili to the now extensive cane fields of central Lualualei valley. Whether the plantation railroad ran within the Waianae WWTP (as indicated) is uncertain.</p> <p>By 1901, the Waianae Sugar Company had obtained a five-year lease on 3,332 acres of land at Lualualei to be used for raising cane and for ranching (Commissioner of Crown Lands 1902). The 1901 Emerson map (Figure 13) shows a road through the seaward side of the Waianae WWTP location heading straight to the Waianae mill to the north. An extensive stretch of the beach to the south is already a U.S. military reservation. Homesteading has opened up large lots on the inland side of the coastal government road in Lualualei but they do not extend into the present study area.</p> <p>Throughout the first half of the twentieth century, the Waianae Sugar Company continued cultivating their sugar lands in Lualualei. However, by the 1940s, Waianae Sugar Company could no longer compete with foreign labor. In addition to drought problems, labor unions, and land battles, this caused the undermining of Waianae Sugar Company. In 1946, the company was liquidated, and the land was sold.</p>

A 1906 Donn Hawaii Territory map indicates the current project area was outside the boundaries of the sugar plantation, within “Public Lands” (Figure 14). The lack of suitability for agriculture is indicated in the neighboring annotation “Limestone Lot” on the 1901 map (Figure 13) and “Sandstone Plain” on the 1906 map (Figure 14).

A map associated with a 1910 Territory of Hawaii Land Patent No. 5263 to the Makaha Coffee Company, Limited for a 91.5-acre parcel immediately north of the present Waianae WWTP location (Figure 15) appears to confirm that while the OR&L and the Waianae Plantation railroad and a “Proposed Government Road” all ran seaward of the Waianae WWTP land, the main road at the time ran through it (as indicated on the 1901 map, Figure 13 and 1914 map, Figure 16).

Operations at the OR&L began to slow down in the 1920s, when electric streetcars were built for public transportation within the city of Honolulu, and automobiles began to be used by families for transportation outside the city (Chiddix and Simpson 2004:185). However, the build-up to World War II turned this decline around, as the U.S. military utilized the OR&L lines to transport materials to build defense projects around the island. After the war, most of the 150+ miles of OR&L track were pried up. Locomotives were sold to businesses on the U.S. mainland, and railway cars were scrapped.

After the overthrow of the Hawaiian monarchy in 1893, the Crown Lands and Government Lands were combined to become Public Lands. In 1895, the Republic of Hawaii decided to open lands for homesteading in the hopes of attracting a “desirable class of immigrants”—Americans and those of Caucasian descent (Kuykendall and Day 1961:204). In 1902, the government ran ads in the local newspapers stating their intent to open land in Lualualei for homesteads (Kelly 1991:328). Due to the lack of water, the lots were classified as second-class pastoral land rather than agricultural land. By the early 1920s, about 40 families had settled on homestead lots in Lualualei (Kelly 1991:331–332). Prominent families that obtained homestead lots at this time were Von Holt, McCandless, and Dowsett.

The 1914 Wall map (Figure 16) shows both the expansion of sugar cane and the expansion of homestead lots in Lualualei. Both the OR&L and the Waianae Sugar Company railroad are indicated as running seaward of today’s Waianae WWTP but the main road is shown as running through it.

The 1919 U.S. Army map (Figure 17) indicates the government road (today’s Farrington Highway) had indeed been re-routed further seaward. The absence of development near today’s Waianae WWTP is striking.

	<p>The 1928 aerial photograph (Figure 18) shows development in the northeast portion of the present Waianae WWTP land that is clarified in the 1929 USGS map (Figure 19). A spur OR&L railroad line and a roughly parallel unimproved road cut across the north portion of the present Waianae WWTP parcel to service a camp of 12 houses that were in the northeast corner of the present Waianae WWTP lands.</p> <p>This same arrangement of railroad spur and a dozen houses in the north portion of the Waianae WWTP lands is depicted in the 1935/36 maps (Figure 20) and the 1943 map (Figure 21). An overlay of the location of the present improvements project area is supplied on the 1935/36 maps (Figure 20) indicating the nearest of these houses (that appear to have existed from before 1928 until after 1943) was approximately 100 m to the northeast and thus is regarded as of little import for the present project.</p> <p>The 1949 aerial (Figure 22), the 1954 map (Figure 23), and the 1960 aerial (Figure 24) all appear to show a different configuration of homes in this period after the collapse of the OR&L railroad. Whether these homes were related to workers at the rapidly expanding quarry (understood to be for limestone or aggregate) to the north is uncertain. An overlay of the location of the present improvements project area is supplied on the 1954 map (Figure 23) and it appears these homes (seemingly dating from before 1949 until shortly after 1960) were well to the northeast and of little import to the present project.</p> <p>By the time of the 1963 map (Figure 25) these homes are all gone. Thus, there appears to have been a community of a dozen homes in the northeast corner of the Waianae WWTP lands from before 1936 until after 1960. By 1963 there are two improved roads extending through the Waianae WWTP area but no homes or any other indicated structures.</p> <p>In the 1950s (Figure 23) and early 1960s (Figure 25) we see very substantial residential development in Wai'anāe town and in the 1971 aerial photograph (Figure 26) we appear to see construction of the Waianae WWTP under way to address this population growth. The growth of the facility appears to have been somewhat slow at first (Figure 27) but by the end of the century the facility was largely developed (Figure 28).</p> <p>The City and County ENV website for Waianae facilities lists the "Date Built" and "Year in service" for the Waianae Wastewater Treatment Plant as 1968.</p>
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<p>Synopsis of Previous Archaeological Work in the Vicinity</p>	<p>Previous archaeological studies within approximately 1.2 km of the Waianae WWTP are depicted in Figure 29 and summarized in Table 1. Previously identified historic properties within approximately 1.2 km of the Waianae WWTP are located on Figure 30 and summarized in Table 2.</p> <p>The immediate vicinity has been relatively well studied archaeologically with studies including Perzinski et al. (2002) to the northeast, Sinoto and Pantaleo (1990) to the east, Flood and Dixon (1994) to the southeast, and McElroy (2008), Thurman and Hammatt (2009), and Blahut and Hammatt (2009) to the west (Figure 29). None of these studies identified historic properties in the vicinity.</p> <p>We show no previously identified historic properties within approximately 1.0 km of the project area (Figure 30). The general lack of identified archaeological resources is largely attributed to the aridity. It should be noted that just over the <i>ahupua'a</i> boundary into Wai'anane Ahupua'a to the north the density of archaeological finds greatly increases.</p>
<p>Fieldwork Effort</p>	<p>A brief field inspection of the project area was conducted by CSH archaeologist David W. Shideler, M.A., and Adam Taba, B.A., on 19 March 2025. An archaeologist's track log and key to the following photographs (showing general location and orientation) is provided in Figure 31. The field inspection was completed to identify the likelihood of historic properties being present within the project area. Representative photographs were taken of the project area.</p> <p>The improvements project area is in the west/central portion of the Waianae WWTP and is immediately west of a Generator Building and immediately north of a Chlorination Building, An existing (to-be-removed) 6,000-gallon diesel UST surmounted by a concrete slab with two access ports marks the project area (Figure 32 through Figure 35). It is understood that a new 6,000-gallon diesel AST is to be installed at this same location. A new above ground fuel piping route will be established connecting to the southwest corner of the neighboring Generator Building (Figure 35). The surrounding area appeared to have been previously graded and is almost entirely covered with asphalt driveways, concrete buildings and slabs and imported basalt gravel. No historic properties were observed in the immediate vicinity of this Waianae WWTP improvements project. The prospect of significant subsurface historic properties within the project area was evaluated during the fieldwork as low. No historic properties are believed to be present in this Waianae WWTP improvements project area.</p>
<p>Historic Properties Potentially Affected</p>	<p>Background research and the results of the field inspection identified no indication of historic properties at, or in the immediate vicinity of the present Waianae WWTP improvements project area.</p>

	<p>We do note a dozen homes (seemingly in two different configurations) were present in the northeast corner of the Waianae WWTP (100 m or more from the present project area), from before 1929 until shortly after 1960, which may merit further consideration for any future work in that area.</p>
<p>Historic Preservation Next Steps</p>	<p>This study would support a C&C ENV determination as per HAR §13-275-7(a)(1) of “No historic properties affected” and for no further historic preservation study.</p> <p>Early consultation with the SHPD archaeology and architecture branches (with submittal of this study to the SHPD’s Hawai’i Cultural Resources Information System or HICRIS system) is recommended.</p>

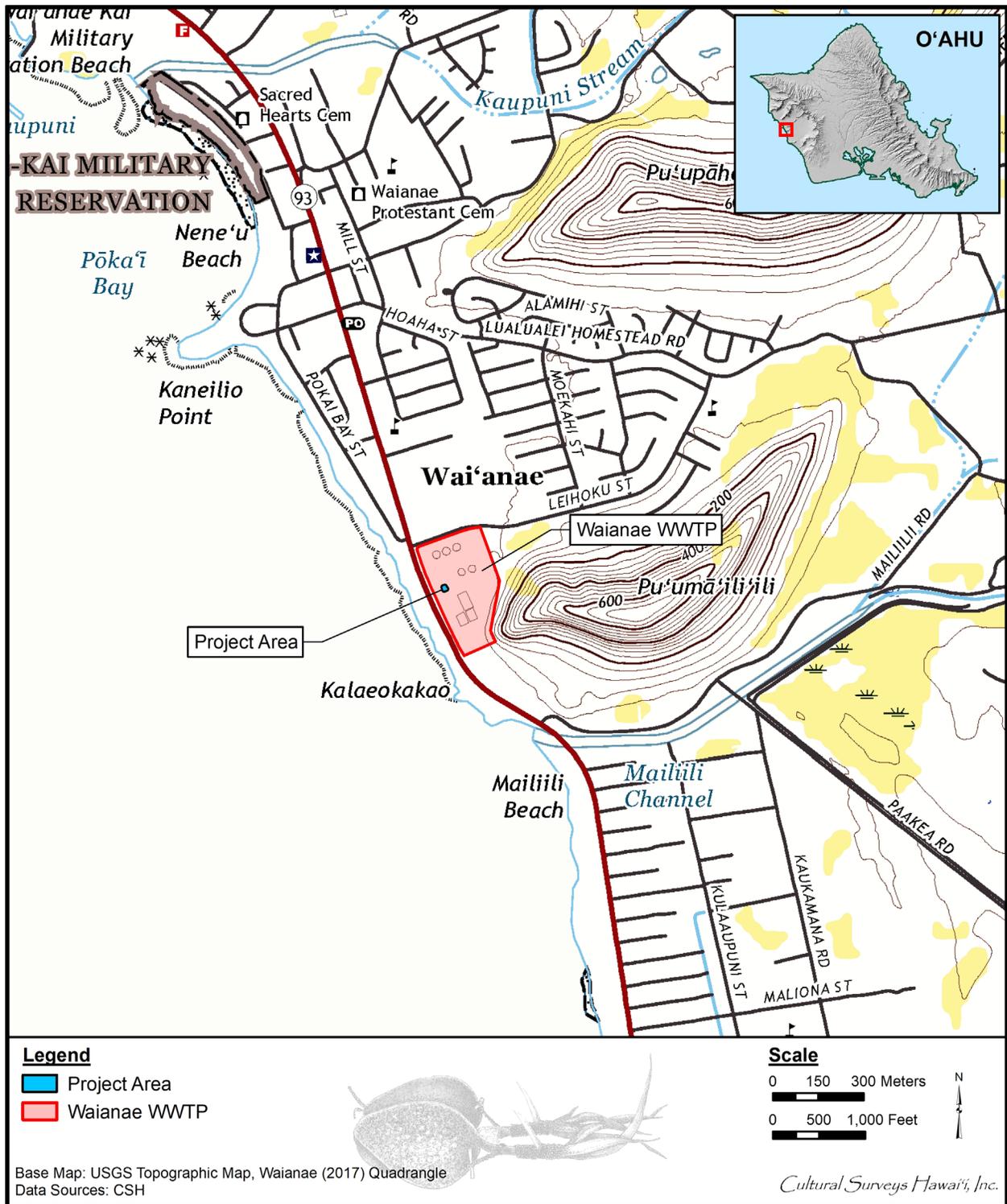


Figure 1. A portion of the 2017 Waianae USGS topographic quadrangle, showing the Waianae WWTP and the location of the project area

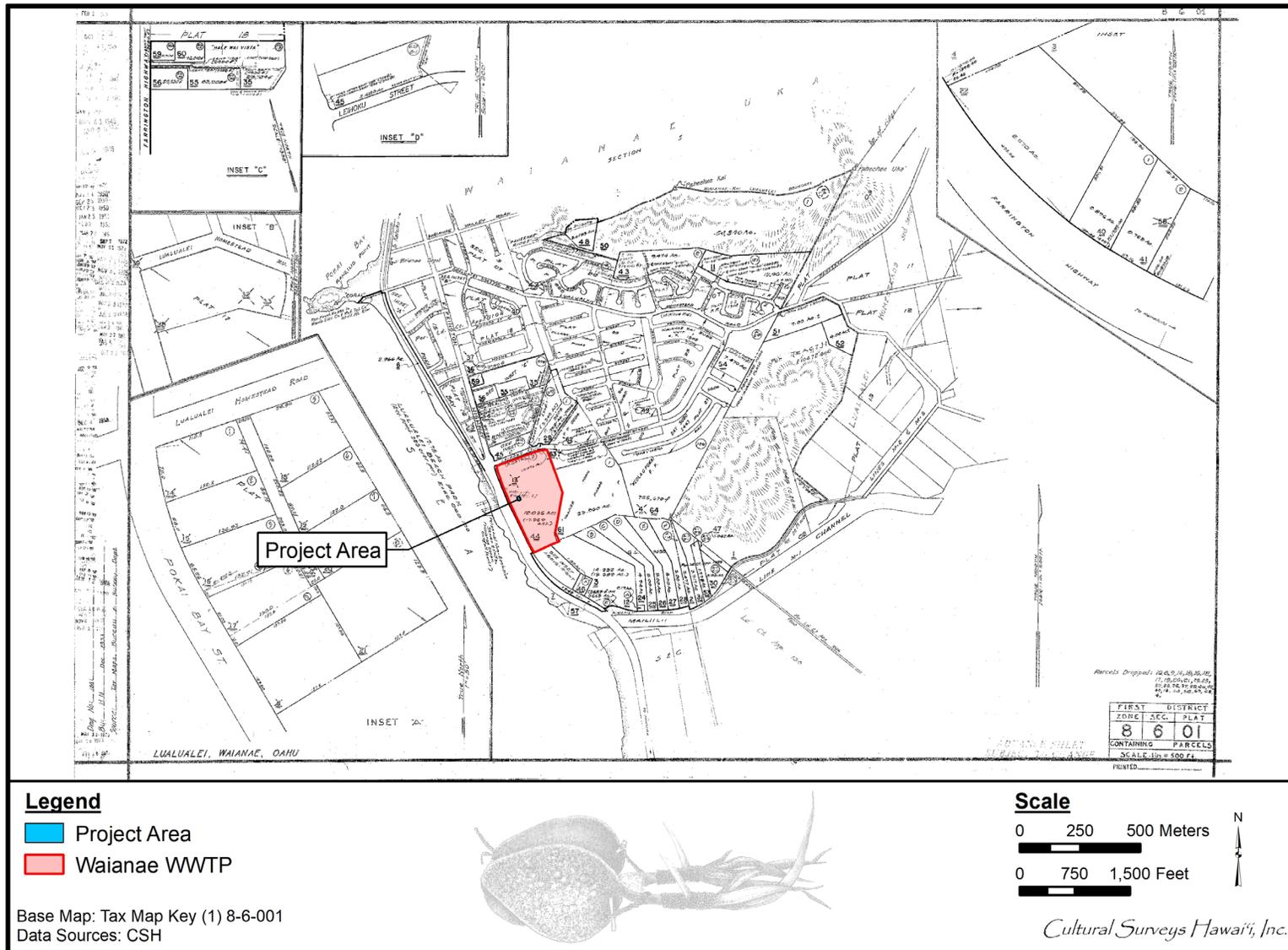


Figure 2. TMK: (1) 8-6-001 showing the Waianae WWTP and the location of the project area (Hawai'i TMK Service 2025)



Figure 3. 2019 ESRI aerial photograph showing the Waianae WWTP and the location of the project area

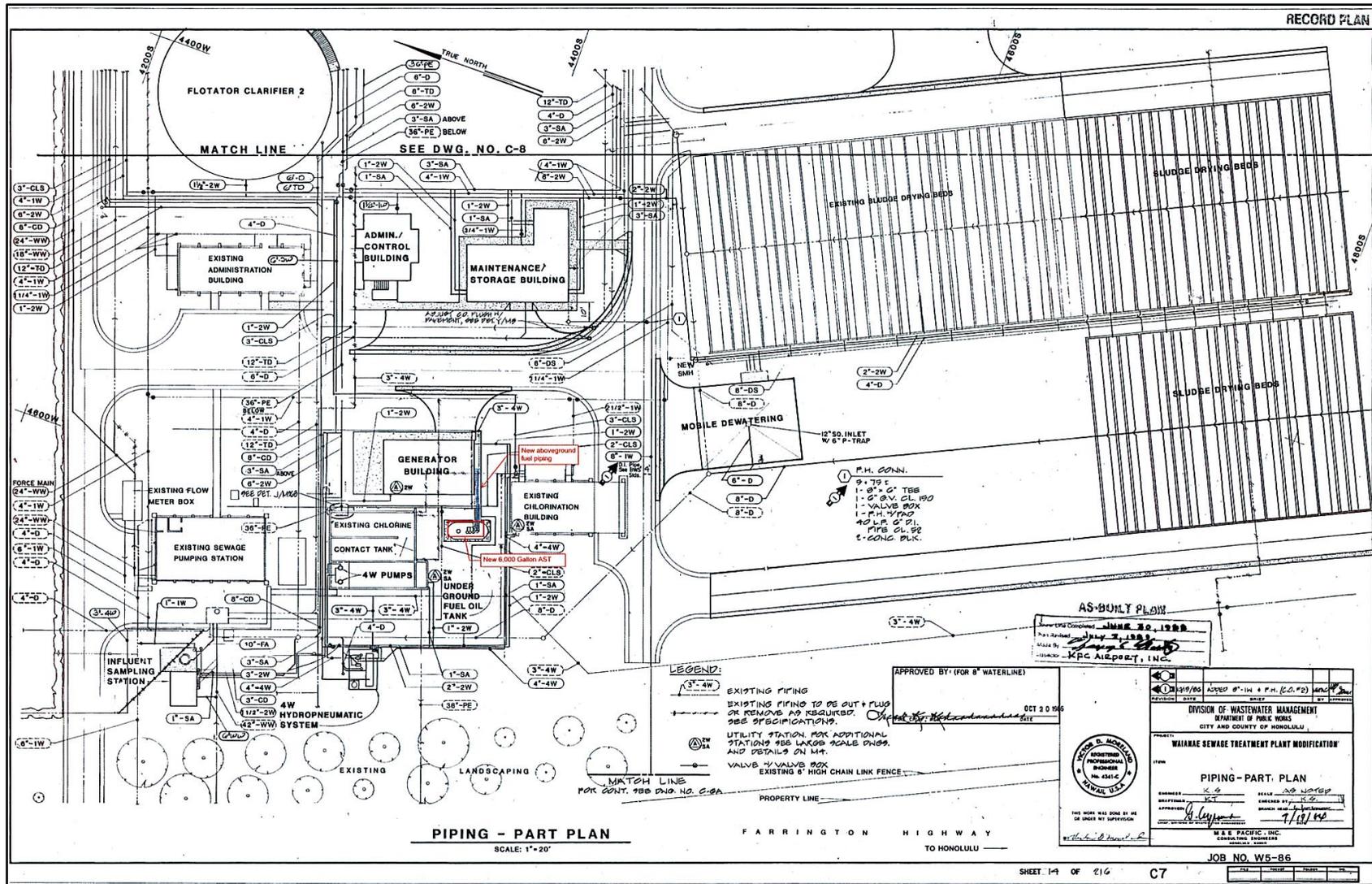


Figure 4. Record Piping Plan showing the location of the proposed new 6,000-gallon AST and new above ground fuel piping in the west central portion of the Waiānae WWTP (Okahara and Associates, Inc.; courtesy of client)



Figure 5. Photograph showing the location of the proposed new 6,000-gallon AST in the west central portion of the Waianae WWTP, at the location of an existing (to-be-removed) UST on the southwest side of a two-story Generator Building (at center) and just northwest of a Chlorination Building (at right), view to north (Okahara and Associates, Inc.; courtesy of client)



Figure 6. Photograph showing the location of the south end of the proposed new 6,000-gallon AST and new above ground fuel piping that will extend along a portion of the south side of the two-story Generator Building in the west central portion of the Waianae WWTP (Okahara and Associates, Inc.; courtesy of client)

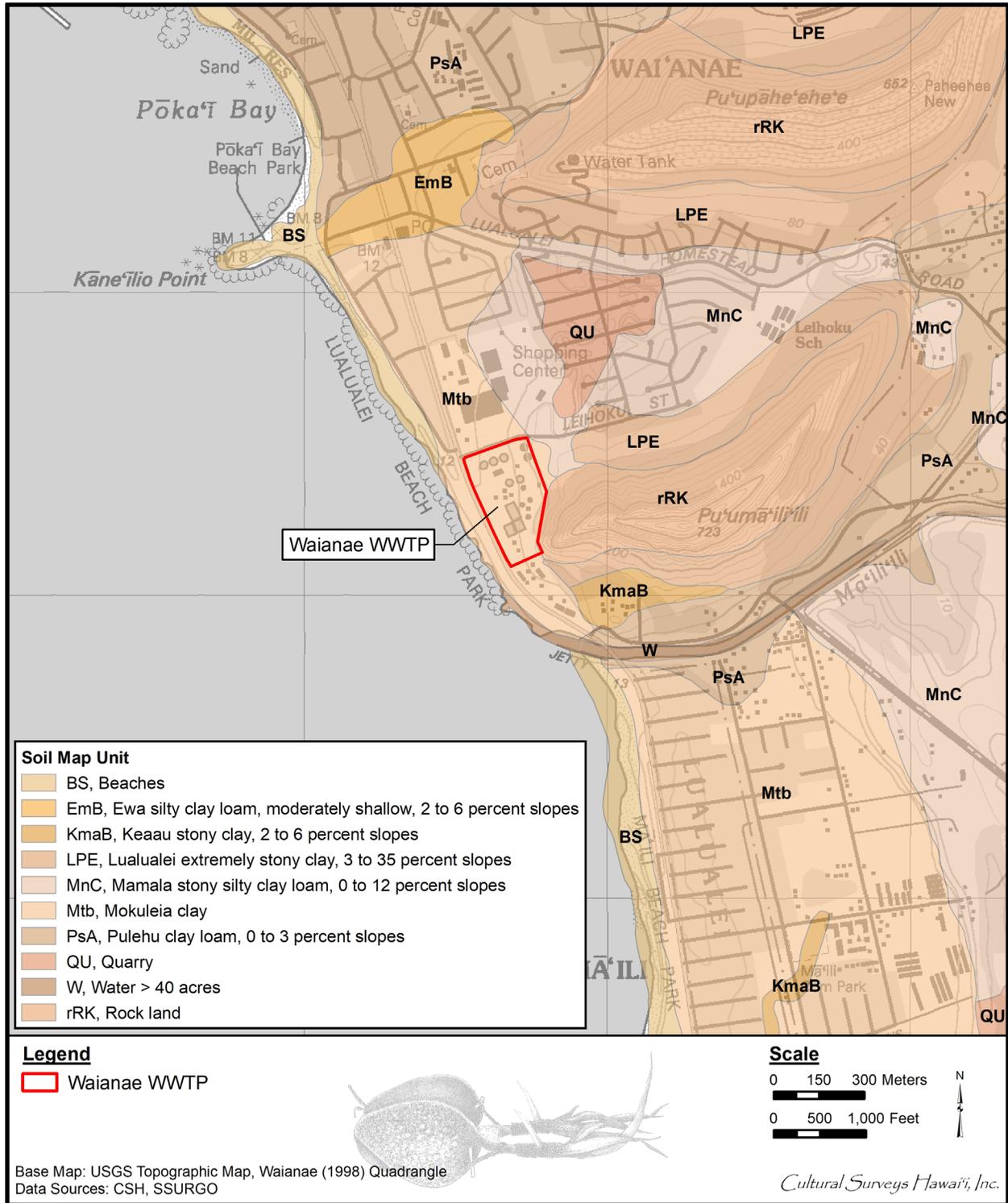


Figure 7. Portion of a 1998 Waianae USGS topographic quadrangle base map with overlay of the Waianae WWTP soils (Foote et. al 1972; USDA SSURGO 2001)

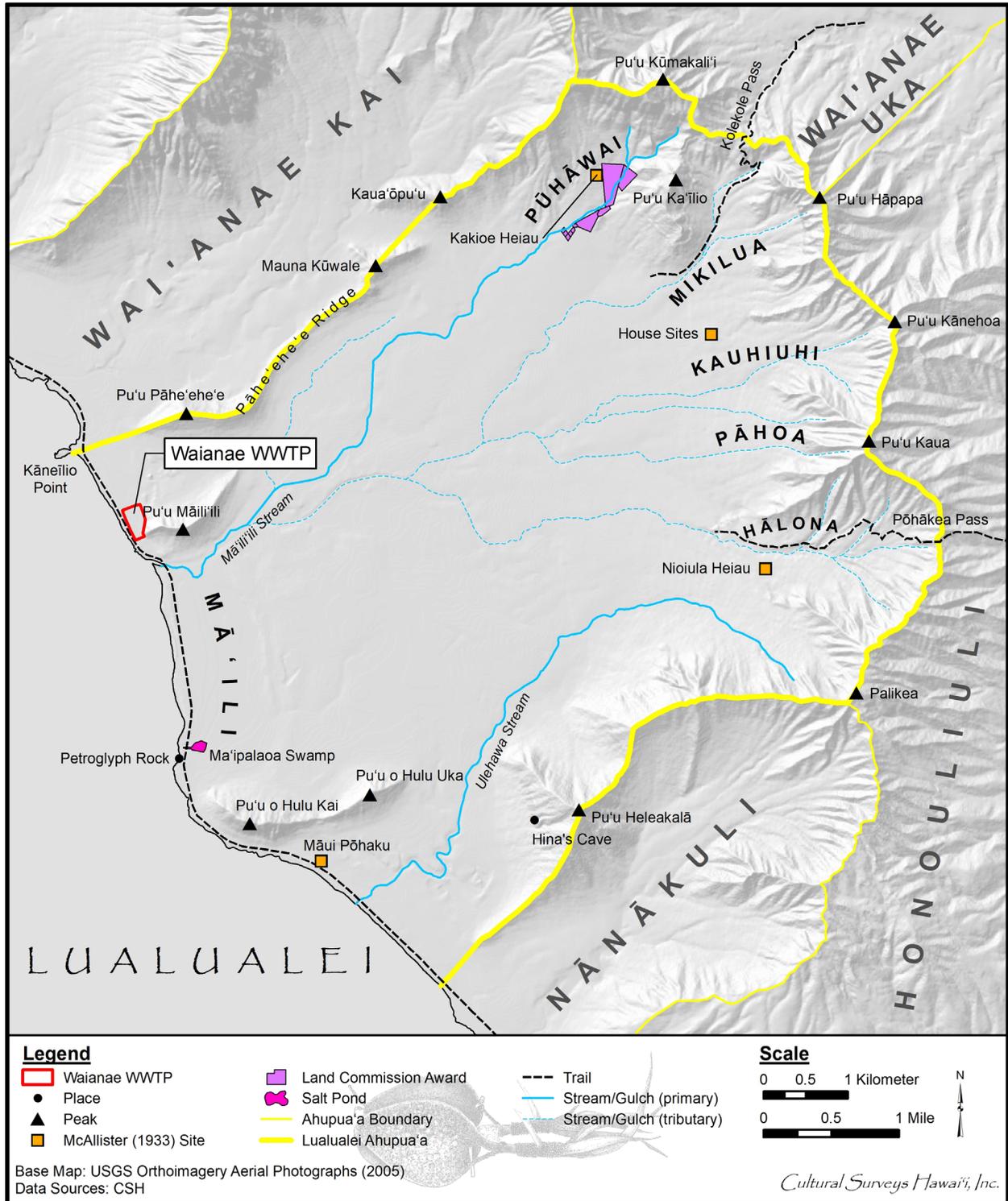


Figure 8. 2005 USGS orthoimagery aerial photograph, showing the Waianae WWTP, place names, land commission awards (LCAs), and McAllister (1933) archaeological sites

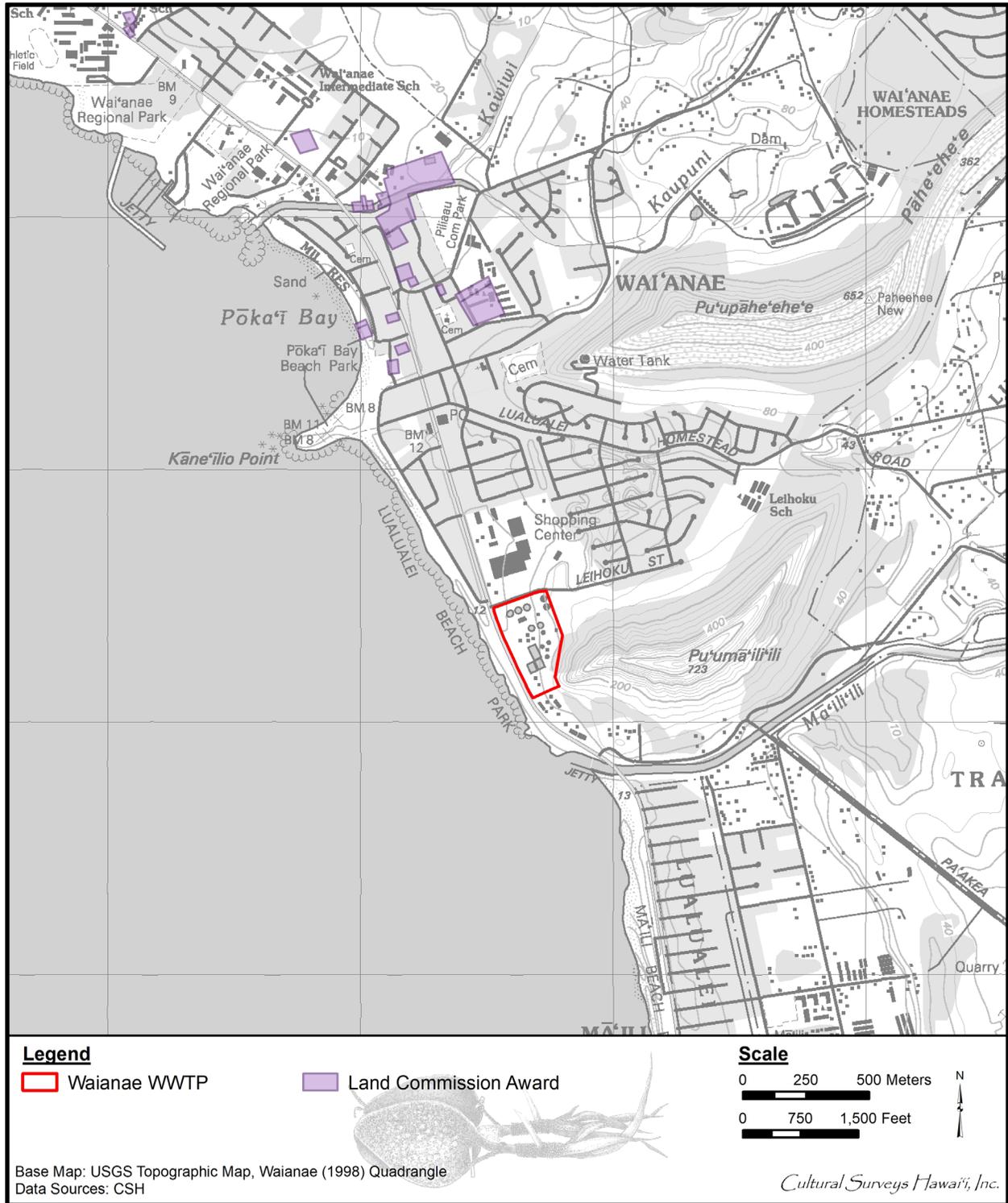


Figure 9. Map showing the nearest native tenant Land Commission Awards (LCAs) to the location of the Waianae WWTP (base map: 1998 Waianae USGS topographic quadrangle)

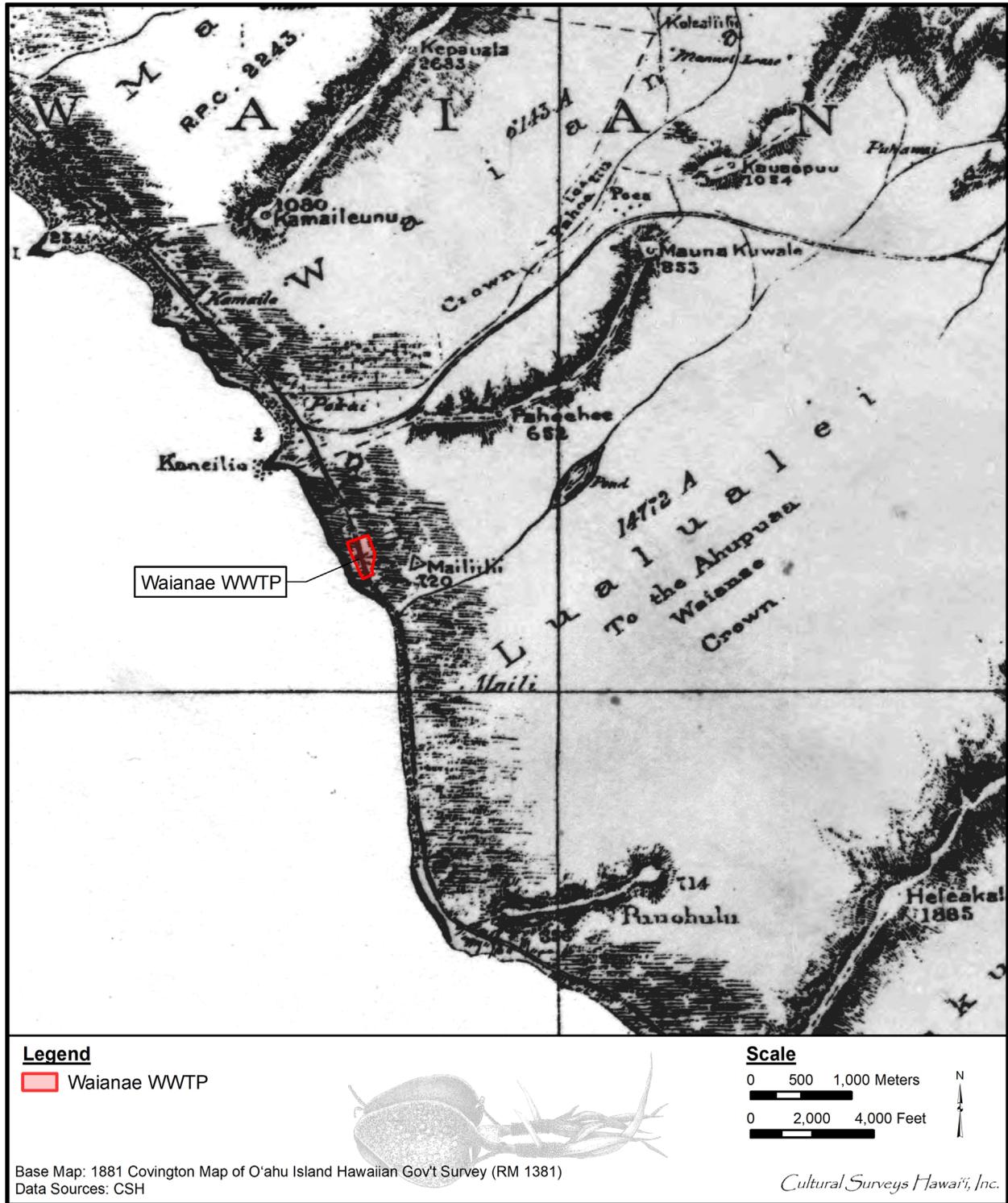


Figure 10. Portion of the 1881 Covington map of O'ahu Island Hawaiian Government Survey (RM 1381) showing the location of the Waianae WWTP Improvements project area

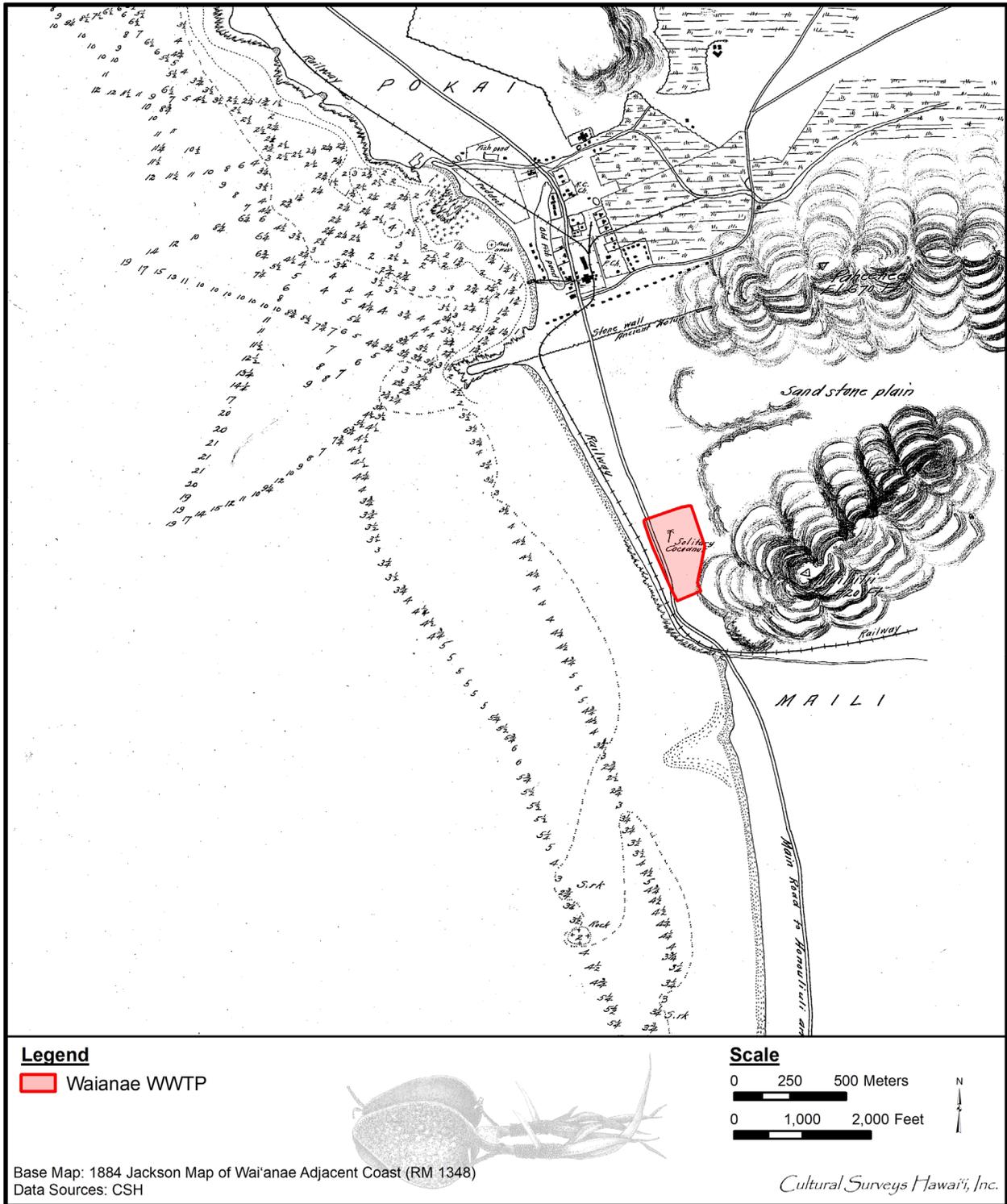


Figure 11. Portion of the 1884 Jackson map of Waianae Adjacent Coast (RM 1348) showing the location of the Waianae WWTP

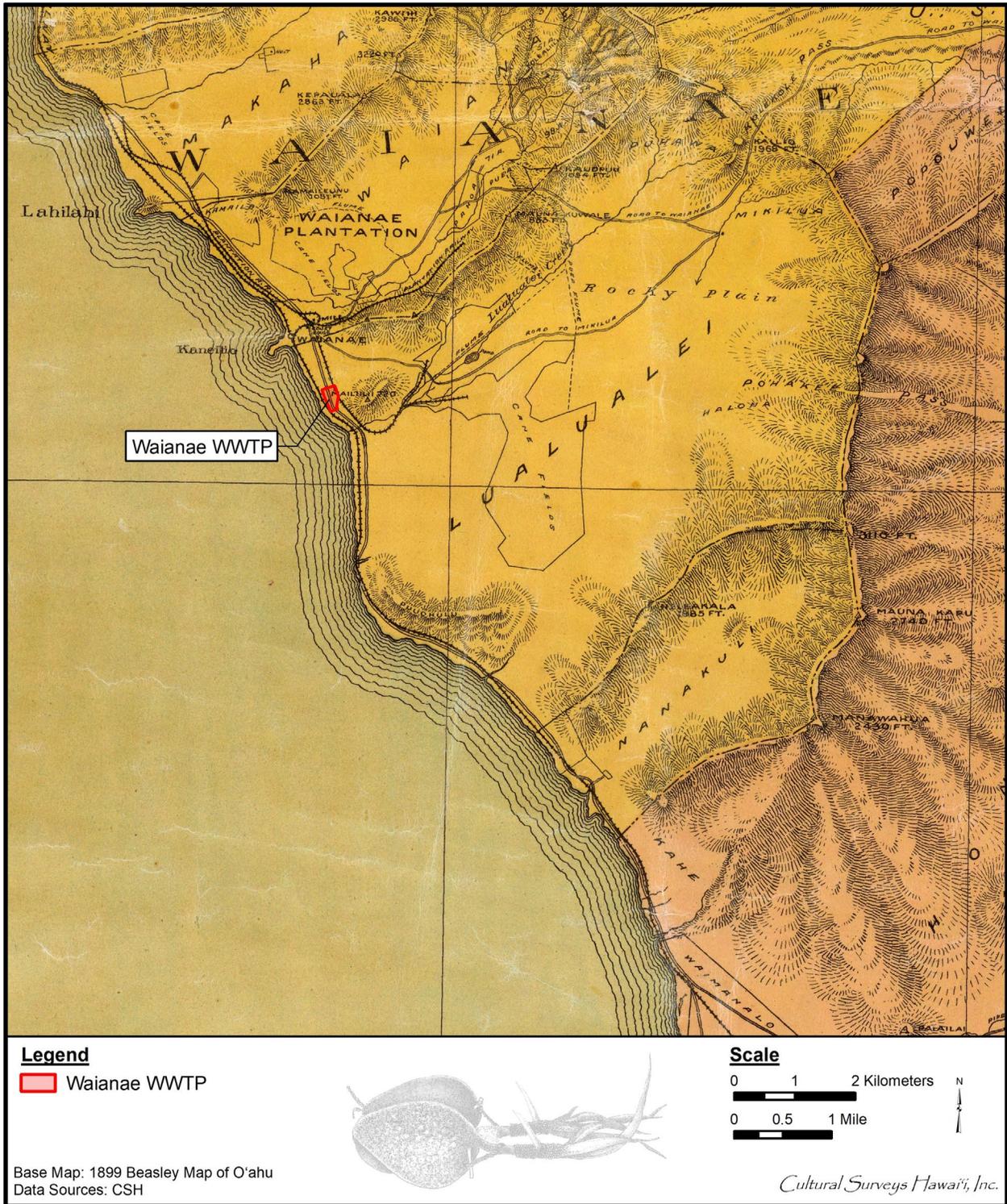


Figure 12. Portion of the 1899 Beasley map of O'ahu showing the location of the Waianae WWTP

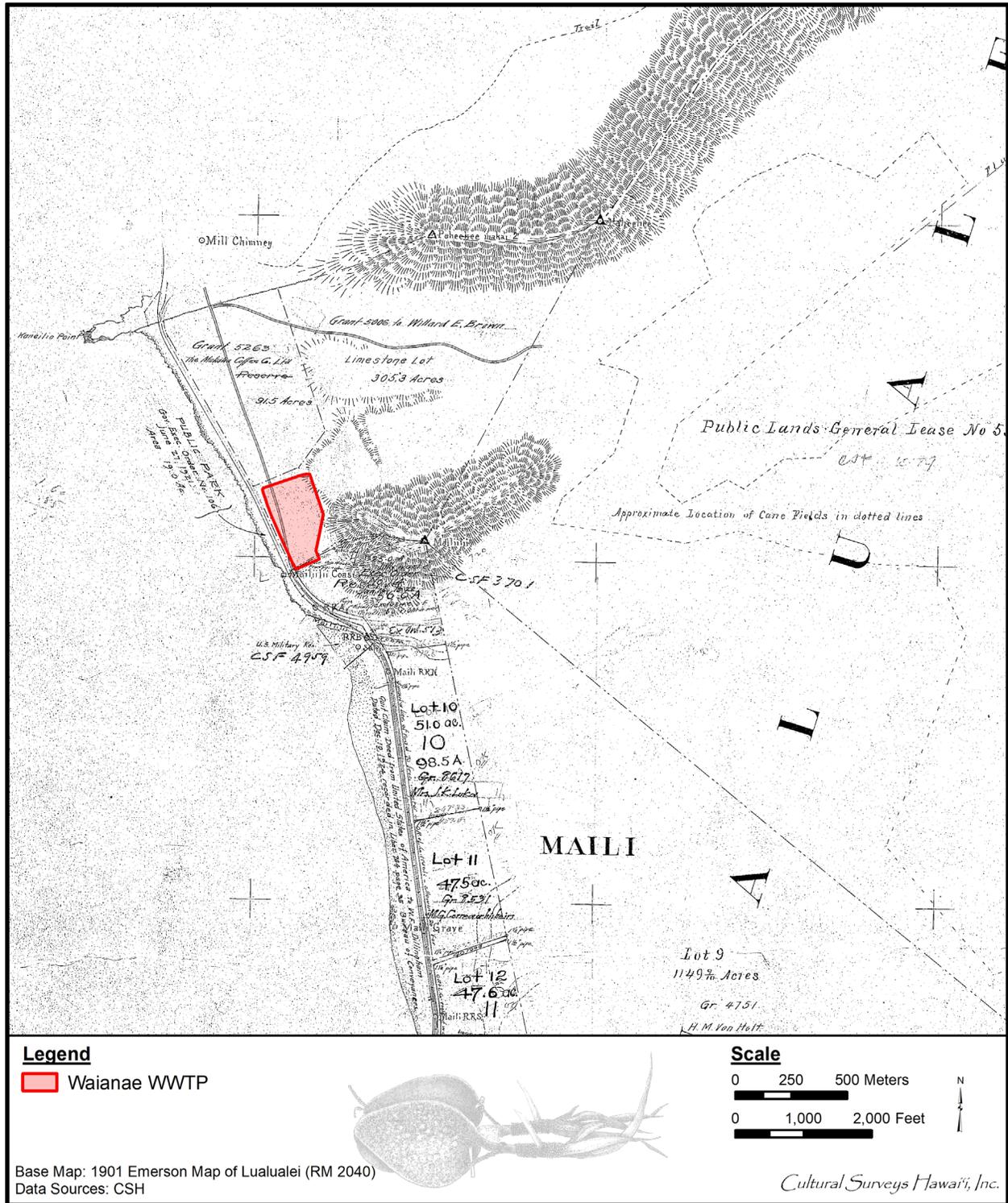


Figure 13. Portion of the 1901 Emerson map of Lualualei (RM 2040) showing the location of the Waianae WWTP

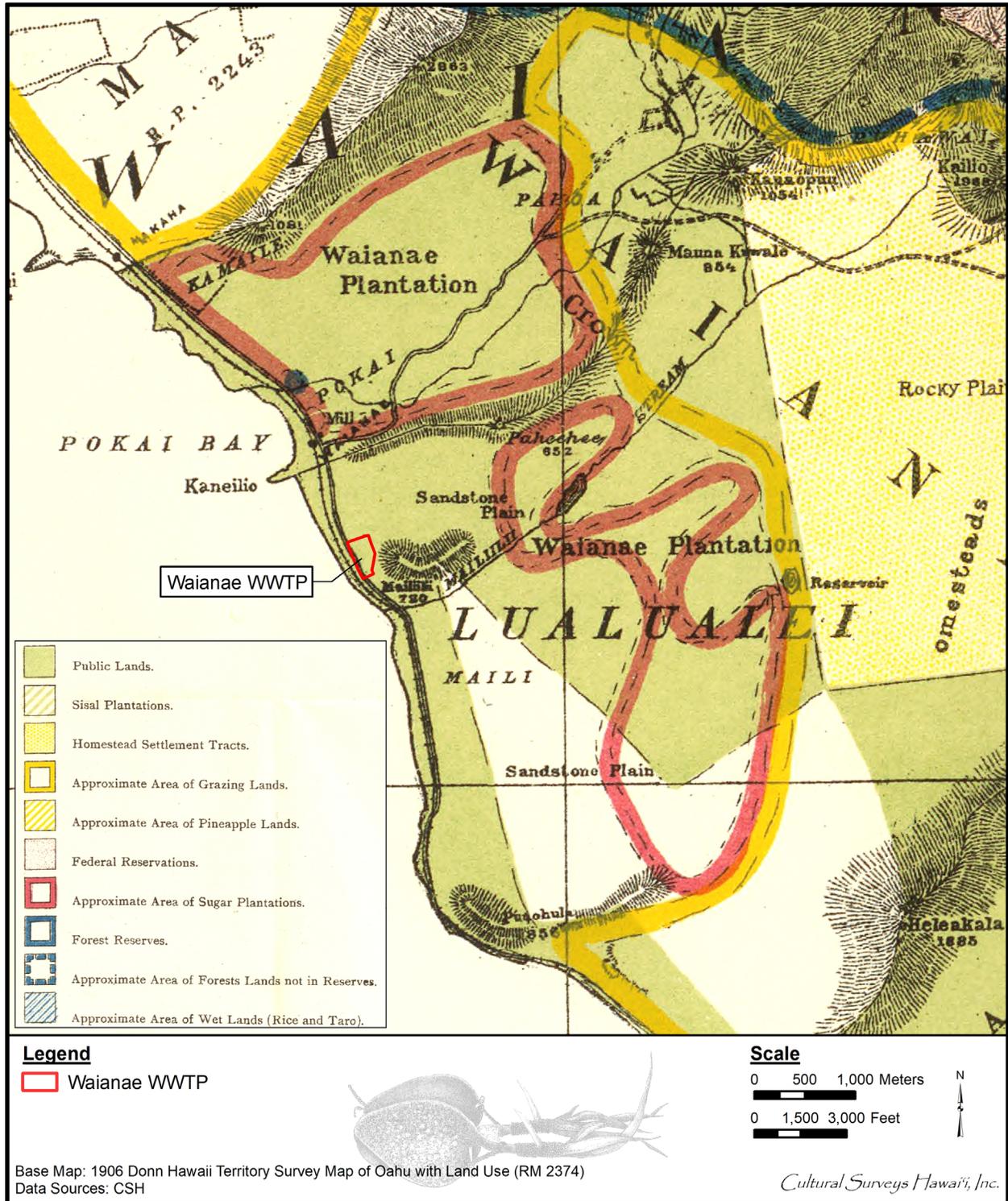


Figure 14. Portion of the 1906 Donn Hawaii Territory survey map of Oahu with land use (RM 2374), showing the location of the Waianae WWTP within public lands

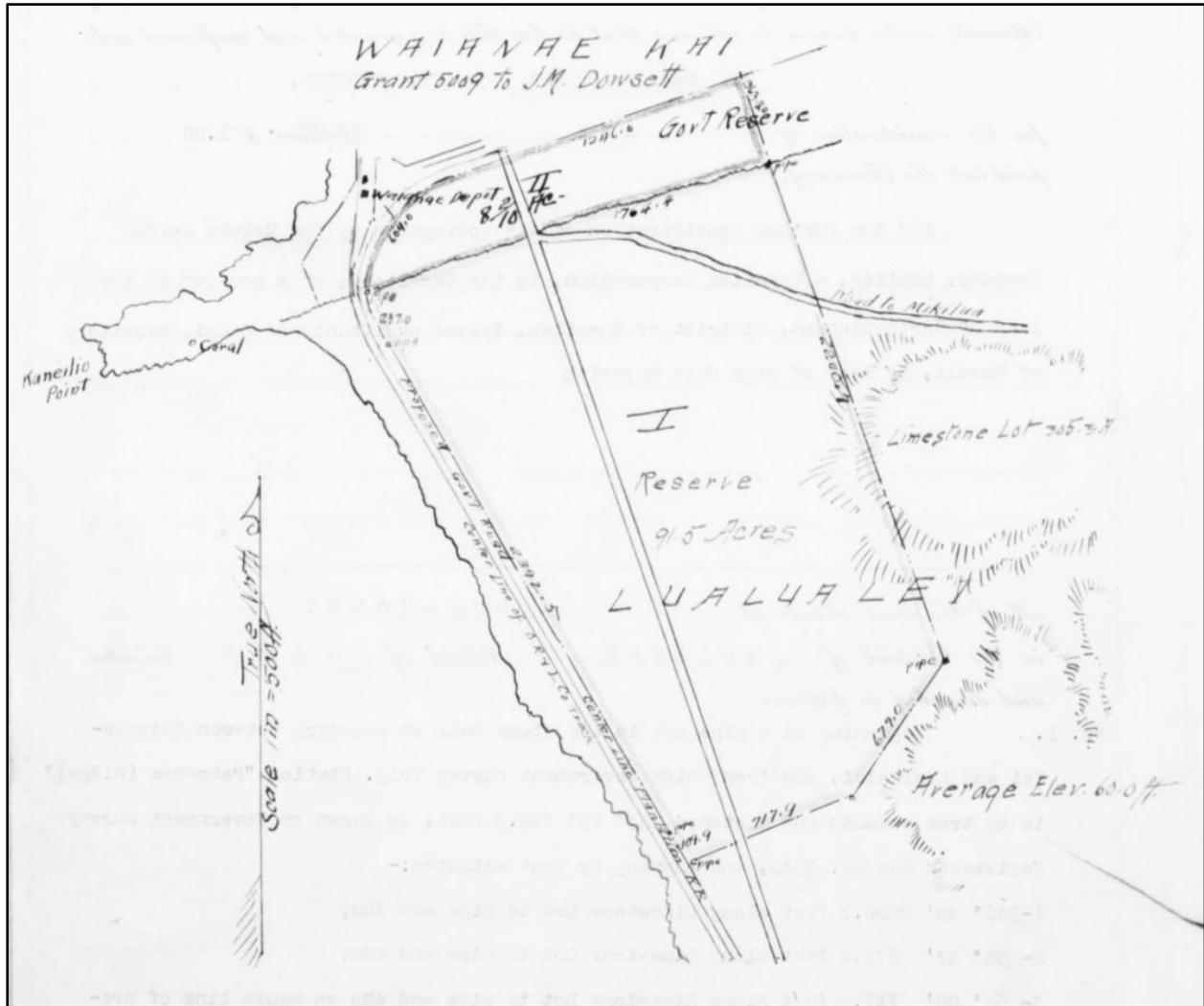


Figure 15. Map from Territory of Hawaii Land Patent No. 5263 to the Makaha Coffee Company, Limited dated 14 April 1910 for a 91.5-acre parcel abutting the north side of present day Waianae WWTP (see following 1914 map for relationship of the parcels) indicating the OR&L and the Waianae Plantation railroad and a “Proposed Government Road” all ran seaward of the Waianae WWTP land but that the main road at the time ran through it

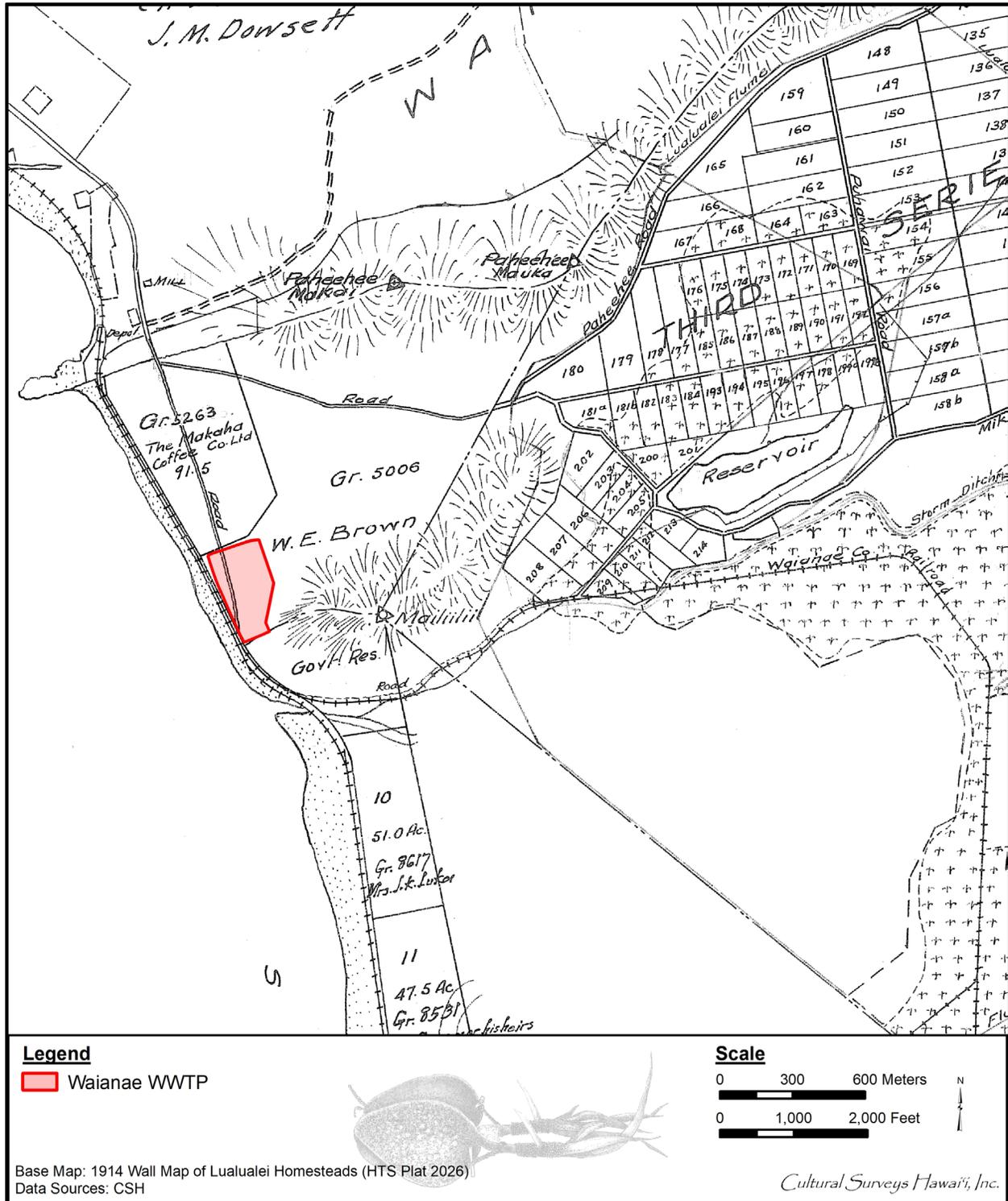


Figure 16. Portion of the 1914 Wall map of Lualualei Homesteads (HTS Plat 2026) showing the coastal OR&L and a plantation railroad line extending inland southeast of the Waianae WWTP

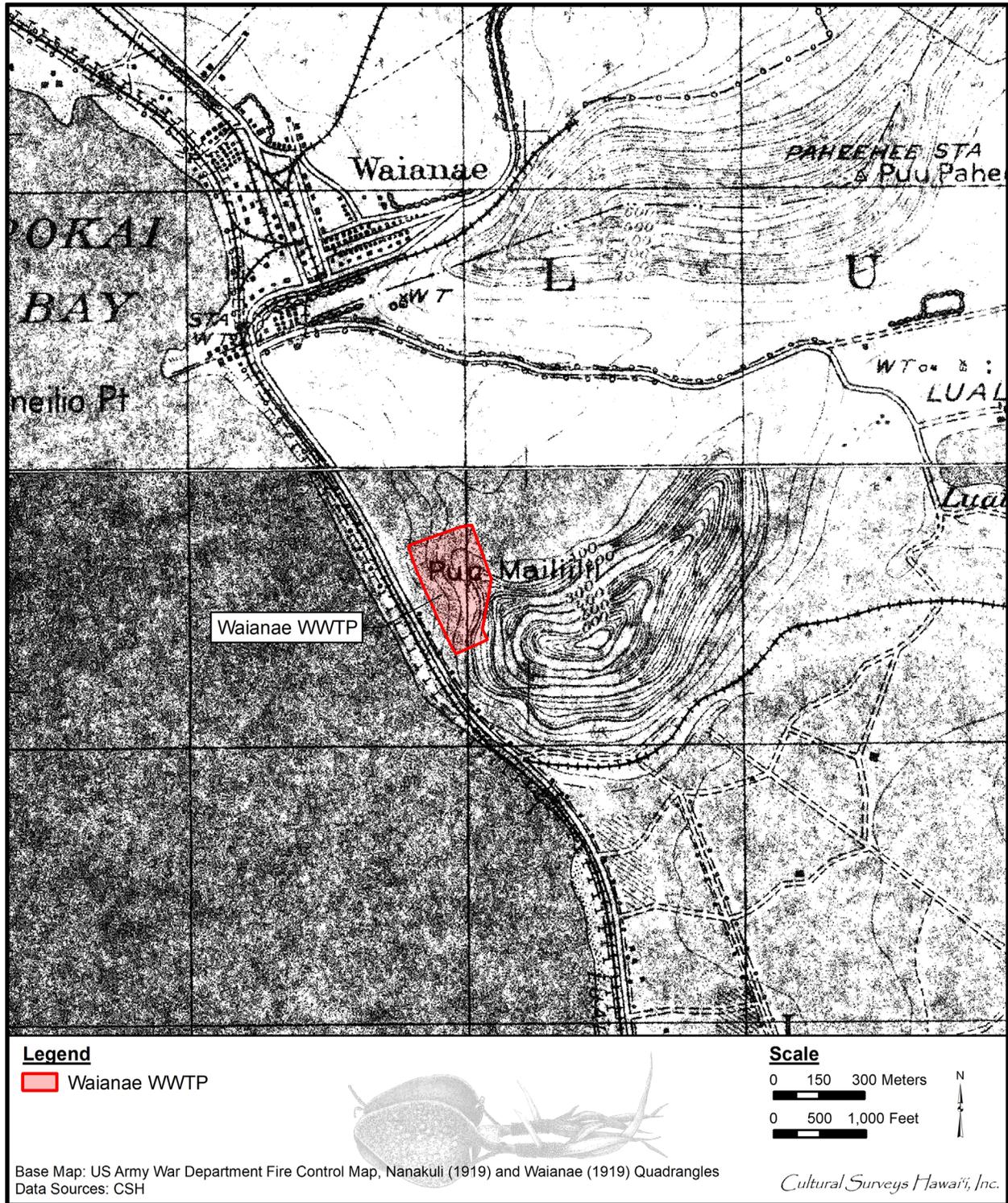


Figure 17. Portion of the 1919 U.S. Army War Department fire control map, Waianae and Nanakuli quadrangles, showing the location of the Waianae WWTP

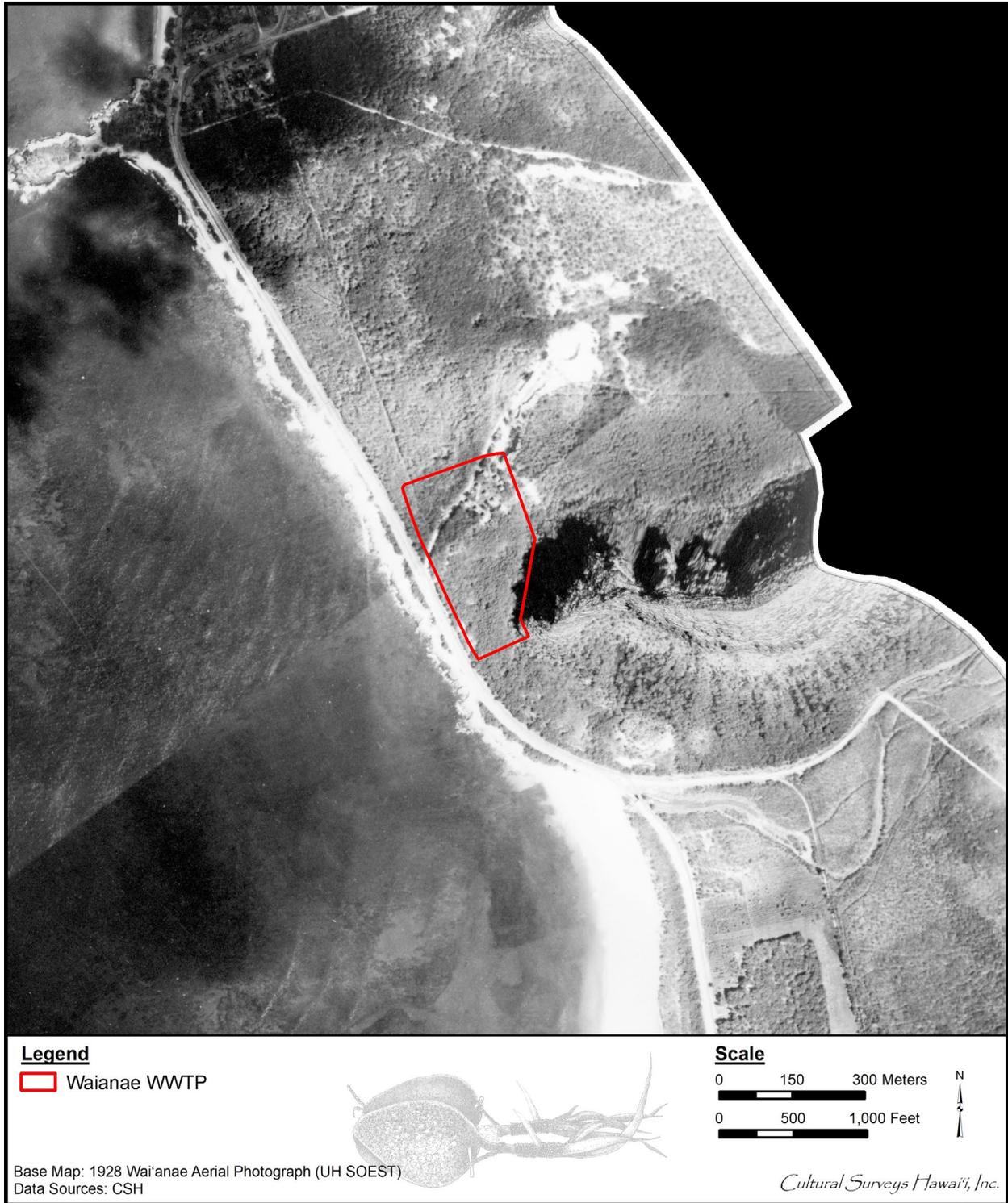


Figure 18, 1928 Wai'anae aerial photograph (UH SOEST) showing the location of the Waianae WWTP

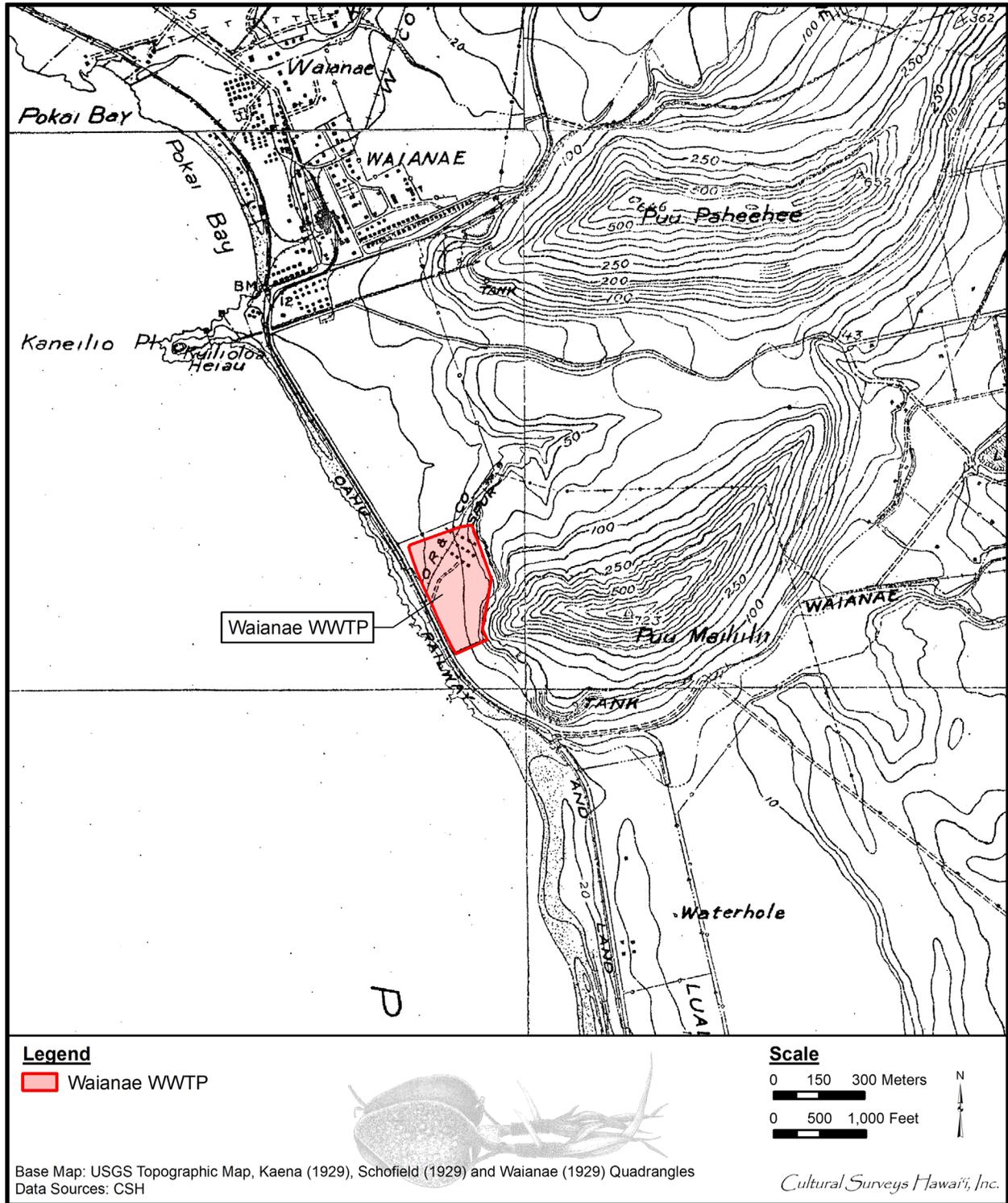


Figure 19. Portion of the 1929 Kaena, Schofield, and Waianae USGS topographic quadrangles showing the location of the Waianae WWTP Improvements project area

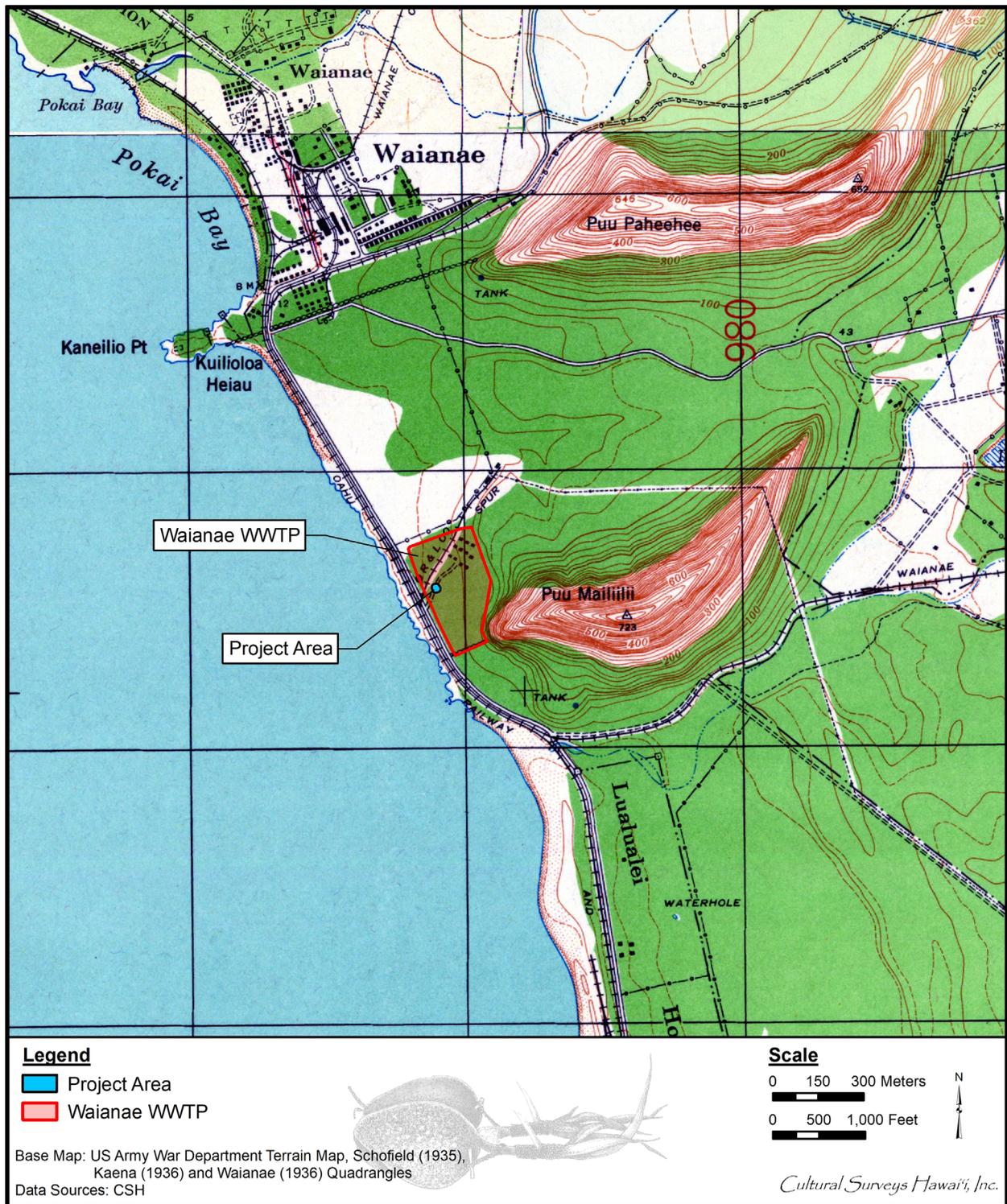


Figure 20. 1935–1936 U.S. Army War Department terrain map, Schofield (1935), and Kaena (1936) Waianae (1936) quadrangles, showing the Waianae WWTP and the location of the present project area relative to an OR&L spur and a community of 12 houses

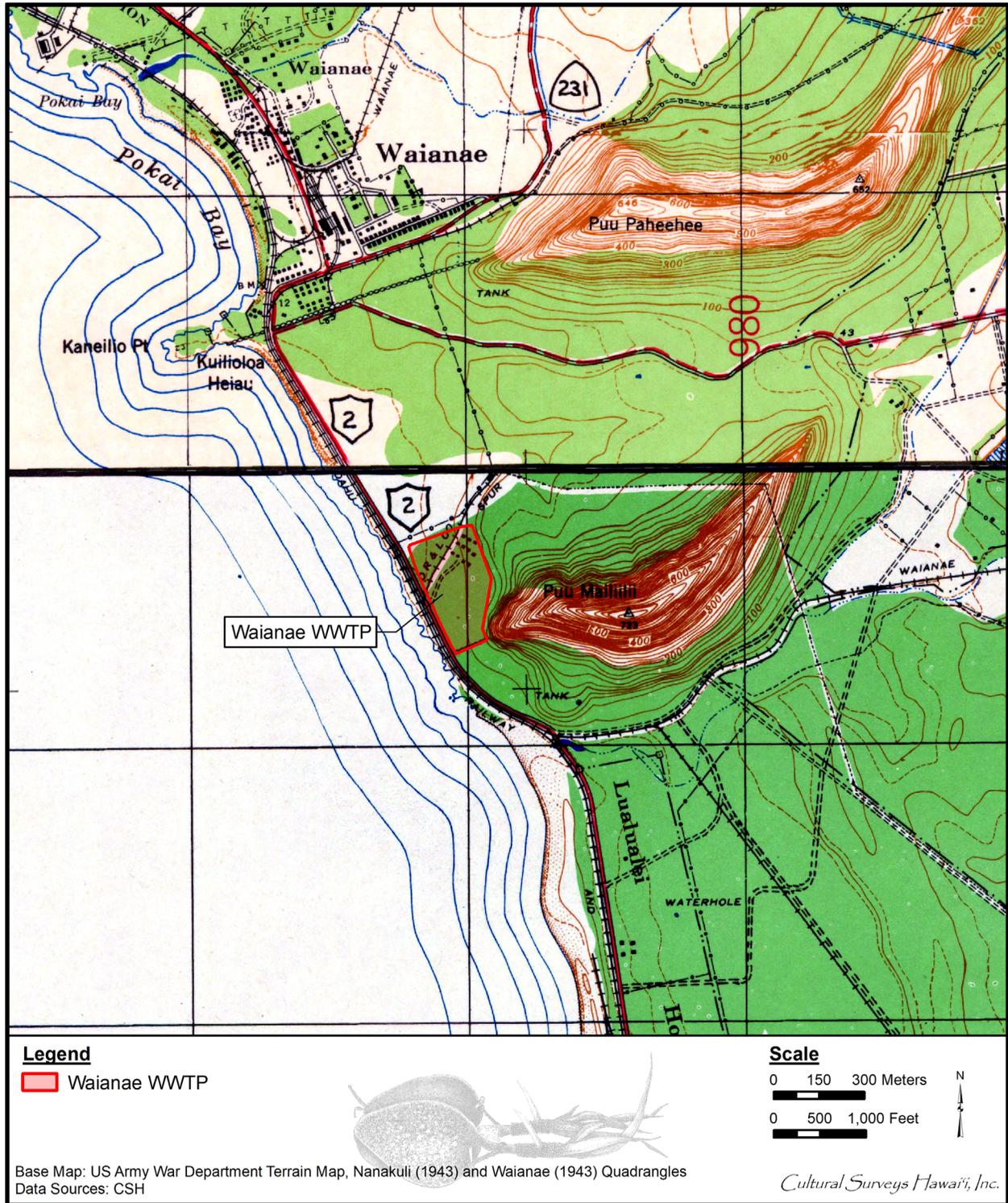


Figure 21. 1943 U.S. Army War Department terrain map, Waianae and Nanakuli quadrangles, showing the location of the Waianae WWTTP

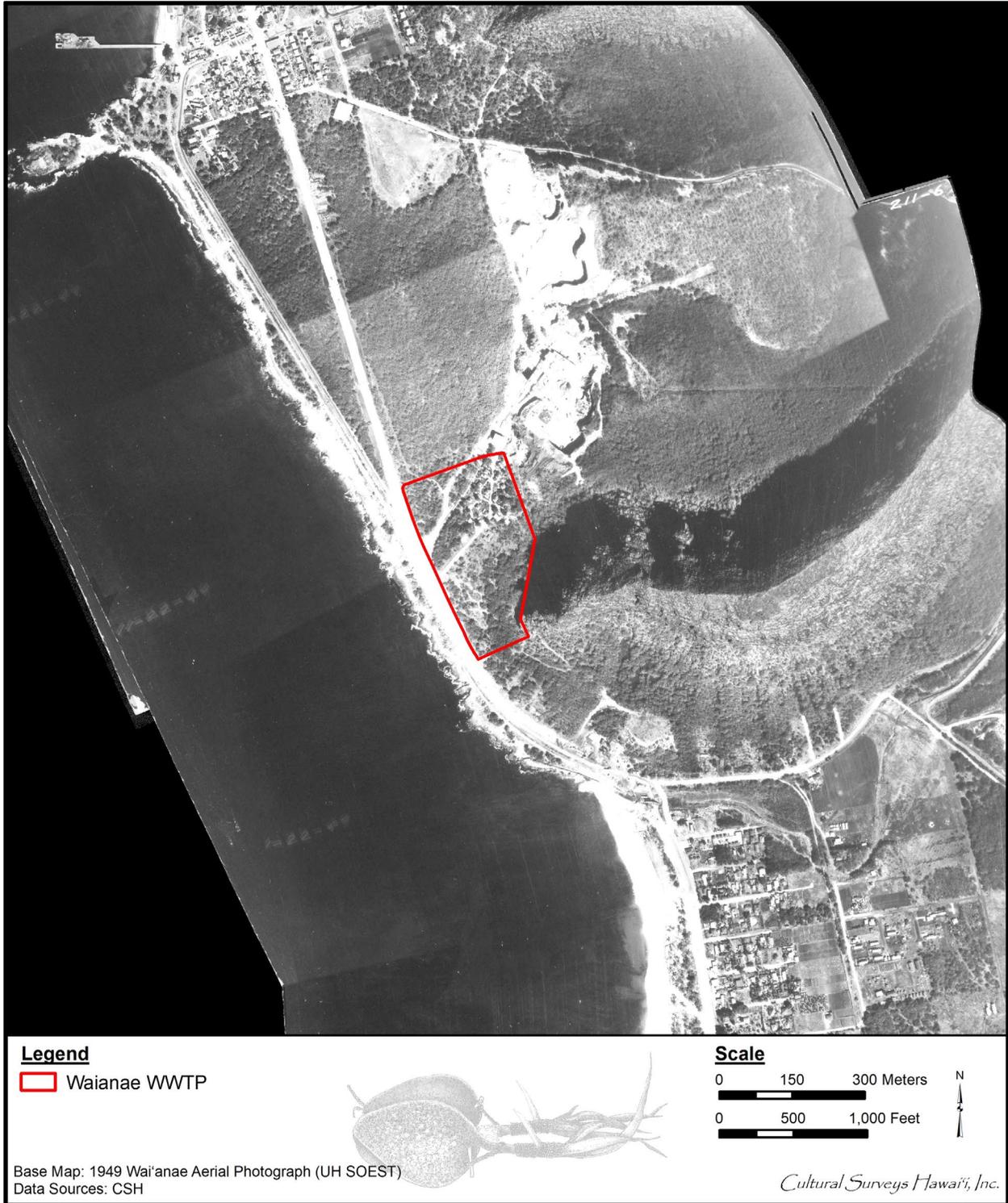


Figure 22. 1949 Wai'anae aerial photograph (UH SOEST) showing the location of the Waianae WWTP

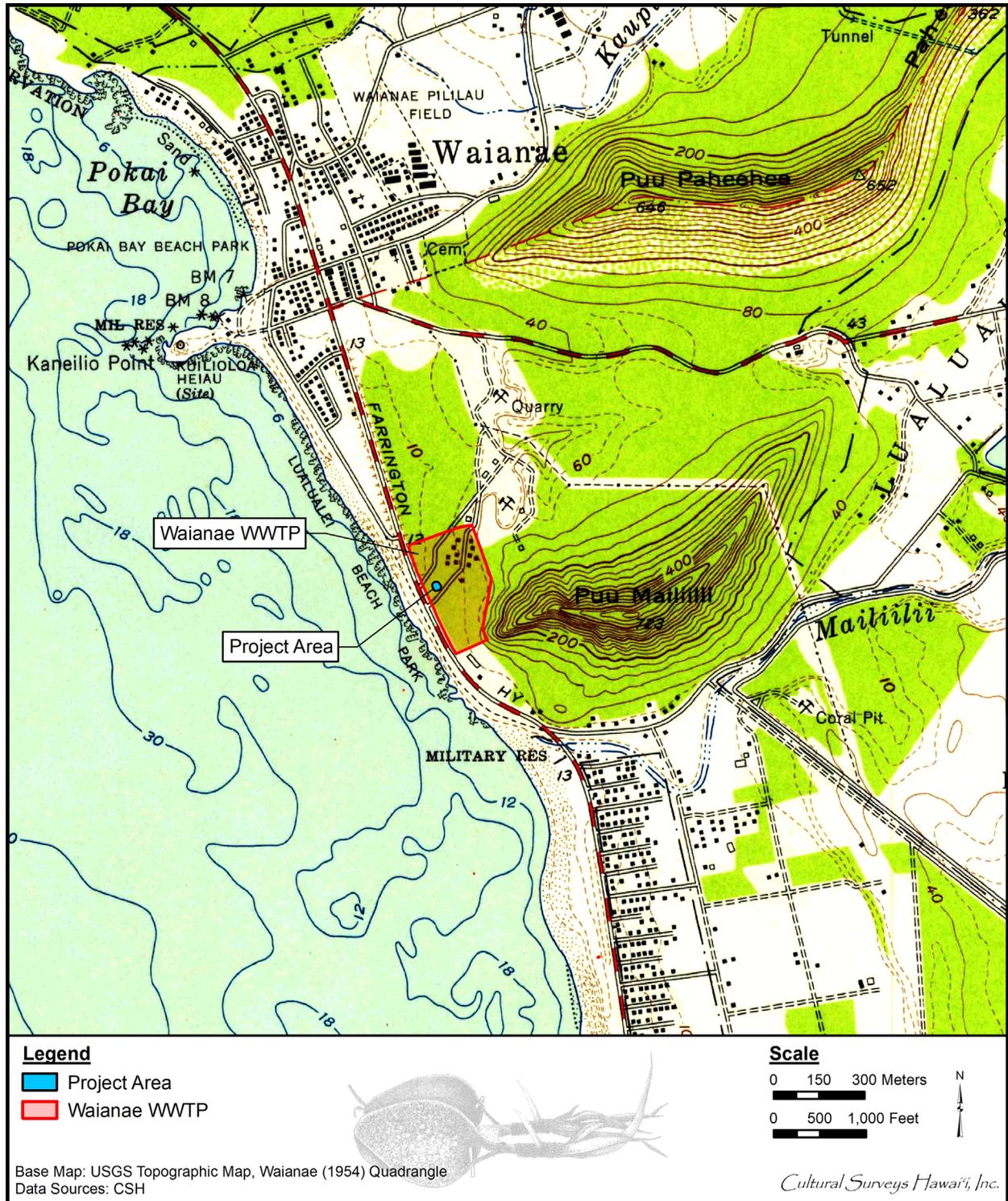


Figure 23. Portion of the 1954 Waianae USGS topographic quadrangle showing the location of the present project area relative to 12 buildings within the northeast portion of the Waianae WWTP

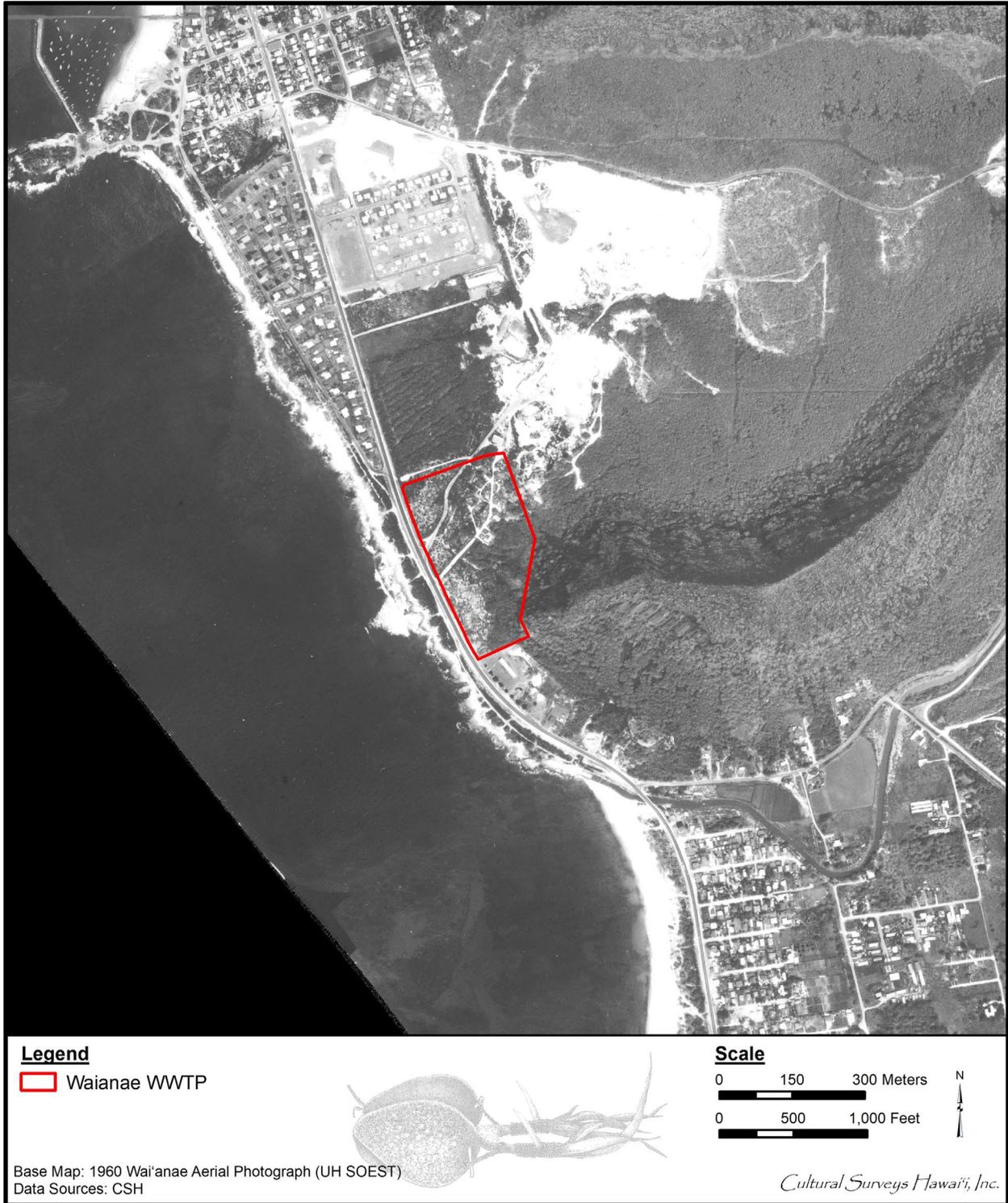


Figure 24. 1960 Wai'anae aerial photograph (UH SOEST) showing the Waianae WWTP

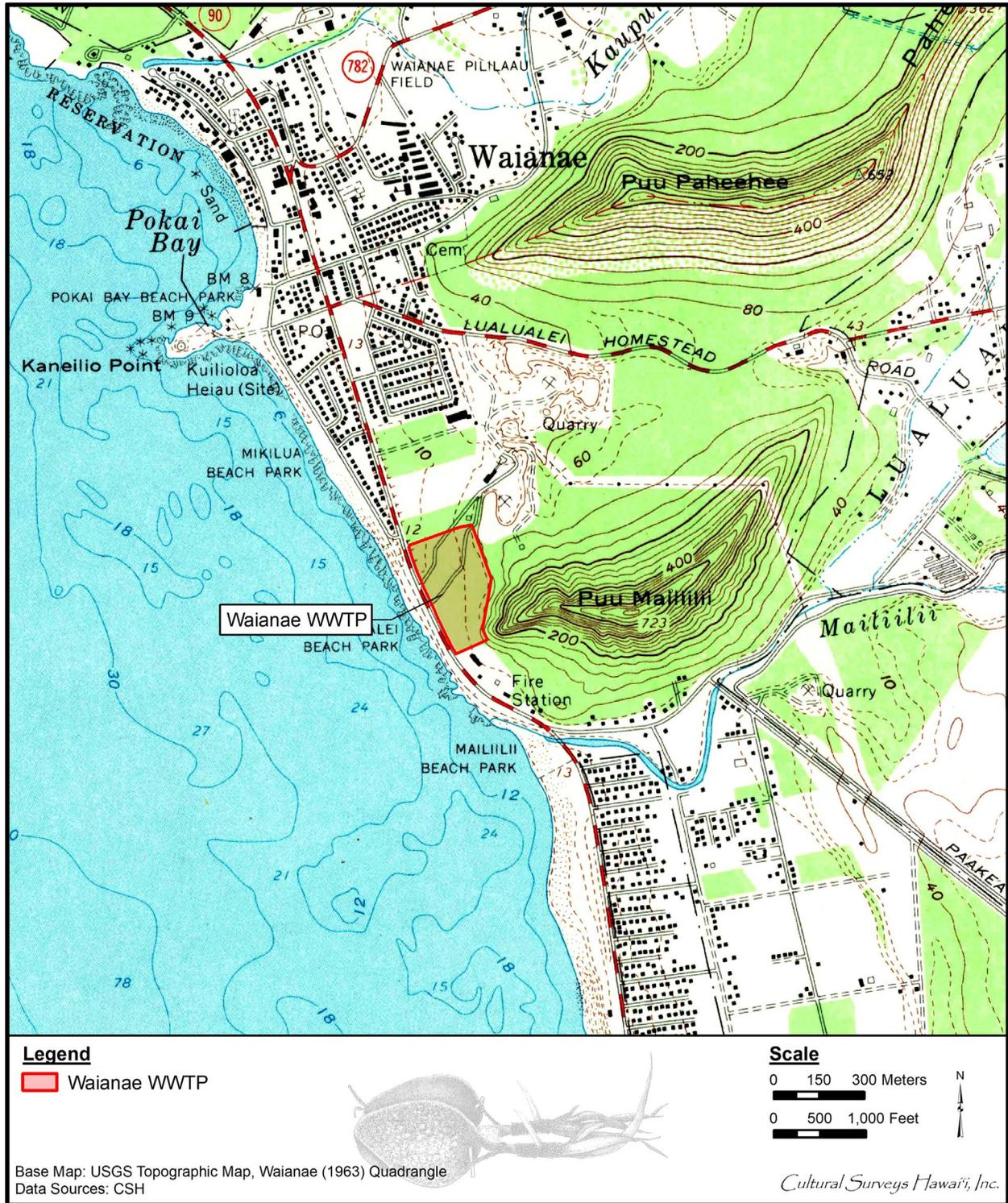


Figure 25. Portion of the 1963 Waianae USGS topographic quadrangle, showing ten buildings or structures within the southern portion of the Waianae WWTP



Figure 26. 1971 Wai'anae aerial photograph (UH SOEST) showing the Wai'anae WWTP



Figure 27. 1977 USGS orthophotoquad aerial photograph, Waianae quadrangle, showing the Waianae WWTP

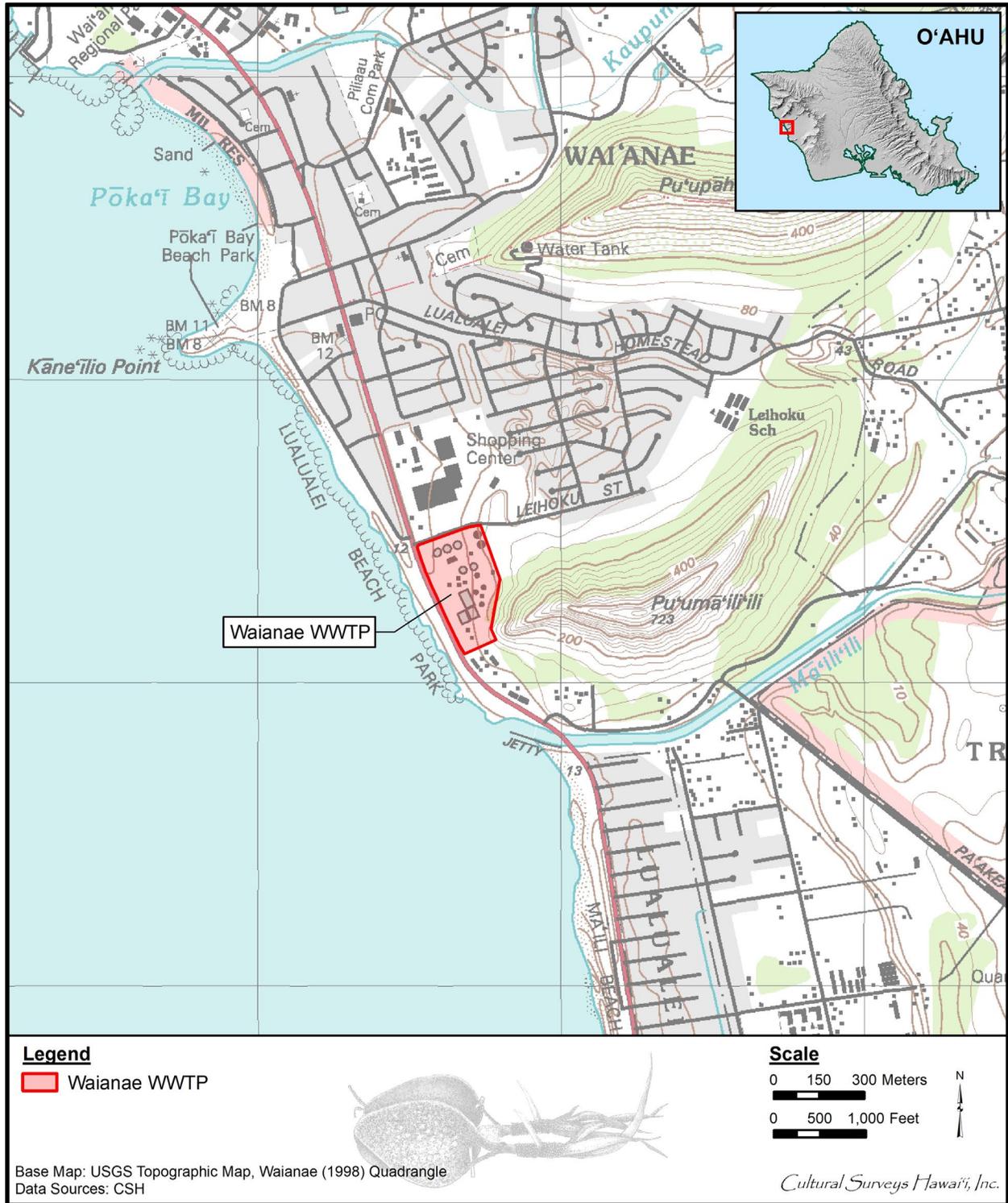


Figure 28. Portion of the 1998 Waianae USGS topographic quadrangle map showing the Waianae WWTP

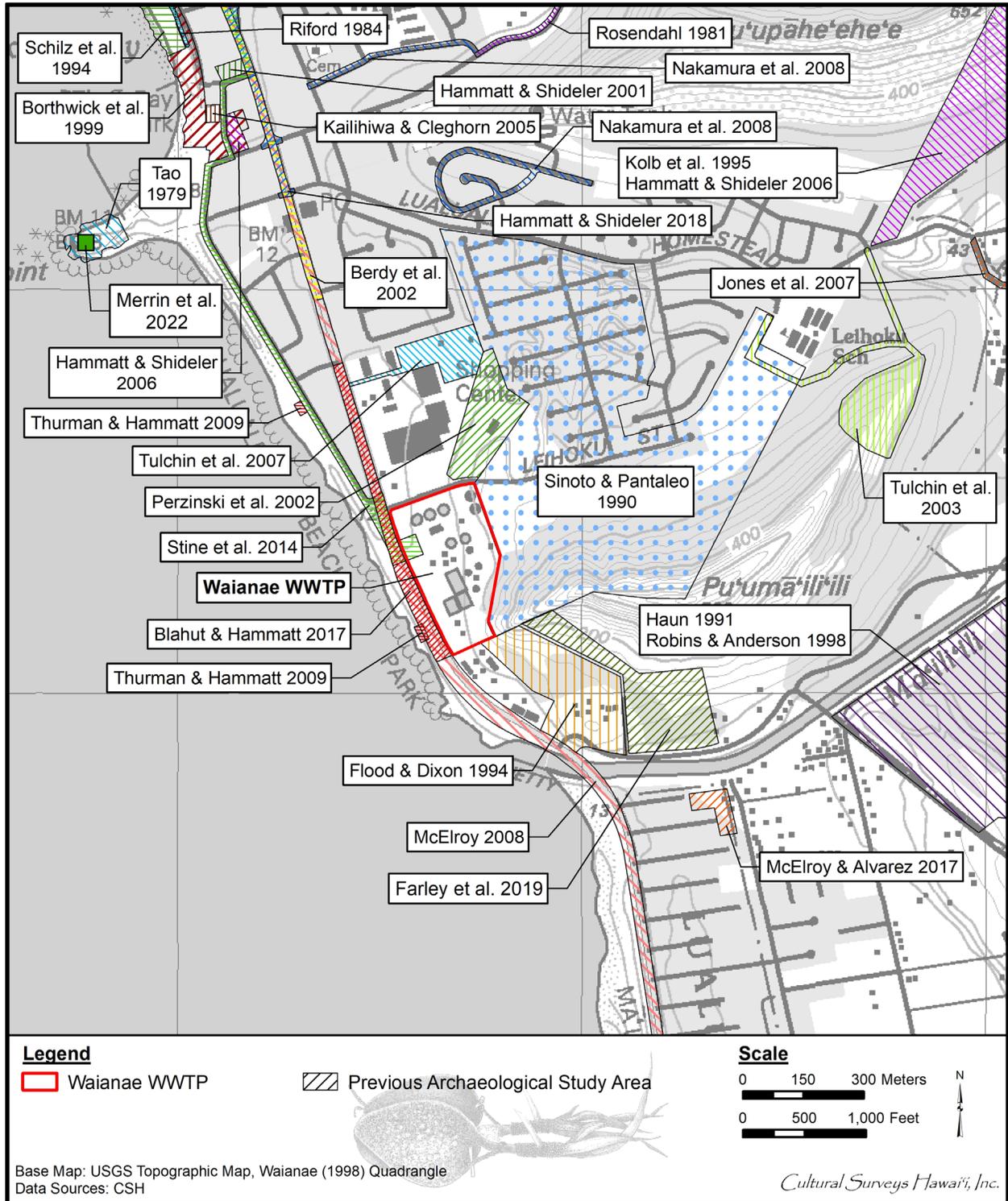


Figure 29. Previous archaeological studies within approximately 1.2 km of the Waianae WWTP depicted on a portion of the 1998 Waianae USGS topographic quadrangle

Table 1. Previous archaeological studies within approximately 1.2 km of the Waianae WWTP

Reference	Type of Investigation	Location	Results (SIHP # 50-80-07)
McAllister 1933	Archaeological reconnaissance survey	Island-wide	Site 152, Pu'upahe'ehe'e Heiau, and Site 153, Kū'īlioloa Heiau, identified north of the current project area
Tao 1979	Archaeological research	Kū'īlioloa Heiau	Recommends reconstruction and restoration of SIHP # -00153, Kū'īlioloa Heiau
Rosendahl 1981	Archaeological reconnaissance survey	Wai'anae Valley Rd Right-of-Way (ROW), central Wai'anae	No historic properties or cultural materials identified; noted "virtually the entire land surface of the alignment project area has been modified extensively during the recent historic past" (Rosendahl 1981:5)
Riford 1984	Archaeological monitoring (archaeological consulting services)	Wai'anae Army Recreation Center, coastal Wai'anae	Monitoring of 943 m of sewer and water line trenching at Wai'anae Army Recreation Center, Site 50-0a-C3-23: five articulated human burials recovered from trenches at site; one charcoal sample from prehistoric cultural layer (Layer V) obtained a radiocarbon age of AD 1376+/-50 (C13 adjusted)
Sinoto and Pantaleo 1990	Archaeological reconnaissance survey	Pōka'i Bay Subdivision	No historic properties identified
Haun 1991	Archaeological survey	Naval Magazine and Naval Communications Area Transmission Facility <i>mauka</i> and north <i>makai</i> Lualualei	Presents data on 124 sites with total of 477 features; majority of features (ca. 93%) Native Hawaiian; among indigenous features for which probable or possible functions could be assigned (79% of total), 36% habitation related, 25% agricultural, and 8% boundary walls/alignments

Reference	Type of Investigation	Location	Results (SIHP # 50-80-07)
Flood and Dixon 1994	Archaeological reconnaissance survey	Wai'anae Coast Comprehensive Health Center	No historic properties identified
Schilz et al. 1994	Subsurface archaeological intensive survey and data recovery and construction monitoring and sampling	Wai'anae Army Recreation Center, coastal Wai'anae	Eleven human burials attributed to pre-Contact period and six burials from post-Contact period recovered, "Radiocarbon dates and the archaeological assemblage clearly indicate that the site area was used at least by the 13th century AD."
Kolb et al. 1995	Archaeological inventory survey	Pahe'ehe'e Ridge	No historic properties identified in vicinity of current project area
Robins and Anderson 1998	Archaeological reconnaissance survey	RTF Lualualei	Identified SIHP #s -01886, mound, and -05592, enclosure, in vicinity of current project area
Borthwick et al. 1999	Subsurface archaeological survey	Pōka'i Bay Beach Park	No historic properties identified
Hammatt and Shideler 2001	Archaeological monitoring	Pōka'i Bay, just seaward of Farrington Hwy, <i>makai</i> Wai'anae	Documents three historic coffin burials (no SIHP # assigned)
Berdy et al. 2002	Archaeological monitoring	Farrington Hwy	Identified SIHP # -06400, historic trash pit
Perzinski et al. 2002	Archaeological inventory survey	NW Lualualei	No historic properties identified
Tulchin et al. 2003	Archaeological inventory survey	Proposed Wai'anae 242 reservoir and access road	Identified two possible shelters and a cave; no SIHP numbers assigned
Kailihiwa and Cleghorn 2005	Archaeological monitoring	Pōka'i Bay Beach Park	No historic properties identified
Hammatt and Shideler 2006	Archaeological field check and literature review	Included a 0.86-acre Pōka'i Bay St parcel and a 100.59-acre Pāhe'ehe'e Ridge parcel	Five parcels considered for Leeward Coast Emergency Homeless Shelter project; no historic properties identified

Reference	Type of Investigation	Location	Results (SIHP # 50-80-07)
Jones et al. 2007	Archaeological monitoring	BWS system improvements on Wai'anae Valley Rd and connecting streets	No historic properties identified
Tulchin et al. 2007	Archaeological inventory survey	Waianae Sustainable Communities Plan project	No historic properties identified
McElroy 2008	Archaeological monitoring	Farrington Hwy, portions of TMKs: (1) 8-2 through 8-7	No historic properties identified
Nakamura et al. 2008	Archaeological monitoring	MacArthur, Kawili and Alamihi streets	No historic properties identified
Thurman and Hammatt 2009	Archaeological monitoring	Lualualei Beach Park	No historic properties identified
Stine et al. 2014	Archaeological monitoring	Wai'anae and Lualualei Ahupua'a, TMK: (1) 8-various	No historic properties identified in vicinity of current project area
Blahut and Hammatt 2017	Archaeological monitoring	Farrington Hwy right-of-way (ROW)	No historic properties identified
McElroy and Alvarez 2017	Archaeological inventory survey	Proposed Hale Makana O Mā'ili Residential Complex	No historic properties identified
Hammatt and Shideler 2018	Archaeological literature review	Primarily within Farrington included a loop on Old Government Rd to the east of Farrington Hwy	Discusses a set of human skeletal remains encountered during geotechnical testing for this Wai'anae Water System Improvements Part III project on Old Government identified in 2016, and discusses recommended monitoring
Farley et al. 2019	Archaeological literature review and field inspection	Wai'anae Coast Comprehensive Health Center project	Noted three potential archaeological historic properties (designated as CSH 1-3) identified during field inspection; comprise two basalt and concrete mortared structural remnants (CSH 1 and 2) and an L-shaped basalt alignment (CSH 3). CSH 1 and 2 clearly date to post-Contact period; however, age of CSH 3 uncertain

Reference	Type of Investigation	Location	Results (SIHP # 50-80-07)
Merrin et al. 2022	Inventory of healing places	Focus on Kū'iliioia Heiau (1 km NW of project area), Kamaile Heiau, Pu'u Kawiwi (as well as Kūkaniloko Wai'anae uka/ Wahiawā) but includes discussion of Pūnana'ula Heiau, and Kāneikapualena Heiau	Generates baseline data on these healing places

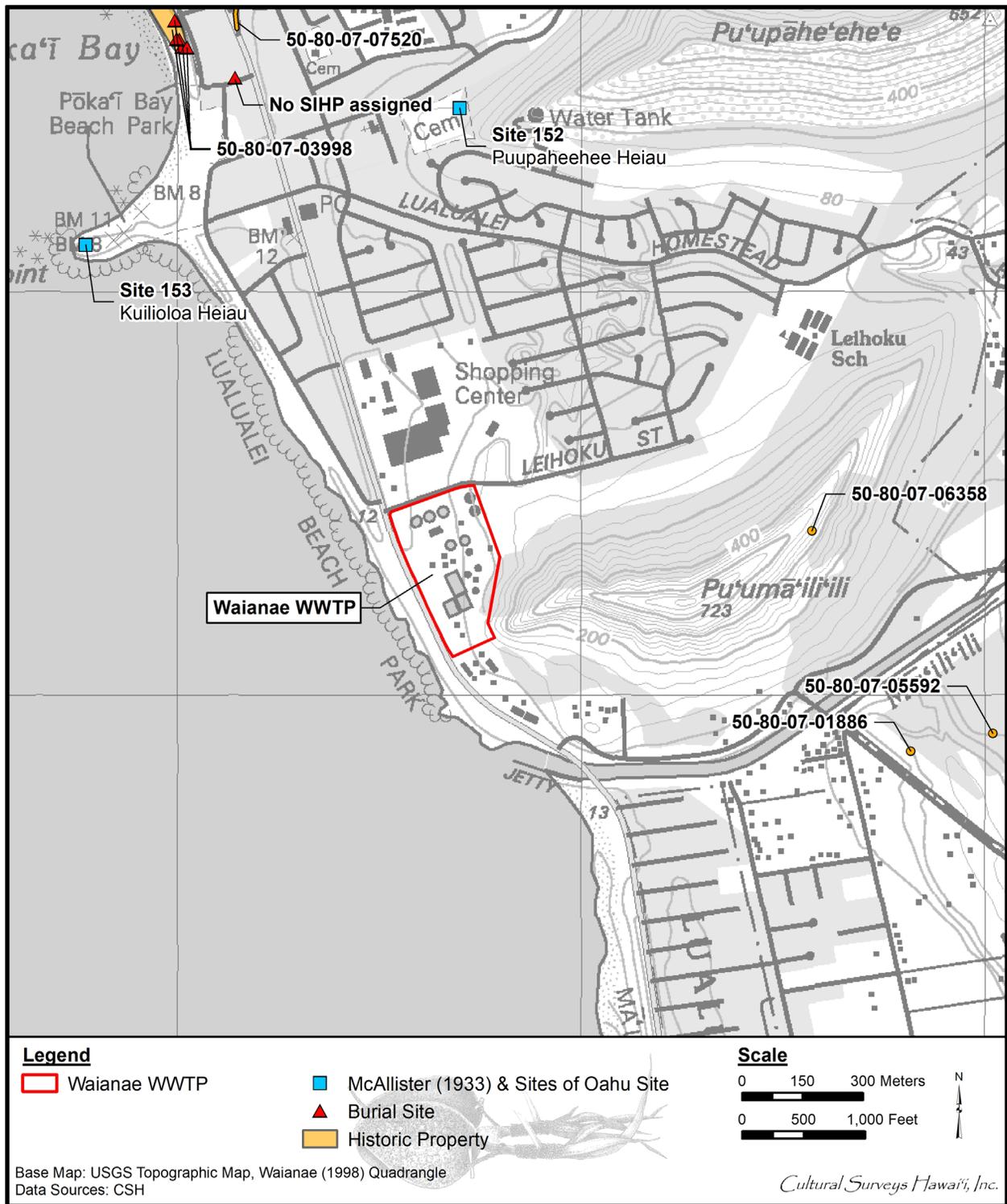


Figure 30. Previously identified historic properties within approximately 1.2 km of the Waianae WWTP depicted on a portion of the 1998 Waianae USGS topographic quadrangle

Table 2. Previously identified historic properties within approximately 1.2 km of the Waianae WWTP

SIHP # 50-80-07-	Formal Type/ Name	Comment	Source
00152	Pu'upahe'ehe'e Heiau	"[C]ompletely destroyed" by enlargement of an adjacent cemetery; related to a <i>hōlua</i> slide used for sledding contests	McAllister 1933
00153	Kū'īlioloa Heiau	On the tip of Kāne'īlio Point, at the south end of Pōka'ī Bay	McAllister 1933, Tao 1979, Merrin et al. 2022
01886	Mound	Pre- or early post-Contact	Robins and Anderson 1998
03998	Subsurface cultural deposit	S coastal Wai'anae, an intact prehistoric cultural layer, human and animal burials, and historic material from trash pits dating to early 20th century (previously designated as SIHP # -004064)	Riford et al. 1984, Hammatt et al. 1985
05592	Enclosure	Pre- or early post-Contact; interpreted as habitation site	Robins and Anderson 1998
06358	Alignment	L-shaped	Tulchin et al. 2003
07520	Historic road	S <i>makai</i> Wai'anae, Old Government Road, part of a road system enacted by King Kamehameha III in 1847	Stine et al. 2014
No SIHP #	Burials (human, 6)	S <i>makai</i> Wai'anae, at the Wai'anae LDS Church, discusses six burials discovered during the present parking lot-related construction	Borthwick and Hammatt 1997

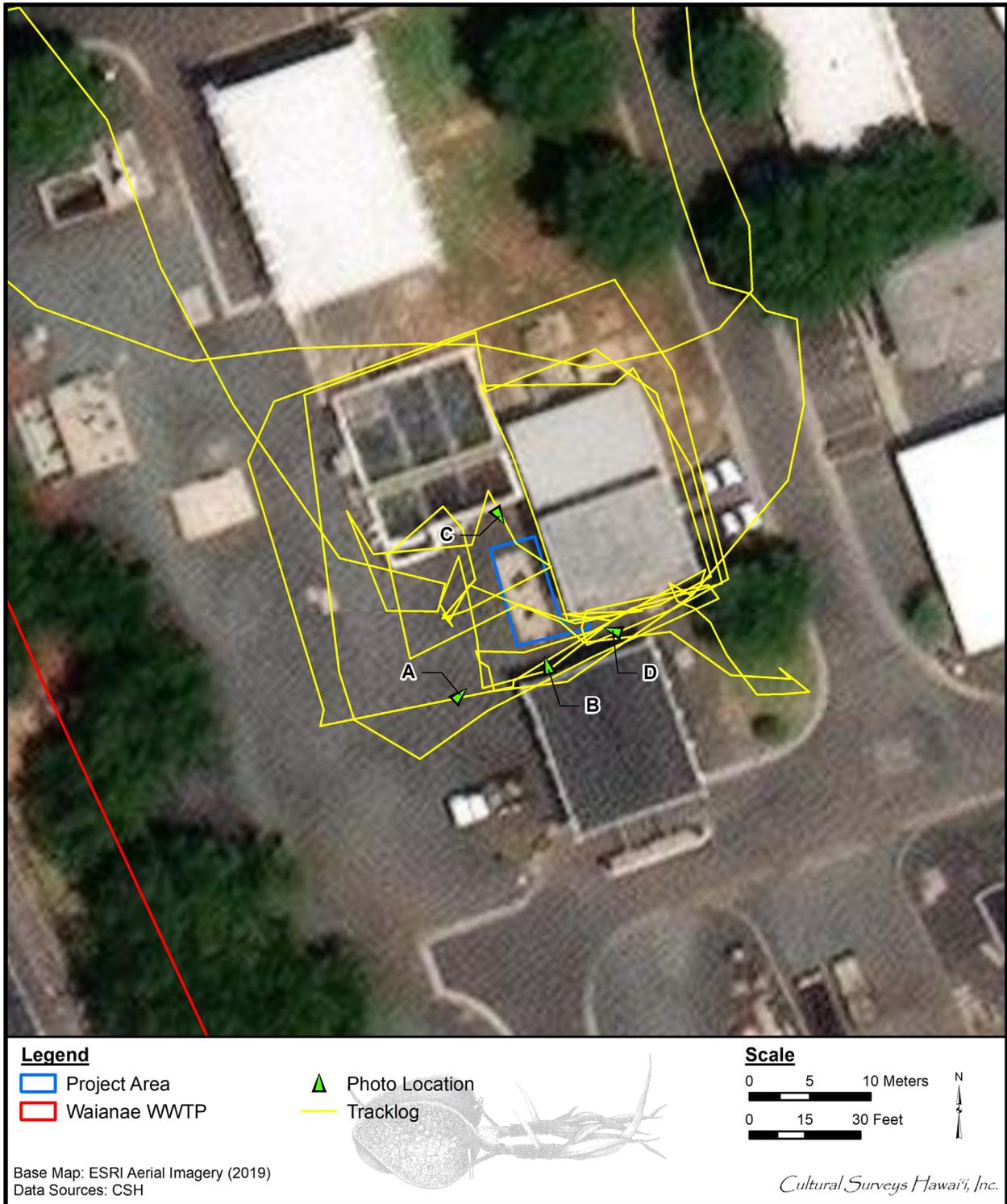


Figure 31. Archaeologist's track log and key to the following photographs (showing general location and orientation) for the west/central portion of the Waianae WWTP showing the improvements project area on a 2019 ESRI aerial photograph



Figure 32. Photo A: General view of the improvements project area within the west/central portion of the Waianae WWTP, view to northeast



Figure 33. Photo B: View of the location of a new 6,000-gallon diesel AST at the location of a to-be-removed UST (under concrete slab), view to northwest



Figure 34. Photo C: View of the location of a new 6,000-gallon diesel AST at the location of a to-be-removed UST (under concrete slab), view to southeast



Figure 35. Photo D: View of the location of the south end of a new 6,000-gallon diesel AST at the location of a to-be-removed UST (under concrete slab) and new above ground fuel piping route connection to the southwest corner of the Generator Building (at center of photo) , view to northwest

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Appendix B

Early Consultation Letter, Handout, and Responses

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TOWNSCAPE, INC.
Environmental & Community Planning

900 Fort Street Mall Suite 1160 · Honolulu, HI 96813 · PH: (808) 536-6999 · FAX: (808) 524-4998 · www.townscapeinc.com

April 1, 2025

Subject: Early Consultation Request for Draft Environmental Assessment (DEA)
Fuel Storage Tank Improvements for the Wai'anae Wastewater Treatment Plant–
Wai'anae, Island of O'ahu
Tax Map Key 8-6-001:044

Dear Participant,

On behalf of the City and County of Honolulu, Department of Environmental Services, Townscape, Inc. is preparing a DEA, pursuant to Hawai'i Revised Statutes, Chapter 343, and Hawai'i Administrative Rules (HAR), Chapter 11-200.1 for the Wai'anae Wastewater Treatment Plant Fuel Storage Tank Improvements ("Project").

Pursuant to HAR, Chapter 11-200.1-18, the City's Department of Environmental Services (Proposing Agency) is conducting early consultation to seek input from agencies, citizen groups, and individuals who may have an area of expertise, which may guide the scope and preparation of the DEA, and/or may be affected by the proposed Project. Please find enclosed an Early Consultation Handout with a project description and location map for your review and comment. We are requesting comments no later than **May 1, 2025** to be sent via mail or e-mail to:

Townscape, Inc.
Attn: Gabrielle Sham
900 Fort Street Mall, Suite 1160
Honolulu, HI 96813
E-mail: gabrielle@townscapeinc.com

If we do not receive a response by this date, we will assume your agency or organization has no comments. Please contact the undersigned with any questions you may have at (808) 550-3894 or via e-mail at gabrielle@townscapeinc.com. Mahalo in advance for your participation in the early consultation for this Project.

Sincerely,

Gabrielle Sham
Associate Planner

Enclosure: Early Consultation Handout

Fuel Storage Tank Improvements for the Wai'anae Wastewater Treatment Plant
Early Consultation Handout for Draft Environmental Assessment

Project Name	Fuel Storage Tank Improvements for the Wai'anae Wastewater Treatment Plant
Proposing and Determining Agency	City and County of Honolulu, Department of Environmental Services 1000 Ulu'ōhi'a Street Suite 308 Honolulu, Hawai'i 96707
Agent	Townscape, Inc. 900 Fort Street Mall, Suite 1160 Honolulu, Hawai'i 96813 Phone: (808) 550-3894 E-mail: gabrielle@townscapeinc.com
HRS, Chapter 343 Trigger	Use of County lands and funds
Project Location	86-100 Farrington Hwy Wai'anae, Hawai'i 96792
Tax Map Key & Recorded Fee Owner	(1) 8-6-001:044, City & County of Honolulu
Project Area	18.0360 acres (or 785,648 square feet)
State Land Use District	Urban
Development Plan	Wai'anae Sustainable Communities Plan
Special Management Area	In Special Management Area

Overview of Proposed Project

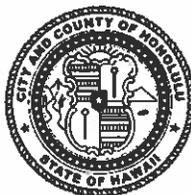
The Wai'anae Wastewater Treatment Plant (WWTP) has been in service since 1968. The proposed project involves replacing the existing underground fuel storage tank with a new 6,000-gallon aboveground fuel storage tank. Additionally, the project includes replacing the underground fuel piping, fuel monitoring panel, and all associated sensors. This work must be completed by July 15, 2028, in compliance with Hawai'i Administrative Rules 11-280.1, which mandates that all underground storage tanks and piping installed before August 9, 2013 to provide secondary containment and utilize interstitial monitoring. The aboveground storage tank will supply the fuel required for the emergency backup generator to service the WWPS.

Fuel Storage Tank Improvements for the Wai'anae Wastewater Treatment Plant
 Early Consultation Handout for Draft Environmental Assessment



HONOLULU POLICE DEPARTMENT
KA 'OIHANA MĀKA'I O HONOLULU
CITY AND COUNTY OF HONOLULU

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MEIA

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KAHU MĀKA'I

KEITH K. HORIKAWA
RADE K. VANIC
DEPUTY CHIEFS
HOPE LUNA NUI MĀKA'I

OUR REFERENCE **EO-SH**

April 14, 2025

SENT VIA EMAIL

Ms. Gabrielle Sham
gabrielle@townscapeinc.com

Dear Ms. Sham:

This is in response to your correspondence dated March 27, 2025, requesting for comments on the Draft Environmental Assessment for the proposed City and County of Honolulu, Department of Environmental Services, Wai'anae Wastewater Treatment Plant Fuel Storage Tank Improvements.

Based on the information provided, the Honolulu Police Department does not have any concerns at this time.

If there are any questions, please call Major Gail Beckley of District 8 (Kapolei, Wai'anae) at (808) 723-8400.

Sincerely,

A handwritten signature in black ink, appearing to read "Glenn Hayashi".

fw GLENN HAYASHI
Assistant Chief of Police
Support Services Bureau



**STATE OF HAWAII
OFFICE OF PLANNING
& SUSTAINABLE DEVELOPMENT**

JOSH GREEN, M.D.
GOVERNOR

SYLVIA LUKE
LT. GOVERNOR

MARY ALICE EVANS
DIRECTOR

235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Telephone: (808) 587-2846
Fax: (808) 587-2824
Web: <https://planning.hawaii.gov/>

DTS202504041611HE

Coastal Zone
Management
Program

April 15, 2025

Environmental Review
Program

Ms. Gabrielle Sham
Townscape, Inc.
900 Fort Street Mall, Suite 1160
Honolulu, HI 96813

Land Use Commission

Land Use Division

Special Plans Branch

Dear Ms. Sham:

State Transit-Oriented
Development

Subject: Early Consultation Environmental Assessment for the Proposed Fuel Storage Tank Improvements for the Waianae Wastewater Pump Station at Waianae, Oahu; Tax Map Key (1) 8-6-001: 044

Statewide Geographic
Information System

Statewide
Sustainability Branch

The Office of Planning and Sustainable Development (OPSD) is in receipt of your early consultation request, received April 4, 2025, on the preparation of an Environmental Assessment (EA), for the proposed fuel storage tank improvements for the Waianae Wastewater Pump Station (WWPS).

The proposed project involves replacing the existing underground fuel storage tank with a new 6,000-gallon aboveground fuel storage tank. Additionally proposed is replacing the underground fuel piping, fuel monitoring panel, and all associated sensors. The aboveground storage tank will supply the fuel required for the emergency backup generator to service the WWPS. This project must be completed by July 15, 2028, the deadline set forth in Hawaii Administrative Rules (HAR) Section 11-280.1-21 that requires all underground storage tanks and piping installed before August 9, 2013, must be provided with secondary containment design.

The OPSD has reviewed the subject request and has the following comments to offer:

1. The EA shall discuss all triggers of the preparation of an EA set forth in Hawaii Revised Statutes (HRS) Chapter 343, and list all required permits and approvals from the state, federal, and county for the proposed fuel storage tank improvements.
2. The Hawaii Coastal Zone Management (CZM) Law, HRS Chapter 205A, requires all state and county agencies to enforce the CZM objectives and policies. The subject EA should include an assessment with mitigation measures, if needed, as to how the proposed project

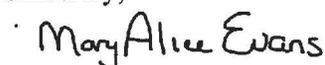
Ms. Gabrielle Sham
April 15, 2025
Page 2

will conform to each of the CZM objectives and supporting policies set forth in HRS section 205A-2, as amended.

3. The project is located within the City and County of Honolulu's designated Special Management Area (SMA). The Department of Planning and Permitting, City and County of Honolulu, should be consulted for the SMA permitting requirements and shoreline setbacks. As the supporting document for the SMA permit application, the OPSD suggests that the EA discuss compliance with the requirements of SMA use and shoreline setbacks pursuant to the county SMA and shoreline ordinances.
4. The OPSD recommends that the site-specific Best Management Practices shall be developed and implemented to prevent any runoff, sediment, soil and debris potentially resulting from associated construction activities from adversely impacting the coastal ecosystems and the State waters as specified in HAR Chapter 11-54.
5. To assess potential impacts of sea level rise on the project area, the OPSD suggests the EA refer to the findings of the Hawaii Sea Level Rise Vulnerability and Adaptation Report, 2017 as well as its 2022 update and Guidance for Using the Sea Level Rise Exposure Area in Local Planning and Permitting Decisions: all documents may be found at <https://climate.hawaii.gov/hi-adaptation/state-sea-level-rise-resources/>.

If you respond to this comment letter, please include DTS202504041611HE in the subject line. For any questions regarding this letter, please contact Rachel Beasley of our office at (808) 587-2831 or by email at rachel.e.beasley@hawaii.gov.

Sincerely,



Mary Alice Evans
Director

**HONOLULU FIRE DEPARTMENT
KA 'OIHANA KINAI AHI O HONOLULU
CITY AND COUNTY OF HONOLULU**

636 SOUTH STREET • HONOLULU, HAWAII 96813
PHONE: (808) 723-7139 • FAX: (808) 723-7111 • WEBSITE: honolulu.gov

RICK BLANGIARDI
MAYOR
MEIA



SHELDON K. HAO
FIRE CHIEF
LUNA NUI KINAI AHI

JASON SAMALA
DEPUTY FIRE CHIEF
HOPE LUNA NUI KINAI AHI

April 21, 2025

Ms. Gabrielle Sham, Associate Planner
Townscape, Inc.
900 Fort Street Mall, Suite 1160
Honolulu, Hawaii 96813

Dear Ms. Sham:

Subject: Early Consultation Request for Draft Environmental Assessment
Fuel Storage Tank Improvements for the Wai'anae Wastewater Pump Station
Wai'anae, Island of O'ahu
Tax Map Key: 8-6-001: 044

In response to your letter received on April 1, 2025, regarding the abovementioned subject, the Honolulu Fire Department (HFD) reviewed the submitted information and requires that this project follows all applicable codes in the Revised Ordinances of Honolulu Chapter 20 regarding Flammable and Combustible Liquid Storage Tanks.

The requirements above are required by the HFD. This project may have additional requirements to be met as determined by other agencies.

Should you have questions, please contact Battalion Chief Pao-Chi Hwang of our Fire Prevention Bureau at 808-723-7151 or hfdspb1@honolulu.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Craig Uchimura", is written over a horizontal line.

CRAIG UCHIMURA
Assistant Chief

CU/MD:sk

**BOARD OF WATER SUPPLY
KA 'OIHANA WAI
CITY AND COUNTY OF HONOLULU**

630 SOUTH BERETANIA STREET • HONOLULU, HAWAII 96843
Phone: (808) 748-5000 • www.boardofwatersupply.com

RICK BLANGIARDI
MAYOR
MEIA

ERNEST Y. W. LAU, P.E.
MANAGER AND CHIEF ENGINEER
MANAKIA A ME KAHU WILIKI

ERWIN KAWATA
DEPUTY MANAGER
HOPE MANAKIA



NĀ'ĀLEHU ANTHONY, Chair
JONATHAN KANESHIRO, Vice Chair
BRYAN P. ANDAYA
LANCE WILHELM
KĒHAULANI PU'U
EDWIN H. SNIFFEN, Ex-Officio
GENE C. ALBANO, P.E., Ex-Officio

April 24, 2025

Ms. Gabrielle Sham
Townscape, Inc.
900 Fort Street Mall, Suite 1160
Honolulu, Hawaii 96813

Dear Ms. Sham:

Subject: Your Letter Dated April 1, 2025 Requesting Comments on the Draft Environmental Assessment Early Consultation for Fuel Storage Tank Improvements for the Wai'anae Wastewater Treatment Plant off Farrington Highway, Tax Map Key: 8-6-001: 044

Thank you for your letter regarding the proposed replacement of the existing underground fuel storage tank with an aboveground fuel storage tank.

The existing water system is adequate to accommodate the proposed project. However, please be advised that this information is based upon current data, and therefore, the Board of Water Supply (BWS) reserves the right to change any position or information stated herein up until the final approval of the building permit application. The final decision on the availability of water will be confirmed when the building permit application is submitted for approval.

When water is made available, the applicant will be required to pay our Water System Facilities Charges for resource development, transmission, and daily storage.

Water conservation measures are required for all proposed developments. These measures include utilization of nonpotable water for irrigation using rain catchment, drought tolerant plants, xeriscape landscaping, efficient irrigation systems, such as a drip system and moisture sensors, and the use of Water Sense labeled ultra-low flow water fixtures and toilets.

Ms. Gabrielle Sham
April 24, 2025
Page 2

The proposed project is subject to BWS Cross-Connection Control and Backflow Prevention requirements prior to the issuance of the Building Permit Applications.

The construction drawings should be submitted for our approval, and the construction schedule should be coordinated to minimize impact to the water system.

The on-site fire protection requirements should be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.

If you have any questions, please contact Daniel Koge, Project Review Branch of our Water Resources Division at (808) 748-5444.

Very truly yours,


ERNEST Y. W. LAU, P.E.
Manager and Chief Engineer

DEPARTMENT OF DESIGN AND CONSTRUCTION
KA 'OIHANA HAKULAU A ME KE KĀPILI
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 768-8480 • FAX: (808) 768-4567 • WEBSITE: honolulu.gov

RICK BLANGIARDI
MAYOR
MEIA



HAKU MILLES, P.E.
DIRECTOR
PO'O

MARK YONAMINE, P.E.
DEPUTY DIRECTOR
HOPE PO'O

April 22, 2025

SENT VIA EMAIL

Ms. Gabrielle Sham
gabrielle@townscapeinc.com

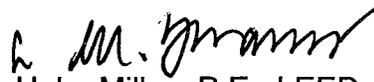
Dear Ms. Sham:

Subject: Early Consultation Request for Draft Environmental Assessment (DEA)
Fuel Storage Tank Improvements for the Wai'anae Wastewater
Treatment Plant - Wai'anae, Island of O'ahu
Tax Map Key 8-6-001:044

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 questions, please contact me at (808) 768-8480.

Sincerely,


Haku Milles, P.E., LEED AP
Director

HM:krm (937879)

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

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



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

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

P.O. BOX 621
HONOLULU, HAWAII 96809

May 1, 2025

Townscape, Inc.
Attn: Gabrielle Sham
900 Fort Street Mall, Suite 1160
Honolulu, HI 96813

via email: gabrielle@townscapeinc.com

SUBJECT: Early Consultation Request for Draft Environmental Assessment (DEA): Fuel Storage Tank Improvements for the Wai'anae Wastewater Pump Station, Located in Wai'anae, Island of O'ahu, TMK: (1) 8-6-001:044

Dear Ms. Sham,

Thank you for the opportunity to review and comment on the subject matter. The Land Division of the Department of Land and Natural Resources (DLNR) distributed or made available a copy of your request pertaining to the subject matter to DLNR's Divisions for their review and comments.

Please find enclosed comments from the Engineering Division, and the Commission on Water Resource Management on the subject matter. Should you have any questions, please feel free to contact Dayna Vierra at (808) 587-0423 or email: dayna.k.vierra@hawaii.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Ian Hirokawa".

Ian Hirokawa
Acting Land Administrator

Enclosure(s)



STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAII'
DEPARTMENT OF LAND AND NATURAL RESOURCES | KA 'OIHANA KUMUWAIWAI 'ĀINA
COMMISSION ON WATER RESOURCE MANAGEMENT | KE KAHUWAI PONO
P.O. BOX 621
HONOLULU, HAWAII 96809

Apr 25, 2025

REF: RFD.6419.3

TO: Mr. Russell Tsuji, Administrator
Land Division

FROM: Ciara W.K. Kahahane, Deputy Director 
Commission on Water Resource Management

SUBJECT: Fuel Storage Tank Improvements for the Wai'anae Wastewater Pump Station

FILE NO.: RFD.6419.3
TMK NO.: (1) 8-6-001:044

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/cwrn>.

Our comments related to water resources are checked off below.

1. We recommend coordination with the county to incorporate this project into the county's Water Use and Development Plan. Please contact the respective Planning Department and/or Department of Water Supply for further information.
2. We recommend coordination with the Engineering Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.
3. 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.
4. 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>.
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 http://www.hawaiiscape.com/wp-content/uploads/2013/04/LICH_Irrigation_Conservation_BMPs.pdf.

9. There may be the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.
10. The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit is required prior to use of water. The Water Use Permit may be conditioned on the requirement to use dual line water supply systems for new industrial and commercial developments.
11. The Hawaii Water Plan is directed toward the achievement of the utilization of reclaimed water for uses other than drinking and for potable water needs in one hundred per cent of State and County facilities by December 31, 2045 (§174C-31(g)(6), Hawaii Revised Statutes). We strongly recommend that this project consider using reclaimed water for its non-potable water needs, such as irrigation. Reclaimed water may include, but is not limited to, recycled wastewater, gray water, and captured rainwater/stormwater. Please contact the Hawai'i Department of Health, Wastewater Branch, for more information on their reuse guidelines and the availability of reclaimed water in the project area.
12. A Well Construction Permit(s) is (are) are required before the commencement of any well construction work.
13. A Pump Installation Permit(s) is (are) required before ground water is developed as a source of supply for the project.
14. There is (are) well(s) located on or adjacent to this project. If wells are not planned to be used and will be affected by any new construction, they must be properly abandoned and sealed. A permit for well abandonment must be obtained.
15. Ground-water withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.
16. A Stream Channel Alteration Permit(s) is (are) required before any alteration can be made to the bed and/or banks of a steam channel.
17. A Stream Diversion Works Permit(s) is (are) required before any stream diversion works is constructed or altered.
18. A Petition to Amend the Interim Instream Flow Standard is required for any new or expanded diversion(s) of surface water.
19. The planned source of water for this project has not been identified in this report. Therefore, we cannot determine what permits or petitions are required from our office, or whether there are potential impacts to water resources.
- OTHER:

If you have any questions, please contact Ryan Imata of the Groundwater Regulation Branch at (808) 587-0225 or Katie Roth of the Planning Branch (808) 587-0216.

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

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



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

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

P.O. BOX 621
HONOLULU, HAWAII 96809

April 15, 2025

MEMORANDUM

FROM: ~~TO~~:

DLNR Agencies:

- Div. of Aquatic Resources
- Div. of Boating & Ocean Recreation
- Engineering Division** (DLNR.ENGR@hawaii.gov)
- Div. of Forestry & Wildlife (rubyrosa.t.terrago@hawaii.gov)
- Div. of State Parks
- Commission on Water Resource Management (DLNR.CWRM@hawaii.gov)
- Office of Conservation & Coastal Lands
- Land Division – O'ahu District (barry.w.cheung@hawaii.gov)
- Land Division – Planner (dayna.k.vierra@hawaii.gov)
- Land Division – Planner (lauren.e.yasaka@hawaii.gov)
- Aha Moku Advisory Committee (leimana.k.damate@hawaii.gov)

TO: FROM:
SUBJECT:

FOR Russell Y. Tsuji, Land Administrator

Early Consultation Request for Draft Environmental Assessment Fuel Storage Tank Improvements for the Wai'anae Wastewater Pump Station

LOCATION: Wai'anae, Island of O'ahu; TMK: (1) 8-6-001:044

APPLICANT: Townscape, Inc. on behalf of the City and County of Honolulu, Department of Environmental Services

Transmitted for your review and comment is information on the above-referenced subject matter. Please submit comments to me by **April 30, 2025**.

If no response is received by this date, we will assume your agency has no comments. Should you have any questions about this request, please contact Dayna Vierra at dayna.k.vierra@hawaii.gov. Thank you.

BRIEF COMMENTS:

- () We have no objections.
- () We have no comments.
- () We have no additional comments.
- () Comments are included/attached.

Signed:

Print Name: Dina U. Lau, Acting Chief Engineer

Division: Engineering Division

Date: 04/30/2025

Attachments

**DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION**

LD/Russell Y. Tsuji

Ref: Early Consultation Request for Draft Environmental Assessment Fuel Storage Tank Improvements for the Wai‘anae Wastewater Pump Station

Location: Wai‘anae, Island of O‘ahu

TMK(s): (1) 8-6-001:044

**Applicant: Townscape, Inc. on behalf of the City and County of Honolulu,
Department of Environmental Services**

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 for researching 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) (fhat.hawaii.gov) 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.
- Maui/Molokai/Lanai County of Maui, Department of Planning (808) 270-7139.
- Kauai: County of Kauai, Department of Public Works (808) 241-4849.

Signed: 
DINA U. LAU, ACTING CHIEF ENGINEER

Date: Apr 30, 2025

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

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



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

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

P.O. BOX 621
HONOLULU, HAWAII 96809

May 20, 2025

Townscape, Inc.
Attn: Gabrielle Sham
900 Fort Street Mall, Suite 1160
Honolulu, HI 96813

via email: gabrielle@townscapeinc.com

SUBJECT: Early Consultation Request for Draft Environmental Assessment (DEA) Fuel Storage Tank Improvements for the Wai'anae Park Wastewater Pump Station, located in Wai'anae, Island of O'ahu, TMK: (1)8-6-001:044

Dear Ms. Sham:

Thank you for the opportunity to review and comment on the subject matter. In addition to our previous comments dated May 1, 2025, enclosed are comments from the Division of Forestry and Wildlife on the subject matter. Should you have any questions, please feel free to contact Dayna Vierra at (808) 587-0423 or email: dayna.k.vierra@hawaii.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Ian C. Hirokawa".

Ian C. Hirokawa
Acting Land Administrator

Enclosure(s)

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

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



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

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

P.O. BOX 621
HONOLULU, HAWAII 96809

April 15, 2025

MEMORANDUM

FROM:

DLNR Agencies:

- Div. of Aquatic Resources
- Div. of Boating & Ocean Recreation
- Engineering Division (DLNR.ENGR@hawaii.gov)
- Div. of Forestry & Wildlife (rubyrosa.t.terrago@hawaii.gov)
- Div. of State Parks
- Commission on Water Resource Management (DLNR.CWRM@hawaii.gov)
- Office of Conservation & Coastal Lands
- Land Division – O'ahu District (barry.w.cheung@hawaii.gov)
- Land Division – Planner (dayna.k.vierra@hawaii.gov)
- Land Division – Planner (lauren.e.yasaka@hawaii.gov)
- Aha Moku Advisory Committee (leimana.k.damate@hawaii.gov)

TO:

FOR Russell Y. Tsuji, Land Administrator

SUBJECT:

Early Consultation Request for Draft Environmental Assessment Fuel Storage Tank Improvements for the Wai'anae Wastewater Pump Station

LOCATION:

Wai'anae, Island of O'ahu; TMK: (1) 8-6-001:044

APPLICANT:

Townscape, Inc. on behalf of the City and County of Honolulu, Department of Environmental Services

Transmitted for your review and comment is information on the above-referenced subject matter. Please submit comments to me by **April 30, 2025**.

If no response is received by this date, we will assume your agency has no comments. Should you have any questions about this request, please contact Dayna Vierra at dayna.k.vierra@hawaii.gov. Thank you.

BRIEF COMMENTS:

- () We have no objections.
- () We have no comments.
- () We have no additional comments.
- () Comments are included/attached.

Signed:

Print Name:

Jason D. Omick, Wildlife Prog. Mgr.

Division:

Forestry and Wildlife

Date:

May 20, 2025

Attachments

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

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



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

DIVISION OF FORESTRY AND WILDLIFE
1151 PUNCHBOWL STREET, ROOM 325
HONOLULU, HAWAII 96813

May 2, 2025

DAWN N.S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE
MANAGEMENT
RYAN K.P. KANAKA'OLE
FIRST DEPUTY
CIARA W.K. KAHAHANE
DEPUTY DIRECTOR - WATER
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE
MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES
ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

Log no. 4971

MEMORANDUM

TO: RUSSELL Y. TSUJI, Land Administrator
Land Division

FROM: JASON D. OMICK, Wildlife Program Manager
Division of Forestry and Wildlife

SUBJECT: Early Consultation Request for Draft Environmental Assessment (DEA)
Fuel Storage Tank Improvements for Wai'anae Wastewater Treatment
Plant; Wai'anae, O'ahu, TMK: (1) 8-6-001:044.

The Department of Land and Natural Resources, Division of Forestry and Wildlife (DOFAW) has received your early consultation request regarding the DEA for proposed fuel storage tank improvements at the Wai'anae Wastewater Treatment Plant in Wai'anae, O'ahu, within TMK: (1) 8-6-001:044. The proposed project is located within the Urban State Land Use District and is in a Special Management Area. The proposed project involves replacing the existing underground fuel storage tank with a new 6,000-gallon aboveground fuel storage tank. The aboveground storage tank will supply the fuel required for the emergency backup generator to service the wastewater pump station. The proposed project will also replace the underground fuel piping, fuel monitoring panel, and all associated sensors. This work must be completed by July 15, 2028.

DOFAW provides the following comments regarding the potential for the proposed work to affect listed species in the vicinity of the project area.

Artificial lighting can adversely impact seabirds which may pass through the area at night by causing them to become disoriented. The disorientation can result in seabird collision with manmade structures or the grounding of birds. Nighttime work which requires outdoor lighting should be avoided during the seabird fledging season from September 15 through December 15, when young seabirds make their maiden voyage to sea. If nighttime construction is required during the seabird fledging season, we recommend a qualified biologist be present at the project site to monitor and assess the risk of seabirds being attracted or grounded due to the lighting. If seabirds are seen circling the area, lights should be turned off. If a downed seabird is detected, please

follow DOFAW's recommended response protocol by visiting <https://dlnr.hawaii.gov/wildlife/seabird-fallout-season/>

Permanent lighting also poses a risk of seabird attraction, and as such should be minimized or eliminated to protect seabird flyways and preserve the night sky. For illustrations and guidance related to seabird-friendly light styles that also protect seabirds and the dark starry skies of Hawai'i please visit <https://dlnr.hawaii.gov/wildlife/files/2016/03/DOC439.pdf>.

DOFAW is concerned about the wastewater treatment facility attracting vulnerable birds to areas that may host nonnative predators such as cats, rodents, and mongooses. We therefore recommend taking action to minimize predator presence, i.e., remove cats, place bait stations for rodents and mongoose, and provide covered trash receptacles. Implementing additional mitigation measures is also recommended to avoid avian mortality during project design and during operation for the long term.

Cats prey on native birds, including State-listed endangered waterbirds, seabirds, and forest birds. Predation is instinctive and means that even well-fed cats will hunt and kill wildlife. Therefore, DOFAW recommends no feeding of feral cats should occur on the premises.

We recommend that Best Management Practices are employed during and after construction to contain any soils and sediment with the purpose of preventing damage to near-shore waters and marine ecosystems.

DOFAW recommends minimizing the movement of plant or soil material between worksites. Soil and plant material may contain detrimental fungal pathogens (e.g., rapid 'ōhi'a death), vertebrate and invertebrate pests (e.g., little fire ants, coconut rhinoceros beetles, etc.), or invasive plant parts (e.g., miconia, pampas grass, etc.) which could harm our native species and ecosystems. We recommend consulting the O'ahu Invasive Species Committee (OISC) at (808) 266-7994 to help plan, design, and construct the project, learn of any high-risk invasive species in the area, and ways to mitigate their spread. All equipment, materials, and personnel should be cleaned of excess soil and debris to minimize the risk of spreading invasive species.

The invasive coconut rhinoceros beetle (CRB) or *Oryctes rhinoceros* is found on the islands of O'ahu, Hawai'i Island, Maui, and Kaua'i. On July 1, 2022, the Hawai'i Department of Agriculture (HDOA) approved Plant Quarantine Interim Rule 22-1. This rule restricts the movement of CRB-host material within or to and from the island of O'ahu, which is defined as the Quarantine Area. Regulated material (host material or host plants) is considered a risk for potential CRB infestation. Host material for the beetle specifically includes a) entire dead trees, b) mulch, compost, trimmings, fruit and vegetative scraps, and c) decaying stumps. CRB host plants include the live palm plants in the following genera: *Washingtonia*, *Livistona*, and *Pritchardia* (all commonly known as fan palms), *Cocos* (coconut palms), *Phoenix* (date palms), and *Roystonea* (royal palms). When such material or these specific plants are moved there is a risk of spreading CRB because they may contain CRB in any life stage. For more information regarding CRB, please visit <https://dlnr.hawaii.gov/hisc/info/invasive-species-profiles/coconut-rhinoceros-beetle/>.

You should avoid importing to O'ahu soil or other plant material from off-island. Soil and plant material may contain fungi (e.g., rapid 'ōhi'a death) and other pathogens which could harm our native species and ecosystems. We recommend consulting the Hawai'i Interagency Biosecurity Plan at <http://dlnr.hawaii.gov/hisc/plans/hibp/> in the planning, design, and construction of the project.

DOFAW recommends using native plant species for landscaping that are appropriate for the area; i.e., plants for which climate conditions are suitable for them to thrive, plants that historically occurred there, etc. Please do not plant invasive species. DOFAW also recommends referring to www.plantpono.org for guidance on the selection and evaluation of landscaping plants and to determine the potential invasiveness of plants proposed for use in the project.

Due to the arid climate and risks of wildfire to listed species, we recommend coordinating with the Hawai'i Wildfire Management Organization at (808) 850-0900 or admin@hawaiiwildfire.org, on how wildfire prevention can be addressed in the project area. When engaging in activities that have a high risk of starting a wildfire (i.e. welding in grass), it is recommended that you:

- Wet down the area before starting your task,
- Continuously wet down the area as needed,
- Have a fire extinguisher on hand, and
- In the event that your vision is impaired, (i.e. welding goggles) have a spotter to watch for fire starts.

We appreciate your efforts to work with our office for the conservation of our native species. These comments are general guidelines and should not be considered comprehensive for this site or project. It is the responsibility of the applicant to do their own due diligence to avoid any negative environmental impacts. Should the scope of the project change significantly, or should it become apparent that threatened or endangered species may be impacted, please contact our staff as soon as possible. If you have any questions, please contact Kelli Yamaguchi, Protected Species Habitat Conservation Planning Associate via email at kelli.yamaguchi.researcher@hawaii.gov.

Sincerely,



JASON D. OMICK
Wildlife Program Manager

From: Castillo, Carlos <carlos.castillo@hawaiianelectric.com>

Sent: Friday, May 9, 2025 2:01 PM

To: Gabrielle Sham <Gabrielle@townscapeinc.com>

Cc: Kakazu, Lisa <lisa.kakazu@hawaiianelectric.com>; Kuwaye, Kristen <kristen.kuwaye@hawaiianelectric.com>; Liu, Rouen <rouen.liu@hawaiianelectric.com>

Subject: Early Consultation Response – Draft Environmental Assessment - Fuel Storage Tank Improvements for the Wai'anae Wastewater Treatment Plant

Dear Ms. Sham,

Thank you for the opportunity to review and comment on the proposed Fuel Storage Tank Improvements for the Wai'anae Wastewater Treatment Plant (WWTP), located at 86-100 Farrington Highway, Wai'anae, O'ahu (TMK: (1) 8-6-001:044). Hawaiian Electric Company has no objections to the proposed project.

We understand that the project, proposed by the City and County of Honolulu, Department of Environmental Services, includes replacing the existing underground fuel storage tank with a new 6,000-gallon aboveground fuel storage tank, replacing the underground fuel piping, fuel monitoring panel, and associated sensors. This work is being undertaken in compliance with HAR 11-280.1 and must be completed by July 15, 2028. The project site is located in the Urban State Land Use District, within the Wai'anae Sustainable Communities Plan area, and is within the Special Management Area (SMA).

The project area is currently served by Hawaiian Electric infrastructure. Depending on the final design and electrical load requirements, coordination may be required for system extensions or service upgrades. We recommend early engagement during the design phase to ensure proper planning for electrical infrastructure.

If Hawaiian Electric facilities are located within or adjacent to the project area, we respectfully request that access be maintained at all times to ensure safe and reliable operation, maintenance, and emergency response.

We appreciate being included in the early consultation process and respectfully request continued coordination as the project moves forward, particularly with regard to electrical service needs.

If you have any questions or require further information, please contact me directly at (808) 285-6284.

Sincerely,
Carlos Castillo (WA3 – PTA)
Permits Planner
Hawaiian Electric Company
PO Box 2750
Honolulu, HI 96840-0001

Carlos Castillo
Permits Planner, T&D Engineering

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