Department of Water
County of Kaua'i

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Water has no substitute..... Conserve it!

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OFC. OF ENVIRONMENTAL
QUALITY CONTROL

January 3, 2018

Mr. Scott Glenn, Director
Office of Environmental Quality Control
Department of Health, State of Hawai'i
235 South Beretania Street, Suite 702
Honolūlū, HI 96813

RE: Draft Environmental Assessment and Anticipated Finding of No Significant Impact
Job No. 15-08, Water Plan 2020 Project No. HW-11
Construct Hā'ena 0.2 MG Storage Tank, 144'
Wainiha-Hā'ena Area Water System
Hā'ena, Kaua'i, Hawai'i
TMK Plats: (4) 5-8-002:003 (Por.) and 007
Island of Kaua'i, Hawai'i

Dear Mr. Glenn:

With this letter, the County of Kaua'i Department of Water hereby transmits the draft environmental assessment and anticipated finding of no significant impact (DEA-AFONSI) for the subject project for publication in the next available edition of the Environmental Notice.

Enclosed is a completed OEQC Publication Form, one copy of the DEA-AFONSI, a CD with an Adobe Acrobat PDF file of the same and an electronic copy of the publication form in MS Word.

Should you have any questions, please contact Mr. Bryan Wienand of my staff at (808) 245-5449 or email at bwienand@kauaiwater.org.

Sincerely,

Kirk Saiki, P.E.
Manager and Chief Engineer

4398 Pua Loke Street, Līhu'e, HI 96766
Phone: 808-245-5400 / Fax: 808-245-5813

18-279

AGENCY
PUBLICATION FORM

Project Name:	Construct Haena 0.2 MG Storage Tank, 144'
Project Short Name:	Haena 0.2 MG Storage Tank
HRS §343-5 Trigger(s):	Use of County funds
Island(s):	Kauai
Judicial District(s):	Hanalei, Kauai
TMK(s):	(4) 5-8-002-003 (por) and 5-8-002-007
Permit(s)/Approval(s):	Conservation District Use Permit, County building permits, Community Noise Permit (if req'd), Individual NPDES Permit
Proposing/Determining Agency:	Department of Water, County of Kauai
Contact Name, Email, Telephone, Address	Bryan Wienand, P.E.; Department of Water, County of Kauai 4398 Pua Loke Street, Lihue, Hawaii 96766 Tel: (808) 245-5449 bwienand@kauaiwater.org
Accepting Authority:	(for EIS submittals only)
Contact Name, Email, Telephone, Address	
Consultant:	Shiramizu, Loo & Nakamura LLLP
Contact Name, Email, Telephone, Address	Galen Nakamura 4357 Rice Street, Suite 102 Lihue, Hawaii 96766 galen.nakamura@hawaiiantel.net

Status (select one)	**Submittal Requirements**
__X__ DEA-AFNSI	Submit 1) the proposing agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the DEA, and 4) a searchable PDF of the DEA; a 30-day comment period follows from the date of publication in the Notice.
____ FEA-FONSI	Submit 1) the proposing agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEA, and 4) a searchable PDF of the FEA; no comment period follows from publication in the Notice.
____ FEA-EISPN	Submit 1) the proposing agency notice of determination/transmittal letter on agency letterhead, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEA, and 4) a searchable PDF of the FEA; a 30-day comment period follows from the date of publication in the Notice.
____ Act 172-12 EISPN ("Direct to EIS")	Submit 1) the proposing agency notice of determination letter on agency letterhead and 2) this completed OEQC publication form as a Word file; no EA is required and a 30-day comment period follows from the date of publication in the Notice.
____ DEIS	Submit 1) a transmittal letter to the OEQC and to the accepting authority, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the DEIS, 4) a searchable PDF of the DEIS, and 5) a searchable PDF of the distribution list; a 45-day comment period follows from the date of publication in the Notice.
____ FEIS	Submit 1) a transmittal letter to the OEQC and to the accepting authority, 2) this completed OEQC publication form as a Word file, 3) a hard copy of the FEIS, 4) a searchable PDF of the FEIS, and 5) a searchable PDF of the distribution list; no comment period follows from publication in the Notice.
____ FEIS Acceptance Determination	The accepting authority simultaneously transmits to both the OEQC and the proposing agency a letter of its determination of acceptance or nonacceptance (pursuant to Section 11-200-23, HAR) of the FEIS; no comment period ensues upon publication in the Notice.
FEIS Statutory Acceptance	Timely statutory acceptance of the FEIS under Section 343-5(c), HRS, is not applicable to agency actions.

____ Supplemental EIS Determination	The accepting authority simultaneously transmits its notice to both the proposing agency and the OEQC that it has reviewed (pursuant to Section 11-200-27, HAR) the previously accepted FEIS and determines that a supplemental EIS is or is not required; no EA is required and no comment period ensues upon publication in the Notice.
____ Withdrawal	Identify the specific document(s) to withdraw and explain in the project summary section.
____ Other	Contact the OEQC if your action is not one of the above items.

Project Summary
Provide a description of the proposed action and purpose and need in 200 words or less.

The County of Kaua'i, Department of Water ("KDOW") proposes to construct a 0.2 MG potable water storage tank in Hanalei, Kauai, on a portion of (4) 5-8-002-003. Electrical improvements ancillary to the project will occur on adjoining tax map key parcel (4) 5-8-002-007. Under KDOW's Water Plan 2020 ("Plan"), future water demands from the Wainiha-Hā'ena area on Kauai are projected to grow approximately 15% between 2000 and 2020. In response to the Plan's projected water demand and an analysis of future water storage needs, KDOW's capital improvement program proposed a new 200,000 million gallon storage tank to serve this area.

County of Kauaʻi, Department of Water
Water Plan 2020 Projects

WP2020 Job No. HW-11
Construct Hā'ena 0.2 MG Storage Tank, 144'
Wainiha-Hā'ena Area Water System,
Wainiha, Kauaʻi, Hawai'i

TMK (4) 5-8-002:003 (Por.) and 007
Hanalei, Kauaʻi, Hawai'i 96714

Draft Environmental Assessment

January 2, 2018

Prepared for:
County of Kauaʻi
Department of Water
4398 Pua Loke Street
Līhuʻe, HI 96766

Prepared by:
Shiramizu Loo & Nakamura, LLLP
4357 Rice Street, Suite 102
Līhu'e, HI 96766

Project:	County of Kauaʻi, Department of Water Water Plan 2020 Projects: Job No. 15-08, WP2020 Project No. HW-11, Construct the Hā'ena 0.2 MG Storage Tank, 144' Wainiha-Hā'ena Area Water System Wainiha, Kauaʻi, Hawai'i (the "Project")
Applicant:	Department of Water ("DOW") County of Kauaʻi 4398 Pua Loke Street Līhu'e, HI 96766 Attn: Mr. Bryan Wienand, P.E. (808) 245-5449
Landowners:	TMK 4) 5-8-002:003 (Por.) Keith P. Robinson and Bruce B. Robinson 4576 Wainiha Power House Road Hanalei, Kauaʻi, Hawaii 96714 TMK (4) 5-8-002:007 County of Kaua'i
Accepting Agency:	County of Kaua'i Department of Water 4398 Pua Loke Street Līhu'e, HI 96766
Agent:	Shiramizu, Loo & Nakamura 4357 Rice Street, Suite 201 Lihue, HI 96746 Contact: Galen T. Nakamura (808) 632-2267
Location:	Hanalei District, Island of Kauaʻi, Hawaiʻi
Tax Map Keys:	(4) 5-8-002:003 (por.) and 007
Proposed Action:	Construct a new 0.2 MG potable water storage tank and related facilities within the DOW's Wainiha-Hā'ena Water System area.
Land Area:	Portion of TMK (4) 5-8-002:003 (229.209 acres) TMK (4) 5-8-002:007 (0.0615 acre)
Present Use:	Undeveloped land consisting of mango, strawberry guava, java plum, ironwood, octopus, albizia, and other trees and foliage
State Land Use District:	Conservation
County General Plan:	Open
County Zoning:	None (no County zoning on State Conservation District lands)
Permits Required:	State Department of Land & Natural Resources • Conservation District Use Permit County of Kauaʻi • Building, grading, plumbing, electrical permits State Department of Health • Community Noise Permit (only if noise exceeds permissible limits) • Individual NPDES Permit
Anticipated Determination:	Finding of No Significant Impact (FONSI)

Table of Contents

SECTION 1.0 SUMMARY

1.1 Proposed Action

The County of Kauaʻi ("County"), Department of Water ("DOW") is proposing to construct a new Hā'ena 0.2 Million Gallon ("MG") Steel Water Storage Tank, 144'[1] (the "New Hā'ena 0.2 MG Tank") within the general area of DOW's existing Wainiha-Hā'ena Water System. This water system serves the communities of Wainiha and Hā'ena in north Kauaʻi. The proposed Project will meet DOW's potable water requirements for the Wainiha-Hā'ena area forecast in DOW's *Kauaʻi Water Plan 2020* (the "Water Plan 2020"). The DOW's 2017 Capitol Improvement Funds ("CIP") program lists the Project as the second priority for the year 2017.[2]

1.2 General Project Location

The proposed tank will be located in the Hanalei District of Kauaʻi. The principal Project site measures approximately 10,000 square feet and is located within a portion of tax map key ("TMK") (4) 5-8-02:003, an approximately 229 acre parcel of land; the Project also nominally includes TMK (4) 5-8-002:007, an approximately 2,677 sq. ft. parcel. The Project area is bounded by undeveloped land and single family residences along the Wainiha Power House Road. The general Wainiha area is located to the east of the Project site; Hā'ena lies to the north.

1.3 Land Ownership

The principal Project site is privately-owned by Keith P. Robinson and Bruce B. Robinson ("Robinsons"); however, the Project will be constructed under authority of a right-of-entry entered into between the Robinsons and the DOW and a Memorandum of Understanding between the Robinsons the Board of Water Supply, County of Kauaʻi. The Project also nominally involves a small 2,677 sq. ft. parcel owned by the County of Kauai (TMK (4) 5-8-002:007).

2.0 INTRODUCTION

2.1 Project Overview

The County of Kauaʻi is a political subdivision of the State of Hawai'i ("State"). The County's Department of Water is responsible for the management, control and operation of the County's water system. Service is provided to residential, commercial, industrial and institutional users via separate, unconnected water systems located on Kauaʻi, from Kekaha to Hā'ena. Island wide, the DOW operates 14 such systems.

[1] The project's official title includes a description of the tanks' overflow elevation of **144'** (144 ft.).

[2] The DOW 2017 fiscal year is July 1, 2017 through June 30, 2018.

The overall purpose and need of all DOW projects relates to the DOW's mission to plan and operate water systems that provide safe, affordable, sufficient drinking water for the people of Kaua'i. Through implementation of its planning documents, including the 2001 Water Plan 2020, DOW fulfills the County's General Plan and the policies of the State of Hawai'i's Commission on Water Resource Management ("CWRM"), which guides use and protection of the State's Water Use Resources. The Kaua'i Water Use and Development Plan ("KWUDP"), a component of the State of Hawai'i Water Plan, serves as a dynamic, long-range planning guide for CWRM. Key goals of the KWUDP are to provide guidance for the island's water resource managers, ensuring that future water needs of the County are met while preserving the integrity of the island's water resources. Another goal is to provide guidance to ensure that sustainable water resources are integrated into the County's formulation and development of land use policies.

In 2001, the DOW prepared the Water Plan 2020 a comprehensive planning document intended to further guide DOW operations for the subsequent 20 years. (http://www.kauaiwater.org/ce_waterplan2020.asp). Water Plan 2020 included the following goals:

- Ensuring a reliable water supply,
- Caring for the deteriorated and aging water systems,
- Increasing customer service, and
- Operating in a sustainable and financially secure manner.

Capital Improvement Program ("CIP") projects that addressed capacity deficiencies in the water system, repair or replacement of deteriorated and aging infrastructure, along with a Financial Plan intended in part to accomplish the foregoing, were included in Water Plan 2020. The Water Plan 2020 was the result of an intensive planning effort that evaluated the state of DOW infrastructure, along with projections of customer service increases and anticipated revenue and operating expenses.

Appropriate CIP projects were identified and prioritized in Water Plan 2020 with these criteria in mind.

Currently, the DOW pumps water from a number of underground wells and storage tanks, two tunnels, through 400 miles of pipeline serving about 20,000 customers. This includes service to the 2010 resident population of 67,091[3] and an approximate annual visitor count of about 1,186,000.[4] In addition to its own sources, the DOW also purchases water from private sources. Many of the DOW water systems date back to the plantation era, with some pipelines being 80-100 years old.

[3] Per U.S. Census 2010 census data.

[4] Hawai'i Tourism Authority, 2016 Annual Visitor Research Report.

The Wainiha-Hā'ena water service area serves the communities of Wainiha and Hā'ena, and extends toward the mountains and the coastline on either side of Kūhiō Highway in north Kauaʻi. The system servicing this area forms the terminus of the DOW's chain of water systems about the island. Records show that the system's 302 consumers bought an average of 123,000 gallons of water daily during 1998-1999. Like many of the other systems operated by the DOW, the system originally utilized surface water that was conveniently available in the streams of the island. The conversion to a less problem-prone source of supply took place with the drilling of two deep wells – one in Wainiha and the other at Haʻena. Currently, the Wainiha-Hā'ena Water System currently consists of three wells in the Wainiha and Hā'ena area.[5] The current *Kauaʻi General Plan*[6] identifies the Wainiha-Hā'ena Water System to be near capacity and unable to meet the projected service area water demand through 2020.

DOW's current distribution system includes transmission pipelines that connect DOW's supply source(s) to the Wainiha and Hā'ena areas.

According to the County of Kauaʻi's Water Plan 2020, between 2000 and 2020 a nearly 15% percent growth in potable water use is expected in DOW's Wainiha-Hā'ena service area. A significant portion of this growth may be attributable to traditional residential growth and the conversion of residential units to transient vacation rentals and/or bed and breakfast units.

DOW's two existing water storage tanks located near the Project area became operational in fulfillment of conditions provided for the general area. These storage tanks provide potable water for both residential and commercial uses.

DOW's current Wainiha-Hā'ena Water System, described below, is located in Wainiha on the following parcels, owned by the following parties (in parentheses):

TMK (4) 5-8-02:006 (County of Kauaʻi)
Existing *Wainiha 6,500 Gallon polyethylene ("Redwood") Tank*[7]

TMK (4) 5-8-02:007 (County of Kauaʻi)
Existing *Wainiha Booster Pump Station*[8]

[5] *See* Figure 7-L.2 Wainiha-Haʻena Hydraulic Profile in Water Plan 2020.

[6] The current *Kauaʻi General Plan* was dated November 2000, and is a 20-year Plan.

[7] The Redwood tank was reconstructed in the 1990s as a polyethylene tank, but is still sometimes commonly known as the Redwood Tank. As used in this environmental assessment, this facility is called the "*Wainiha 6,500 Gallon Tank*")

[8] As used in this environmental assessment, the "Wainiha Booster Pump Station". This station occupies its own subdivided parcel; the elevation of this parcel ranges from 59' to 73' above MSL (mean sea level).

TMK (4) 5-8-02:003 (Robinsons)
Existing *Hā'ena 0.1 MG Tank*

TMK (4) 5-8-02:003 (Robinsons)
Proposed New *Hā'ena 0.2 MG Tank.*

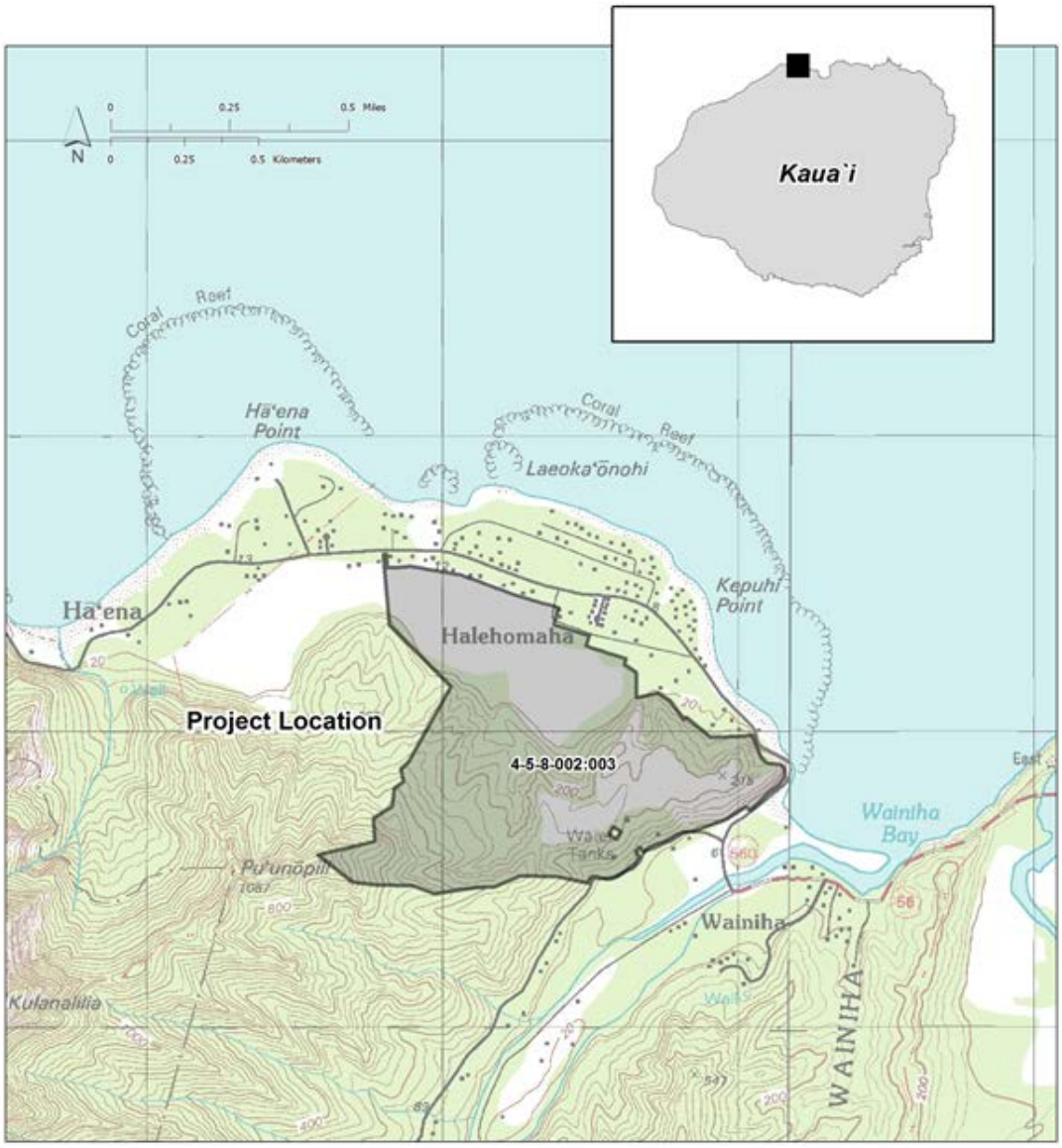
TMK (4) 5-8-02:002 (Robinsons)
Existing Wainiha Well #2 & Wainiha Well #67

TMK (4) 5-9-05:010 (Robinsons)
Existing Hā'ena Well #66

See **Figure 1** below depicting general location:

Existing infrastructure at this facility includes pumps, electrical control panels, and miscellaneous piping. A portion of the access road to the Wainiha 6,500 Gallon Tank and Hā'ena 0.1 MG Tank runs through this parcel. Although electrical improvements to this booster pump station are anticipated in conjunction with the Project, to serve the Project, no other construction improvements to the booster pump station are anticipated within the booster pump station parcel. Motors at this station will pump water into the New Hā'ena 0.2 MG Tank. This station currently pumps potable water uphill to the nearby *Wainiha 6,500 Gallon Tank.*

Figure 1 below depicts the Project's general location:



2.2 Project Purpose and Need

The Water Plan 2020 ("Plan") projected future water demands from all areas on Kaua'i to grow at 20% between 2000 and 2020, with the exception of the Wainiha-Hā'ena area, which is projected to grow approximately 15% between 2000 and 2020. In response to the Plan's projected water demand and an analysis of future water storage needs, DOW's capital improvement program proposed a new 200,000 million gallon storage tank to serve this area.

The Wainiha-Ha'ena service area is comprised of two pressure zones, the 224' Zone and the 144' Zone. The small, upper 224' Zone is served by the 6,500 gallon Wainiha Redwood Tank. (A new polyethylene tank replaced the Redwood Tank

in 2001, but the location is still referred to as the "Redwood Tank".) The 144' Zone is supplied by the 100,000 gallon Hā'ena Steel Tank. Under existing conditions, the 144' Zone is deficient based on both DOW's maximum day demands and fire flow criteria/standards. DOW's maximum day demand criterion specifies a larger deficit of 124,000 gallons, growing up to 162,000 gallons in 2020. Therefore, a 200,000 gallon tank is needed in the 144' Zone to satisfy storage requirements through 2020.

The Level of Service ("LOS")[9] to the Wainiha-Hā'ena area was evaluated in conjunction with the County Fire Department. The evaluation noted that particularly in agriculture zoned areas, the DOW's water systems were not sized to accommodate minimum recommended fire flows. Continued residential and commercial development has attracted other uses and additional densities, creating the need for these systems to provide some level of fire protection.[10]

As identified in the Water Plan 2020, this Project proposes to develop storage infrastructure to provide required domestic and fire flow demands for the DOW's Hā'ena-Wainiha 144' service area . The DOW anticipates the additional storage capacity generated from this improvement will support the development of the Hā'ena State Park Master Plan, businesses, and residential units (including affordable housing, if applicable) in DOW's Hā'ena-Wainiha 144' service area. The Project may also allow DOW to remove the current water meter restriction that limits water service to three single family dwellings or three 5/8-inch water meters per lot due to inadequate storage facilities.

Development of the proposed water storage facility will also increase service reliability within DOW's Wainiha-Hā'ena Water System. Further, constructing the proposed storage tank in the proposed location is efficient as such tanks must be constructed at the same elevations to achieve consistent water pressures; also, co-locating tanks takes advantage of existing pipelines and appurtenances necessary to operate and service such tanks.

2.3 Description of Existing Tanks

As mentioned, an original redwood potable water tank, located approximately 200+ feet north and uphill of both the proposed Project and the Hā'ena 0.1 MG Tank described below, was originally constructed decades ago, then reconstructed as a polyethylene tank in 2001 . The floor elevation of Wainiha 6,500 Gallon Tank is approximately 217.5 feet, with an overflow elevation of about 224.3 feet. The diameter of the Wainiha 6,500 Gallon Tank is approximately 11 feet, according to DOW's Water Plan 2020.

[9] "Level of Service" standards are the collection of water system standards and planning criteria that guide DOW's development of new facilities and improvements to existing facilities.

[10] Water Plan 2020, page 5-2.

The Hā'ena 0.1 MG Tank was constructed in 1975 and refurbished in 2010. The floor elevation of this 100,000 gallon tank is approximately 126.50 feet, with an overflow elevation of about 144.17. The diameter of this tank is approximately 32 feet, and the tank sits 18 feet high.

2.4 Environmental Review Trigger

Pursuant to Section 343-5(a), *Hawai'i Revised Statutes* ("HRS"), the proposed use of State of Hawaii ("State") or county lands or funds triggers the requirement for an environmental assessment pursuant to HRS chapter 343. Since County funds will be used to construct the proposed tank, an environmental assessment is required pursuant to HRS chapter 343.

The mailing address and primary agency contact person for the Project is:

Bryan Wienand, P.E.
County of Kaua'i
Department of Water
4398 Pua Loke Street
Līhu'e, HI 96766

2.5 Proposing and Accepting Agency/Applicant

Pursuant to HRS chapter 343, both the applicant and the accepting agency for this Project is the County of Kaua'i, Department of Water, whose address is 4398 Pua Loke Street, Līhu'e, HI 96766.

The DOW is also the applicant for applicable land use entitlements (such as a Conservation District Use Permit) relating to this Project.

2.6 Anticipated Determination

In accordance with HRS chapter 343, the anticipated determination of this Project is a Finding of No Significant Impact ("FONSI").

SECTION 3.0 PROJECT DESCRIPTION

The New Hā'ena 0.2 MG Tank will be constructed adjacent to an existing DOW Hā'ena 0.1 MG steel potable water tank (the "Hā'ena 0.1 MG Tank"). The engineering design of the new tank is currently being finalized. The proposed tank's overflow elevation is approximately 144' as the new tank must match the water pressure zone of the existing Hā'ena 0.1 MG Tank. The tank's floor elevation will be approximately 118'.

The finished floor of the New Hā'ena 0.2 MG Tank will be approximately 118' above mean sea level ("MSL"), and be comprised of a six-in thick concrete pad. The new tank's overflow elevation will be 144.17 feet, the same overflow elevation as the Hā'ena 0.1 MG Tank. The new tank's overflow elevation is

consistent with the "144 pressure zone" of DOW's existing facilities within the current Wainiha-Hā'ena Water System. The proposed tank's dimensions will be approximately 37 feet in diameter and 29 feet in height. Potable water will be piped into the new tank from pipelines connected to the Wainiha Booster Pump Station below.

Generally, the new storage tank will be comprised of the following constituent components:

1. New storage tank and foundation.
2. Transmission pipelines (including connection to DOW's existing water system).
3. Instrumentation (including tank level measurement).
4. Electrical power.
5. Site improvements around the new storage tank.
6. Site layout and grading (including pad leveling).
7. Tank site drainage system.
8. Chain link perimeter fence.
9. Earthen accessway.
10. Supervisory Control and Data Acquisition ("SCADA") controls and equipment to monitor and control tank operations and provide telemetry regarding tank operations.

The proposed tank will be constructed of stainless steel with type 316 stainless steel bolts, capped with an aluminum dome roof, and have a reinforced concrete foundation. Electrical service to the proposed tank will come from DOW's existing Wainiha Booster Pump Station located downhill, approximately 300 feet from the Project site. The tank will also have an accompanying buried hardwire SCADA Communication system. The proposed area for the Project is approximately 10,000 square feet. The Project also includes approximately 50 linear feet of connecting pipeline; the access road to the existing Hā'ena 0.1 MG Tank, which will also service the proposed tank, is and will remain unimproved.

Inadvertent discharges of water from the proposed new tank will be extremely rare. The overflow pipe on every storage tank is simply configured in the unlikely event that communications fail and the source pump continues to pump into a tank when pumping should stop. The only other type of event that would affect the tank's discharge is a washout of the tank. The washout line, a pipeline located at the bottom of a tank, is used to periodically drain the tank to remove any sediment, etc., from, and clean out, and inspect the tank. Controlled amounts of water are discharged during a washout to prevent flooding of land and improvements at lower elevations.

See **Figures 2 & 3** below:

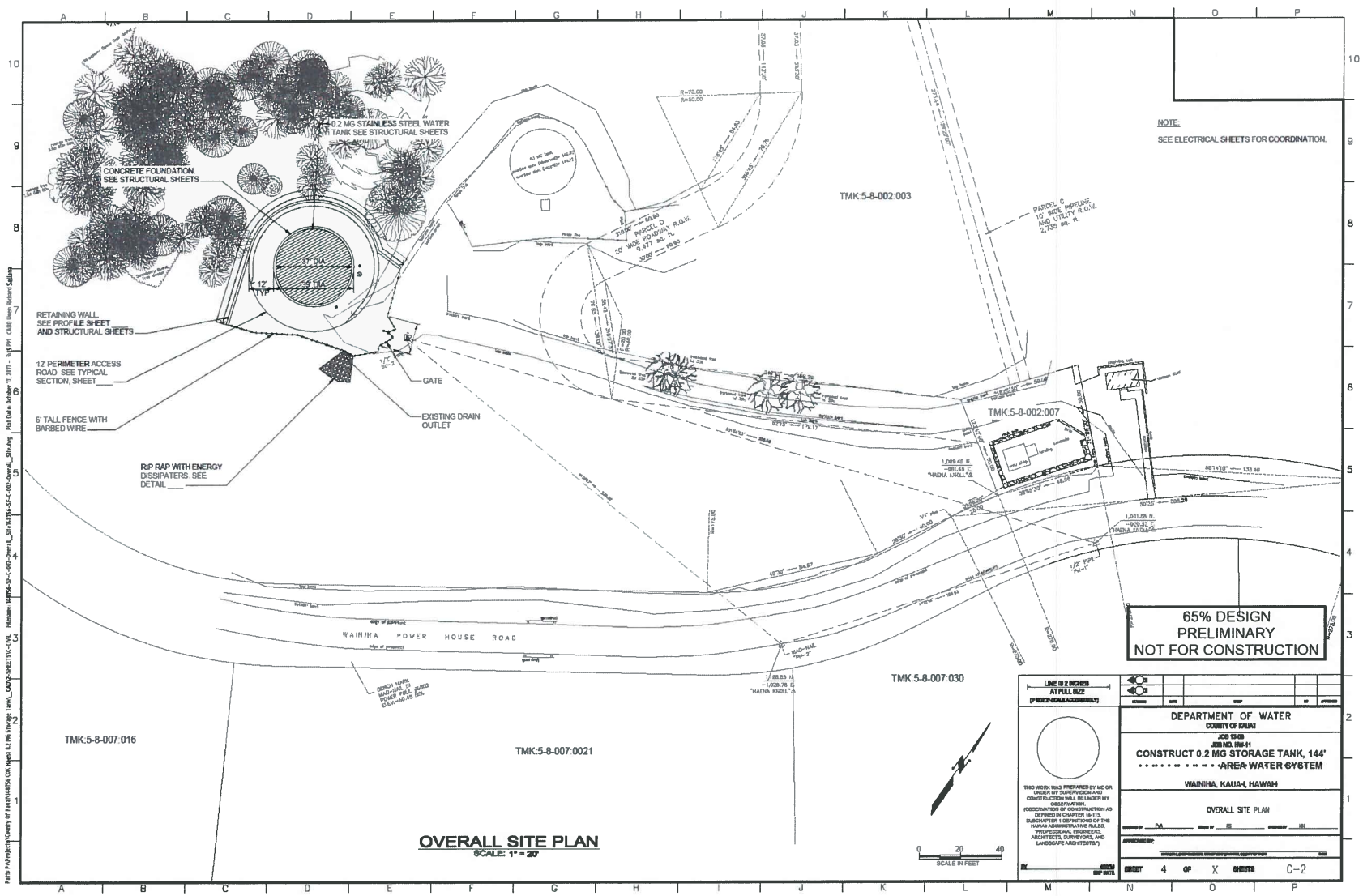


Figure 2 above is a **preliminary site plan** of the Project area

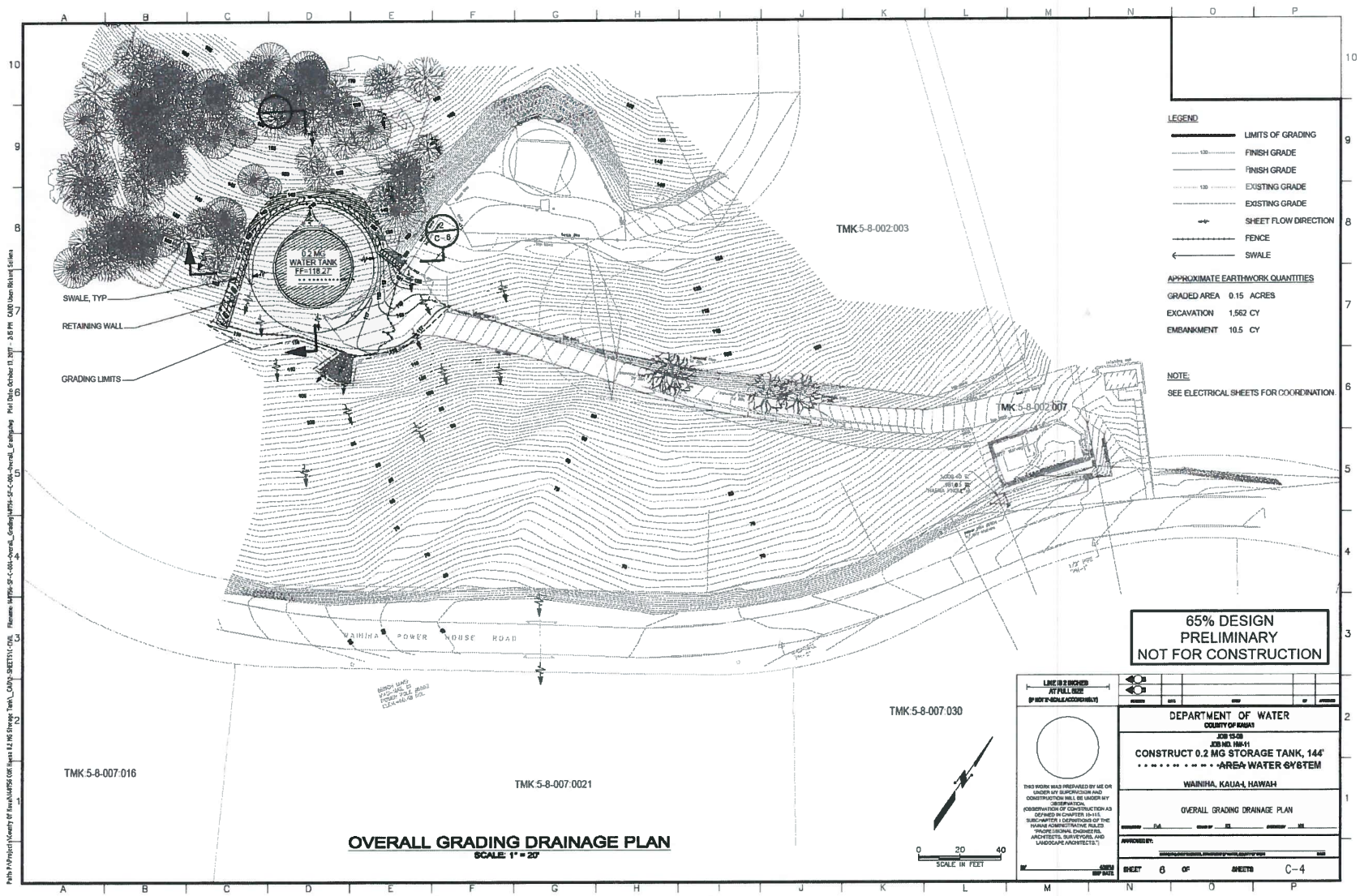


Figure 3 above is a **preliminary grading drainage plan** of the Project area

The State Department of Health Drinking Water State Revolving Fund estimates the projects construction cost to be $2,000,000[11]. The current estimate from the design consultant is $3,800,000.

This Project may also be funded with federal funds from the State's Drinking Water State Revolving Fund (DWSRF") program, which requires that this document include all pertinent the environmental information to comply with the DWSRF program.

3.1 TMK Parcels and Owners Affected

The fee owners of the 229 acre parcel (TMK (4)5-8-002:003) on which the New Hā'ena 0.2 MG Tank will be located are the Robinsons. The Project site will occupy approximately 10,000 square feet area within the overall parcel.

See **Figure 1** above for Project's general location, which is also shown in attached **Exhibit A**.

3.2 Existing Site Conditions

As shown on the following March 2017 topographic map (**Exhibit B**), the area of and surrounding the Project is located in an undeveloped hillside consisting of an assortment of strawberry guava, java plum, ironwood, octopus, albizia, and other common trees and foliage. Located adjacent to and immediately east of the Project site is DOW's existing Hā'ena 0.1 MG Tank, and located ≈200+ feet north and uphill of the Project site is DOW's existing Wainiha 6,500 Gallon Tank, which is located on TMK no. (4) 5-8-002-003. Narrow, undeveloped (earthen) access roads to both existing tanks also form part of the area. (A 2008 Final Environmental Assessment commissioned by the DOW proposed to improve the current unimproved, earthen access to the Hā'ena 0.1 MG Tank and Wainiha 6,500 Gallon Tank; however, this access was never improved, and remains unimproved at present.)

Figure 4 (preliminary Project overall existing demolition plan) depicts the approximate limits of the Project area. Following **Figure 4** are photos of the existing Hā'ena 0.1 MG Tank and the existing proposed Project area.

See **Figure 4** below:

[11] Source: Department of Health, DWSRF Priority List of Projects for SFY 2016 at http://health.hawaii.gov/sdwb/files/2016/03/SFY-16-Priority-List-20160328.pdf. The proposed Project is listed as DWSRF Project No. DW415-0004. However, see section 3.6 of this environmental assessment for a more updated cost estimate of this Project.

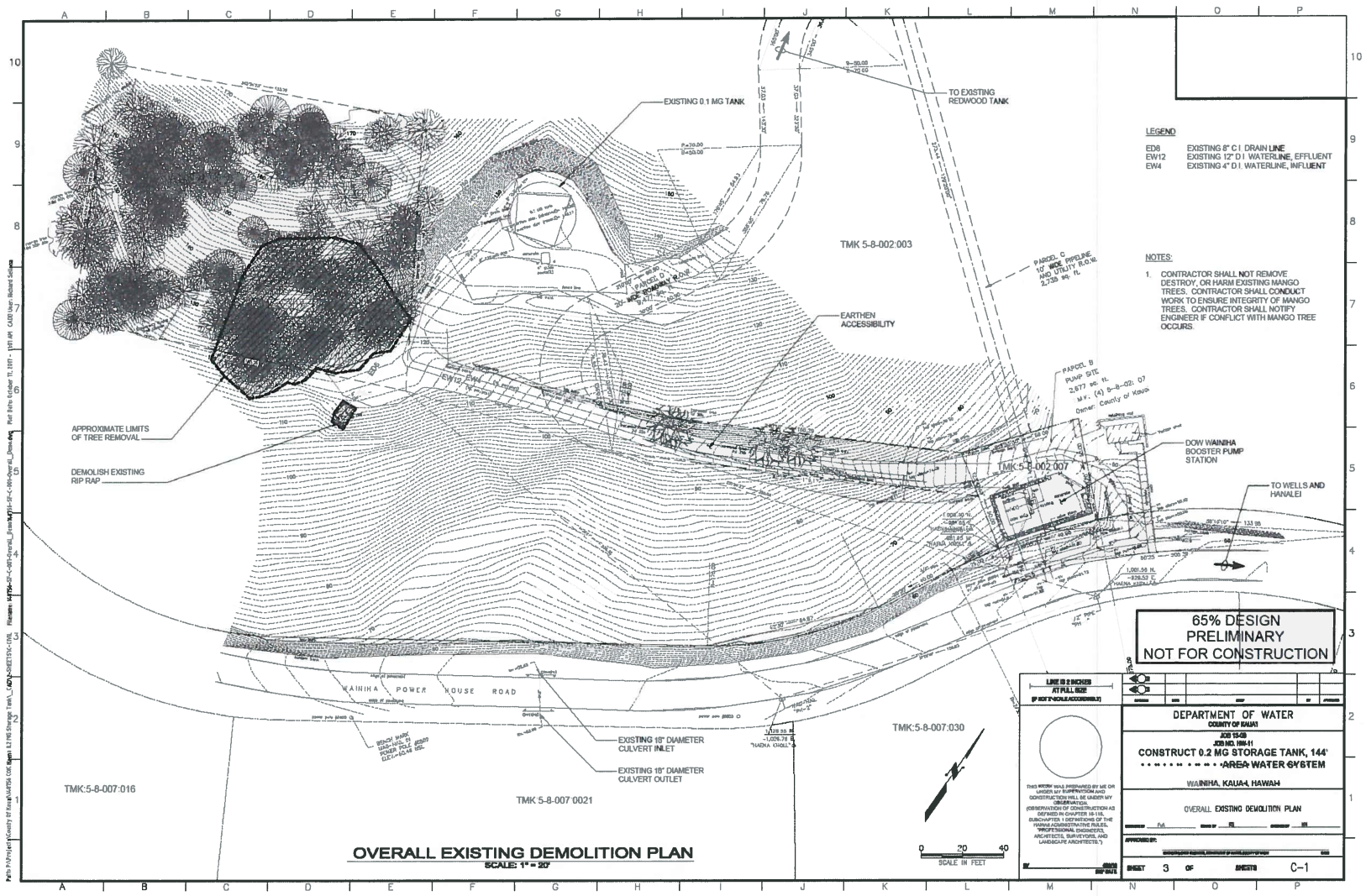


Figure 4 Preliminary Project Overall Existing Demolition Plan

Photo of the existing Hā'ena 0.1 MG Tank:

View toward Wainiha Valley from locked access gate of Hā'ena 0.1 MG Tank:

Transmission pipelines, control valves, and related facilities for Hā'ena 0.1 MG Tank:

Overflow/drainage outlet serving existing Hā'ena 0.1 MG Tank:

Typical views of proposed Project area:

All of DOW's facilities in the Project area- the Hā'ena 0.1 MG Tank, Wainiha 6,500 Gallon Tank, and the existing Wainiha Booster Pump Station location downslope along Powerhouse Road (*See* **Exhibit B**) are surrounded by chain link fencing and locked gates. Some of the facilities are topped with barbed wire. Access to the preceding sites is restricted to DOW personnel only; public access is prohibited.

3.3 Project's State Land Use District Classification and County Land Use Designations

As shown in attached **Exhibits C** & **D**, the Project is located within the State Land Use District ("SLUD") *Conservation* district; its subzone designation is *Limited*.

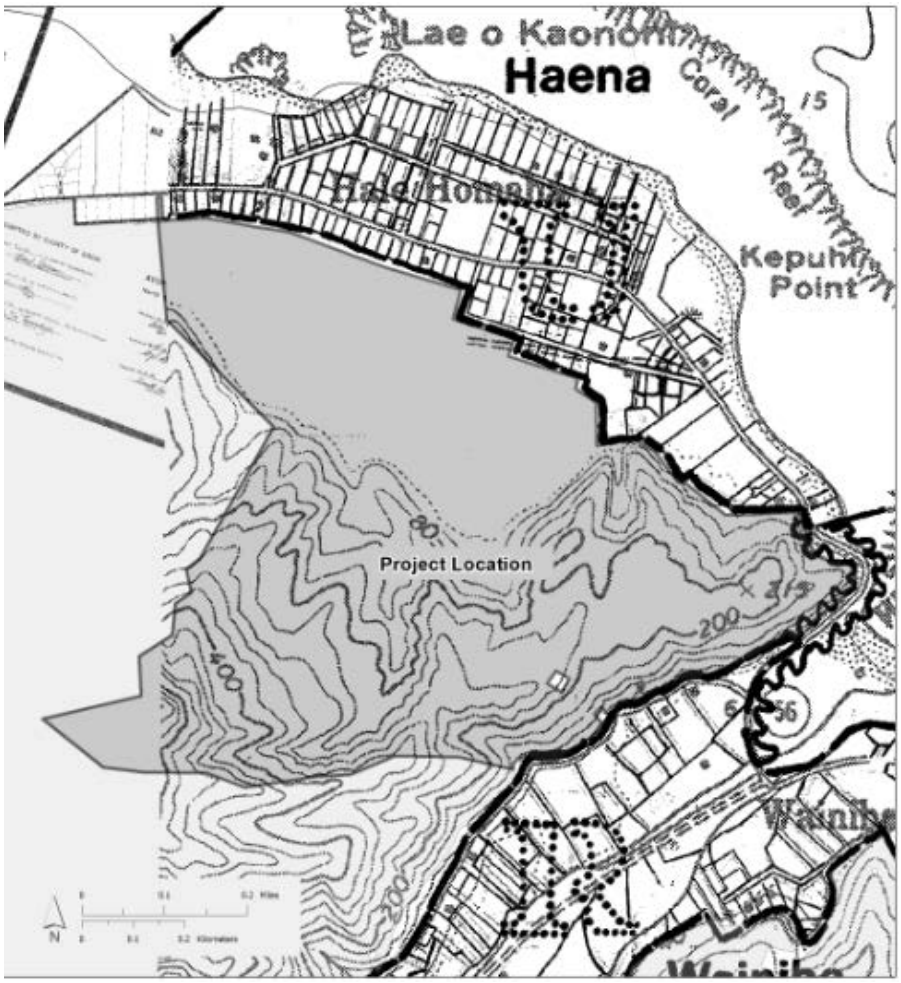
As shown in attached **Exhibit E**, the County General Plan land use designation of the Project area is *Open*. Under the County's North Shore Development Plan, the Project is within the *North Shore Special Planning Area*.

Since the Project area's SLUD designation is Conservation, no County zoning exists for the Project area. *See* County zoning map (**Figure 5** below) in this regard.

The Project area is not located within the County's Shoreline Management Area ("SMA").

The Project is not subject to the County's Shoreline Setback Ordinance, Kauai County Code ("K.C.C.") section 8-27.1, since an intervening roadway parcel lies between the ocean and the lot on which the Project is located, and the proposed improvements will be constructed more than five hundred feet away from the shoreline.

Figure 5 County zoning map of Project area.



3.4 Previous Environmental Documentation

In January 2010, the DOW issued a FONSI in conjunction with a Final Environmental Assessment for DOW's proposed Wainiha Water Well, a 100 GPM potable water well proposed to be constructed adjacent to DOW's Wainiha Booster Pump Station, within a small portion of TMK (4) 5-8-002-003, the parcel on which the proposed Project will be located (the "Wainiha Water Well FEA" or "Wainiha Water Well 2010 FEA").

In reviewing prior environmental documentation regarding the area of the proposed Project, the Wainiha Water Well FEA included the following historical information concerning DOW's existing Hā'ena 0.1 MG Tank and Wainiha Booster Pump Station:

2.5.1 *Final Environmental Assessment ("EA") for the Land Acquisition of the Wainiha Water Tank Site 1997*

In 1997, the DOW submitted a Final EA titled "Land Acquisition of the Wainiha Water Tank Site". The purpose of the EA was to begin the process for the DOW to purchase Lot 1 (the Hā'ena steel water tank) and Easement D (the unimproved access road) of TMK (4) 5-8-002:003. According to the Final EA, in 1997, the DOW constructed its 0.1 MG Hā'ena steel water tank on land owned by the Estate of Lester B. Robinson.[12] *In September 1991, the DOW offered to purchase the tank site as well as obtain an access/utility easement from the Estate. The easement would begin at the Wainiha booster pump station and end at the tank site.*

Since the tank site and access/utility easement are within the State's Conservation District, a Conservation District Use Permit ("CDUP") must be filed for a subdivision to occur. The landowner and DOW, however, were unable to reach an agreement and a CDUA was not filed for either the tank site or access/utility easement.

2.5.2 *Final EA and Conservation District Use Application for the Wainiha Booster Station Renovation and Hā'ena Steel Tank Renovation – 2008*

In 2008, DOW submitted a Final EA and CDUA to renovate the exiting Wainiha booster pump station, 0.1 MG Hā'ena steel water tank and 425-ft-long access road. The booster pump station renovation involves replacing the existing below-grade station with an above-grade station. The new booster pump station would be located adjacent to the existing station. The station improvements would also include constructing a 50-ft-long by six-ft.-high concrete retaining wall adjacent to Wainiha Powerhouse Road, security fencing and related improvements within the DOW-owned parcel (TMK (4) 5-8-002:007).

The 2008 Final EA and CDUA addresses renovations proposed to the existing 12-ft-wide by 425-ft-long access road. This portion of the project involves paving a vehicle turnaround area south of the tank, outside the tank access gate, and cutting approximately 90 feet from the embankment along the north and west sides of the tank. In addition, the 2008 renovation calls for constructing a 12-ft-high by 87-ft-long retaining wall

[12] Ownership of the described parcel has passed from the Estate of Lester B. Robinson to Keith P. Robinson and Bruce B. Robinson; Keith and Bruce Robinson are the current owners of the Project parcel.

to retain the embankment, and relocating the security fence from around the tank to the top of the new retaining wall.

In February 2007, DOW obtained approval of a right-of-way from the landowner to undertake the renovations on TMK 5-8-002:003, Lot 1 and Easement D. In September 2008, DOW obtained its Conservation District Use Permit. The project is currently in design, with construction expected to be completed in 2010.

3.5 Required Project Permits and Approvals

State Conservation District Use Permit

Since the Project area's SLUD designation is *Conservation,* development of the proposed Project requires a *Conservation District Use Permit* from the State's Department of Land and Natural Resources prior to construction.

The proposed tank is an identified land use under Hawaii Administrative Rules §13-5-22, P-6 *Public Purpose Uses*, which identifies "[n]ot for profit land uses undertaken in support of a public service by an agency of the county.…Examples of public purpose uses may include but are not limited to...water systems and other utilities...communication systems…and other public purpose uses."

County Zoning Permits

No County zoning permits since the Project is located in the State *Conservation* district.

County SMA Permit

The proposed Project is not located within the SMA; as such, no County SMA permit is required.

County Shoreline Setback

For reasons explained in section 3.4 of this environmental assessment, County Shoreline Setback Ordinance requirements do not apply to this Project.

In addition to a State Conservation District Use Permit ("CDUP"), the Project may require certain additional permits from the State of Hawai'i:

- Preliminary consultation with the State Department of Health indicates a National Pollution Discharge Elimination System ("NPDES") general permit coverage authorizing discharge of stormwater associated with construction activities may not be required from the State Department of Health because the disturbed Project area will be less than one acre in size; however, the Project will require an Individual NPDES permit for hydrologic testing of effluent water/washing out of the new tank (Notice of Intent Form F).

- A Community Noise Permit may be required from the Hawai‘i Department of Health for operation of construction equipment if construction noise exceed applicable levels.

In addition to the permits and approvals described above, the Project will comply with Hawaii Administrative Rules Chapters 11-54 and 11-55, with the federal Water Pollution Control Act (“Clean Water Act”) if applicable, and other related standards or permits.[13]

Necessary County building permits will also be secured in conjunction with the Project’s construction.

Upon issuance of a FONSI relating to this environmental assessment and issuance of various required permits and approvals including, but not limited to, a CDUP, the DOW intends to proceed with construction of the proposed Project.

3.6 Proposed Schedule & Approximate Cost

DOW anticipates commencing construction of this Project around 2018 or 2019. The Project’s estimated, approximate construction cost is $3,819,000. Funding for the Project will be provided by the DOW; the Project may also be funded with Federal funds through the State of Hawai‘i’s Drinking Water State Revolving Fund (“DWSRF”) program.

SECTION 4.0 TECHNICAL CHARACTERISTICS AND PUBLIC SERVICES

4.1 Fire and Police

A Kaua'i County Police Department (“KPD”) substation and a Kaua‘i County Fire Department station are located in Princeville, approximately 6.5 miles from the Project site. KPD’s main headquarters is located in Līhu’e about 36 miles from the Project site.

Potential Impacts and Mitigation Measures

The Project will have negligible to no impacts on the need for police and fire services.

4.2 Medical Services

Emergency medical services are provided through the County’s 911 communications center. Ambulance service is provided by American Medical Response. The closest emergency medical services are available at Mahelona Medical Center in Kapa‘a, approximately 27 miles from the Project site. Regional medical services are available at Wilcox Memorial Hospital in Līhu’e, about 35 miles and 60-70 minutes away by automobile.

[13] Available at: http://hawaii.gov/health/environmental/env-planning/landuse/CWB-standardcomment.pdf.

Potential Impacts and Mitigation Measures

The Project will have negligible to no impacts on the need for medical services.

4.3 Public Facilities

The closest County Park is the Wainiha County Park located at the beginning of the Wainiha Powerhouse Road along Kūhiō Highway. To the west of the Project, along Kūhiō Highway is the County's Hā'ena Beach Park, and the Hā'ena State Park constitutes the northern terminus of Kūhiō Highway. The U.S. Fish and Wildlife's Kilauea Point National Wildlife Refuge and Lighthouse are located in Kilauea, about 14 miles from the Project area.

School and library public facilities closest to the area include:

- Hanalei Elementary School
- Princeville Public Library

Potential Impacts and Mitigation Measures

The Project will not impact the described public facilities.

4.4 Roads, Traffic and Circulation

Kūhiō Highway is the sole means of access to the North Shore of Kauaʻi, running largely parallel to the coastline. Along the North Shore, the highway is, for the most part, a two-lane roadway, with one travel lane in each direction. Beginning at Route 560 of Kūhiō Highway at Princeville, Kūhiō Highway is on the State and National Register of Historic Places. From Princeville to the Project area on Wainiha Powerhouse Road, are seven one-lane bridges[14] with weight and load limit signs posted near the entrance to each of the bridges.

Direct access to the Project site is provided by the Wainiha Powerhouse Road, a public roadway, which runs to the west of Kūhiō Highway, and then onto an unimproved access road.

Personal vehicles are the primary mode of transportation along the North Shore, although some small van-size "tour buses" make occasional stops along the Highway area. Kauaʻi's public transportation service, *The Kauaʻi Bus*, concludes its route in Hanalei.

[14] Hanalei Bridge is the first one-lane bridge crossed over to the project site. Then there are the Waioli, Waipa, Waikoko, and three Wainiha one-lane bridges.

Potential Impacts and Mitigation Measures

Construction Phase: Traffic impacts related to construction activities will occur while equipment and materials are moved to the Project site. Any additional construction-related traffic, however, will be short-term and occur only during the Project's construction period. In general, this additional activity should not create an adverse impact to traffic on Kūhiō Highway or Wainiha Powerhouse Road.[15]

Posted bridge load limits in the Hanalei area may limit the size and type of equipment and construction methods that could be used to construct the New Hā'ena 0.2 MG Tank. All construction equipment and methods will take into account the posted bridge load limits. The DOW will consult with, and comply with requirements of the State Department of Transportation, Highways Division, in moving Project material and equipment across bridges in the Hanalei area. A weight variance for the proposed Project may be requested from the State's Department of Transportation. The DOW's contractor who constructs the Project will determine whether a variance will be required.

The Project's construction plans will note that since Wainiha Powerhouse Road is a public road, the contractor will maintain public access for vehicles, including emergency vehicles, during construction. This will ensure there will be no adverse impact to the local roadway. Project construction plans will include a wash-down area to ensure construction vehicles are clear of soil and positive invasive specimens before traveling onto the highway.

Operational Phase: Once construction of the Project is completed, DOW vehicles will access the New Hā'ena 0.2 MG Tank from Kūhiō Highway, then Wainiha Powerhouse Road, a public road. DOW and its contractors will coordinate with the State Department of Transportation, Highways Division, Kauaʻi District Engineer, as to any actions, permits and requirements necessary to protect the historic Kūhiō Highway. Once operational, no personnel will be assigned on a daily basis to service the New Hā'ena 0.2 MG Tank. DOW personnel will periodically visit the Project site to inspect the facility and perform routine maintenance service. Pursuant to American Water Works Association ("AWWA") standards, the new tank will generally be emptied of water on a controlled release basis (washed out, inspected and routinely maintained) approximately every three years. These activities will not create adverse traffic impacts on nearby streets and highway. No long-term adverse traffic impacts are anticipated.

No long-term mitigation measures are proposed.

[15] This proposed project traffic impacts would be short-term. However, based on various times of the day and times of the year, there is an increase in traffic from residents and tourists.

4.5 Sewage Treatment and Disposal, and Solid Waste and Wastewater

The water storage tank will produce no sewage, solid waste, or wastewater. Sewage treatment and disposal generated by adjacent lands owned by third parties are addressed through cesspools or septic systems, as there is no sewage treatment facility, either public or private, serving the Project area.

Solid waste generated in the vicinity of the Project area by third parties is handled by the County's Department of Public Works, Solid Waste Division, which schedules weekly pickup for the community and transports collected waste to the County's Hanalei Refuse Transfer Station located in Princeville.

Potential Impacts and Mitigation Measures

The Project will generate no sewage, wastewater, or solid waste; as such, no mitigation measures are proposed in this regard.

4.6 Utilities and Communications

Water: The Project site is currently served by the DOW's water system.

Electricity: Kauaʻi Island Utility Company ("KIUC") provides electrical power to the North Shore area of Kauaʻi, including DOW's existing Wainiha-Hā'ena Water System area. Pipelines will connect the New Hā'ena 0.2 MG Tank to the Wainiha Booster Pump Station about 300 feet below; electrical power for the new tank and the booster pump station is available and will be provided via Wainiha Powerhouse Road, from the existing unimproved access road to the new tank.

Telephone & Internet: Hawaiian Telcom service is available in the Project area. Several cell phone carriers on Kauaʻi provide service to the North Shore area. Broadband Internet and television service to the area is provided by Oceanic Time-Warner Cable (now Spectrum).

Sewer: As mentioned, the Project site is not served by the County's sewer system; no toilet facilities will be constructed on the Project site.

Potential Impacts and Mitigation Measures

Construction of the proposed Project may require a temporary (overnight) closure of a portion of the Wainiha-Hā'ena Water System. Further analysis is currently being conducted to evaluate the possibility of reducing or eliminating the need to close the described system.

Electrical and telephone service demands of the Project will be relatively small, adding minimal load to the existing electrical and telephone systems. No above ground utility poles and utility lines are anticipated to be installed to serve the

Project. Current plans call for utilities (electricity) serving the Project to be installed below grade through utility pipelines.

The Project will generate no wastewater; as such, once constructed the Project will require no public wastewater services or on-site wastewater treatment/disposal systems. (Refer to section 3.5 of this environmental assessment for hydrologic testing of effluent water during construction of the new tank.)

No adverse impacts to public utilities are anticipated and no mitigation measures are proposed.

4.7 Hazardous Waste

The proposed Project site has not been previously cleared or developed. No structures, buildings, facilities or underground storage tanks which might contain hazardous materials have been constructed on the proposed Project site.

Potential Impacts and Mitigation Measures

The proposed Project will generate no hazardous waste; as such, no mitigation measures are proposed in this regard.

SECTION 5.0 SOCIO-ECONOMIC CHARACTERISTICS

5.1 Demographic Data

The 2010 population for the County of Kauaʻi was 67,091. For the Hanalei Census Tract 401.04[16], the population of the Hanalei, Wainiha and Hā'ena area was 1,344 persons. Below is the 2010 Census Designated Place ("CDP") data for both Wainiha and Hā'ena.

CDP 2010	Total Housing Units	Occupied Units ("Residents")	Residential Population	Average Persons per Occupied Unit	Seasonal Units[17]
Wainiha	135	110	318	2.89	19
Hā'ena	332	166	431	2.60	141
TOTAL	467	276	749	2.75	160

According to U.S. Census Bureau ("Census Bureau") 2011-2015 estimates[18], the resident population for Wainiha has decreased to 168 persons, and the resident

[16] The Hanalei Census Tract 401.01 includes Hanalei, Wainiha and Hā'ena.

[17] Seasonal Units are also known as transient vacation rentals. Based on this number of Seasonal Units, the occupancy figures of these Seasonal Units increases the "population" of the area. In addition, according to various advertisements and data concerning these units, the occupancy figures for these units are higher than the occupancy figures for Residents.

population of Hā'ena has decreased to 280 persons. Based on the Census Bureau's 2010 Census Tract data and the Census Bureau's 2015 estimates, the residential population of the Wainiha/ Hā'ena area has decreased by 301 persons; however, housing units in this area have increased to 516 units. These figures indicate that non-resident visitors may now occupy more housing units than were previously occupied by residents.

According to the Hawai'i Tourism Authority ("HTA"), the approximate number of visitor arrivals to Kaua'i in 2016 was 1,187,476. HTA's September 2017 visitor statistic reports indicate that in the first nine months of 2017, Kaua'i had 963,752 visitors, an increase of approximately 7 percent over the same period in 2016.

5.2 Economic Data

As discussed above, Kauai had 963,752 visitors, an increase of approximately 7 percent over the same period in 2016. According to HTA's reports, currently Kaua'i experiences about 29,000 average visitors per day.

Applying an estimated Kaua'i population of 72,029 and a figure of approximately 29,000 average visitors per day, the amount of users per day on Kauai of potable water is approximately 101,000.[19]

Potential Impacts and Mitigation Measures

The Project may have positive long-term economic impacts in that additional potable water storage capacity will be made available in the Wainiha- Hā'ena area; as such, the Project will facilitate DOW's ability to satisfy current and future domestic, agricultural, commercial, industrial, recreational and other potable water needs in the Wainiha- Hā'ena area. The Project will also generate positive short term economic impacts as jobs will be created during the construction phase of the Project.

5.3 Archaeological and Cultural Resources

Concerning archeological and cultural resources in the vicinity of the Project, the Wainiha Water Well 2010 FEA (*see* section 3.4 of this environmental assessment) states:

> In May 1995, Cultural Surveys Hawai'i conducted an archaeological survey as part of the County's planned land acquisition for the now

[18] Updated and estimated Residential & Housing Units data of 2011-2015 is available at: https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml.

[19] Kaua'i's actual population is not available until the next U.S. Census report in 2020. Current HTA visitor statistics are available at: http://dbedt.hawaii.gov/visitor/ni-stats/. Kauai's estimated 2016 population is available at: https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml

currently existing Hā'ena steel water tank[20] and the access road. The historical background and previous archaeology reports revealed that the most heavily used areas in both pre-historic and historic times was concentrated in the flood plain section nearest the Wainiha River, as opposed to the steep ridge sections of the valley slopes, such as the proposed Project site. The field survey included examination of the cut behind the water tank as well as along the access road. No archaeological sites or cultural material were observed. The survey found no midden, artifacts, or other definable evidence of culture within the surrounding area. Given the lack of surface or subsurface archaeological materials within the Project area, no further archaeological research was recommended. In its October 29, 2009 comment letter on the Draft Environmental Assessment for the Wainiha Well Project, the State Historic Preservation Division ("SHPD") concurred with this finding. In its comment letter, the SHPD concurred with the finding that there would be no historic properties affected by this Project.

A separate 2008 environmental assessment was also commissioned by the DOW to renovate its Wainiha Booster Pump Station and Hā'ena 0.1 MG Tank. Concerning archeological and cultural resources, this *Final Environmental Assessment: Wainiha Booster Station Renovation and Ha'ena Steel Tank Renovation (January 2008)* stated:

> 3.9 Archaeological and Cultural Resources
>
> On December 22, 2005, the February 1997 and June 1993 documents prepared by Cultural Surveys Hawaii were submitted to the DLNR Historic Preservation Division for review and comment as part of the Pre-Assessment consultation process. On January 11, 2006, the Historic Preservation Division issued a determination letter indicating that "an acceptable archeological assessment or inventory survey found no historic properties". Thus, the Historic Preservation Division concluded that "no historic properties will be affected" by this undertaking. Appendix C shows the DNLR Historic Preservation Division letter.
>
> On July 18, 2007, the Historic Preservation Division reconfirmed a finding that "no historic properties will be affected" by the project. Appendix D shows the July 18, 2007 DLNR Historic Preservation Division letter.

[20] The Hā'ena 0.1 MG Tank. The New Hā'ena 0.2 MG Tank and existing Hā'ena 0.1 MG Tank would be so close to each other that a portion of the new 0.2 MG tank Project area will be located within part of the unimproved access road adjacent to the Hā'ena 0.1 MG Tank, and absorb a portion of the existing retaining wall of the Hā'ena 0.1 MG Tank.

Potential Impacts and Mitigation Measures

The Department of Land and Natural Resources, State Historic Preservation Division ("SHPD") maintains the Hawai'i Register of Historic Places and records of any historic, archaeological or cultural resources throughout the state. Given the findings of the environmental assessments described above and the two prior archeological surveys conducted in the vicinity of the Project, and given also that no historic, archaeological or cultural resources have been identified on the property, no negative impacts are anticipated. If however any archaeological or cultural resources are discovered during tank construction activities, all work will immediately cease and the State Historic Preservation Division will be notified to assess the significance of the find and recommend mitigation measures, if necessary.

A September 28, 2017 pre-consultation letter to the SHPD requesting their comments concerning the proposed Project's impacts on historic resources is attached as **Exhibit F**. As of the date of this draft environmental assessment, SHPD has not responded to this letter.

SECTION 6.0 ENVIRONMENTAL CHARACTERISTICS

6.1 Climate

The climate of an area is a composite or frequency distribution of various kinds of weather. The outstanding features of Kaua'i's climate includes mild temperatures throughout the year, moderate humidity, persistence of northeasterly trade winds, significant differences in rainfall within short distances, and infrequent severe storms.

According to the National Weather Service, for most of Hawai'i, there are only two seasons: "summer," between May and October, and "winter," between October and April.

The average monthly temperature in the vicinity of the Project site ranges from approximately 67°F to 80°F. The average annual rainfall in the area is between 80 and 110 inches.[21]

6.2 Soils, Geology, Topography

Kaua'i's origins are volcanic, and at approximately six million years old is the oldest of Hawaii's main islands. Mount Waialeale is one of the wettest spots on earth, with an annual average rainfall of about 460 inches. The high annual rainfall has eroded deep valleys in the central mountains, carving out canyons with many rivers and waterfalls.

[21] Source: University of Hawai'i, Department of Geography, 2011 Rainfall Atlas of Hawai'i.

According to the U.S. Department of Agriculture ("USDA"), Natural Resources Conservation Service ("NRCS") the soils in the general area of the Project site is classified as:

Rough Broken Land
Hanalei Silty Clay, 0 to 2% slopes
Makapili Silty Clay, 8 to 15% slopes

These soils are shown on **Exhibit G** of the Soil Survey Map. According to the NRCS, Rough Broken Land consists of very steep land broken by numerous intermittent drainage channels. In most places it is not stony and occurs in gulches and on mountainsides. The slope for this series is approximately 40 to 70 percent.

The Hanalei series consists of somewhat poorly drained to poorly drained soils that formed in alluvium derived from basic igneous rock. Hanalei soils are on bottom lands and have slopes of 0 to 6 percent. The mean annual rainfall is about 2032 millimeters (80 inches) and the mean annual temperature is about 72 degrees Fahrenheit.

The Makapili series consists of very deep, well drained soils that formed in material weathered from basic igneous rock and influenced by tropospheric dust. Makapili soils are on uplands and have slopes of 0 to 40 percent. The median annual rainfall is about 80 inches and the mean annual temperature is about 73 degrees Fahrenheit.

A Soil Survey of the Project area prepared by the Soil Conservation Service indicates the soil type of the Project area to be Hanalei silty clay, 0 to 2 percent slopes (HnA), of the Hanalei Series and Rough Broken Land.

Hanalei silty clay coils were developed from alluvium derived from basic igneous rock. In a representative profile, the surface layer, about 10 inches think, is dark gray and very dark gray silty clay that has dark brown and reddish mottles. The subsurface layer is very dark gray and dark gray silty clay about 3 inches think. The subsoil, about 13 inches thick, is mottled, dark gray and dark grayish brown silty clay loam that has angular blocky structure. Hanalei silty clay has a Unified Soil Classification System of MH.

Rough Broken Land soils are variable. They are 20 to more than 60 inches deep over soft, weathered rock. In most places some weathered rock fragments are mixed with the soil material.

The State Land Study Bureau's soil classification of the Project area is "E", as shown in attached **Exhibit H**.[22] Further, according to State ALISH[23] maps and as

[22] Agricultural productivity ratings range from A to E, with "A" having the highest rating and "E" having the lowest agricultural productivity rating.

[23] "ALISH" means Agricultural Lands of Importance to the State of Hawaii.

shown in attached **Exhibit I**, the Project area is not designated as *Prime* agricultural land, *Unique* agricultural land, or *Other* agricultural land.

Concerning the Project area's topography, refer to **Exhibit B** of this environmental assessment.

The proposed Project is not located on or within a shoreline, beach, dune, estuary, or wetland area.

Potential Impacts and Mitigation Measures

The existing slopes of the hillside where the New Hā'ena 0.2 MG Tank would be located is comprised of an approximately 50% grade. Traditional design and earth retaining methods require a significant amount of excavation earthwork and a tall and thick retaining wall to provide the needed flat area for the proposed tank. To minimize the earthwork footprint for the Project and to mitigate the potential for soil erosion, a Soil Nail Wall system is proposed. Soil nail walls are constructed using a "top-down" construction sequence, where the ground is excavated in lifts of limited height. Soil nails and an initial shotcrete facing are installed at each excavation lift to provide support. Subsequently, a final shotcrete or cast-in-place concrete ("CIP") facing is installed. This eliminates the need for over excavation and backfilling associated with traditional retaining walls. However, a significant amount of excavation is approximated at 2,000 cubic yards. The majority of the cut soils will be hauled off-site, as appropriate and subject to applicable local, State, and federal regulations. Soil that is not hauled off-site will be incorporated into the Project's design.

The Project construction plans will include overall plans and details for grading, drainage, and erosion control, which will be reviewed and approved by the County's Department of Public Works. The plans will address temporary construction best management plans ("BMPs") and permanent post-construction BMPs. The contractor will be required to implement the BMP methods identified in the approved plans in order to mitigate soil erosion during construction and control storm water from entering and leaving the construction site. Anticipated methods include, but are not limited to:

- Mulching - application of loose bulk material to stabilize disturbed soil by protecting bare soil, increasing infiltration, and reducing runoff. Materials used for mulching would include green material, hydraulic matrices, hydraulic mulches of recycled paper or wood fiber, stone and aggregate, vegetable fibers (hay or straw), and wood/bark chips. Typically mulching is done after the proposed improvements are installed; permanent grassing of bare soil is required.
- Geotextiles and Mats - natural or synthetic mats to be used for temporary soil stabilization during construction or permanent soil stabilization post-construction.

- Silt Fence - a sediment barrier composed of permeable geotextile filter fabric attached to supporting posts. Wire fencing may provide additional support. The silt fence intercepts the flow of sediment laden runoff, which filters the water and traps the sediment.
- Sandbag - barrier stacked sandbags, which intercept sediment-laden sheet flow runoff to allow sediment to settle prior to discharge off-site.
- Storm Drain Inlet Protection Devices installed at storm drain inlets to detain and/or filter sediment laden runoff. These devices trap and prevent sediment from entering into the storm drain system.
- Temporary Diversion Swale - temporary graded swales to prevent erosion by intercepting, diverting, and conveying surface run-on (storm water entering the site) to a stabilized area, or implementation of other sediment trapping devices.
- Stockpiling – earthen material will be covered or hauled off-site.
- Construction sequencing – construction sequencings will be optimized to reduce the exposure of earthen material to storm water. For example, heavy earthwork could be completed during summer months.

Operational discharges of tank water

Section 6.6 of this environmental assessment discusses a conceptual operational discharge plan once the new 0.2MG tank becomes operational; as explained in this section, the Project is not anticipated to increase tank overflows.

Storm Water Runoff discharges once 0.2 MG Tank becomes operational

Construction of additional impervious areas in conjunction with the Project will result in only a slight increase in the rate of storm water runoff discharge once the New Hā'ena 0.2 MG Tank becomes operational.

Concerning control of soil erosion resulting from a minimal increase in storm water runoff discharge once the new 0.2 MG tank becomes operational and as discussed in section 6.6 of this environmental assessment, the net increase in runoff due to the proposed Project is 0.04 CFS or a 1% increase. During the design development stage of the project, Plans for the site will include mitigation methods to eliminate this net increase. Mitigation may include, but is not limited to, low impact development methods such as bio-swales and improving ground cover, which will increase existing infiltration from present forest-type and grassy areas, and reduce runoff of storm water.

6.3 Flora and Fauna

Concerning flora and fauna in the vicinity of the Project area, the Wainiha Water Well 2010 FEA concluded[24]:

[24] The reference to the County's "planned land acquisition" in the first sentence of section 3.4 below refers to the DOW's planned acquisition at the time of its Hā'ena 0.1 MG Tank.

3.4 Flora and Fauna

A botanical survey was conducted in May 1995 as part of the County's planned land acquisition. Vegetation on site consists primarily of non-native species with a scattering of native species. All native species found are relatively common and widespread and not considered to be rare, threatened or endangered by either the U.S. Fish & Wildlife Service or Hawai'i Department of Land and Natural Resources, Division of Forestry & Wildlife.

Although ironwood trees could be used as habitat for various bird species found along the lowland forested areas of the North Shore, there have been no known occurrences of any rare, threatened or endangered bird or bat species within the project area. The endangered Hawaiian Petrel and Newell's Shearwater, however, may pass by/over the project site when flying between the back portion of Wainiha Valley (approximately six miles from the project site) and the ocean.

The *Final Environmental Assessment: Wainiha Booster Station Renovation and Haena Steel Tank Renovation (January 2008)* further commented as to flora and fauna that:

3.5 Biological Resources

Construction of the Booster Station will require removal of the surface vegetation from the project site to construct the slab foundation, above-ground building, and related facilities. Removal of the surface vegetation will not create a significant adverse impact to the botanical resources of this area of Kauai. No plants listed as endangered, threatened, or proposed for listing by USFWS or the State of Hawaii are found on the project site.

Construction of the retaining wall for the Ha'ena Steel Tank will require removal of approximately 5 trees, including several large ironwood trees. As in most areas of Kauai, ironwood trees are very common throughout the North Shore. Thus, removal of the trees will not create a significant adverse impact to the botanical resources of this area of Kauai.

Fauna

The development of the Booster Station project site and construction of the Steel Tank retaining wall will not result in adverse impacts to any avian or mammalian species currently listed as endangered, threatened or proposed for listing under either the USFWS or the State of Hawaii's endangered species programs.

> The Booster Station will require exterior lights at the entry doors/entry way to provide lighting so maintenance or emergency repair work could be done during nighttime hours. The design will direct the lighting to the building entry. Further, the lighting would only be used when necessary during maintenance or emergency work. Thus, development of these facilities will not result in adverse impacts to either Hawaiian Petrels or Newell's Shearwaters.

A present, informal botanical survey of the Project area indicates the presence of strawberry guava stands, java plum, ironwood, octopus, albizia, mango trees, and other common trees and vegetation.

No rare, threatened, or endangered fauna are known to exist in the Project area; however the endangered Hawaiian Petrel and Newell's Shearwater may pass by/over the Project site when flying between the back portion of Wainiha Valley (approximately six miles from the Project site) and the ocean.

Potential Impacts and Mitigation Measures

Construction of the New Hā'ena 0.2 MG Tank will necessitate removal from the Project area of surface vegetation and various trees, such as those shown in **Figure 4** of this environmental assessment, to allow for construction of a concrete slab foundation for the new tank and 12' perimeter access surrounding the new tank; however, at the land owner's request, no mango trees will be removed. Construction activities are planned to occur during daylight hours only.

The Project area will be graded during the construction phase, and then re-vegetated on any resulting sloped areas.

Several light fixtures may be installed to serve the Project.[25] If installed, any such fixtures will direct lighting downwards (be down-lighted) so as not to interfere with the potential flight patterns of any Hawaiian petrels, Newell's shearwaters, and band-rumped storm-petrels, which fly at night and are attracted to artificially-lighted areas, resulting in disorientation and subsequent fallout due to exhaustion. In addition, the construction documents will incorporate design specifications to assist in decreasing the risk of any seabird attraction, including the use of colored lighting and non-reflective paint for the proposed tank.

No impacts to any rare, threatened or endangered plant or animal species or their habitats are anticipated, and therefore (except for the down lighting described above) no mitigation measures are proposed in this regard.

[25] At present, one fixture will be required, and a second fixture may be required.

6.4 Air Quality and Noise

The area surrounding the Wainiha-Hā'ena Area Water System is a low-density residential community. The current impacts are primarily from vehicles traveling on the Wainiha Powerhouse Road.

Potential Impacts and Mitigation Measures

Air quality will be somewhat affected during the construction phase of the Project. These impacts will be mitigated by compliance with County and State rules and regulations.

Construction Phase: Construction and vehicle noise will be short-term and limited to daytime hours throughout the construction period. Once construction is completed, these noise impacts will cease. Construction activities such as demolition and drilling will create noise.

The equipment used for these activities typically includes pick-up trucks, excavators, backhoes, skid-steer loader, dump truck, generator, air compressor, drill rig, concrete delivery trucks, and other construction machinery.

Once construction methods are determined, the contractor will consult with the Hawai‘i Department of Health (“DOH”) to determine whether construction noise is expected to exceed the “maximum permissible” property-line noise levels. If so, the contractor will be required to obtain a noise permit prior to construction. DOH will review the proposed activity, location, equipment, Project purpose and timetable in order to decide upon conditions and mitigation measures, such as restriction of equipment type, maintenance requirements, restricted hours, and portable noise barriers.

Other vehicle and construction noise will be short-term and limited to daylight hours through the period of construction. Once construction is completed, these noise impacts will cease.

Any fugitive dust generated by the construction phase will be managed using construction best management practices, and satisfy DOH requirements regarding such dust.

Operational Phase: Following the construction phase of the Project, limited noise associated with vehicular traffic from DOW personnel and its contractors periodically visiting the Project for inspection and maintenance purposes will be generated. Once operational, no personnel will be assigned on a daily basis to service the new tank.

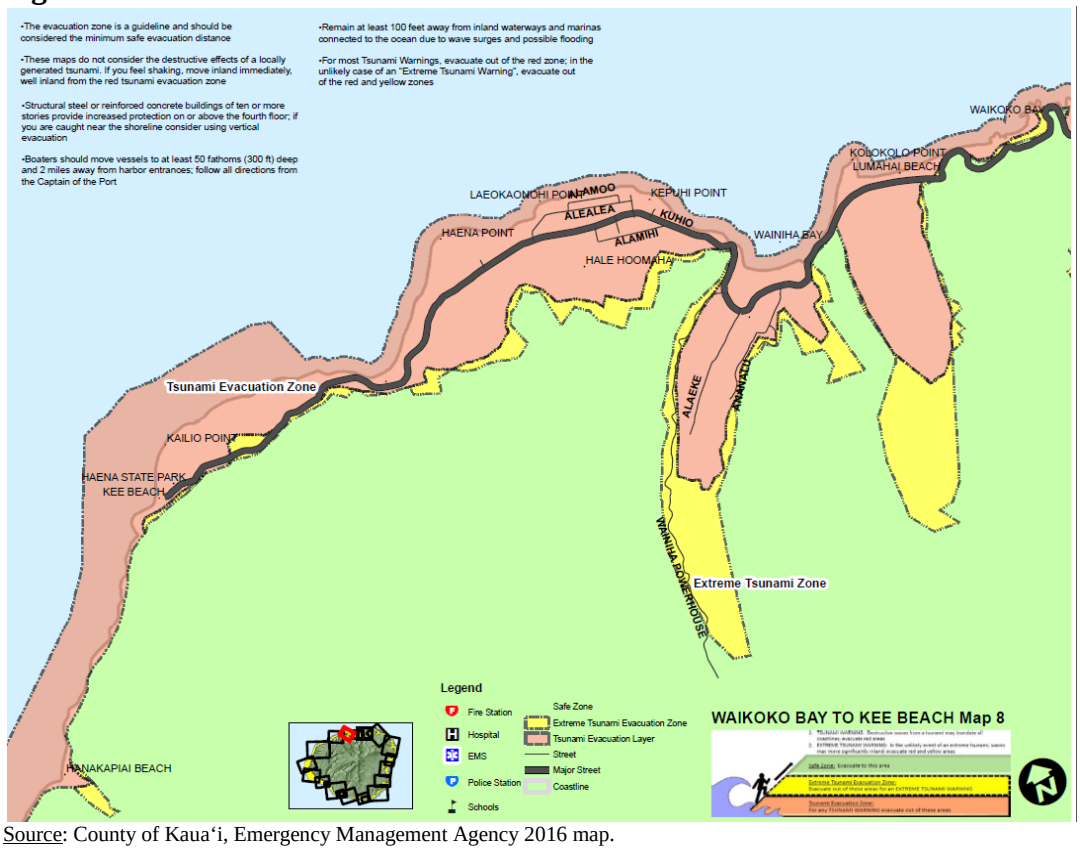
6.5 Hazards: Flood, Earthquake, or Hurricane

The Wainiha-Hā'ena Area Water System site is located in Zone X on the Federal Emergency Management Flood Insurance Rate Map (FIRM). Zone X is defined as an "area determined to be outside of the 0.2% annual chance floodplain" and not located within the flood hazard area of a 500-year flood plain. The Project area is not subject to flooding and is consistent with applicable regulations and guidance relating to floodplain management.

See **Exhibit J** attached to this environmental assessment for the Flood Hazard Zone Map, which provides an overview of nearby areas subject to flood impacts.

Figure 6 which follows is the current Tsunami Evacuation Zone map of the Project area produced by the County's Emergency Management Agency (formerly Civil Defense). The Project is situated to the immediate left and outside of the Extreme Tsunami Zone (in yellow) shown on the map.

Figure 6



Source: County of Kaua'i, Emergency Management Agency 2016 map.

Earthquake risk on Kaua'i is classified as a Seismic Zone 1 (area of least risk), according to the 1997 Uniform Building Code (UBC).

Kaua'i is in the Central Pacific Hurricane area. Two hurricanes occurred on Kaua'i in the past 30 years: Hurricane 'Iwa in 1982, and Hurricane Iniki in 1992.

The strong possibility exists that future hurricanes will pass nearby or over Kauaʻi; all Project structures will be constructed in compliance with applicable building codes and/or regulations.

Potential Impacts and Mitigation Measures

As with all structures on Kauaʻi, those in the Project area could potentially be impacted by strong hurricane winds and debris. In order to avoid damage to the structures, the above-ground components of the Project will be designed for a *minimum* wind load of 125 miles per hour (mph).

6.6 Surface Water and Drainage

Surface Water:

No surface water from streams or irrigation ditches impact the Project. The nearest water feature, Wainiha River, is approximately 1,000+ feet away from the Project area. The Project is not located in an estuary or marine or freshwater wetland. A map showing estuaries, wetlands and rivers in the vicinity of the Project is attached to this environmental assessment as **Exhibit K**.

Drainage:

Existing Project Conditions

Located on Kauai County land adjacent to the Project site is the Wainiha Booster Pump Station and the 5,000-gallon Wainiha Redwood Tank. Within an existing easement on Robinson Family-owned land (TMK: (4) 5-8-002:003) is the Hā'ena 0.1 MG (Steel) Tank, including an unimproved access road from the Wainiha Booster Pump Station land (TMK: (4) 5-8-002:007) to the 0.1 MG tank.

Existing Tank Drainage Hydraulics

The existing Hā'ena 0.1 MG Tank is filled by water sourced from two nearby DOW potable water wells. The 0.1 MG tank has an 8-inch riser for overflow at invert 144 feet and a 6-inch valved drain line for operational drainage at the bottom of the tank. Both pipes tee into an 8-inch drain line that daylights to a rip-rap outlet structure, roughly 110 feet south of this tank. Discharge from the outlet is dissipated and sheet flows down an embankment, in the direction of an existing 18-inch culvert.

Existing Project Site Hydrology

A portion of the localized storm water runoff area for the proposed tank site collects at an existing 18-inch culvert at Wainiha Power House Road. The contribution area for the culvert is approximately 2.37 acres and includes the Hā'ena 0.1 MG Tank and unimproved tank access and perimeter road, and steep

forested hillside. The culvert conveys storm water across the road to a privately-owned parcel (TMK: (4) 5-8-007:021). Using the County of Kauai, Department of Public Works, Storm Water Runoff System Manual, July 2001, the existing 2-year storm water flow is approximately 4.34 CFS.

Potential Impacts and Mitigation Measures

The Project proposes to construct a 0.2 MG potable water steel tank at the same 144 foot hydraulic elevation as the existing Hā'ena 0.1 MG Tank. The new tank will be set into the hillside, requiring a retaining wall system. The existing unpaved access road will be extended to and around the new tank.

Proposed Tank Drainage Hydraulics

The proposed New Hā'ena 0.2 MG Tank will be filled in parallel with the existing Hā'ena 0.1 MG Tank. There are two operational issues that may contribute to drainage from the site: overflow and routine washout maintenance.

1. Overflow: Both the existing and proposed tanks will be filled by water sourced from DOW's two nearby potable water wells. The 0.2 MG tank will include an 8-inch overflow line at 144 feet and a 6-inch valved washout line. The overflow line and washout line will each tee into the existing 8-inch drain line. No upsizing of the existing drain line is required since it is sized for the GPM capacity of one of DOW's described water wells, which will be the maximum overflow capacity for the system. While the 0.2 MG tank will be designed to be able to freely release overflow via the drain line in cases of emergency, the risk of overflow will be reduced from the existing condition, since additional flow controls will be installed with the proposed 0.2MG tank. This redundancy in pumping controls may include, but is not limited, to the following:

- Float and/or pressure switch for signal control of pumps with regular shutoff and high and high-high level alarms;

2. Washout of Tank: Release of water from the tank via the washout line is controlled completely through operational means and methods.[26] Operational mitigation of the flow through the washout line may include:

- Controlling the velocity and flow of the discharge through the throttling of the washout line valve;
- Installation of a tanker truck hose connection at the end or cut into the line for discharge water to be pumped and trucked off site.

[26] If required, a NPDES permit will be obtained when tank water is discharged for tank maintenance purposes, once the new tank is operational. As noted in section 4.4 of this environmental assessment, the new tank will generally be emptied of water on a controlled release basis (washed out, inspected and routinely maintained) approximately every three years.

Proposed Project Site Hydrology

Proposed improvements relate to the New Hā'ena 0.2 MG Tank are anticipated to have negligible impact on storm water runoff. The change in site surface areas include the 0.2 MG tank, the retaining wall, and unpaved perimeter road, which in combination will replace about 0.1 acres of the steep forested hillside. No modifications are proposed to the existing culvert that conveys runoff across Wainiha Power House Road. The estimated proposed 2-year storm water flow is 4.38 CFS. The net increase in runoff due to the proposed project is 0.04 CFS or a 1% increase. During the design development stage of the project, plans for the site will include mitigation methods to eliminate this net increase. Mitigation may include, but is not limited to, low impact development methods such as bio-swales and improving ground cover, which will increase infiltration and reduce runoff of storm water.

Conclusions as to Storm Water Runoff and Drainage

The proposed Project is anticipated to have a no significant negative impact to downstream properties. This conclusion is based on the preceding discussion and summarized in the following bullet points:

- The Project will not increase overflow flows since the limiting design factor, the 200 gpm pump at one of DOW's nearby water wells will not change from the existing condition;
- The Project will reduce the opportunity of an overflow condition occurring, since additional pump alarms and controls will be added with the proposed tank.
- The Project will not increase washout drainage, as discharge will be controlled through operational means and methods.
- The Project will not increase the peak runoff flow rate of the sub- basin drainage area.

Responsive to the information above, the County's Department of Public Works, Engineering Division ("DPW-E"), commented on August 28, 2017 that the storm water runoff drainage plan described above estimates that the construction of additional impervious areas will result in only a slight increase in the storm water runoff discharge rate, and that DPW-E had no objections to the conceptual drainage plan but recommends that, to the extent possible, run off from the site be made to sheet flow down the hillside toward Wainiha Power House Road. DPW-E further commented that the conceptual operational discharge plan described above states the proposed Project will not increase tank overflows; as such, DPW-E had no comments on the discharge plan.

Pre-consultation with State Department of Health

Preliminary consultation with the State's Department of Health ("DOH") was held on October 18, 2017 to determine DOH preliminary requirements applicable to the Project. DOH's preliminary comments were:

- Because the Project is less than one acre in size, no NPDES general permit is required.[27]

- DOH's Safe Drinking Water Branch ("SDWB") had no comments regarding the Project since SDWB does not consider the new 0.2 MG tank to be a "substantial modification" to DOW's existing drinking water system.

- Because DOW has its own standards (AWWA[28], DOW 2002 Water System Standards, as amended, etc.) it is required to follow in constructing the Project, DOH indicated it has no comments concerning soil run off, soil erosion, and storm water runoff. Provided no State waters are or will be impacted by Project construction, DOH has no comments with regard to impact on State waters.

- Fugitive Dust: provided appropriate measures/BMPs[29] are implemented to control fugitive dust, DOH has no comment concerning fugitive dust generated in conjunction with the Project.

- Noise: As long noise is within acceptable levels, no noise permit is required; otherwise, a community noise permit is required.

6.7 Water Quality

According to the DOW's Annual Hā'ena-Wainiha Water Quality Report which covers the period of January 1, 2015 to December 31, 2015, the DOW regularly conducts microbiological analysis of its water and has contracted for extensive chemical testing of the same in order to comply with U.S. Environmental Protection Agency ("EPA") and the Hawai'i State water quality standards. These standards are very strict in order to ensure safe drinking water. All of the water is chlorinated and pumped into the distribution system or stored in the two tanks in the Hā'ena-Wainiha System. Details of the test results are found in the foregoing Water Quality Report.

6.8 Groundwater Hydrology

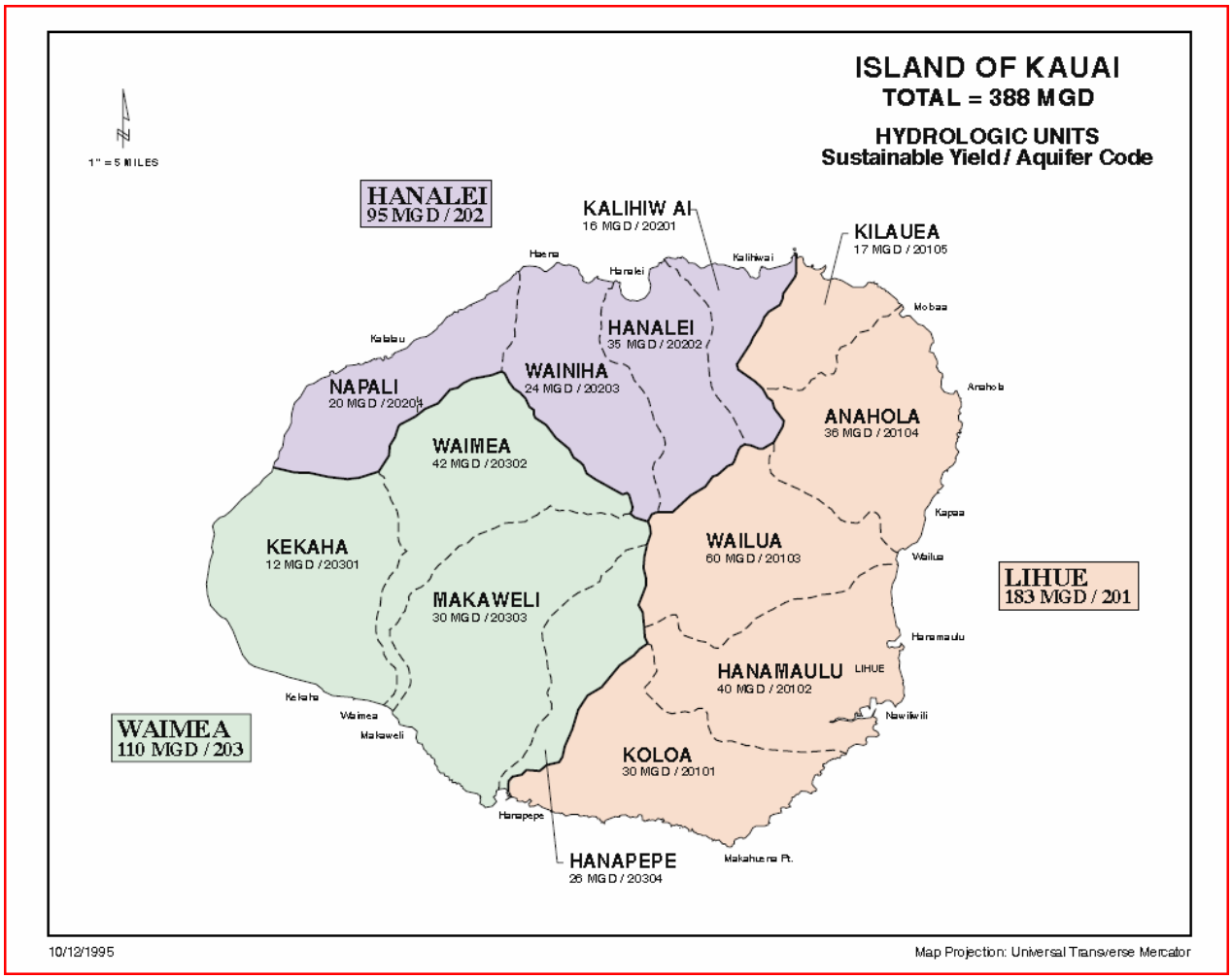
The Hawai'i Commission on Water Resource Management ("CWRM") established ground water hydrologic units to provide a consistent basis for

[27] However, as noted in section 3.5 of this environmental assessment, the Project will require an Individual NPDES permit for hydrologic testing of effluent water/tank washout when the new tank is made operational (Notice of Intent Form F).
[28] American Water Works Association
[29] Best management practices

managing the State's ground water resources. In general, each island is divided into regions that reflect broad hydrogeological similarities while maintaining, where possible, hydrographic, topographic and historical boundaries. Smaller sub-regions are then delineated based on hydraulic continuity and related characteristics. CWRM uses an aquifer coding system to reference and describe the ground water hydrologic units.

There are three hydrologic units on Kaua'i: Līhu'e, Hanalei and Waimea, as shown in **Figure 7** below. The Project site is located within the Wainiha Aquifer of the Hanalei Līhu'e Hydrologic Unit. The Wainiha Aquifer has a sustainable yield of 24 MGD according to the Hawai'i Water Resource Protection Plan (June 2008).

Figure 7 Hydrologic Units on Kaua'i



Source: Hawai'i Commission on Water Resource Management, 2008.

Potential Impacts and Mitigation Measures

Inasmuch as the proposed Project involves development of a potable water storage tank, not a water well, no groundwater study was conducted for the proposed Project. The Project is not anticipated to influence groundwater in the area and no mitigation measures are proposed in this regard.

No groundwater study was conducted for this proposed Project.

6.9 Scenic and Visual Resources

The parcel on which the proposed Project will be located has not been identified as a scenic resource in County or State plans or studies. The proposed 0.2 MG tank will be approximately 37 feet in diameter and 29 feet in height.
The nearby Kūhiō Highway was identified in the Kauaʻi General Plan as a Scenic Roadway Corridor and is not affected by this Project because of its distance from the Project.

Potential Impacts and Mitigation Measures

No significant adverse impacts on scenic and visual resources are anticipated by this Project.

The Project will not result in any significant changes to the scenic and visual environment inasmuch as located adjacent to and immediately east of the Project site is DOW's existing Hā'ena 0.1 MG Tank, and located ≈200+ feet north and uphill of the Project site is DOW's existing Wainiha 6,500 gallon polyethylene Tank.

Like these existing tanks, the proposed 0.2 MG tank is anticipated to be mostly hidden by surrounding vegetation and large trees on the hillside that currently exist around the Project area. Like the existing tanks, the new tank will be painted an earth-tone green with non-reflective roofs to blend in with the surrounding landscape. The new tank's color will be similar to the existing Hā'ena 0.1 MG Tank.

Except for being larger in size, the proposed 0.2 MG tank and its immediate environs will be similar in appearance to the existing Hā'ena 0.1 MG Tank shown in the following photo shown below.

Figure 8 Hā'ena 0.1 MG Tank

SECTION 7.0 RELATIONSHIP TO STATE, COUNTY AND FEDERAL LAND USE PLANS, POLICIES AND CONTROLS

7.1 Hawai'i State Plan

The Hawaii State Plan ("HSP"), expressed in H.R.S. §226-1, serves as a guide for the future long-range development of the State; identifies the goals, objectives, policies, and priorities for the State; provides a basis for determining priorities and allocating limited resources, such as public funds, services, human resources, land, energy, water, and other resources; improves coordination of federal, state, and county plans, policies, programs, projects, and regulatory activities; and establishes a system for plan formulation and program coordination to provide for an integration of all major state, and county activities.

The following table assesses and evaluates how the proposed project supports the HSP and, where applicable, notes where the HSP's goals, objectives, and/or policies do not apply to the project. Summary discussions concerning each of the described sections are also included, where appropriate.

HAWAI'I STATE PLAN ASSESSMENT
AND EVALUATION TABLE

HAWAI'I STATE PLAN, (Haw. Rev. Stat. chapter 226) **S = Supportive, N/S = Not Supportive, N/A = Not Applicable**	**S**	**N/S**	**N/A**
HRS §226-4 State Goals.			
In order to guarantee, for present and future generations, those elements of choice and mobility that ensure that individuals and groups may approach their desired levels of self-reliance and self-determination, it shall be the goal of the State to achieve:			
1) A strong, viable economy, characterized by stability, diversity, and growth, that enables the fulfillment of the needs and expectations of Hawai'i's present and future generations.			X
2) A desired physical environment, characterized by beauty, cleanliness, quiet, stable natural systems, and uniqueness, that enhances the mental and physical well-being of the people.			X
3) Physical, social, and economic well-being, for individuals and families in Hawai'i, that nourishes a sense of community responsibility, of caring, and of participation in community life.			X
HRS §226-5 Objective and Policies for Population.	S	N/S	N/A
a) It shall be the objective in planning for the State's population to guide population growth to be consistent with the achievement of physical, economic, and social objectives contained in this chapter; b) To achieve the population objective, it shall be the policy of this State to:			
1) Manage population growth statewide in a manner that provides increased opportunities for Hawaii's people to pursue their physical, social and economic aspirations while recognizing the unique needs of each county.			X
2) Encourage an increase in economic activities and employment opportunities on the neighbor islands consistent with community needs and desires.	X		
3) Promote increased opportunities for Hawaii's people to pursue their socio-economic aspirations throughout the islands.			X
4) Encourage research activities and public awareness programs to foster an understanding of Hawaii's limited capacity to accommodate population needs and to address concerns resulting from an increase in Hawaii's population.			X
5) Encourage federal actions and coordination among major governmental agencies to promote a more balanced distribution of immigrants among the states, provided that such actions do not prevent the reunion of immediate family members.			X
6) Pursue an increase in federal assistance for states with a greater proportion of foreign immigrants relative to their state's population.			X
7) Plan the development and availability of land and water resources in a coordinated manner so as to provide for the desired levels of growth in each geographic area.	X		

HRS §226-6 Objectives and Policies for the Economy -- in General.[30]	S	N/S	N/A
a) Planning for the State's economy in general shall be directed toward achievement of the following objectives:			
1) Increased and diversified employment opportunities to achieve full employment, increased income and job choice, and improved living standards for Hawai'i's people, while at the same time stimulating the development and expansion of economic activities capitalizing on defense, dual-use and science and technology assets, particularly on the neighbor islands where employment opportunities may be limited.			X
2) A steadily growing and diversified economic base that is not overly dependent on a few industries, and includes the development and expansion of industries on the neighbor islands.			X
b) To achieve the general economic objectives, it shall be the policy of this State to:			
1) Promote and encourage entrepreneurship within Hawai'i by residents and nonresidents of the State.			X
2) Expand Hawai'i's national and international marketing, communication, and organizational ties, to increase the State's capacity to adjust to and capitalize upon economic changes and opportunities occurring outside the State.			X
3) Promote Hawai'i as an attractive market for environmentally and socially sound investment activities that benefit Hawai'i's people.			X
4) Transform and maintain Hawai'i as a place that welcomes and facilitates innovative activity that may lead to commercial opportunities.			X
5) Promote innovative activity that may pose initial risks, but ultimately contribute to the economy of Hawai'i.			X
6) Seek broader outlets for new or expanded Hawai'i business investments.			X
7) Expand existing markets and penetrate new markets for Hawai'i's products and services.			X
8) Assure that the basic economic needs of Hawai'i's people are maintained in the event of disruptions in overseas transportation.			X
9) Strive to achieve a level of construction activity responsive to, and consistent with, state growth objectives.			X
10) Encourage the formation of cooperatives and other favorable marketing arrangements at the local or regional level to assist Hawai'i's small scale producers, manufacturers, and distributors.			X
11) Encourage labor-intensive activities that are economically satisfying and which offer opportunities for upward mobility.			X
12) Encourage innovative activities that may not be labor-intensive, but may otherwise contribute to the economy of Hawai'i.			X
13) Foster greater cooperation and coordination between the government and private sectors in developing Hawai'i's employment and economic growth opportunities.			X
14) Stimulate the development and expansion of economic activities which will benefit areas with substantial or expected employment problems.			X
15) Maintain acceptable working conditions and standards for Hawai'i's workers.	X		
16) Provide equal employment opportunities for all segments of Hawai'i's population through affirmative action and nondiscrimination measures.	X		
17) Stimulate the development and expansion of economic activities capitalizing on defense, dual-use, and science and technology assets, particularly on the			

[30] **S = Supportive, N/S = Not Supportive, N/A = Not Applicable**

neighbor islands where employment opportunities may be limited.			
18) Encourage businesses that have favorable financial multiplier effects within Hawai'i's economy, particularly with respect to emerging industries in science and technology.			X
19) Promote and protect intangible resources in Hawai'i, such as scenic beauty and the Aloha spirit, which are vital to a healthy economy.			X
20) Increase effective communication between the educational community and the private sector to develop relevant curricula and training programs to meet future employment needs in general, and requirements of new or innovative potential growth industries in particular.			X
21) Foster a business climate in Hawai'i – including attitudes, tax and regulatory policies, and financial and technical assistance programs – that is conducive to the expansion of existing enterprises and the creation and attraction of new business and industry.			X
HRS §S226-7 Objectives and Policies for the Economy – Agriculture.[31]	S	N/S	N/A
a) Planning for the State's economy with regard to agriculture shall be directed towards achievement of the following objectives:			
1) Viability of Hawai'i's sugar and pineapple industries.			X
2) Growth and development of diversified agriculture throughout the State.			X
3) An agriculture industry that continues to constitute a dynamic and essential component of Hawaii's strategic, economic, and social well-being.			X
b) To achieve the agriculture objectives, it shall be the policy of this State to:			
1) Establish a clear direction for Hawai'i's agriculture through stakeholder commitment and advocacy.			X
2) Encourage agriculture by making the best use of natural resources.			X
3) Provide the governor and the legislature with information and options needed for prudent decision-making for the development of agriculture.			X
4) Establish strong relationships between the agricultural and visitor industries for mutual marketing benefits.			X
5) Foster increased public awareness and understanding of the contributions and benefits of agriculture as a major sector of Hawai'i's economy.			X
6) Seek the enactment and retention of federal and state legislation that benefits Hawai'i's agricultural industries.			X
7) Strengthen diversified agriculture by developing an effective promotion, marketing, and distribution system between Hawai'i's food producers and consumers in the State, nation, and world.			X
8) Support research and development activities that strengthen economic productivity in agriculture, stimulate greater efficiency, and enhance the development of new products and agricultural by-products.			X
9) Enhance agricultural growth by providing public incentives and encouraging private initiatives.			X
10) Assure the availability of agriculturally suitable lands with adequate water to accommodate present and future needs.			X
11) Increase the attractiveness and opportunities for an agricultural education and livelihood.			X
12) In addition to the State's priority on food, expand Hawai'i's agricultural base			

[31] **S = Supportive, N/S = Not Supportive, N/A = Not Applicable**

by promoting growth and development of flowers, tropical fruits and plants, livestock, feed grains, forestry, food crops, aquaculture, and other potential enterprises.			X
13) Promote economically competitive activities that increase Hawai'i's agricultural self-sufficiency, including the increased purchase and use of Hawai'i-grown food and food products by residents, businesses, and governmental bodies as defined under section 103D-104.			X
14) Promote and assist in the establishment of sound financial programs for diversified agriculture.			X
15) Institute and support programs and activities to assist the entry of displaced agricultural workers into alternative agricultural or other employment.			X
16) Facilitate the transition of agricultural lands in economically non-feasible agricultural production to economically viable agricultural uses.			
17) Perpetuate, promote, and increase use of traditional Hawaiian farming systems, such as the use of loko i'a, mala, and irrigated lo'i, and growth of traditional Hawaiian crops, such as kalo, 'uala, and 'ulu.			X
18) Increase and develop small-scale farms.			X
HRS §226-8 Objective and Policies for the Economy – Visitor Industry.[32]	S	N/S	N/A
a) Planning for the State's economy with regard to the visitor industry shall be directed towards the achievement of the objective of a visitor industry that constitutes a major component of steady growth for Hawai'i's economy. b) To achieve the visitor industry objective, it shall be the policy of this State to:			
1) Support and assist in the promotion of Hawai'i's visitor attractions and facilities.			X
2) Ensure that visitor industry activities are in keeping with the social, economic, and physical needs and aspirations of Hawai'i's people.			X
3) Improve the quality of existing visitor destination areas by utilizing Hawai'i's strengths in science and technology.			X
4) Encourage cooperation and coordination between the government and private sectors in developing and maintaining well-designed, adequately serviced visitor industry and related developments which are sensitive to neighboring communities and activities.			X
5) Develop the industry in a manner what will continue to provide new job opportunities and steady employment for Hawai'i's people.			X
6) Provide opportunities for Hawai'i's people to obtain job training and education that will allow for upward mobility within the visitor industry.			X
7) Foster a recognition of the contribution of the visitor industry to Hawai'i's economy and the need to perpetuate the aloha spirit.			X
8) Foster an understanding by visitors of the aloha spirit and of the unique and sensitive character of Hawai'i's cultures and values.			X
HRS 226-9 Objective and Policies for the Economy – Federal Expenditures.[33]	S	N/S	N/A
a) Planning for the State's economy with regard to federal expenditures shall be directed towards achievement of the objective of a stable federal investment base as an integral component of Hawai'i's economy.			

[32] **S = Supportive, N/S = Not Supportive, N/A = Not Applicable**
[33] **S = Supportive, N/S = Not Supportive, N/A = Not Applicable**

b) To achieve the federal expenditures objective, it shall be the policy of this State to:			
1) Encourage the sustained flow of federal expenditures in Hawai'i that generates long-term government civilian employment.			X
2) Promote Hawai'i's supportive role in national defense, in a manner consistent with Hawai'i's social, environmental, and cultural goals by building upon dual-use and defense applications to develop thriving ocean engineering, aerospace research and development, and related dual-use technology sectors in Hawai'i's economy.			X
3) Promote the development of federally supported activities in Hawai'i that respect statewide economic concerns, are sensitive to community needs, and minimize adverse impacts on Hawai'i's environment.			X
4) Increase opportunities for entry and advancement of Hawai'i's people into federal government service.			X
5) Promote federal use of local commodities, services, and facilities available in Hawai'i.			X
6) Strengthen federal-state-county communication and coordination in all federal activities that affect Hawai'i.			X
7) Pursue the return of federally controlled lands in Hawai'i that are not required for either the defense of the nation or for other purposes of national importance, and promote the mutually beneficial exchanges of land between federal agencies, the State, and the counties.			X
HRS §226-10 Objective and Policies for the Economy – Potential Growth Activities.[34]	S	N/S	N/A
a) Planning for the State's economy with regard to potential growth and innovative activities shall be directed towards achievement of the objective of development and expansion of potential growth and innovative activities that serve to increase and diversity Hawai'i's economic base. b) To achieve the potential growth & innovative activity objective, it shall be the policy of this State to:			
1) Facilitate investment and employment growth in economic activities that have the potential to expand and diversify Hawai'i's economy, including but not limited to diversified agriculture, aquaculture, renewable energy development, creative media, healthcare, and science and technology-based sectors.			X
2) Facilitate investment in innovative activity that may pose risks or be less labor-intensive than other traditional business activity, but if successful, will generate revenue in Hawai'i through the export of services or products or substitution of imported services or products.			X
3) Encourage entrepreneurship in innovative activity by academic researchers and instructors who may not have the background, skill, or initial inclination to commercially exploit their discoveries or achievements.			X
4) Recognize that innovative activity is not exclusively dependent upon individuals with advanced formal education, but that many self-taught, motivated individuals are able, willing, sufficiently knowledgeable, and equipped with the attitude necessary to undertake innovative activity.			X
5) Increase the opportunities for investors in innovative activity and talent engaged in innovative activity to personally meet and interact at cultural, art, entertainment, culinary, athletic, or visitor-oriented events without a business focus.			X

[34] **S = Supportive, N/S = Not Supportive, N/A = Not Applicable**

6) Expand Hawai'i's capacity to attract and service international programs and activities that generate employment for Hawai'i's people.			X
7) Enhance and promote Hawai'i's role as a center for international relations, trade, finance, services, technology, education, culture, and the arts.			X
8) Accelerate research and development of new energy-related industries based on wind, solar, ocean, underground resources, and solid waste.			X
9) Promote Hawai'i's geographic, environmental, social, and technological advantages to attract new or innovative economic activities into the State.			X
10) Provide public incentives and encourage private initiative to attract new industries that best support Hawai'i's social, economic, physical, and environmental objectives.			X
11) Increase research and the development of ocean-related economic activities such as mining, food production, and scientific research.			X
12) Develop, promote, and support research and educational and training programs that will enhance Hawai'i's ability to attract and develop economic activities of benefit to Hawai'i.			X
13) Foster a broader public recognition and understanding of the potential benefits of new, growth-oriented industry in Hawai'i.			X
14) Encourage the development and implementation of joint federal and state initiatives to attract federal programs and projects that will support Hawai'i's social, economic, physical, and environmental objectives.			X
15) Increase research and development of businesses and services in the telecommunications and information industries.			X
16) Foster the research and development of non-fossil fuel and energy efficient modes of transportation.			X
17) Recognize and promote health care and health care information technology as growth industries.			X
HRS §226-10.5 Objectives and Policies for the Economy – Information Industry.[35]	S	N/S	N/A
a) Planning for the State's economy with regard to telecommunications and information technology shall be directed toward recognizing that broadband and wireless communication capability and infrastructure are foundations for an innovative economy and positioning Hawai'i as a leader in broadband and wireless communications and applications in the Pacific Region. b) To achieve the information industry objective, it shall be the policy of this State to:			
1) Promote efforts to attain the highest speeds of electronic and wireless communication within Hawai'i and between Hawai'i and the world, and make high speed communication available to all residents and businesses in Hawai'i.			X
2) Encourage the continued development and expansion of the telecommunications infrastructure serving Hawai'i to accommodate future growth and innovation in Hawai'i's economy.			X
3) Facilitate the development of new or innovative business and service ventures in the information industry which will provide employment opportunities for the people of Hawai'i.			X
4) Encourage mainland- and foreign-based companies of all sizes, whether information technology – focused or not, to allow their principals, employees, or contractors to live in and work from Hawai'i, using			X

[35] **S = Supportive, N/S = Not Supportive, N/A = Not Applicable**

technology to communicate with their headquarters, offices, or customers located out-of-state.			
5) Encourage greater cooperation between the public and private sectors in developing and maintaining a well-designated information industry.			X
6) Ensure that the development of new businesses and services in the industry are in keeping with the social, economic, and physical needs and aspirations of Hawai'i's people.			X
7) Provide opportunities for Hawai'i's people to obtain job training and education that will allow for upward mobility within the information industry.			X
8) Foster a recognition of the contribution of the information industry to Hawai'i's economy.			X
9) Assist in the promotion of Hawai'i as a broker, creator, and processor of information in the Pacific.			X
HRS §226-11 Objectives and Policies for the Physical Environment – Land-based, Shoreline, and Marine Resources.[36]	S	N/S	N/A
a) Planning for the State's physical environment with regard to land-based, shoreline and marine resources shall be directed towards achievement of the following objectives.			
1) Prudent use of Hawai'i's land-based, shoreline, and marine resources.	X		
2) Effective protection of Hawai'i's unique and fragile environmental resources.	X		
b) To achieve the land-based, shoreline, and marine resources objectives, it shall be the policy of this State to:			
1) Exercise an overall conservation ethic in the use of Hawai'i's natural resources.	X		
2) Ensure compatibility between land-based and water-based activities and natural resources and ecological systems.			X
3) Take into account the physical attributes of areas when planning and designing activities and facilities.	X		
4) Manage natural resources and environs to encourage their beneficial and multiple use without generating costly or irreparable environmental damage.	X		
5) Consider multiple uses in watershed areas, provided such uses do not detrimentally affect water quality and recharge functions.			X
6) Encourage the protection of rare or endangered plant and animal species and habitats native to Hawai'i.			X
7) Provide public incentives that encourage private actions to protect significant natural resources from degradation or unnecessary depletion.			X
8) Pursue compatible relationships among activities, facilities and natural resources.	X		
9) Promote increased accessibility and prudent use of inland and shoreline areas for public recreational, educational, and scientific purposes.			X

[36] **S = Supportive, N/S = Not Supportive, N/A = Not Applicable**

HRS §226-12 Objective and Policies for the Physical Environment – Scenic, Natural Beauty, and Historic Resources.[37]	S	N/S	N/A
a) Planning for the State's physical environment shall be directed towards achievement of the objective of enhancement of Hawai'i's scenic assets, natural beauty, and multi-cultural/historical resources.			
b) To achieve the scenic, natural beauty, and historic resources objective, it shall be the policy of this State to:			
1) Promote the preservation and restoration of significant natural and historic resources.	X		
2) Provide incentives to maintain and enhance historic, cultural, and scenic amenities.			X
3) Promote the preservation of views and vistas to enhance the visual and aesthetic enjoyment of mountains, ocean, scenic landscapes, and other natural features.			X
4) Protect those special areas, structures, and elements that are an integral and functional part of Hawai'i's ethnic and cultural heritage.	X		
5) Encourage the design of developments and activities that complement the natural beauty of the islands.	X		
Discussion: *The project will preserve mango trees in the immediate project area; preservation of such trees will occur because landowner considers such trees a natural and cultural resource.*			

HRS §226-13 Objectives and policies for the physical environment - - land, air, and water quality.	S	N/S	N/A
a) Planning for the State's physical environment with regard to land, air, and water quality shall be directed towards achievement of the following objectives:			
1) Maintenance and pursuit of improved quality in Hawai'i's land, air, and water resources.	X		
2) Greater public awareness and appreciation of Hawai'i's environmental resources.	X		
b) To achieve the land, air, and water quality objectives, it shall be the policy of this State to:			
1) Foster educational activities that promote a better understanding of Hawai'i's limited environmental resources.	X		
2) Promote the proper management of Hawai'i's land and water resources.	X		
3) Promote effective measures to achieve desired quality in Hawai'i's surface, ground and coastal waters.	X		
4) Encourage actions to maintain or improve aural and air quality levels to enhance the health and well-being of Hawaii's people.			X
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.	X		
6) Encourage design and construction practices than enhance the physical qualities of Hawai'i's communities.			X
7) Encourage urban developments in close proximity to existing services and facilities.			X
8) Foster recognition of the importance and value of the land, air, and water resources to Hawai'i's people, their cultures and visitors.			X

[37] **S = Supportive, N/S = Not Supportive, N/A = Not Applicable**

HRS §226-14 Objective and Policies for Facility Systems – in General.[38]	S	N/S	N/A
a) Planning for the State's facility systems in general shall be directed towards achievement of the objective of water, transportation, waste disposal, and energy and telecommunication systems that support statewide social, economic, and physical objectives.			
b) To achieve the general facility systems objective, it shall be the policy of this State to:			
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.	S		
2) Encourage flexibility in the design and development of facility systems to promote prudent use of resources and accommodate changing public demands and priorities.			X
3) Ensure that required facility systems can be supported within resource capacities and at reasonable cost to the user.	X		
4) Pursue alternative methods of financing programs and projects and cost-saving techniques in the planning, construction, and maintenance of facility systems.			X
HRS §226-15 Objectives and Policies for Facility Systems – Solid and Liquid Wastes.[39]	S	N/S	N/A
a) Planning for the State's facility systems with regard to solid and liquid wastes shall be directed towards the achievement of the following objectives:			
1) Maintenance of basic public health and sanitation standards relating to treatment and disposal of solid and liquid wastes.			X
2) Provision of adequate sewerage facilities for physical and economic activities that alleviate problems in housing, employment, mobility, and other areas.			X
b) To achieve solid and liquid waste objectives, it shall be the policy of this State to:			
1) Encourage the adequate development of sewerage facilities that complement planned growth.			X
2) Promote re-use and recycling to reduce solid and liquid wastes and employ a conservation ethic.			X
3) Promote research to develop more efficient and economical treatment and disposal of solid and liquid wastes.			X
HRS §226-16 Objective and Policies for Facility Systems – Water.	S	N/S	N/A
a) Planning for the State's facility systems with regard to water shall be directed towards achievement of the objective of the provision of water to adequately accommodate domestic, agricultural, commercial, industrial, recreational, and other needs within resource capacities.			
b) To achieve the facility systems water objective, it shall be the policy of this State to:			
1) Coordinate development of land use activities with existing and potential water supply.	X		
2) Support research and development of alternative methods to meet future water requirements well in advance of anticipated needs.	X		
3) Reclaim and encourage the productive use of runoff water and wastewater discharges.			X

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[39] **S = Supportive, N/S = Not Supportive, N/A = Not Applicable**

4) Assist in improving the quality, efficiency, service, and storage capabilities of water systems for domestic and agricultural use.	X		
5) Support water supply services to areas experiencing critical water problems.	X		
6) Promote water conservation programs and practices in government, private industry, and the general public to help ensure adequate water to meet long-term needs.	X		
Discussion: *The Kauai County Department of Water supports the goals marked "x" above.*			
HRS §226-17 Objectives and Policies for Facility Systems – Transportation.[40]	S	N/S	N/A
a) Planning for the State's facility systems with regard to transportation shall be directed towards the achievement of the following objectives:			
1) An integrated multi-modal transportation system that services statewide needs and promotes the efficient, economical, safe, and convenient movement of people and goods.			X
2) A statewide transportation system that is consistent with and will accommodate planned growth objectives throughout the State.			X
b) To achieve the transportation objectives, it shall be the policy of this State to:			
1) Design, program, and develop a multi-model system in conformance with desired growth and physical development as stated in this chapter.			X
2) Coordinate state, county, federal, and private transportation activities and programs toward the achievement of statewide objectives.			X
3) Encourage a reasonable distribution of financial responsibilities for transportation among participating governmental and private parties.			X
4) Provide for improved accessibility to shipping, docking, and storage facilities.			X
5) Promote a reasonable level and variety of mass transportation services that adequately meet statewide and community needs.			X
6) Encourage transportation systems that serve to accommodate present and future development needs of communities.			X
7) Encourage a variety of carriers to offer increased opportunities and advantages to inter-island movement of people and goods.			X
8) Increase the capacities of airport and harbor systems and support facilities to effectively accommodate transshipment and storage needs.			X
9) Encourage the development of transportation systems and programs which would assist statewide economic growth and diversification.			X
10) Encourage the design and development of transportation systems sensitive to the needs of affected communities and the quality of Hawai'i's natural environment.			X
11) Encourage safe and convenient use of low-cost, energy-efficient, non-polluting means of transportation.			X
12) Coordinate intergovernmental land use and transportation planning activities to ensure the timely delivery of supporting transportation infrastructure in order to accommodate planned growth objectives.			X
13) Encourage diversification of transportation modes and infrastructure to promote alternative fuels and energy efficiency.			X

[40] **S = Supportive, N/S = Not Supportive, N/A = Not Applicable**

HRS §226-18 Objectives and policies for facility systems - - energy.[41]	S	N/S	N/A
a) Planning for the State's facility systems with regard to energy shall be directed toward the achievement of the following objectives, giving due consideration to all:			
1) Dependable, efficient, and economical statewide energy systems capable of supporting the needs of the people.			X
2) Increased energy security and self-sufficiency through the reduction and ultimate elimination of Hawai'i's dependence on imported fuels for electrical generation and ground transportation.			X
3) Greater diversification of energy generation in the face of threats to Hawai'i's energy supplies and systems.			X
4) Reduction, avoidance, or sequestration of greenhouse gas emissions from energy supply and use.			X
5) Utility models that make the social and financial interests of Hawai'i's utility customers a priority.			X
b) To achieve the energy objectives, it shall be the policy of this State to ensure the short- and long-term provision of adequate, reasonably priced, and dependable energy services to accommodate demand. c) To further achieve the energy objectives, it shall be the policy of this State to:			
1) Support research and development as well as promote the use of renewable energy sources.			X
2) Ensure that the combination of energy supplies and energy-saving systems is sufficient to support the demands of growth.			X
3) Base decisions of least-cost supply-side and demand-side energy resource options on a comparison of their total costs and benefits when a least-cost is determined by a reasonably comprehensive, quantitative, and qualitative accounting of their long-term, direct and indirect economic, environmental, social, cultural, and public health costs and benefits.			X
4) Promote all cost-effective conservation of power and fuel supplies through measures including: (A) Development of cost-effective demand-side management programs; (B) Education; (C) Adoption of energy-efficient practices and technologies, and (D) Increasing energy efficiency and decreasing energy use in public infrastructure.			X
5) Ensure, to the extent that new supply-side resources are needed, that the development or expansion of energy systems uses the least-cost energy supply option and maximizes efficient technologies.			X
6) Support research, development, demonstration and use of energy efficiency, load management, and other demand-side management programs, practices, and technologies.			X
7) Promote alternate fuels and transportation energy efficiency.			X
8) Support actions that reduce, avoid, or sequester greenhouse gases in utility, transportation, and industrial sector applications.			X
9) Support actions that reduce, avoid, or sequester Hawai'i's greenhouse gas emissions through agriculture and forestry initiatives.			X
10) Provide priority handling and processing for all state and county permits required for renewable energy projects.			X
11) Ensure that liquefied natural gas is used only as a cost-effective transitional, limited-term replacement of petroleum for electricity			X

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generation and does not impede the development and use of cost-effective renewable energy sources.			
12) Promote the development of indigenous geothermal energy resources that are located on public trust land as an affordable and reliable source of firm power for Hawai'i.			X
HRS §226-18.5 Objectives and Policies for Facility Systems – Telecommunications.[42]	S	N/S	N/A
a) Planning for the State's telecommunications facility systems shall be directed towards the achievement of dependable, efficient, and economical statewide telecommunications systems capable of supporting the needs of the people. b) To achieve the telecommunications objective, it shall be the policy of this State to ensure the provision of adequate, reasonably priced, and dependable telecommunications services to accommodate demand. c) To further achieve the telecommunications objective, it shall be the policy of this State to:			
1) Facilitate research and development of telecommunications systems and resources.			X
2) Encourage public and private sector efforts to develop means for adequate, ongoing telecommunications planning.			X
3) Promote efficient management and use of existing telecommunications systems and services.			X
4) Facilitate the development of education and training of telecommunications personnel.			X
HRS §226-19 Objectives and Policies for Socio-Cultural Advancement – Housing.[43]	S	N/S	N/A
a) Planning for the State's socio-cultural advancement with regard to housing shall be directed toward the achievement of the following objectives:			
1) Greater opportunities for Hawai'i's people to secure reasonably priced, safe, sanitary, and livable homes, located in suitable environments that satisfactorily accommodate the needs and desires of families and individuals, through collaboration and cooperation between government and nonprofit and for-profit developers to ensure that more affordable housing is made available to very low, low-moderate, and moderate-income segments of Hawai'i's population			X
2) The orderly development of residential areas sensitive to community needs and other land uses.			X
3) The development and provision of affordable rental housing by the State to meet the housing needs of Hawai'i's people.			X
b) To achieve the housing objectives, it shall be the policy of this State to:			
1) Effectively accommodate the housing needs of Hawai'i's people.			X
2) Stimulate and promote feasible approaches that increase housing choices for low-income, moderate-income, and gap-group households.			X

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[43] **S = Supportive, N/S = Not Supportive, N/A = Not Applicable**

3) Increase homeownership and rental opportunities and choices in terms of quality, location, cost, densities, style, and size of housing.			X
4) Promote appropriate improvement, rehabilitation, and maintenance of existing housing units and residential areas.			X
5) Promote design and location of housing developments taking into account the physical setting, accessibility to public facilities and services, and other concerns of existing communities and surrounding areas.			X
6) Facilitate the use of available vacant, developable, and underutilized urban lands for housing.			X
7) Foster a variety of lifestyles traditional to Hawai'i through the design and maintenance of neighborhoods that reflect the culture and values of the community.			X
8) Promote research and development of methods to reduce the cost of housing construction in Hawai'i.			X
HRS §226-20 Objectives and Policies for Socio-Cultural Advancement – Health. [44]	S	N/S	N/A
a) Planning for the State's socio-cultural advancement with regard to health shall be directed towards achievement of the following objectives:			
1) Fulfillment of basic individual health needs of the general public.			X
2) Maintenance of sanitary and environmentally healthful conditions in Hawai'i's communities.	X		
3) Elimination of health disparities by identifying and addressing social determinants of health.			X
b) To achieve the health objectives, it shall be the policy of this State to:			
1) Provide adequate and accessible services and facilities for prevention and treatment of physical and mental health problems, including substance abuse.			X
2) Encourage improved cooperation among public and private sectors in the provision of health care to accommodate the total health needs of individuals throughout the State.			X
3) Encourage public and private efforts to develop and promote statewide and local strategies to reduce health care and related insurance costs.			X
4) Foster an awareness of the need for personal health maintenance and preventive health care through education and other measures.			
5) Provide programs, services, and activities that ensure environmentally healthful and sanitary conditions.	X		
6) Improve the State's capabilities in preventing contamination by pesticides and other potentially hazardous substances through increased coordination, education, monitoring, and enforcement.			X
7) Prioritize programs, services, interventions, and activities that address identified social determinants of health to improve native Hawaiian health and well-being consistent with the United States Congress' declaration of policy as codified in title 42 United States Code section 11702, and to reduce health disparities of disproportionately affected demographics, including native Hawaiians, other Pacific Islanders, and Filipinos. The prioritization of affected demographic groups other than native Hawaiians may be reviewed every ten years and revised based on the best available epidemiological and public health data.			X

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Discussion: *Proposed project supports the goals of maintaining sanitary and environmentally healthful conditions in Hawaii by facilitating provision of clean, reliable, potable water to communities.*			
HRS §226-21 Objective and Policies for Socio-Cultural Advancement – Education.[45]	S	N/S	N/A
a) Planning for the State's socio-cultural advancement with regard to education shall be directed towards achievement of the objective of the provision of a variety of educational opportunities to enable individuals to fulfill their needs, responsibilities, and aspirations. b) To achieve the education objective, it shall be the policy of this State to:			
1) Support educational programs and activities that enhance personal development, physical fitness, recreation, and cultural pursuits of all groups.			X
2) Ensure the provision of adequate and accessible educational services and facilities that are designed to meet individual and community needs.			X
3) Provide appropriate educational opportunities for groups with special needs.			X
4) Promote educational programs which enhance understanding of Hawai'i's cultural heritage.			X
5) Provide higher educational opportunities that enable Hawai'i's people to adapt to changing employment demands.			X
6) Assist individuals, especially those experiencing critical employment problems or barriers, or undergoing employment transitions, by providing appropriate employment training programs and other related educational opportunities.			X
7) Promote programs and activities that facilitate the acquisition of basic skills, such as reading, writing, computing, listening, speaking, and reasoning.			X
8) Emphasize quality educational programs in Hawai'i's institutions to promote academic excellence.			X
9) Support research programs and activities that enhance the education programs of the State.			X
HRS §226-22 Objective and Policies for Socio-Cultural Advancement – Social Services.[46]	S	N/S	N/A
a) Planning for the State's socio-cultural advancement with regard to social services shall be directed towards the achievement of the objective of improved public and private social services and activities that enable individuals, families, and groups to become more self-reliant and confident to improve their well-being. b) To achieve the social service objective, it shall be the policy of the State to:			
1) Assist individuals, especially those in need of attaining a minimally adequate standard of living and those confronted by social and economic hardship conditions, through social services and activities within the State's fiscal capacities.			X
2) Promote coordination and integrative approaches among public and private agencies and programs to jointly address social problems that will enable individuals, families, and groups to deal effectively with social problems and to enhance their participation in society.			X
3) Facilitate the adjustment of new residents, especially recently arrived immigrants, into Hawai'i's communities.			X

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[46] **S = Supportive, N/S = Not Supportive, N/A = Not Applicable**

4) Promote alternatives to institutional care in the provision of long-term care for elder and disabled populations.			X
5) Support public and private efforts to prevent domestic abuse and child molestation, and assist victims of abuse and neglect.			X
6) Promote programs which assist people in need of family planning services to enable them to meet their needs.			X
HRS §226-23 Objective and Policies for Socio-Cultural Advancement – Leisure. [47]	S	N/S	N/A
a) Planning for the State's socio-cultural advancement with regard to leisure shall be directed towards the achievement of the objective of the adequate provision of resources to accommodate diverse cultural, artistic, and recreational needs for present and future generations. b) To achieve the leisure objective, it shall be the policy of this State to:			
1) Foster and preserve Hawai'i's multi-cultural heritage through supportive cultural, artistic, recreational, and humanities-oriented programs and activities.			X
2) Provide a wide range of activities and facilities to fulfill the cultural, artistic, and recreational needs of all diverse and special groups effectively and efficiently.			X
3) Enhance the enjoyment of recreational experiences through safety and security measures, educational opportunities, and improved facility design and maintenance.			X
4) Promote the recreational and educational potential of natural resources having scenic, open space, cultural, historical, geological, or biological values while ensuring that their inherent values are preserved.			X
5) Ensure opportunities for everyone to use and enjoy Hawai'i's recreational resources.			X
6) Assure the availability of sufficient resources to provide for future cultural, artistic, and recreational needs.			X
7) Provide adequate and accessible physical fitness programs to promote the physical and mental well-being of Hawai'i's people.			X
8) Increase opportunities for appreciation and participation in the creative arts, including the literary, theatrical, visual, musical, folk, and traditional art forms.			X
9) Encourage the development of creative expression in the artistic disciplines to enable all segments of Hawai'i's population to participate in the creative arts.			X
10) Assure adequate access to significant natural and cultural resources in public ownership.			X
HRS §226-24 Objective and Policies for Socio-Cultural Advancement – Individual Rights and Personal Well-Being. [48]	S	N/S	N/A
a) Planning for the State's socio-cultural advancement with regard to individual rights and personal well-being shall be directed towards achievement of the objective of increased opportunities and protection of individual rights to enable individuals to fulfill their socio-economic needs and aspirations. b) To achieve the individual rights and personal well-being objective, it shall be the policy of this State to:			
1) Provide effective services and activities that protect individuals from criminal			

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[48] **S = Supportive, N/S = Not Supportive, N/A = Not Applicable**

acts and unfair practices and that alleviate the consequences of criminal acts in order to foster a safe and secure environment.			X
2) Uphold and protect the national and state constitutional rights of every individual.			X
3) Assure access to, and availability of, legal assistance, consumer protection, and other public services which strive to attain social justice.			X
4) Ensure equal opportunities for individual participation in society.			X
HRS §226-25 Objective and Policies for Socio-Cultural Advancement – Culture.	S	N/S	N/A
a) Planning for the State's socio-cultural advancement with regard to culture shall be directed toward the achievement of the objective of enhancement of cultural identities, traditions, values, customs, and arts of Hawai'i's people b) To achieve the culture objective, it shall be the policy of this State to:			
1) Foster increased knowledge and understanding of Hawai'i's ethnic and cultural heritages and the history of Hawai'i.			X
2) Support activities and conditions that promote cultural values, customs, and arts that enrich the lifestyles of Hawai'i's people and which are sensitive and responsive to family and community needs.			X
3) Encourage increased awareness of the effects of proposed public and private actions on the integrity and quality of cultural and community lifestyles in Hawai'i.			X
4) Encourage the essence of the aloha spirit in people's daily activities to promote harmonious relationships among Hawai'i's people and visitors.			X
HRS §226-26 Objectives and Policies for Socio-Cultural Advancement – Public Safety.[49]	S	N/S	N/A
a) Planning for the State's socio-cultural advancement with regard to public safety shall be directed towards the achievement of the following objectives:			
1) Assurance of public safety and adequate protection of life and property for all people.			X
2) Optimum organizational readiness and capability in all phases of emergency management to maintain the strength, resources, and social and economic well-being of the community in the event of civil disruptions, wars, natural disasters, and other major disturbances.	X		
3) Promotion of a sense of community responsibility for the welfare and safety of Hawai'i's people.			X
b) To achieve the public safety objectives, it shall be the policy of this State to:			
1) Ensure that public safety programs are effective and responsive to community needs.			X
2) Encourage increased community awareness and participation in public safety programs.			X
c) To further achieve public safety objectives related to criminal justice, it shall be the policy of this State to:			
1) Support criminal justice programs aimed at preventing and curtaining criminal activities.			X
2) Develop a coordinated, systematic approach to criminal justice administration			

[49] **S = Supportive, N/S = Not Supportive, N/A = Not Applicable**

among all criminal justice agencies.			
3) Provide a range of correctional resources which may include facilities and alternatives to traditional incarceration in order to address the varied security needs of the community and successfully reintegrate offenders into the community.			X
d) To further achieve public safety objectives related to emergency management, it shall be the policy of this State to:			
1) Ensure that responsible organizations are in a proper state of readiness to respond to major war-related, natural, or technological disasters and civil disturbances at all times.	X		
2) Enhance the coordination between emergency management programs throughout the State.			X
Discussion: *The project will provide additional water system reliability in the event of natural disasters by making more potable water storage capacity available.*			
HRS §226-27 Objectives and Policies for Socio-Cultural Advancement – Government.	S	N/S	N/A
a) Planning the State's socio-cultural advancement with regard to government shall be directed towards the achievement of the following objectives:			
1) Efficient, effective, and responsive government services at all levels in the State.	X		
2) Fiscal integrity, responsibility, and efficiency in the state government and county governments.	X		
b) To achieve the government objectives, it shall be the policy of this State to:			
1) Provide for necessary public goods and services not assumed by the private sector.	X		
2) Pursue an openness and responsiveness in government that permits the flow of public information, interaction, and response.			X
3) Minimize the size of government to that necessary to be effective.			X
4) Stimulate the responsibility in citizens to productively participate in government for a better Hawai'i.			X
5) Assure that government attitudes, actions, and services are sensitive to community needs and concerns.			X
6) Provide for a balanced fiscal budget.			X
7) Improve the fiscal budgeting and management system of the State.			X
8) Promote the consolidation of state and county governmental functions to increase the effective and efficient delivery of government programs and services and to eliminate duplicative services wherever feasible.			X
Hawai'i State Plan – HRS §226 – Part III. Priority Guidelines			
HRS §226-101 Purpose. The purpose of this part is to establish overall priority guidelines to address areas of statewide concern.			
HRS §226-102 Overall Direction. The State shall strive to improve the quality of life for Hawaii's present and future population through the pursuit of desirable courses of action in seven major areas of statewide concern which merit priority attention: economic development, population growth and land resources management, affordable housing, crime and criminal justice, quality education, principles of sustainability, and climate change adaptation.			

HRS §226-103 Economic Priority Guidelines.[50]	S	N/S	N/A
a) Priority guidelines to stimulate economic growth and encourage business expansion and development to provide needed jobs for Hawai'i's people and achieve a stable and diversified economy:			
1) Seek a variety of means to increase the availability of investment capital for new and expanding enterprises.			
a) Encourage investments which:			
i. Reflect long term commitments to the State;			X
ii. Rely on economic linkages within the local economy;			X
iii. Diversify the economy;			X
iv. Reinvest in the local economy;			X
v. Are sensitive to community needs and priorities; and	X		
vi. Demonstrate a commitment to provide management opportunities to Hawai'i's residents.			X
b) Encourage investments in innovative activities that have a nexus to the State, such as:			
i. Present or former residents acting as entrepreneurs or principals;			X
ii. Academic support from an institution of higher education in Hawai'i;			X
iii. Investment interest from Hawai'i residents;			X
iv. Resources unique to Hawai'i that are required for innovative activity; and			X
v. Complementary or supportive industries or government programs or projects.			X
2) Encourage the expansion of technological research to assist industry development and support the development and commercialization of technological advancements.			X
3) Improve the quality, accessibility, and range of services provided by government to business, including data and reference services and assistance in complying with governmental regulations.			X
4) Seek to ensure that state business tax and labor laws and administrative policies are equitable, rational, and predictable.			X
5) Streamline the process for building and development permit and review and telecommunication infrastructure installation approval and eliminate or consolidate other burdensome or duplicative governmental requirements imposed on business, where scientific evidence indicates that public health, safety and welfare would not be adversely affected.			X
6) Encourage the formation of cooperatives and other favorable marketing or distribution arrangements at the regional or local level to assist Hawai'i's small-scale producers, manufacturers, and distributors.			X
7) Continue to seek legislation to protect Hawai'i from transportation interruptions between Hawai'i and the continental United States.			X
8) Provide public incentives and encourage private initiative to develop and attract industries which promise long-term growth potentials and which have the following characteristics:			
(A) An industry that can take advantage of Hawai'i's unique location and available physical and human resources.			X
(B) A clean industry that would have minimal adverse effects on Hawai'i's environment.			X
(C) An industry that is willing to hire and train Hawai'i's people to meet the industry's labor needs at all levels of employment.			X
(D) An industry that would provide reasonable income and steady employment.			X

[50] **S = Supportive, N/S = Not Supportive, N/A = Not Applicable**

9) Support and encourage, through educational and technical assistance programs and other means, expanded opportunities for employee ownership and participation in Hawai'i business.			X
10) Enhance the quality of Hawai'i's labor force and develop and maintain career opportunities for Hawai'i's people through the following actions:			
(A) Expand vocational training in diversified agriculture, aquaculture, information industry, and other areas where growth is desired and feasible.			X
(B) Encourage more effective career counseling and guidance in high schools and post-secondary institutions to inform students of present and future career opportunities.			X
(C) Allocate educational resources to career areas where high employment is expected and where growth of new industries is desired.			X
(D) Promote career opportunities in all industries for Hawai'i's people by encouraging firms doing business in the State to hire residents.			X
(E) Promote greater public and private sector cooperation in determining industrial training needs and in developing relevant curricula and on-the-job training opportunities.			X
(F) Provide retraining programs and other support services to assist entry of displaced workers into alternative employment.			X
b) Priority guidelines to promote the economic health and quality of the visitor industry:			
1) Promote visitor satisfaction by fostering an environment which enhances the Aloha Spirit and minimizes inconveniences to Hawai'i's residents and visitors.			X
2) Encourage the development and maintenance of well-designed, adequately serviced hotels and resort destination areas which are sensitive to neighboring communities and activities and which provide for adequate shoreline setbacks and beach access.			X
3) Support appropriate capital improvements to enhance the quality of existing resort destination areas and provide incentives to encourage investment in upgrading, repair, and maintenance of visitor facilities.			X
4) Encourage visitor industry practices and activities which respect, preserve, and enhance Hawai'i's significant natural, scenic, historic, and cultural resources.			X
5) Develop and maintain career opportunities in the visitor industry for Hawai'i's people, with emphasis on managerial positions.			X
6) Support and coordinate tourism promotion abroad to enhance Hawai'i's share of existing and potential visitor markets.			X
7) Maintain and encourage a more favorable resort investment climate consistent with the objectives of this chapter.			X
8) Support law enforcement activities that provide a safer environment for both visitors and residents alike.			X
9) Coordinate visitor industry activities and promotions to business visitors through the state network of advanced data communication techniques.			X
c) Priority guidelines to promote the continued viability of the sugar and pineapple industries:			
1) Provide adequate agricultural lands to support the economic viability of the sugar and pineapple industries.			X
2) Continue efforts to maintain federal support to provide stable sugar prices high enough to allow profitable operations in Hawai'i.			X
3) Support research and development, as appropriate, to improve the quality and production of sugar and pineapple crops.			X
d) Priority guidelines to promote the growth and development of diversified agriculture and aquaculture:			
1) Identify, conserve, and protect agricultural and aquacultural lands of			

importance and initiate affirmative and comprehensive programs to promote economically productive agricultural and aquacultural uses of such lands.			X
2) Assist in providing adequate, reasonably priced water for agricultural activities.	X		
3) Encourage public and private investment to increase water supply and to improve transmission, storage, and irrigation facilities in support of diversified agriculture and aquaculture.			X
4) Assist in the formation and operation of production and marketing associations and cooperatives to reduce production and marketing costs.			X
5) Encourage and assist with the development of a waterborne and airborne freight and cargo system capable of meeting the needs of Hawai'i's agricultural community.			X
6) Seek favorable freight rates for Hawai'i's agricultural products from inter-island and overseas transportation operators.			X
7) Encourage the development and expansion of agricultural and aquacultural activities which offer long-term economic growth potential and employment opportunities.			X
8) Continue the development of agricultural parks and other programs to assist small independent farmers in securing agricultural lands and loans.			X
9) Require agricultural uses in agricultural subdivisions and closely monitor the uses in these subdivisions.			X
10) Support the continuation of land currently in use for diversified agriculture.			X
11) Encourage residents and visitors to support Hawai'i's farmers by purchasing locally grown food and food products.			X
e) Priority guidelines for water use and development:			
1) Maintain and improve water conservation programs to reduce the overall water consumption rate.	X		
2) Encourage the improvement of irrigation technology and promote the use of non-potable water for agricultural and landscaping purposes.	X		
3) Increase the support for research and development of economically feasible alternative water sources.			X
4) Explore alternative funding sources and approaches to support future water development programs and water system improvements.	X		
f) Priority guidelines for energy use and development:			
1) Encourage the development, demonstration, and commercialization of renewable energy sources.			X
2) Initiate, maintain, and improve energy conservation programs aimed at reducing energy waste and increasing public awareness of the need to conserve energy.			X
3) Provide incentives to encourage the use of energy conserving technology in residential, industrial, and other buildings.			X
4) Encourage the development and use of energy conserving and cost-efficient transportation systems.			X
g) Priority guidelines to promote the development of the information industry:			
1) Establish an information network, with an emphasis on broadband and wireless infrastructure and capability, that will serve as the foundation of and catalyst for overall economic growth and diversification in Hawai'i.			X
2) Encourage the development of services such as financial data processing, a products and services exchange, foreign language translations, telemarketing,			X

teleconferencing, a twenty-four-hour international stock exchange, international banking, and a Pacific Rim management center.			
3) Encourage the development of small businesses in the information field such as software development, the development of new information systems, peripherals, and applications; data conversion and data entry services, and home or cottage services such as computer programming, secretarial, and accounting services.			X
4) Encourage the development or expansion of educational and training opportunities for residents in the information and telecommunications fields.			X
5) Encourage research activities, including legal research in the information and telecommunications fields.			X
6) Support promotional activities to market Hawai'i's information industry services.			X
7) Encourage the location or co-location of telecommunication or wireless information relay facilities in the community, including public areas, where scientific evidence indicates that the public health, safety, and welfare would not be adversely affected.			X
Discussion: *The Kauai Water Department provides preferential rates for valid agricultural water uses.*			
HRS §226-104 Population Growth and Land Resources Priority Guidelines.[51]	S	N/S	N/A
a) Priority guidelines to effect desired statewide growth and distribution:			
1) Encourage planning and resource management to insure that population growth rates throughout the State are consistent with available and planned resource capacities and reflect the needs and desires of Hawai'i's people.			X
2) Manage a growth rate for Hawai'i's economy that will parallel future employment needs for Hawai'i's people.			X
3) Ensure that adequate support services and facilities are provided to accommodate the desired distribution of future growth throughout the State.			X
4) Encourage major state and federal investments and services to promote economic development and private investment to the neighbor islands, as appropriate.			X
5) Explore the possibility of making available urban land, low-interest loans, and housing subsidies to encourage the provision of housing to support selective economic and population growth on the neighbor islands.			X
6) Seek federal funds and other funding sources outside the State for research, program development, and training to provide future employment opportunities on the neighbor islands.			X
7) Support the development of high technology parks on the neighbor islands.			X
b) Priority guidelines for regional growth distribution and land resource utilization:			
1) Encourage urban growth primarily to existing urban areas where adequate public facilities are already available or can be provided with reasonable public expenditures, and away from areas where other important benefits are present, such as protection of important agricultural land or preservation of lifestyles.			X
2) Make available marginal or nonessential agricultural lands for appropriate urban uses while maintaining agricultural lands of importance in the agricultural district.			X
3) Restrict development when drafting of water would result in exceeding the			

[51] **S = Supportive, N/S = Not Supportive, N/A = Not Applicable**

sustainable yield or in significantly diminishing the recharge capacity of any groundwater area.			X
4) Encourage restriction of new urban development in areas where water is insufficient from any source for both agricultural and domestic use.			X
5) In order to preserve green belts, give priority to state capital-improvement funds which encourage location of urban development within existing urban areas except where compelling public interest dictates development of a noncontiguous new urban core.			X
6) Seek participation from the private sector for the cost of building infrastructure and utilities, and maintaining open spaces.			X
7) Pursue rehabilitation of appropriate urban areas.			X
8) Support the redevelopment of Kakaako into a viable residential, industrial, and commercial community.			X
9) Direct future urban development away from critical environmental areas or impose mitigating measures so that negative impacts on the environment would be minimized.			X
10) Identify critical environmental areas in Hawai'i to include but not be limited to the following: watershed and recharge areas; wildlife habitats (on land and in the ocean); areas with endangered species of plants and wildlife; natural streams and water bodies; scenic and recreational shoreline resources; open space and natural areas; historic and cultural sites; areas particularly sensitive to reduction in water and air quality; and scenic resources.			X
11) Identify all areas where priority should be given to preserving rural character and lifestyle.			X
12) Utilize Hawai'i's limited land resources wisely, providing adequate land to accommodate projected population and economic growth needs while ensuring the protection of the environment and the availability of the shoreline, conservation lands, and other limited resources for future generations.			X
13) Protect and enhance Hawai'i's shoreline, open spaces, and scenic resources.			X
HRS §226-105 Crime and Criminal Justice Priority Guidelines.[52]	S	N/S	N/A
Priority Guidelines in the Area of Crime and Criminal Justice:			
1) Support law enforcement activities and other criminal justice efforts that are directed to provide a safer environment.			X
2) Target state and local resources on efforts to reduce the incidence of violent crime and on programs relating to the apprehension and prosecution of repeat offenders.			X
3) Support community and neighborhood program initiatives that enable residents to assist law enforcement agencies in preventing criminal activities.			X
4) Reduce overcrowding or substandard conditions in correctional facilities through a comprehensive approach among all criminal justice agencies which may include sentencing law revisions and use of alternative sanctions other than incarceration for persons who pose no danger to their community.			X
5) Provide a range of appropriate sanctions for juvenile offenders, including community-based programs and other alternative sanctions.			X
6) Increase public and private efforts to assist witnesses and victims of crimes and to minimize the costs of victimization.			X

[52] **S = Supportive, N/S = Not Supportive, N/A = Not Applicable**

HRS §226-106 Affordable Housing Priority Guidelines. [53]	S	N/S	N/A
Priority guidelines for the provision of affordable housing:			
1) Seek to use marginal or nonessential agricultural land and public land to meet housing needs of low-and moderate-income and gap-group households.			X
2) Encourage the use of alternative construction and development methods as a means of reducing production costs.			X
3) Improve information and analysis relative to land availability and suitability for housing.			X
4) Create incentives for development which would increase home ownership and rental opportunities for Hawai'i's low-and moderate-income households, gap-group households, and residents with special needs.			X
5) Encourage continued support for government or private housing programs that provide low interest mortgages to Hawai'i's people for the purchase of initial owner-occupied housing.			X
6) Encourage public and private sector cooperation in the development of rental housing alternatives.			X
7) Encourage improved coordination between various agencies and levels of government to deal with housing policies and regulations.			X
8) Give higher priority to the provision of quality housing that is affordable for Hawai'i's residents and less priority to development of housing intended primarily for individuals outside of Hawai'i.			X

HRS §226-107 Quality Education Priority Guidelines. [54]	S	N/S	N/A
Priority guidelines to promote quality education:			
1) Pursue effective programs which reflect the varied district, school, and student needs to strengthen basic skills achievement.			X
2) Continue emphasis on general education "core" requirements to provide common background to students and essential support to other university programs.			X
3) Initiate efforts to improve the quality of education by improving the capabilities of the education work force.			X
4) Promote increased opportunities for greater autonomy and flexibility of educational institutions in their decision-making responsibilities.			X
5) Increase and improve the use of information technology in education by the availability of telecommunications equipment for: (A) The electronic exchange of information; (B) Statewide electronic mail; and (C) Access to the Internet. Encourage programs that increase the public's awareness and understanding of the impact of information technologies on our lives.			X
6) Pursue the establishment of Hawai'i's public and private universities and colleges as research and training centers of the Pacific.			X
7) Develop resources and programs for early childhood education.			X

[53] **S = Supportive, N/S = Not Supportive, N/A = Not Applicable**
[54] **S = Supportive, N/S = Not Supportive, N/A = Not Applicable**

8) Explore alternatives for funding and delivery of educational services to improve the overall quality of education.			X
9) Strengthen and expand educational programs and services for students with special needs.			X
HRS §226-108 Sustainability. [55]	S	N/S	N/A
Priority guidelines to promote sustainability shall include:			
1) Encouraging balanced economic, social, community, and environmental priorities.	X		
2) Encouraging planning that respects and promotes living within the natural resources and limits of the State.	X		
3) Promoting a diversified and dynamic economy.			X
4) Encouraging respect for the host culture.			X
5) Promoting decisions based on meeting the needs of the present without compromising the needs of future generations.	X		
6) Considering the principles of the ahupua'a system.			X
7) Emphasizing that everyone, including individuals, families, communities, businesses, and government, has the responsibility for achieving a sustainable Hawai'i.			X
HRS §226-109 Climate Change Adaptation Priority Guidelines. [56]	S	N/S	N/A
Priority guidelines to prepare the State to address the impacts of climate change, including impacts to the areas of agriculture; conservation lands; coastal and nearshore marine areas; natural and cultural resources; education; energy; higher education; health; historic preservation; water resources; the built environment, such as housing, recreation, transportation; and the economy shall:			
1) Ensure that Hawai'i's people are educated, informed, and aware of the impacts climate change may have on their communities.			X
2) Encourage community stewardship groups and local stakeholders to participate in planning and implementation of climate change policies.			X
3) Invest in continued monitoring and research of Hawai'i's climate and the impacts of climate change on the State.			X
4) Consider native Hawaiian traditional knowledge and practices in planning for the impacts of climate change.			X
5) Encourage the preservation and restoration of natural landscape features, such as coral reefs, beaches and dunes, forests, streams, floodplains, and wetlands that have the inherent capacity to avoid, minimize, or mitigate the impacts of climate change.			X
6) Explore adaptation strategies that moderate harm or exploit beneficial opportunities in response to actual or expected climate change impacts to the natural and built environments.			X
7) Promote sector resilience in areas such as water, roads, airports, and public health, by encouraging the identification of climate change threats, assessment of potential consequences, and evaluation of adaptation options.			X
8) Foster cross-jurisdictional collaboration between county, state, and federal agencies and partnerships between government and private entities and other			X

[55] **S = Supportive, N/S = Not Supportive, N/A = Not Applicable**
[56] **S = Supportive, N/S = Not Supportive, N/A = Not Applicable**

	nongovernmental entities, including nonprofit entities.			
9)	Use management and implementation approaches that encourage the continual collection, evaluation, and integration of new information and strategies into new and existing practices, policies, and plans.			X
10)	Encourage planning and management of the natural and built environments that effectively integrate climate change policy.			X

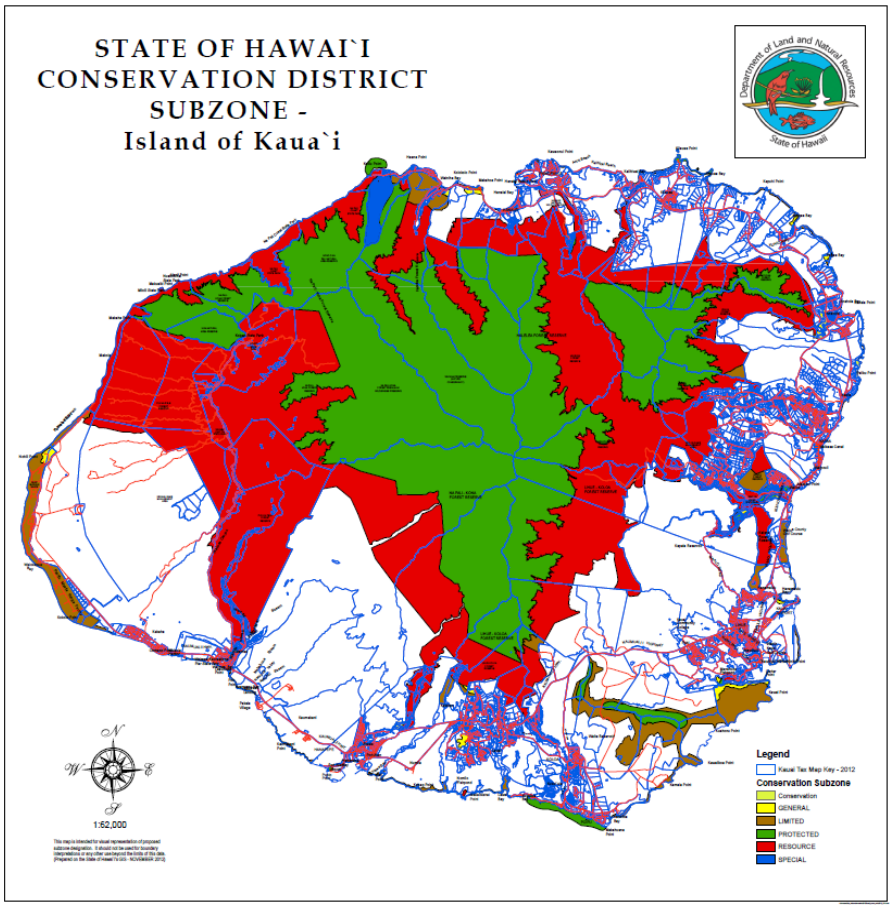
7.2 Hawai'i Land Use Law

The Hawai'i State Land Use Law, Chapter 205, HRS, classifies all land in the State into four land use districts – Urban, Rural, Agricultural and Conservation. The Conservation District has five subzones: Protective, Limited, Resource, General and Special. With the exception of the Special subzone, the four subzones are arranged in a hierarchy of environmental sensitivity (Protective) to the least sensitive (General). These subzones define a set of identified land uses which may be allowed by a discretionary permit.

The Project is situated within the State Conservation District, Limited ("L") Subzone; given the Project area's Conservation District designation, a State Conservation District Use Permit will be required prior to construction of the New Hā'ena 0.2 MG Tank.

The following **Figure 9** is the State of Hawai'i Conservation District Subzone map of Kaua'i.

See **Figure 9** below:



7.3 Kaua‘i General Plan

The purpose of the current *Kaua‘i General Plan*[57] (“Plan”) is to provide guidance for land use regulations, the location and character of new development and facilities, and planning for county and State facilities and services. The Plan states the county’s 20 year vision for Kaua‘i and sets policies for achieving that vision.

Section 7 of the Plan sets forth the policies for the island’s water systems. This chapter addresses the basic services needed to support projected economic and population growth on Kaua‘i.

Section 7: Building Public Facilities and Services

7.4.4 Policy

a) Develop a long-range plan to guide expansion, improvement, and rehabilitation of County water systems.

b) Coordinate planning of future water system development and rate structures with General Plan policies and guidelines.

[57] County of Kaua‘i, Planning Department, Kaua‘i General Plan, November 2000.

c) *Support compact development by giving priority to water supply improvements for existing and planned Urban Center, Residential Community, and Resort areas, while also supporting development in already-established Agricultural Communities.*

Since the proposed Project will substantially increase potable water storage capacity in the Hā'ena and Wainiha area, the Project is consistent with the water supply policies of the *Kaua'i General Plan*.

7.4 Kaua'i Water Plan 2020

The purpose of the *Kaua'i Water Plan 2020* is to 1) develop a long-range plan to guide the DOW's future operations, and 2) identify the improvements and facilities required to continue to provide safe, affordable and reliable water service to the community in a sustainable and financially secure manner. A goal of the *Water Plan 2020* is to ensure a reliable future water supply.

Water Plan 2020 recommends adding a new 200,000-gallon tank in the Wainiha-Hā'ena Water System to meet the projected demands of the area. The proposed Project is consistent with the policies and recommendations of *Water Plan 2020*.

7.5 North Shore Development Plan

The proposed Project site is located in the North Shore Special Planning Area. The *North Shore Development Plan Update* ("NSDPU") is intended as a statement of policy that reflects the community's needs, intentions, and desires for the area.

The *North Shore Development Plan* recognizes the limitations of the existing municipal water system serving the community and identifies improvements planned for the Wainiha-Hā'ena Water System. The proposed Project is consistent with the goals and planned developments in the NSDPU.

The NSDPU states that expansion of Kauai's municipal water systems requires major improvements to its water sources, storage facilities, and transmission lines. This proposed Project is consistent with those recommendations.

7.6 Kaua'i County Code, Comprehensive Zoning Ordinance

The purpose of the Comprehensive Zoning Ordinance ("CZO") is to provide regulations and standards for land development and the construction of buildings and other structures in the County of Kaua'i. The regulations and standards prescribed in the CZO are intended to regulate development to ensure its compatibility with the overall character of the island.

As the proposed Project site is located within the State Conservation District, it is not zoned by the County and is not subject to County zoning regulations.

SECTION 8.0 ALTERNATIVES TO THE PROPOSED ACTION

Hawai'i Administrative Rules §11-200-10(6) requires that an environmental assessment contain, among other items, an identification and summary of impacts and alternatives considered.

8.1 "No-Action" Alternative

The current *Kaua'i General Plan* ("General Plan") identifies the Wainiha-Hā'ena Water System to be near capacity and unable to meet the projected service area water demand through 2020.[58] The General Plan also establishes policies which generally support expansion and improvement of County water systems, giving priority for water supply improvements for existing and planned developed areas.[59]

The *Kaua'i Water Plan 2020* also identifies the Wainiha-Hā'ena Water System as insufficient to meet the proposed projected service area water demand through 2020. The *Kaua'i Water Plan 2020* further recommends development of a new water tank to meet this projected need. The need to increase reliability of potable water service in the Wainiha-Hā'ena area was also identified as a need in the foregoing water plan.[60]

A no-action alternative would fail to address projected water demand for the Wainiha-Hā'ena service area and would not achieve the goals set forth in both the *Kaua'i General Plan* and *Kaua'i Water Plan 2020*. Water system reliability would also not increase.

8.2 Alternative Locations

Generally, it is more efficient, practical, and cost-effective to co-locate water system infrastructure such as the proposed New Hā'ena 0.2 MG Tank near other existing water tanks as such tanks must be constructed at the same elevations to achieve consistent water pressures; co-locating such tanks also takes advantage of existing pipelines and related appurtenances and facilities (pumps, electrical power, telephone service, access, etc.) necessary to operate and service such tanks. Such considerations drove the DOW to locate the proposed 0.2 MG tank in the general vicinity of the proposed Project area.

Against this backdrop, it was determined that a suitable site for the new tank would be in an area where the new tank could be incorporated practicably and effectively into DOW's existing system. Additionally, the potential Project area should be located above 125 ft. mean sea level elevation in order to service the target 144 ft. Wainiha-Hā'ena Water System area, and be relatively close to the

[58] Environmental assessment section 2.1

[59] Environmental assessment section 7.3

[60] Environmental assessment section 2.2

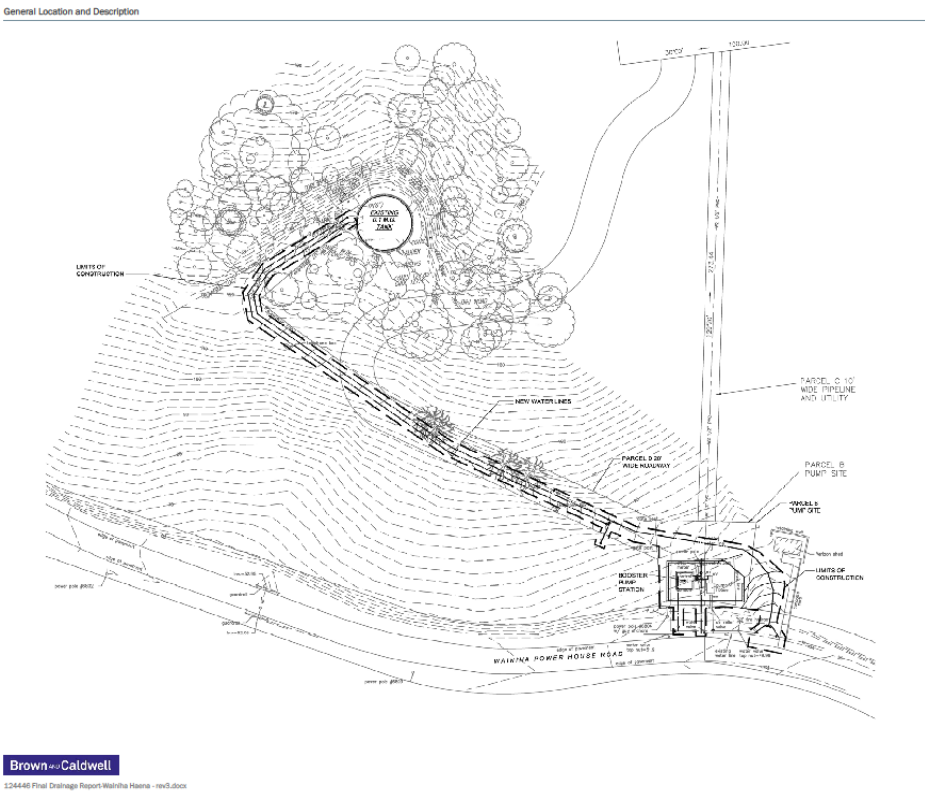
existing system piping and controls near Wainiha Powerhouse Road to minimize construction of new utility lines required for connection to the existing utility system.

Two potential sites for the new 0.2 MG tank were identified based on:

1. Proximity to existing power, communication and waterlines for interconnectivity.
2. Ease of access both for tank construction and subsequent maintenance.
3. Steepness of grade of the general area encompassing the site.
4. Meet target elevation requirements for service.

Given such considerations, the following two conceptual locations were considered, as shown in the following figure.

Figure 11 Preliminary conceptual locations for 0.2 MG tank



- Alternative #1: As shown in Figure 11 above, Area 1 is located to the south-west of the nearby existing Hā'ena 0.1 MG tank. Alternative #1 is located at a slightly lower elevation and closer to Wainiha Powerhouse Road than Site

Alternative #2. It is also closer to the existing utility services to which the new 0.2 MG tank would connect to.

As this location is closer to the existing accessway and to the entrance off Wainiha Powerhouse Road, construction access would be more straightforward than Alternative #2. Based on available topographic maps, Site Alternative #1 appears to be more level that Site Alternative 2, which would make construction of the new 0.2 MG tank easier.

- Alternative #2: As shown in Figure 11, Area 2 is located to the north-east of the nearby existing Hā'ena 0.1 MG tank. Alternative #2 is also located approximately south-east of the existing Redwood Tank. Construction and permanent maintenance access to this location would require construction of a separate access as access appears to be hindered by the existing Hā'ena 0.1 MG Tank site.

  Also, existing utility services to which the new 0.2 MG tank would be connected are further away than Alternative #1's location.

8.3 Preferred Alternative

As discussed in the *Kaua'i Water Plan 2020*, development of the New Hā'ena 0.2 MG Tank will increase service reliability within DOW's Wainiha-Hā'ena Water System and allow DOW to meet projected water service demands through 2020. Development of the new 0.2 MG tank would also help achieve the goals set forth in the *Kaua'i General Plan*.

As a technical engineering and construction matter, alternative area 1 described above is the specific **preferred alternative** and location for the proposed 0.2 MG tank, given the considerations discussed.

SECTION 9.0 SIGNIFICANCE DETERMINATION

The impacts of the proposed action have been assessed. The proposed Project is not anticipated to cause significant negative impacts to the environment. Therefore, a Finding of No Significant Impact (FONSI) is anticipated. The determination of an anticipated FONSI is based on the following:

1. ***The proposed action does not involve an irrevocable commitment to loss or destruction of any natural or cultural resources;***

A present, informal botanical survey of the Project area indicates the presence of strawberry guava stands, java plum, ironwood, octopus, albizia, mango trees, and other common trees and vegetation. Vegetation on site consists primarily of non-

native species with a scattering of native species that are relatively common and widespread, and not considered rare. All existing mango trees within the Project area will be left intact at the request of the landowner of the Project area.

No rare, threatened, or endangered fauna are known to exist in the Project area; however the endangered Hawaiian Petrel and Newell's Shearwater may pass by/over the Project site when flying between the back portion of Wainiha Valley (approximately six miles from the Project site) and the ocean. So as not to interfere with potential flight patterns of Newell's Shearwaters, one possible light fixture, if constructed, will be down-lighted.

No impacts to any rare, threatened or endangered plant or animal species or their habitats are anticipated.[61]

Prior environmental assessments encompassing the vicinity of the Project area conducted in 2010 and 2008 confirm the conclusions above.

Two prior archeological surveys conducted in the vicinity of the Project found no historic properties, a finding that the State's Department of Land and Natural Resources, State Historic Preservation Division ("SHPD") concurred with as recently as 2006 and 2009.[62] Two prior environmental assessments encompassing the vicinity of the Project area concurred with these findings. Presently, no historic, archaeological or cultural resources have been identified in the Project area; as such, no negative impacts to such resources are anticipated.

As such, the proposed action is not anticipated to involve an irrevocable commitment to loss or destruction of any natural or cultural resources.

2. The proposed action will not curtail the range of beneficial uses of the environment;

Current uses in the vicinity of the Project area include the:

- Hā'ena 0.1 MG Tank;
- Wainiha 6,500 Gallon Tank;
- Wainiha Booster Pump Station.

All are located within several hundred feet of each other, and the New Hā'ena 0.2 MG Tank would be located adjacent to the existing Hā'ena 0.1 MG Tank.

The proposed Project would therefore be compatible with current uses in the immediate surrounding area. Further, the Project is anticipated to occupy approximately 13,500 square feet of an otherwise almost undeveloped 229 acre parcel of land. The Project area otherwise consists of undeveloped land on a

[61] See environmental assessment section 6.3

[62] See environmental assessment section 5.3

hillside. Given the foregoing, the Project will not curtail present or future beneficial uses of the surrounding environment.

3. *The proposed action does not conflict with the State's long-term goals or guidelines as expressed in Chapter 344, HRS, State Environmental Policy;*

The purpose of the Project is to increase the reliability of DOW's existing water system in the Wainiha-Hā'ena area, develop storage infrastructure to provide required domestic and fire flow demands for DOW's Hā'ena-Wainiha 144' service area, and provide additional storage capacity to satisfy projected potable water demands, and generally maintain the public health, safety and welfare of the residents and visitors in the area. Inasmuch as the Project proposes to increase potable water storage capacity of the subject area, the Project will not involve actions or activities that would adversely affect the natural resources of the area, does not conflict with the State's environmental policy as expressed in H.R.S. §344-3, and will enhance the quality of life of Hawaii's residents in general.

4. The proposed action does not substantially affect the economic or social welfare of the community or state;

The Project is discrete in nature, and will not generate adverse economic impacts on the surrounding community and State. Some short-term economic benefits will occur during the construction phase of the Project. The Project is consistent with the *Kauaʻi General Plan* and the *Kauai Water Plan 2020* and will benefit the social and economic welfare, and thus quality of life, on Kauaʻi by improving the potable water supply system in the Wainiha-Hā'ena area.

5. The proposed action does not substantially affect public health;

Public health will not be negatively affected; in fact, given the Project's purposes as described in criterion three above (to increase system reliability, develop storage infrastructure to provide required domestic and fire flow demands, and provide additional storage capacity to satisfy projected water demands), the Project will enhance public health. With regard to the proposed 0.2 MG tank's construction, construction activities will be regulated to minimize any noise and dust concerns, and best management practices ("BMPs") will be followed.

6. The proposed action does not involve substantial secondary impacts such as population changes or effects on public facilities;

As discussed in section 2.2 of this environmental assessment, The DOW anticipates the additional storage capacity generated from this improvement will support the development of the Hā'ena State Park Master Plan, businesses, and residential units (including affordable housing, if applicable) in DOW's Hā'ena-Wainiha 144' service area. The Project may also allow DOW to remove the current water meter restriction that limits water service to three single family

dwellings or three 5/8-inch water meters per lot due to inadequate storage facilities. However, such secondary impacts are not anticipated to result in substantial population changes due to other regulatory controls and development limitations within the area (egs, zoning regulations), and are anticipated to improve public facilities (DOW's Wainiha- Hā'ena Water System).

7. ***The proposed action does not involve substantial degradation of environmental quality;***

As discussed, current uses in the immediate vicinity of the Project include 0.1 MG and 6,500 potable water storage tanks and a potable water booster pump station. Given the proposed 0.2 MG tank is a use consistent with similar existing uses in the immediate area, the proposed action will not substantially degrade the environmental quality of the area in this regard. No rare, threatened, or endangered plant or animal species, or their habitats have been found in the Project area. Further, implementation of BMPs during construction and other plans to manage and control storm runoff, erosion, etc. will be implemented to ensure construction of the 0.2 MG tank will not substantially degrade the Project area's environmental quality.

8. The proposed action does not cumulatively have a considerable effect on the environment or involve a commitment to larger actions;

Cumulative impacts result when implementation of several projects that individually, have minor impacts, combine to produce more severe impacts or conflicts among mitigation measures. The proposed Project will not have a considerable effect on the environment cumulatively since the Project (construction of a single storage tank) is discrete in nature.[63] While the proposed Project is part of DOW's municipal water system, the construction of the proposed tank does not constitute a commitment to any larger action or to construct further major water system improvements.

9. The proposed action does not affect a rare, threatened, or endangered species or its habitat;

No rare, threatened, or endangered plants or animal species, or their habitats have been identified within the Project area.[64]

10. The proposed action does not detrimentally affect air or water quality or ambient noise levels;

[63] While the proposed Project may constitute the third potable water storage tank in the immediate area, it will occupy only approximately13,500 square feet of an otherwise almost undeveloped 229 acre parcel of land.

[64] Several possible light fixtures may be installed in conjunction with the proposed 0.2 MG tank; however, if installed, this fixture will be down-lighted so as not to interfere with potential flight patterns of Newell's Shearwaters.

Short term impacts generated from construction activities may temporarily adversely affect air quality (fugitive dust) and ambient noise levels (construction noise); however, such impacts will be mitigated by applicable BMPs and regulated by Project construction plans and specifications. Concerning water quality, runoff from storm water during construction will be controlled and managed by pre-established plans, as described in environmental assessment section 6.2; construction of the Project is not otherwise anticipated to affect water quality. Ambient noise levels will be consistent with the Hawai‘i Administrative Rules, Title 11, Chapter 46, Community Noise Control.

11. The proposed action does not affect an environmentally sensitive area such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary or coastal waters;

The proposed Project is not adjacent to a shoreline and is outside the 500-year flood hazard and tsunami inundation areas. No streams or rivers drain onto the Project area, and there are no conditions that would classify the Project area as a wetland. Implementation of BMPs will be employed to properly manage and control potential storm water runoff and soil erosion. The proposed Project site will not affect an environmentally sensitive area and no negative environmental effects to immediate surrounding areas are expected as a result of the Project.

12. The proposed action does not substantially affect scenic vistas and view planes identified in county or state plans or studies; and

The subject parcel has not been identified in the *Kaua‘i General Plan* as a scenic resource area. The proposed Project cannot be seen from Kūhiō Highway, located over 1,200 feet away from the Project area. The steel tank will be painted an earth-tone, non-reflective green to blend with its surrounding environment. The structure will also comply with North Shore Development Plan Ordinance requirements for non-reflective roof colors (i.e., the top of the new tank).

13. The proposed action does not require substantial energy consumption.

The new tank itself, once completed, will not require substantial energy consumption; however, electrical power will be required to pump water into the new tank from the Wainiha Booster Pump Station approximately 200 feet away.

9.1 Determination

Based on foregoing findings and assessment of potential impacts of the proposed Project, the DOW does not foresee that the Project will have significant adverse impacts on the existing natural, physical, or human environment, and anticipates a Finding of No Significant Impact (“FONSI”) in response to this environmental assessment.

SECTION 10.0 CONSULTED PARTIES

Copies of or internet links to this draft environmental assessment were sent to the following agencies, organizations and individuals listed below:

Federal

U.S. Department of the Interior, U.S. Fish and Wildlife Service
U.S. Department of Agriculture, Natural Resources Conservation Service

State of Hawai‘i

Department of Agriculture
Department of Business, Economic Development & Tourism
- Office of Planning

Department of Health
- Environmental Management Division
- Safe Drinking Water Branch
- Office of Environmental Quality Control

Department of Land and Natural Resources
- Commission on Water Resources Management
- State Historic Preservation Division
- Office of Conservation and Coastal Lands
- Engineering Division
- Land Division
- Division of Forestry & Wildlife

Department of Transportation
Office of Hawaiian Affairs
University of Hawai‘i
- Environmental Center
- UH Manoa Water Resource Research Center

Princeville Public Library

County of Kaua‘i
Planning Department
Department of Public Works
Hanalei-to-Hā'ena Community Association

SECTION 11.0 REFERENCES

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State of Hawai’i, Department of Business, Economic Development and Tourism, Office of Planning, http://planning.hawaii.gov/gis/. Various maps:
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U.S. Department of Agriculture, Natural Resources Conservation Service, Soil Survey maps available at: https://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/?stateId=HI Accessed 3-15-17.

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SECTION 12.0 EXHIBITS

A. Location/Tax Key Map
B. Topographic Map of Area
C. State Land Use Districts Map
D. State Conservation Subzones Map
E. County of Kaua‘i, General Plan Designations Map
F. Pre-Consultation Letter to State Historic Preservation Division (September 28, 2017)
G. Soil Survey Map
H. State Land Study Bureau Soil Classifications Map
I. Agricultural Lands of Importance to the State of Hawai’i (“ALISH”) Map
J. Flood Hazard Zones Map
K. Hā'ena Wetlands Map

EXHIBITS

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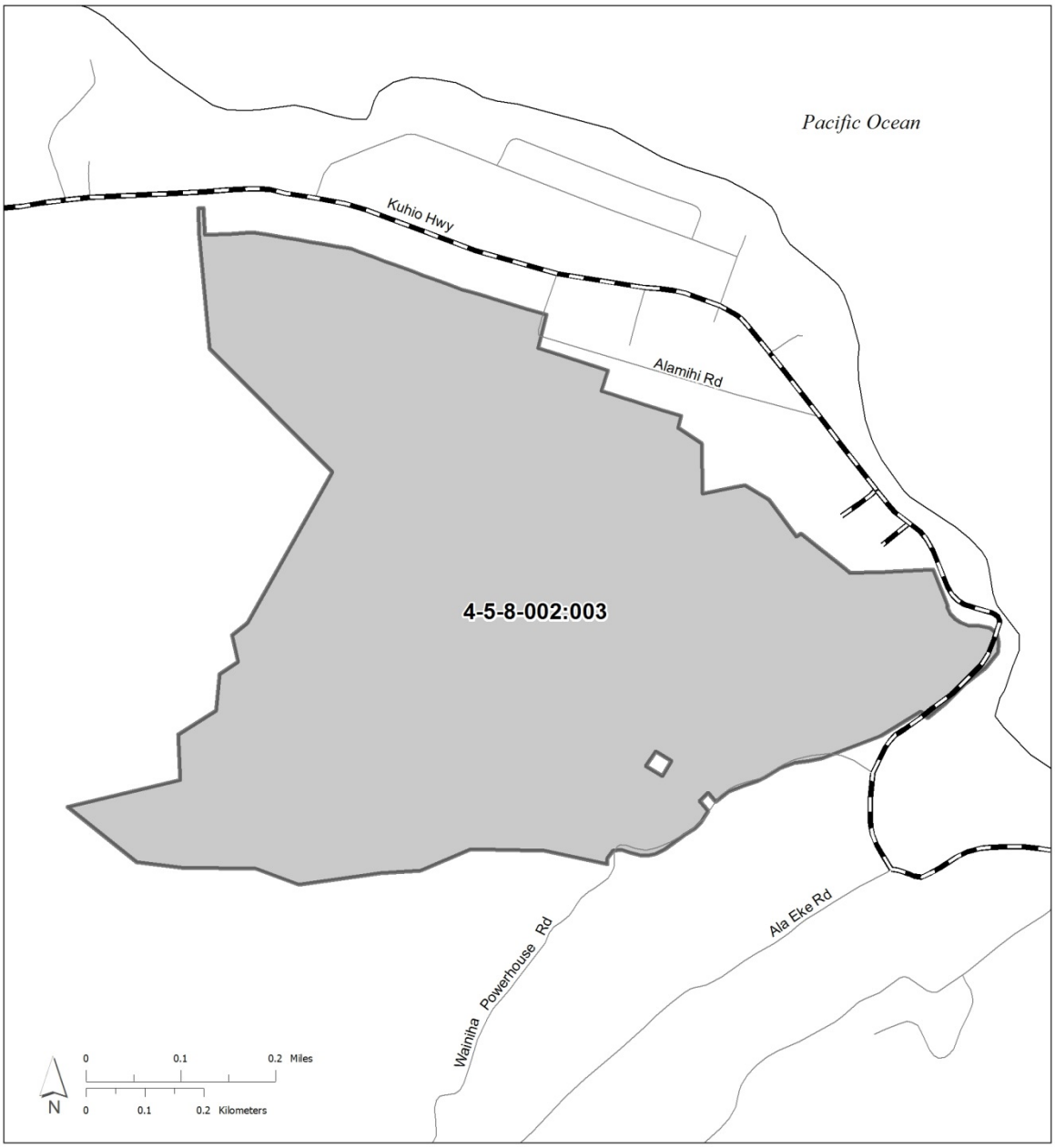


County of Kauaʻi
Department of Water

Draft Environmental Assessment

EXHIBIT A
Tax Key Map (4) 5-8-002:003

Hā'ena 0.2 MG Water Tank

EXHIBIT B
Topographic Map of Project Area
(next page)

Hā'ena 0.2 MG Water Tank

County of Kauaʻi
Department of Water

Draft Environmental Assessment

TRUE NORTH
Scale 1" = 20'

LOT 202
229.500 Acres
T.M.K: (4) 5-8-02: 03
Owners: Keith P. Robinson
and Bruce B. Robinson

PARCEL A
TANK SITE
10,000 sq. ft.
T.M.K: (4) 5-8-02: 06
Owner: County of Kauai

NOTES:

1. Underground utilities obtained from Department of Water, County of Kaua'i, Wainiha Booster Pump Station and Ha'ena Steel Tank Renovations As-Built drawings dated 2/4/14.
2. Elevations transferred from RM 59, elev.=13.33 MSL, "X" on Concrete Headwall.
3. Owners shown are from records filed in the County of Kaua'i Real Property Assessment Division.
4. Azimuths and coordinates referred to Government Survey Triangulation Station "HAENA KNOLL"
5. 3 in. diameter trees or smaller not included.
6. 2004 survey not verified in 2017.

LEGEND

- wv Water Valve
- inv. Invert
- Strawberry Guava Tree
- Java Plum Tree
- Ironwood Tree
- Octopus Tree
- Albizia Tree
- Mango Tree

PARCEL C
10' WIDE PIPELINE
AND UTILITY R.O.W.
2,735 sq. ft.

PARCEL B
PUMP SITE
2,677 sq. ft.
T.M.K: (4) 5-8-02: 07
Owner: County of Kauai

PARCEL D
20' WIDE ROADWAY R.O.W.
9,477 sq. ft.

2017 survey

2004 survey

WAINIHA POWER HOUSE ROAD

BENCH MARK
MAG-NAIL IN
POWER POLE #6802
ELEV.=60.48 MSL

1,009.40 N.
-981.65 E.
"HAENA KNOLL"

1,128.55 N.
-1,026.76 E.
"HAENA KNOLL"

MAG-NAIL
"PH-2"

1,001.58 N.
-929.52 E.
"HAENA KNOLL"

1/2" PIPE
"PH-1"

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

DENNIS M. ESAKI
LICENSED PROFESSIONAL LAND SURVEYOR
No. 4383
HAWAII, U.S.A.

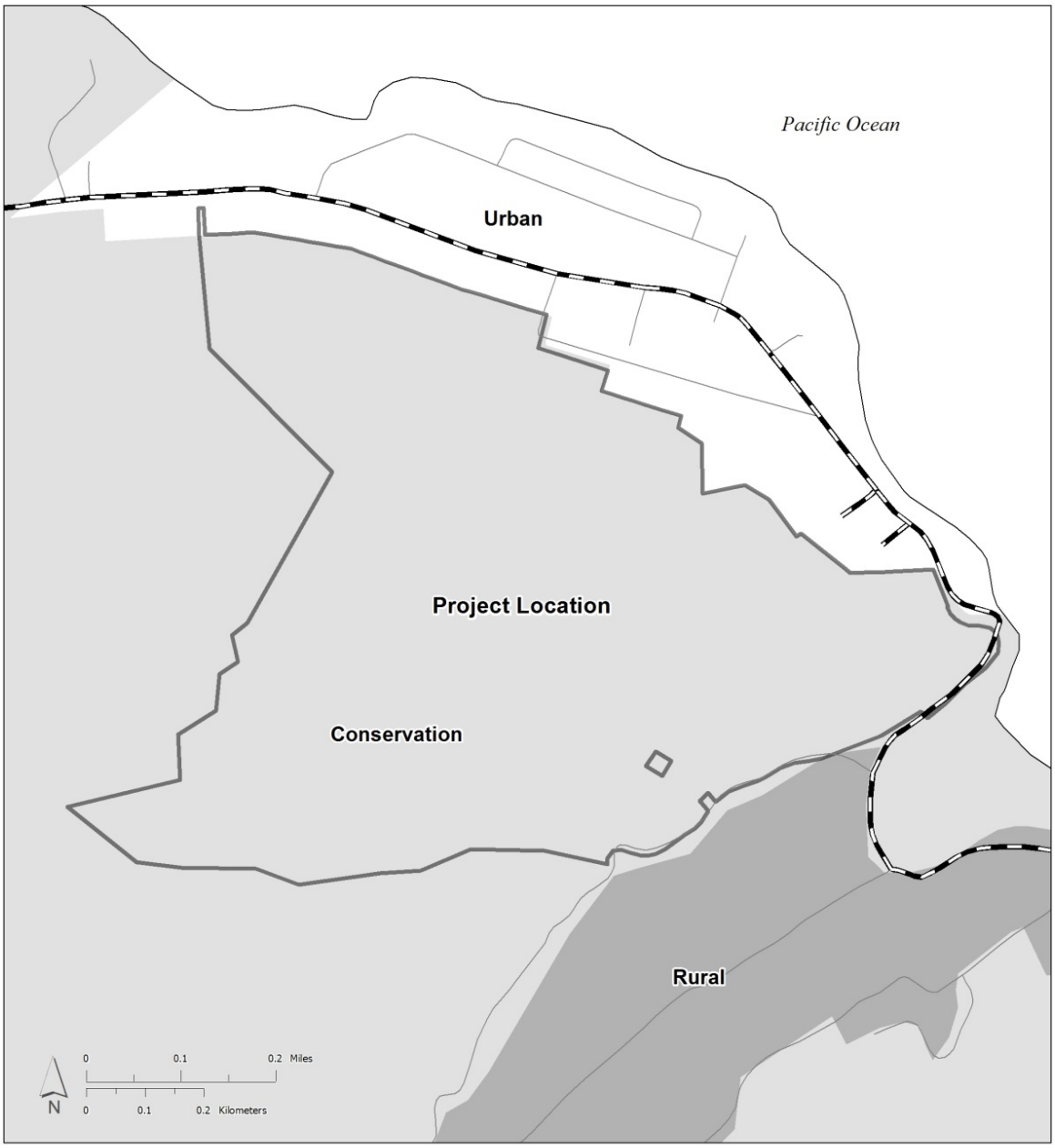
THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION

Signature
ESAKI SURVEYING & MAPPING, INC.
EXPIRES: APRIL 30, 2018

COMPOSITE TOPOGRAPHIC MAP SHOWING
WAINIHA BOOSTER PUMP / HAENA STEEL TANK
WAINIHA HUI LANDS, KAUAI, HAWAII
TMK: (4) 5-8-03: Por. 03 and 07
Prepared For: Brown & Caldwell
Dates of 2017 Survey: January 16, February 15, & 16, and March 14, 2017
Date: March 17, 2017

Job Number: 17-07 MA
Drawing File: 17-07(topo).dwg

ESAKI SURVEYING & MAPPING, INC.
Civil Engineers - Land Surveyors - Planners
1610 Haleukana Street
Lihue, Hawaii 96766

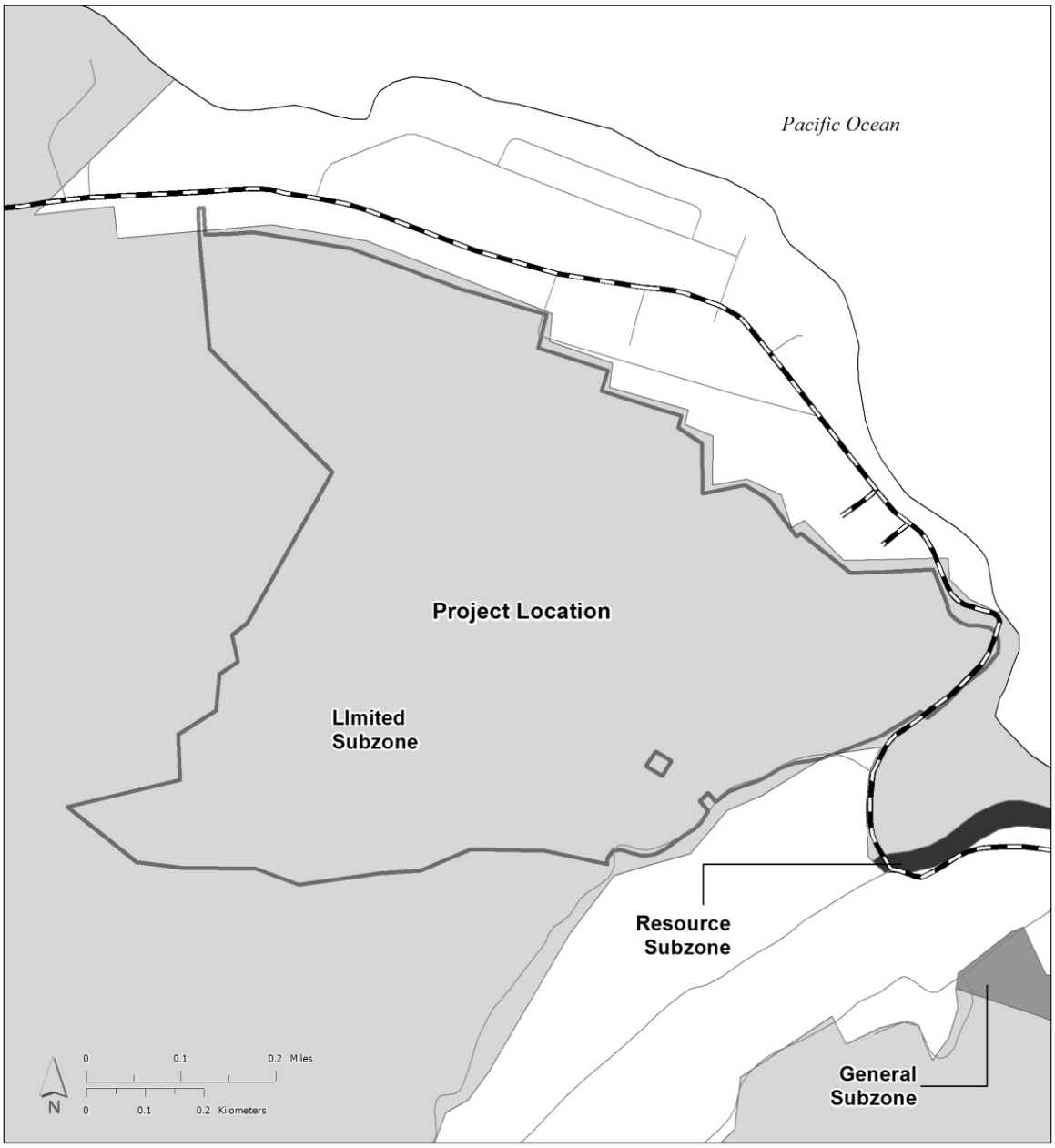


County of Kaua'i
Department of Water

Draft Environmental Assessment

EXHIBIT C
State Land Use Districts

Hā'ena 0.2 MG Water Tank



County of Kaua'i
Department of Water

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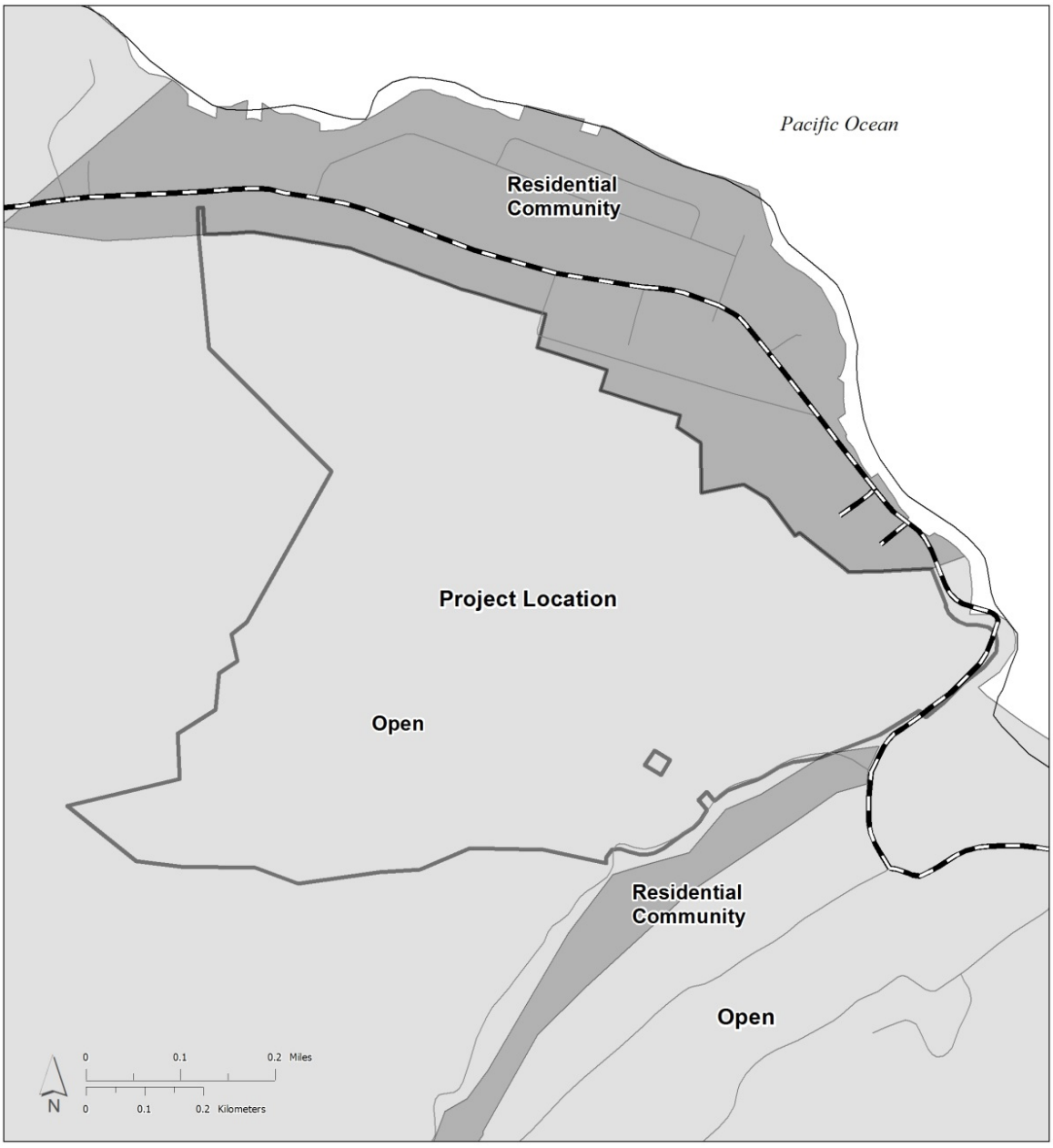
EXHIBIT D
State Conservation Subzones

Hā'ena 0.2 MG Water Tank



County of Kauaʻi
Department of Water

Draft Environmental Assessment

EXHIBIT E
County of Kauaʻi, General Plan Designations

Hā'ena 0.2 MG Water Tank

SHIRAMIZU LOO & NAKAMURA
A LIMITED LIABILITY LAW PARTNERSHIP
4357 RICE STREET, SUITE 102
LIHUE, KAUAI, HAWAII 96766

LAUREL K. S. LOO
GALEN T. NAKAMURA

TELEPHONE: (808) 632-2267
FACSIMILE: (808) 440-0399

CURTIS H. SHIRAMIZU
Of counsel

September 28, 2017

Alan Downer, Administrator
ATTN: Susan Lebo, Archaeology Branch Chief
State of Hawai'i, Department of Land and Natural Resources
State Historic Preservation Division[1]
601 Kamokila Blvd., Ste. 555
Kapolei, HI 96707

Re: **New Kauai County Department of Water 0.2MG Potable Water Storage Tank; TMK (4) 5-8-002:003 (Por.)**

Dear Ms. Lebo:

The Kauai County Department of Water ("KDOW") is proposing to construct a new 0.2MG potable water storage tank, connecting pipelines, and related appurtenances on a small portion of tax map key no. ("TMK") (4) 5-8-002:003 located in Wainiha, Kauai, Hawaii.

A preliminary site plan showing the proposed improvement is attached for your reference, and is also included as a PDF file in the enclosed compact disc. The proposed tank: will occupy a small portion of TMK 5-8-002:003, a 229 acre parcel; be located about 200+ feet uphill of Wainiha Powerhouse Road ("Powerhouse Road"); and be situated about 300 feet away from KDOW's Wainiha booster pump station ("Wainiha Booster Pump Station"), which sits below the project area and along Powerhouse Road, as shown in the attached preliminary site plan.

The project area is about 13,465 square feet, and includes about 5,000 feet of pipeline connecting to KDOW's existing water system, and an improved vehicular access road from Powerhouse Road to the tank. Located immediately adjacent to and east of the project site is KDOW's existing Hā'ena 0.1 MG Tank[2], and located about 200+ feet north and uphill of the Project site is KDOW's existing Wainiha 6,500 gallon steel tank, located on TMK no. (4) 5-8-002-003. Narrow, undeveloped access roads to both existing tanks also form part of the area. The proposed tank will be approximately 40 feet in diameter and 20 feet high, and its floor elevation will be approximately 118' above MSL. Potable water will

[1] Referenced as "SHPD" in this letter.

[2] A steel, potable water storage tank.

EXHIBIT F
Pre-consultation Letter to State Historic Preservation Division (September 28, 2017)

be piped into the new tank from pipelines connected to the Wainiha Booster Pump Station below.

Generally, the new storage tank will be comprised of the following components:

1. New storage tank and foundation.
2. Transmission pipelines (including connection to KDOW's existing water system.
3. Instrumentation (including tank level measurement).
4. Electrical power.
5. Site improvements around the new storage tank.
6. Site layout and grading (including pad leveling).
7. Tank site drainage system.
8. Chain link perimeter fence.
9. Earthen accessway.
10. Supervisory Control and Data Acquisition ("SCADA") controls and equipment to monitor and control tank operations and provide telemetry regarding tank operations.

The proposed project area is located in an undeveloped hillside consisting of an assortment of strawberry guava, java plum, ironwood, octopus, albizia, and other common trees and foliage.

Regarding archeological and cultural resources in the project area, several years ago the KDOW commissioned an environmental assessment to develop a small water well adjacent to KDOW's existing Wainiha Booster Pump Station. The *Final Environmental Assessment for the Wainiha Water Well (January 2010)* prepared for KDOW stated:

> **4.2 Archaeological and Cultural Resources**
>
> In May 1995, Cultural Surveys Hawaii conducted an archeological survey as part of the County's planned land acquisition for the Haena steel water tank and the access road. The historical background and previous archaeology reports revealed that the most heavily used areas in both pre-historic and historic times was concentrated in the flood plain section nearest the Wainiha River, as opposed to the steep ridge sections of the valley slopes, such as the proposed project site. The field survey included examination of the cut behind the water tank as well as along the access road. No archaeological sites or cultural material were observed. The survey found no midden, artifacts, or other definable evidence of culture within the surrounding area. Given the lack of surface or subsurface archaeological materials within the project area, no further archaeological research was recommended. In its October 29, 2009 comment letter on the Draft Environmental Assessment for the proposed project, the State Historic Preservation Division concurred with this finding. In its comment letter dated October 29, 2009, the State Historic Preservation Division concurred with the finding that there will be no historic properties affected by this project.

This FEA[3], which includes SHPD's October 29, 2009 comment letter, can be found at the State of Hawaii Department of Health's Office of Environmental Quality Control's ("OEQC") online EA/EIS library at:

> http://oeqc2.doh.hawaii.gov/EA_EIS_Library/2010-02-08-KA-FEA-Wainiha-Well.pdf

The 1995 Cultural Surveys Hawaii archeological survey described above can also be found as an attachment to the *Final Environmental Assessment: Land Acquisition of the Wainiha Water Tank Site (February 1997)* at OEQC's online EA/EIS library at:

> http://oeqc2.doh.hawaii.gov/EA_EIS_Library/1998-12-08-KA-FEA-Wainiha-Water-Tank-Site-Land-Acquisition.pdf

A separate 2008 environmental assessment was also commissioned by the KDOW to renovate its Wainiha Booster Pump Station and Hā'ena 0.1 MG Tank. Concerning archeological and cultural resources, this *Final Environmental Assessment: Wainiha Booster Station Renovation and Haena Steel Tank Renovation (January 2008)* stated:

> **3.9 Archaeological and Cultural Resources**
>
> On December 22, 2005, the February 1997 and June 1993 documents prepared by Cultural Surveys Hawaii were submitted to the DLNR Historic Preservation Division for review and comment as part of the Pre-Assessment consultation process. On January 11, 2006, the Historic Preservation Division issued a determination letter indicating that "an acceptable archeological assessment or inventory survey found no historic properties". Thus, the Historic Preservation Division concluded that "no historic properties will be affected" by this undertaking. Appendix C shows the DNLR Historic Preservation Division letter.
>
> On July 18, 2007, the Historic Preservation Division reconfirmed a finding that "no historic properties will be affected" by the project. Appendix D shows the July 18, 2007 DLNR Historic Preservation Division letter.

This 2008 FEA (which includes SHPD's January 11, 2006 and July 18, 2007 letters and Cultural Surveys Hawaii's August 1995 archeological survey) is included as a PDF file on the enclosed compact disc. Also included on the enclosed compact disc is Cultural Surveys Hawaii's June 1993 archeological survey.

Given the foregoing information and references, this letter seeks pre-consultation with the SHPD to solicit SHPD's comments or concerns concerning the development of KDOW's proposed 0.2 MG potable water tank, with regard to impacts on archeological and cultural resources in the project area. Please note

[3] Of note is that the Cultural Surveys Hawaii archeological survey described in section 4.2 of this FEA appears to have been dated August (instead of May) 1995.

that SHPD will have an additional opportunity to comment on the proposed project during the comment phase of the environmental assessment regarding this project.

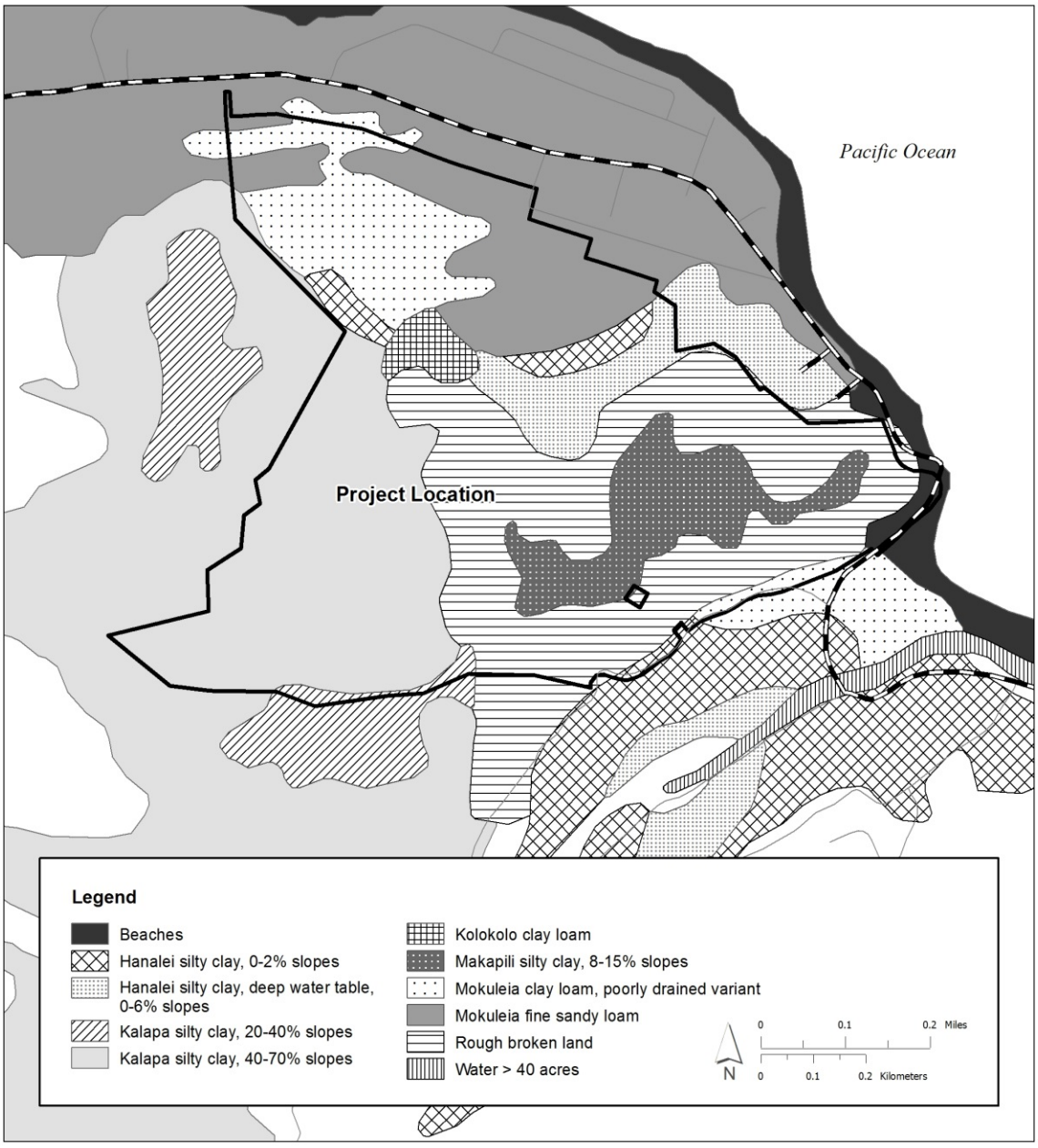
Should you have any questions or need further information, please do not hesitate to contact me at the number above, or e-mail me at galen.nakamura@hawaiiantel.net.

Thank you very much for your time and attention to this matter.

Very truly yours,

Galen Nakamura

enclosures

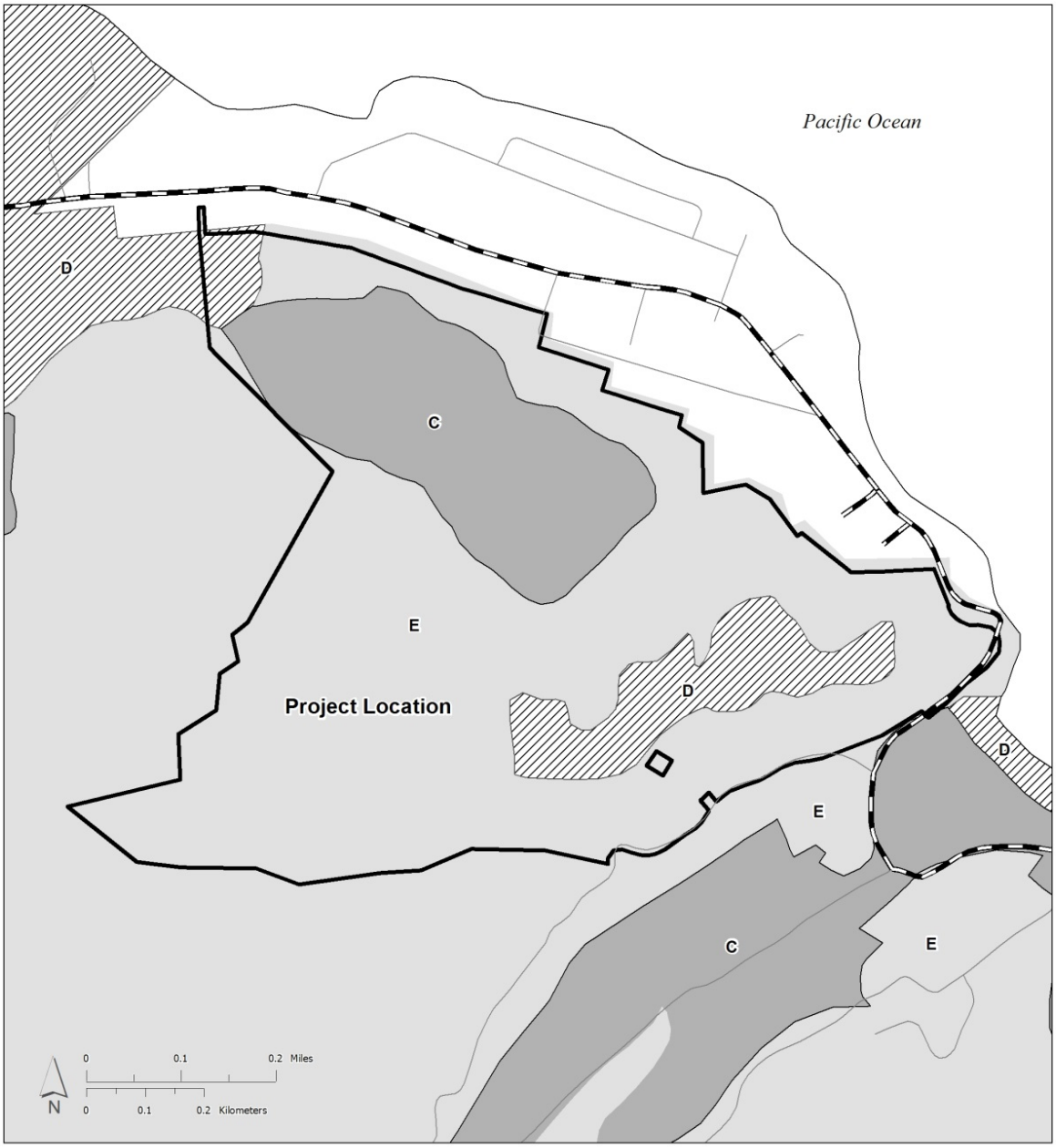


County of Kauaʻi
Department of Water

Draft Environmental Assessment

EXHIBIT G
Soil Survey Map

Hā'ena 0.2 MG Water Tank

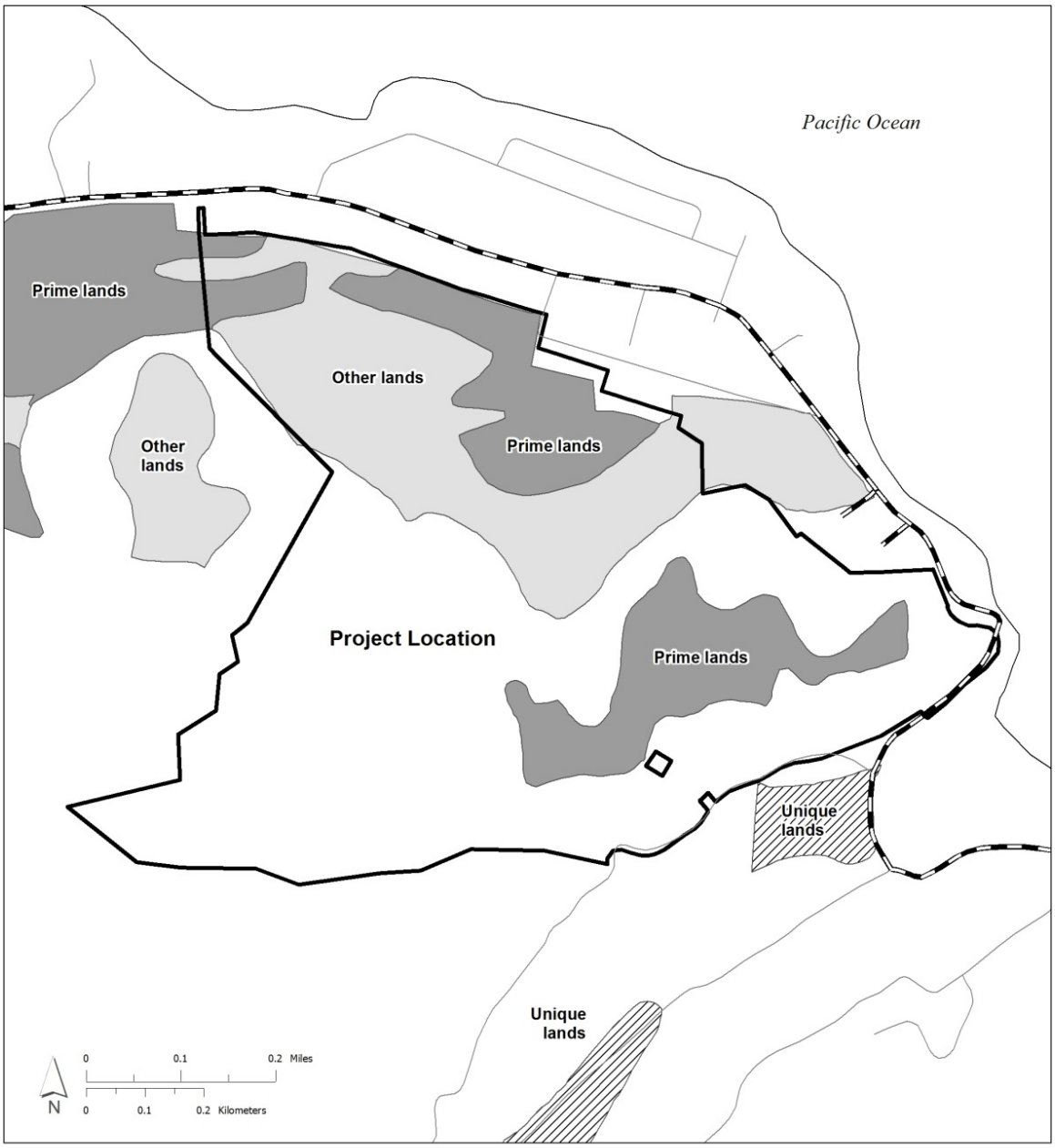


County of Kauaʻi
Department of Water

Draft Environmental Assessment

EXHIBIT H
State Land Study Bureau Soil Classifications

Hā'ena 0.2 MG Water Tank

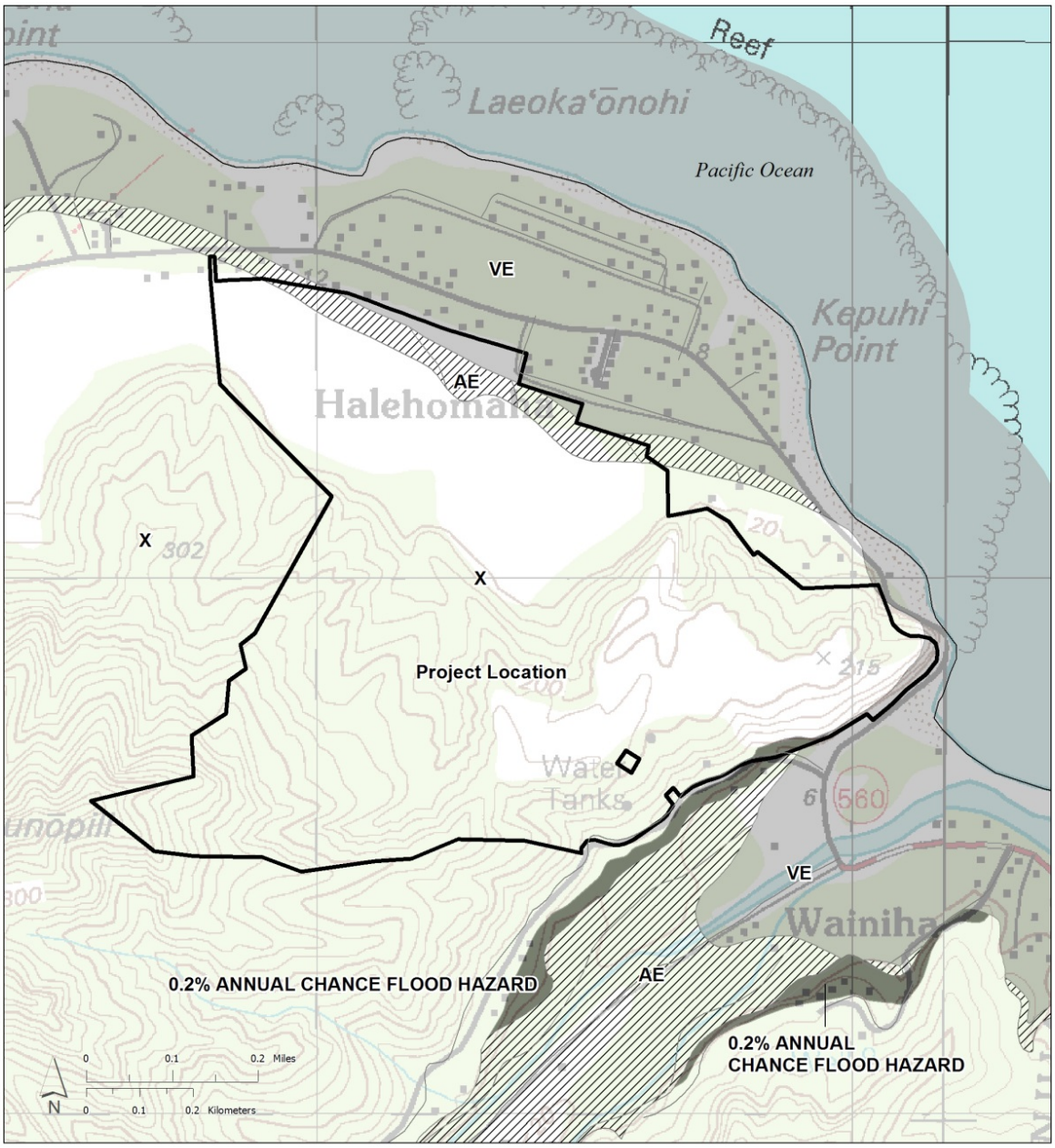


County of Kaua'i
Department of Water

Draft Environmental Assessment

EXHIBIT I
Agricultural Lands of Importance to the State of Hawai'i (ALISH)

Hā'ena 0.2 MG Water Tank

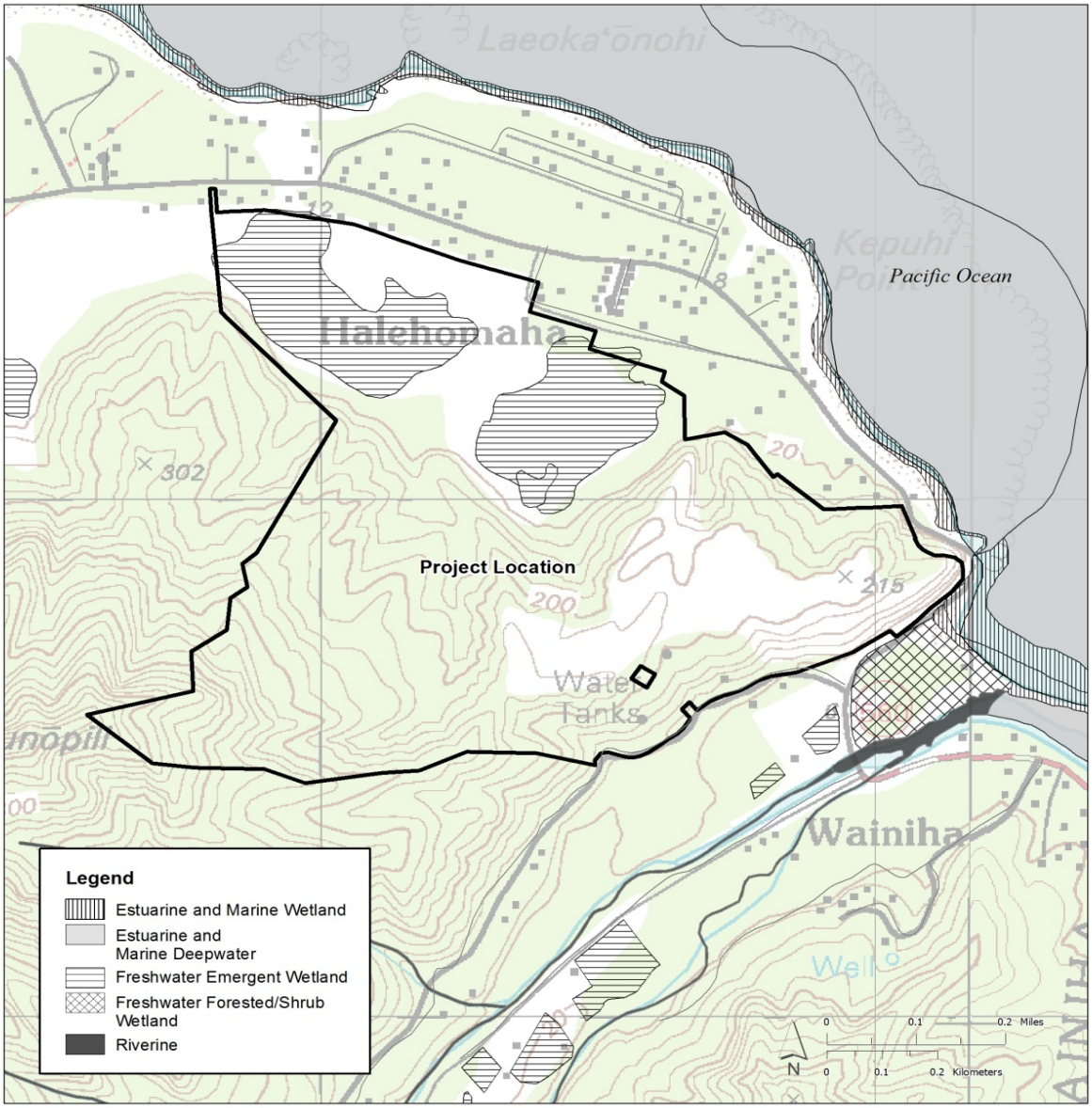


County of Kauaʻi
Department of Water

Draft Environmental Assessment

EXHIBIT J
Flood Hazard Zones

Hā'ena 0.2 MG Water Tank



County of Kaua'i
Department of Water

Draft Environmental Assessment

EXHIBIT K
Hā'ena Wetlands

Hā'ena 0.2 MG Water Tank