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CITY AND COUNTY OF HONOLULU

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SEP 23 2016

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WW. PE 16-105

September 1, 2016

Mr. Scott Glenn, Director
Office of Environmental Quality Control
Department of Health, State of Hawaii
235 South Beretania Street, Room 702
Honolulu, Hawaii 96813

Dear Mr. Glenn:

SUBJECT: Draft Environmental Assessment for
Waianae Wastewater Treatment Plant Improvements and Upgrade
Waianae, Island of Oahu, Hawaii
Tax Map Key (1) 8-6-001: 044

RECEIVED
16 SEP 12 AM 04:45
OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

With this letter, the City and County of Honolulu Department of Design and Construction (CCH-DDC) hereby transmits the Draft Environmental Assessment (DEA) and anticipates issuing a Finding of No Significant Impact determination for the Waianae Wastewater Treatment Plant Improvements and Upgrade project. Please publish notice of availability of the DEA for public comment in the next available Environmental Notice.

Enclosed is a completed OEQC Publication Form, one (1) hard copy of the DEA, and a CD containing an electronic word file of the OEQC Publication Form and a PDF copy of the DEA.

If there are any questions, please contact Christine Imada (CCH-DDC) at (808) 768-8762 or Robin Hirano (CH2M) at (808) 440-0208.

Very truly yours,

Handwritten signature of Robert J. Kroning in black ink.

Robert J. Kroning, P.E.
Director

Enclosures

1. OEQC Publication Form
2. DEA (1 hard copy)
3. CD containing OEQC Publication Form (in MS Word) and DEA (in Adobe PDF)

17-105

**AGENCY
PUBLICATION FORM**

SEP 23 2016
SEP 23 2016

Project Name:	Waianae Wastewater Treatment Plant Improvements and Upgrade
Project Short Name:	Waianae WWTP Improvements and Upgrade
HRS §343-5 Trigger(s):	Use of State or County lands or funds, Wastewater treatment unit
Island(s):	Oahu
Judicial District(s):	Waianae
TMK(s):	8-6-001: 044
Permit(s)/Approval(s):	<p><u>STATE OF HAWAII</u></p> <p><u>Department of Health</u></p> <ul style="list-style-type: none"> • Noncovered Source Air Permit • National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water from Construction Activities and Dewatering • Community Noise Permit • Community Noise Variance • Wastewater and Clean Water Branch Construction Plan Review and Approval <p><u>Department of Transportation</u></p> <ul style="list-style-type: none"> • Operating Oversized and Overweight Vehicles on State Highways Permit • Permit to Discharge into the State Highways Drainage System <p><u>CITY AND COUNTY OF HONOLULU</u></p> <p><u>Department of Planning and Permitting</u></p> <ul style="list-style-type: none"> • Special Management Area Use Permit (Major) • Construction Plan Review and Approval • Building Permit • Grading and Stockpiling Permit • Industrial Wastewater Discharge Permit for Temporary Discharges into the City's Sewer System • Street Usage Permit
Proposing/Determining Agency:	City and County of Honolulu, Department of Design and Construction
<i>Contact Name, Email, Telephone, Address</i>	Christine Imada, cimada@honolulu.gov (808) 768-8762, 650 South King Street 14 th Floor, Honolulu, HI 96813
Accepting Authority:	N/A
<i>Contact Name, Email, Telephone, Address</i>	N/A
Consultant:	CH2M
<i>Contact Name, Email, Telephone, Address</i>	Robin Hirano, Robin.Hirano@ch2m.com (808) 440-0208, 1132 Bishop Street Suite 1100, Honolulu , HI 96813

Status (select one) DEA-AFNSI FEA-FONSI FEA-EISPN**Submittal Requirements**

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.

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.

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 City and County of Honolulu is proposing to upgrade the Waianae Wastewater Treatment Plant (WWTP) by constructing the following facility wide improvements:

- Rehabilitation of the primary clarifiers, primary effluent boxes and piping, and a new odor control facility
- Utility water system improvements
- Demolition of chlorine contact tank and construction of a new effluent flow monitoring facility
- Replacement of the headworks screens and associated equipment
- Rehabilitation of the grit removal system and preaeration tanks and channels

All of the above listed improvements will be constructed within the Waianae WWTP site. Construction of these improvements will help the WWTP to maintain its continued ability to meet regulatory requirements.

DRAFT ENVIRONMENTAL ASSESSMENT

Waianae Wastewater Treatment Plant Improvements and Upgrade

Waianae, Oahu, Hawaii, [1] 8-6-001: 044

Proposing/Determining Agency

City and County of Honolulu
Department of Design and Construction,
Wastewater Branch
650 South King Street
Honolulu, HI 96813

September 2016

Prepared By



CH2M HILL
1132 Bishop Street, Suite 1100
Honolulu, HI 96813

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List of Acronyms and Abbreviations

ADWF	Average Dry Weather Flow
BMP	Best Management Practice
BWS	Honolulu Board of Water Supply
CCH	City and County of Honolulu
cfm	Cubic Feet per Minute
CZM	Coastal Zone Management
dB	Decibel
dba	A-Weighted Decibel
DDC	Department of Design and Construction
DOH	Department of Health
EA	Environmental Assessment
ENV	Department of Environmental Services
EPA	Environmental Protection Agency
Facilities Plan	Draft Waianae Wastewater Facilities Plan
FONSI	Finding of No Significant Impact
FRP	Fiberglass Reinforced Plastic
H ₂ S	Hydrogen Sulfide
HAR	Hawaii Administrative Rules
HRS	Hawaii Revised Statutes
IBC	International Building Code
LMSL	Local Mean Sea Level
LUO	Land Use Ordinance
mgd	Million Gallons per Day
MSL	Mean Sea Level
Mtb	Mokuleia Clay
NFPA	National Fire Protection Association
NPDES	National Pollutant Discharge Elimination System
ROH	Revised Ordinances of Honolulu
RSLC	Relative Sea Level Change

SLR	Sea Level Rise
SMA	Special Management Area
TEP	Temporary Emergency Permit
WWTP	Wastewater Treatment Plant
2W	Non-Potable Utility Water (Sourced from Potable Water, Protected by Air Gap)
3W	Plant Effluent Reuse Water

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Section 1. Introduction

This Draft Environmental Assessment (EA) has been prepared pursuant to Chapter 343, Hawaii Revised Statutes (HRS) and Title 11, Chapter 200, Hawaii Administrative Rules (HAR).

A. Project Information Summary

Project Name	Waianae Wastewater Treatment Plan Improvements and Upgrade
Location	Waianae District, Oahu, Hawaii
Ownership & Tax Map Key	City and County of Honolulu; 8-6-001: 044
Project Area	18 acres
State Land Use District	Urban
City & County of Honolulu Zoning	I-2 (Intensive Industrial District)
Waianae Sustainable Communities Plan	Rural Community
Flood Zone	<p>Zone D - Areas with possible but undetermined flood hazards. No flood hazard analysis has been conducted. Flood insurance rates are commensurate with the uncertainty of the flood risk.</p> <p>Zone AE (EI 14) - The base floodplain where base flood elevations are provided. AE Zones are now used on new format FIRMs instead of A1-A30 Zones.</p>
Neighborhood Board & Council District	Neighborhood Board 24 (Waianae Coast); Council District 1
Proposing/Determining Agency	City and County of Honolulu, Department of Design and Construction, 650 South King Street, Honolulu, Hawaii 96813
Consultant	CH2M HILL, 1132 Bishop Street, Suite 1100, Honolulu, Hawaii 96813 Project Manager: Robin Hirano (808) 440-0214
Permits and Approvals Required	<p>Permits and Approvals required from various agencies may include but are not limited to the following:</p> <p>State of Hawaii, Department of Health</p> <ul style="list-style-type: none"> • Noncovered Source Air Permit • National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water from Construction Activities and Dewatering • Community Noise Permit • Community Noise Variance • Wastewater and Clean Water Branch Construction Plan Review and Approval <p>State of Hawaii, Department of Transportation</p> <ul style="list-style-type: none"> • Operating Oversized and Overweight Vehicles on State Highways Permit • Permit to Discharge into the State Highways Drainage System <p>City and County of Honolulu, Department of Planning and Permitting</p> <ul style="list-style-type: none"> • Special Management Area (SMA) Permit (Major) • Construction Plan Review and Approval • Building Permit • Grading and Stockpiling Permit • Industrial Wastewater Discharge Permit For Temporary Discharges into the City's Sewer System • Street Usage Permit
Anticipated Determination	Finding of No Significant Impact (FONSI)

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Section 2. Overview of the Proposed Project

The City and County of Honolulu (CCH), Department of Design and Construction (DDC) proposes to construct improvements and upgrades for the Waianae Wastewater Treatment Plant (WWTP), which is operated by the Department of Environmental Services (ENV). Facility-wide upgrades include the following:

- Rehabilitation of the primary clarifiers, primary effluent boxes and piping, and new odor control facility
- Utility water system improvements
- Demolition of the chlorine contact tank and construction of a new effluent flow monitoring facility
- Replacement of the headworks screens and associated equipment
- Rehabilitation of the grit removal system and preaeration tanks and channels

A detailed description of these improvements is included in Section 3.A.

B. Project Purpose and Need

The purpose of this project is to rehabilitate and replace structures and process equipment at the Waianae WWTP while maintaining current treatment levels and capacity, and improving the WWTP's ability to continue to meet regulatory requirements.

A wastewater facilities plan for the Waianae WWTP is being prepared under a separate CCH project. The facilities plan will address long-term treatment process and potential capacity needs. The facility planning process also identified shorter term needs to improve the operability and reliability of the existing plant. This project will address those shorter term needs.

C. Purpose of the Environmental Assessment

In accordance with HRS Chapter 343, Section 5, this project requires the preparation of an EA by reason of involving the proposed use of State or County lands or the use of State or County funds. In addition, the project is located entirely within the SMA, and is therefore subject to the preparation of an EA as required by Chapter 205A of the HRS and Chapter 25 of the Revised Ordinances of Honolulu (ROH).

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Section 3. Description of the Proposed Action

This section provides detailed information about the design of the proposed improvements to the Waianae WWTP.

A. General Description

i) Project Location and Characteristics

The project site is an 18-acre parcel of land identified as TMK: 8-6-001:044 located on the west coast of Oahu in Waianae, as shown on Figure 3-1 and Figure 3-2. The Waianae WWTP resides on the mauka side of Farrington Highway, across from Lualualei Beach Park. The entirety of the parcel falls within the SMA, as established by Chapter 25, Revised Ordinances of Honolulu. The property is owned by the CCH. The improvements proposed for this project will remain within the boundaries of the existing WWTP.

Adjacent land uses include Waianae Mall Shopping Center to the north, Lualualei Beach Park camping area makai of the site, across Farrington Highway, and the Waianae Coast YMCA mauka of the site. To the south of the WWTP is land owned by the Department of Hawaiian Home Lands, as shown in Figure 3-3.

ii) Facility Background

The Waianae WWTP was constructed in 1967 and began operations in 1968 as a primary treatment plant. Structures constructed onsite included an influent pumping station, a grit chamber, a comminutor, primary clarifier, anaerobic sludge digester tank, and sludge drying beds. The WWTP was upgraded to an advanced primary treatment plant in 1988. To the previously mentioned structures, an aerated grit chamber, two preaeration tanks, two large primary clarifiers, and two large anaerobic digester tanks were added. The original primary clarifier and anaerobic digester were abandoned in place.

In 1993, the plant was upgraded to a secondary wastewater treatment plant. This modification added two covered trickling filters, two sludge holding tank/solids contact reaeration tanks, three dewatering/thickening centrifuges, three secondary (or final) clarifiers, and two odor control systems. In addition to the structures required for the treatment of wastewater, several other buildings such as the administration and operations buildings are located onsite and provide support for the facilities.

The Waianae WWTP services the area from Makaha to Nanakuli in the Waianae Basin. It is designed for 5.2 million-gallons per day (mgd) average dry weather flow (ADWF), with a peak capacity of 13.8 mgd. The 2015 annual average flow was 3.56 mgd, and the 2015 daily max flow was 4.57 mgd.

iii) Description of Project

The Draft Waianae Wastewater Facilities Plan (Facilities Plan) by Brown and Caldwell, dated December 2013, identified near-term plant improvements needed at the Waianae WWTP. The Waianae WWTP Improvements and Upgrade project will implement the improvements identified in the Facilities Plan. A site plan identifying areas of improvements is included in Figure 3-4. A detailed description of these upgrades is provided in this section. Areas where demolition will occur are identified in Figure 3-5. The existing process flow diagram is shown in Figure 3-6; there will be no modification of the process caused by this project.



LEGEND
 Project Location

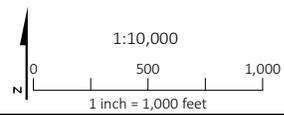


FIGURE 3-1
Project Location Map
 Waianae WWTTP Improvements and Upgrade Draft Environmental Assessment
 Waianae, Hawaii





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 Project Site
 TMK (86001044)

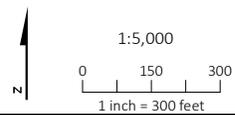


FIGURE 3-2
TMK Map
 Waianae WWTP Improvements and Upgrade Draft Environmental Assessment
 Waianae, Hawaii





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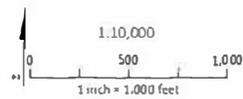
 Project Location

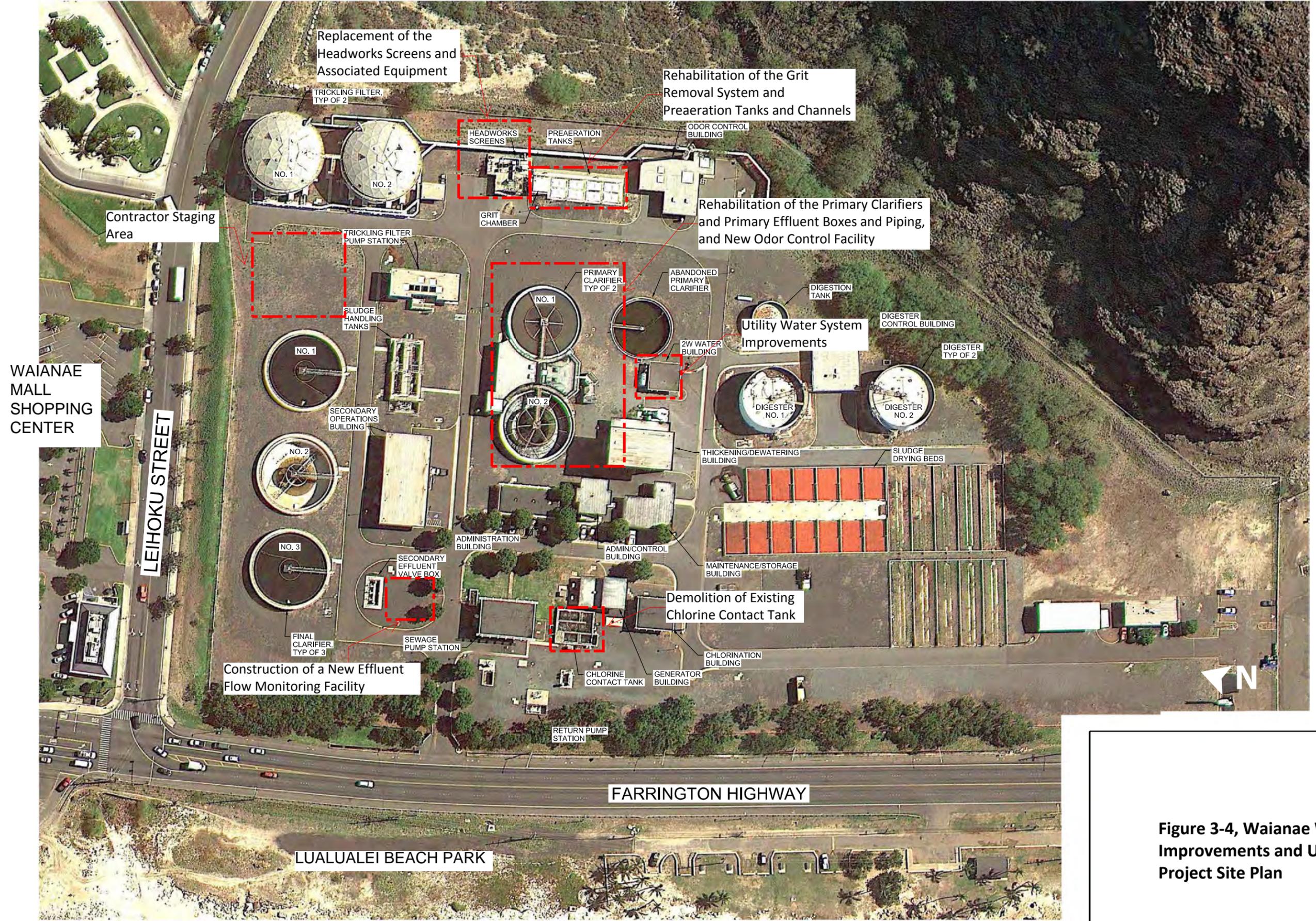
- 1. Various Ownership (Residential)
- 2. A&B Waianae LLC (Waianae Mall)
- 3. City and County of Honolulu (Waianae Transit Center)
- 4. P.F.I. Realty V (Industrial)
- 5. State of Hawaii (Lualualei Beach Park)
- 6. YMCA of Honolulu (Waianae Coast YMCA)
- 7. State of Hawaii DHHL (Industrial)
- 8. State of Hawaii DLNR (Waianae Coast Comprehensive Health Center)

Figure 3-3

Adjacent Land Use Map

*Waianae WWTP Improvements and Upgrade Draft Environmental Assessment
Waianae, Hawaii*





WAIANAE MALL SHOPPING CENTER

LEIHOKU STREET

FARRINGTON HIGHWAY

LUALUALEI BEACH PARK

Figure 3-4, Waianae WWTP Improvements and Upgrade Project Site Plan

Demolish FRP Grating/Covers,
Existing Screens, Screenings
Conveyor and Compactor

Demolish
Classifier

Demolish Railings,
Covers, Conc Curbs,
Conc Slab, Walls and
Beams

Demolish 2W
Storage Tank

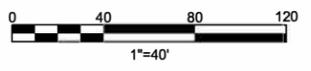
Demolish Air Gap
Tank and Jalousies

Demolish
Cover and
Stairs

Demolish
FRP Grating

Remove tree
for driveway

Demolish
Chlorine
Contact Tank



Demolition Site Plan

NOT TO BE USED FOR CONSTRUCTION		REVISION		DATE		BRIEF		BY		APPROVED	
<p>WASTEWATER DIVISION DEPARTMENT OF DESIGN & CONSTRUCTION CITY AND COUNTY OF HONOLULU</p> <p>PROJECT: WAIANAE WWTP IMPROVEMENTS AND UPGRADE WAIANAE, OAHU, HAWAII</p> <p>ITEM: Figure 3-5, Demolition Site Plan</p> <p>DESIGNED BY: _____ CHECKED BY: _____ DRAWN BY: _____ SECTION HEAD: _____ APPROVED: _____ BRANCH HEAD: _____</p> <p>DATE: _____</p> <p>SIGNATURE: _____</p> <p>4-30-2018 EXPIRATION DATE OF THE LICENSE</p> <p>JOB NO. W4-14</p> <p>FILE CABINET: _____ DRAWER: _____ FILE: _____ PROJECT: _____ FOLDER: _____ NO.:</p>											

90% SUBMITTAL

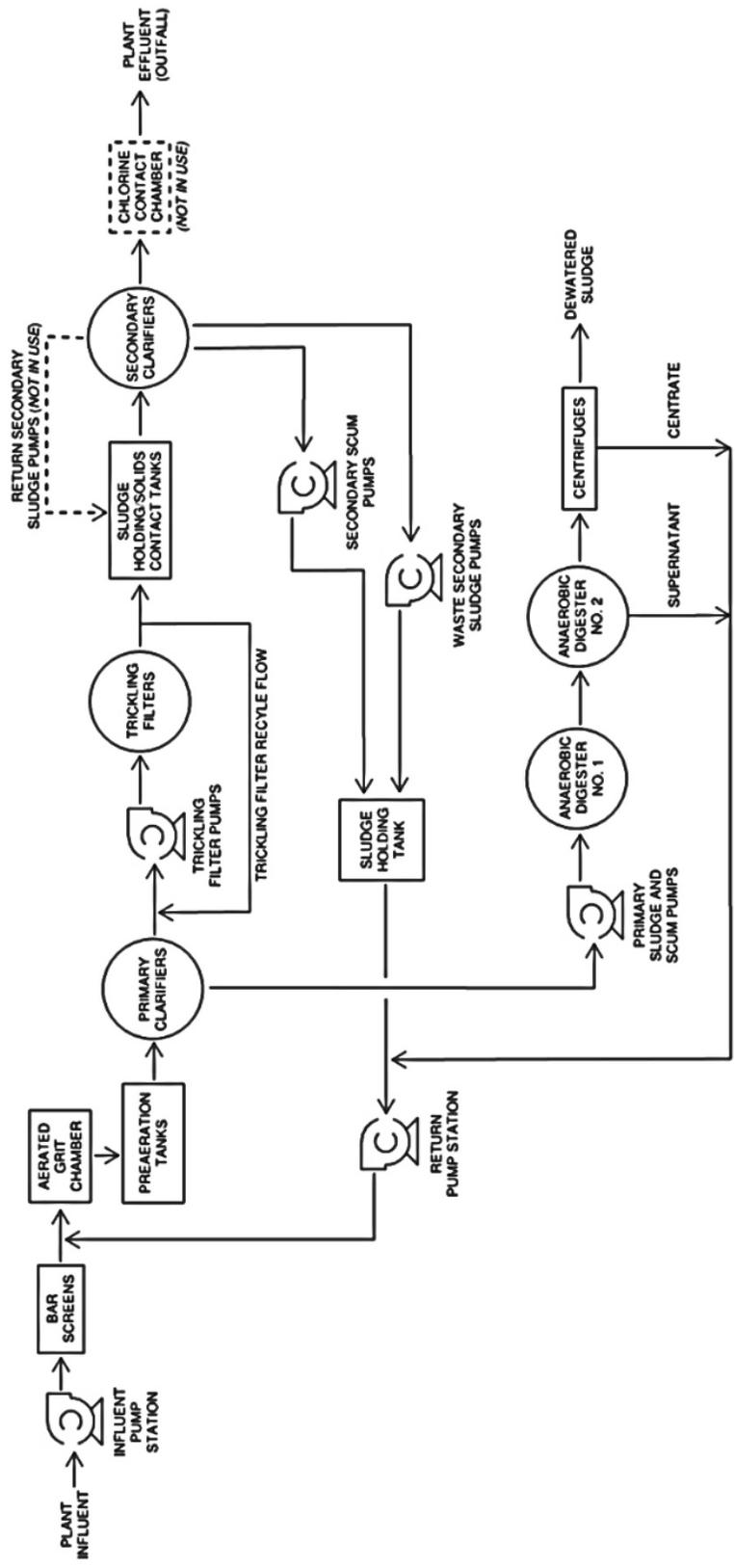


Figure 3-6, Waianae WWTP Process Flow Diagram

(1) Headworks Screening Replacement

Description of existing conditions:

The headworks building, shown in Figure 3-7, acts as a diversion point in which large debris are removed from the raw wastewater. The headworks screening area consists of a bar screen with 5/8" openings in one channel, a grinder unit and compactor/conveyor in a second channel, and an overflow channel. The bar screen was installed in 1986 during the secondary treatment upgrades, and the in-channel screen with grinder was later installed to replace one of the original bar screens. These components are nearing the end of their useful economic lives, and CCH desires improved screening capture efficiency to prevent these materials from flowing downstream to other treatment units.



Figure 3-7, Existing Headworks Screens and Equipment

The improvements in the screening area of the headworks will include the following:

- Replace the existing mechanical screen and grinder system with two new screens, and provide a dedicated washer-compactor for each screen
- Provide a new mechanically cleaned screen to replace the manually cleaned screen for the existing bypass channel
- Provide new grating at screenings channels
- Motorize the screen channel influent isolation gates to assist opening and closing gates
- Provide new screen channel effluent isolation gates and motorized control devices
- Replace the channel drain gates

These improvements are highlighted in green on Figure 3-9.

(2) Grit Removal and Preaeration Rehabilitation

Description of existing conditions:

The grit removal system shown in Figure 3-8 is a single aerated grit chamber constructed in 1986 during the secondary treatment upgrades. Grit consists of several types of materials, including sand, gravel,

cinder, and other inorganic materials. In a wastewater system, grit settles on the bottom of the system, causing damage to pumps if not removed properly.

The grit chamber is covered by a concrete deck that has an approximate 15-ft by 15-ft opening with an FRP cover. Grit which settles in the chamber is removed using an air lift pump/eductor system operating continuously to prevent buildup of grit. The grit classifier receives the grit slurry underflow and processes/conveys the grit to a dedicated dumpster.

A preaeration tank is commonly used to add dissolved oxygen into the wastewater, which causes particles to collide and clean the grit. The preaeration tanks, also constructed in 1986, originally included a grit removal system, which is now in need of replacement.



Figure 3-8, Existing Grit Chambers and Preaeration Tanks and Channels

The improvements will include the following:

- Replace the existing grit slurry piping, air lift piping, and classifier for the grit chamber
- Replace the existing grit slurry piping and agitation air piping for the preaeration tanks
- Provide new closed-cell FRP grating over the channels
- Replace top slab of the preaeration tanks
- Demolish concrete curbs and provide new curbs and covers similar to existing with access hatches
- Replace concrete beams and repair concrete walls and deteriorated areas inside tanks and apply new coatings
- Replace channel and tank drain gates

These improvements are highlighted in green on Figure 3-9.

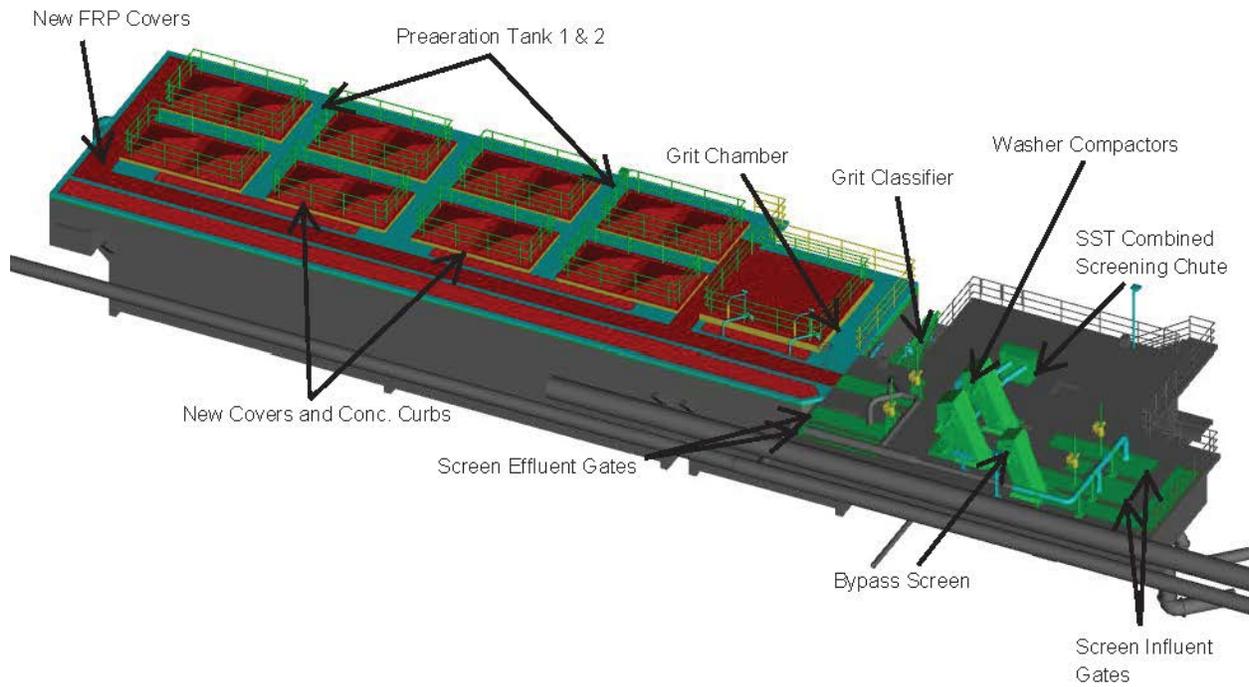


Figure 3-9, 3D Model of Headworks, Grit Removal, and Preaeration Improvements

(3) **Rehabilitate Primary Clarifiers and Primary Effluent Boxes and Piping**

Description of existing conditions:

There are two 85-foot diameter primary clarifiers constructed in 1986 during the secondary treatment upgrades, and a third abandoned or unused clarifier that was constructed as part of the original WWTP in 1965. Per the Facilities Plan, the project includes replacement of the existing dual-drive flotation type mechanisms with simpler, more conventional, sludge scraper mechanisms. The primary clarifiers are in need of rehabilitation or replacement of key components that are nearing the end of their useful lives.



Figure 3-10, Existing Primary Clarifier



Figure 3-11, Existing Primary Effluent Boxes

The improvements will include the following:

- Replace mechanisms on both primary clarifiers
- Repair interior concrete surfaces of clarifier and primary influent and effluent boxes where corrosion has occurred
- Remove existing grout topping and replace with fiber-reinforced concrete topping
- Repair concrete coating on clarifier interior and primary influent and effluent box concrete surfaces
- Replace gates at influent and effluent distribution boxes
- Divert primary scum into existing wet wells to meet National Fire Protection Association (NFPA) 820 requirements in the sludge pump room
- Decommission existing scum wet-wells
- Replace clarifier launder cover with a walkable launder cover system
- Provide new FRP covers for influent and effluent distribution boxes and a new odor control system
- Demolish existing effluent boxes; repair with combination of new concrete wall and epoxy-lined and coated steel effluent pipe; add knife gates to effluent pipes

These improvements are shown on Figure 3-12.

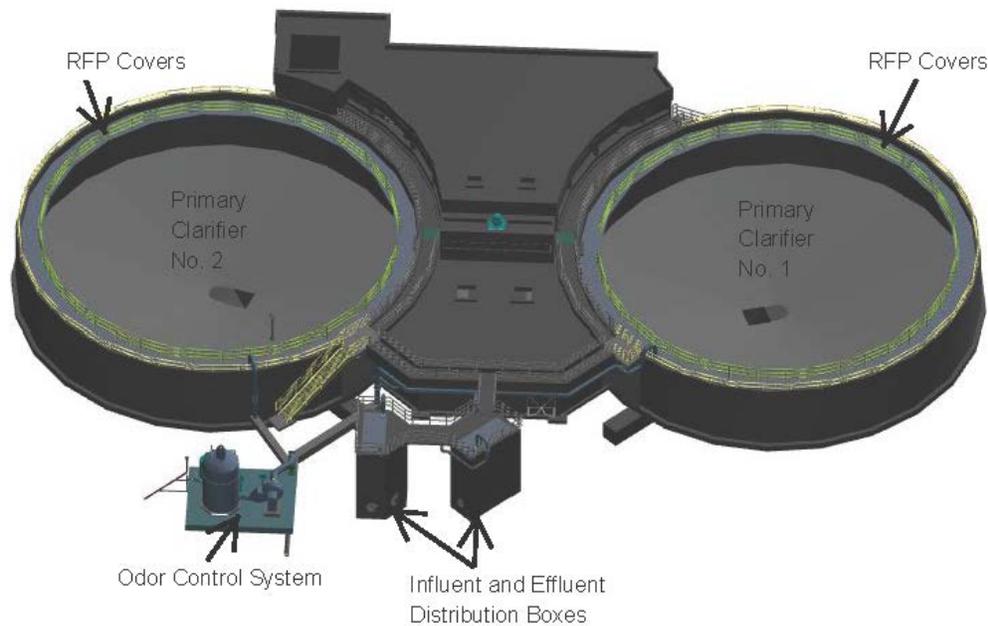


Figure 3-12, 3D Model of Primary Clarifiers and Primary Effluent Boxes and Piping

New Odor Control Unit

Description of existing conditions:

The Primary Influent and Primary Effluent Distribution structures can be a source of odor, consisting primarily of hydrogen sulfide (H_2S) which is produced by the breakdown of organic matter and wastes.

These improvements will include the following:

The design includes an odor control system for these structures, with a solid FRP cover on the structures with intake vents, and butterfly dampers for isolation and air balancing. The foul air duct connects the covers to the odor control system. Additionally, the odor control for the launder covers of the primary clarifiers will be diverted from the existing solids building odor control unit to the proposed system. This will reduce the load on the existing solids building odor control unit.

The new biological odor control system will be a packaged system. The media will be an engineered nutrient-coated media. The system will be located above grade in an FRP vessel that will occupy about 80 square feet on a slab at grade. The unit will operate at 99% removal of H_2S , with a rated flow of approximately 1800 cubic feet per minute (cfm). The system will be connected to the utility water system, which will require 675 gallons per day. The approximate construction location of the odor control unit is highlighted in Figure 3-13.



Figure 3-13, Location of New Odor Control Unit

(4) Utility Water System Improvements

Description of existing conditions:

The existing in-plant utility water system uses potable water supplied from the Honolulu Board of Water Supply (BWS) via an air-gap tank (also known as 2W water). Under this project, CCH will rehabilitate and replace piping and mechanical components of the utility water system and incorporate the use recycled plant effluent (3W) in place of potable water, reserving potable water as a backup source.



Figure 3-14, Existing Utility Water Building and Hydropneumatic Tank

The utility water system improvements include the following:

- Replace the existing air gap tank to ensure protection of the in-plant potable water system
- Replace the existing hydropneumatic tank after the new 3W reuse water system is operational
- Replace the existing utility water underground piping network and isolation valves
- Construct new 3W effluent recycling pump station
- Provide capability for the existing potable water system to back up new 3W reuse water system

These improvements are highlighted in green on Figure 3-15.

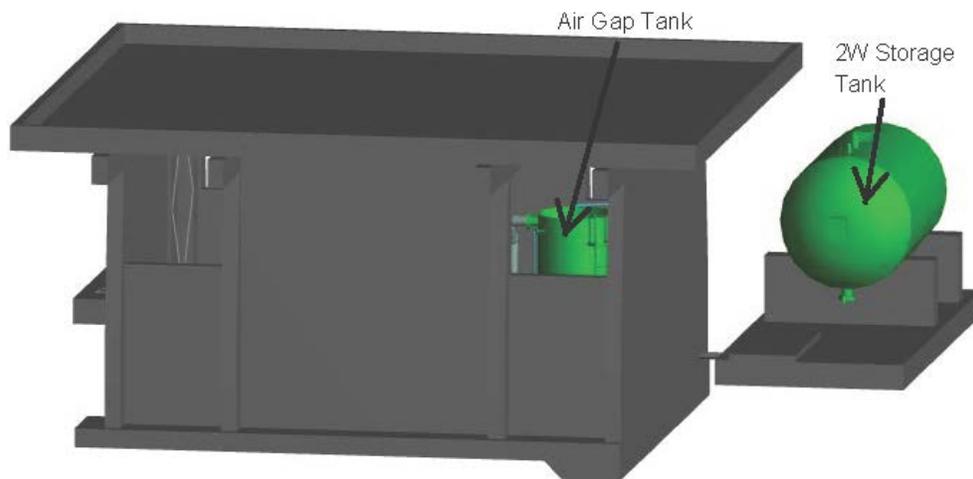


Figure 3-15, 3D Model of Utility Water System Improvements

(5) Effluent Flow Monitoring Facility

Description of existing conditions:

The existing chlorine contact tank shown in Figure 3-16 is currently used for effluent flow measurement and sampling. Portions of the structures are in an advanced state of structural deterioration. The plant currently meets permitted effluent limits without any form of chlorine addition for disinfection prior to discharge. Rehabilitation of the tank was previously considered, but, due to its structural condition, a replacement effluent flow monitoring facility that also serves as a 3W pump station is recommended.

Improvements under this project:

- A new effluent structure combining flow measurement, effluent sampling, and recycled plant effluent pumping will be constructed adjacent to the existing secondary effluent valve vault.
- The new effluent structure will replace the existing chlorine contact tank. The existing tank will be demolished and buried 2 feet below grade.
- In order to prevent regrowth in the system and maintain R-2 class reuse water, the system will be provided with a sodium hypochlorite disinfection system. The system will consist of diaphragm metering pumps, totes for storage, and the associated piping and safety valves located in a curbed containment area on the south side of the facility.



Figure 3-16, Existing Chlorine Contact Tank

A 3D rendering of the new facility is depicted in Figure 3-17. The approximate location of the new structure is outlined in Figure 3-18. A Kamani tree will be removed to install a new driveway for the facility as shown in Figure 3-19.

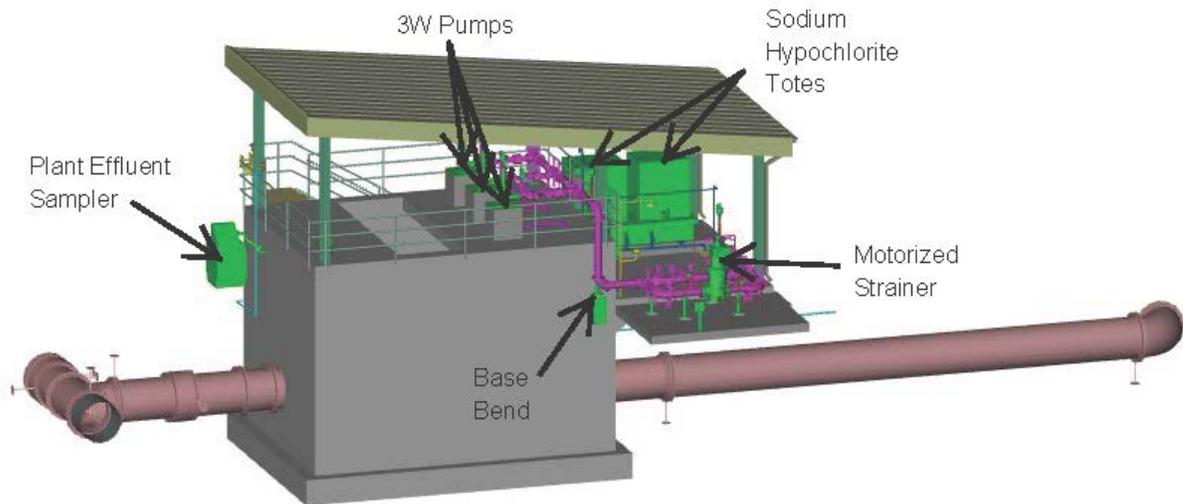


Figure 3-17, 3D Model of Effluent Flow Monitoring Facility



Figure 3-18, Location of New Effluent Flow Monitoring Facility

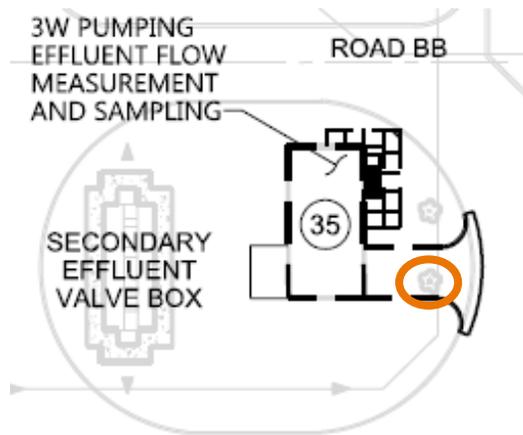


Figure 3-19, Location of Tree Removal for New Effluent Flow Monitoring Facility Driveway

B. Construction Access and Staging

The only access into the Waianae WWTP is from the main gate on Farrington Highway. Farrington Highway is the major thoroughfare along the Leeward coast of Oahu, connecting Makaha to the north with Kapolei to the south. The movement of construction equipment and materials in large trucks and tractor-trailers could temporarily disrupt the four-lane Farrington Highway. Over the course of the construction there will be an increase in vehicle trips due to construction workers entering and exiting the site.

All construction staging and stockpiling will occur within the existing WWTP boundary and will not affect surrounding areas.

C. Alternatives Considered

As part of this project, Design Alternatives Reports (January 2016) were prepared to evaluate various options for the improvements that were needed at the Waianae WWTP. The options that were considered were similar, from an environmental impact perspective, to the project that is proposed here. For example, for the primary clarifiers' internal mechanisms different submerged rake systems and different materials and coating systems were considered; for the headworks facility, different screen technologies and mesh sizes were considered. As previously described, rehabilitating the chlorine contact tank was a consideration that was eliminated due to the structure's condition; the location for the replacement effluent flow monitoring facility is limited by the layout of the plant site and proximity to the effluent flow piping. Thus, detailed project alternatives and options were previously considered that were eliminated from consideration for mostly technical or marginal cost-benefit reasons; these eliminated alternatives and options would not provide an improved environmental or social impact than the proposed project. The remaining alternatives that follow are more an issue of timing.

i) No-Action Alternative

The "no action" alternative would retain the existing facility with no changes. The tanks, pumps, pipes, and mechanical equipment would not be repaired or replaced to provide the necessary improvements and upgrades. This option would mean there are no environmental impacts resulting from construction. However, the "no action" alternative would allow the treatment plant structures and equipment to continue without rehabilitation, increasing risks of spills or of violating the NPDES permit conditions. Therefore the "no action" alternative is rejected from further consideration.

ii) Delayed Construction

The "delayed action" alternative would postpone construction of the improvements to an unspecified date in the future. This would allow the current facilities to degrade, which would increase the risks of spills or of violating the NPDES permit conditions. The construction funding allocated for this project must be awarded by June 2017. The "delayed action" alternative is also rejected from further consideration.

D. Project Costs and Schedule

i) Estimated Costs

Estimated construction costs for the proposed improvements described in this EA are \$14.05 million. Overall, there will be no increase to annual operation and maintenance costs due to the proposed improvements. In the short-term, say for 5 to 10 years or longer, the cost of executing emergency or major repairs and replacements – for example, pipe breaks – would be reduced for the facilities and equipment to be renovated or replaced in this project. The recycling of plant effluent for utility water use is anticipated to reduce the potable water fee that ENV pays to BWS by roughly \$50,000 per year.

ii) Time Phasing of Construction

Construction is estimated to begin in late 2017. Construction will require approximately 18 months to complete.

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Section 4. Environmental Characteristics, Potential Impacts, and Mitigation Measures

A. Topography

The Waianae WWTP resides in the area between Maili and Pokai Bay, adjacent to the Waianae Mountain Range along the coast. The grade elevation varies from +10 feet Mean Sea Level (MSL) on the ocean side to +34 feet MSL on the mountain side of the plant. The eastern side of the plant is surrounded by steep hills, which are densely covered by Kiawe and Kamani trees. The project site itself is relatively flat.

Potential Impacts and Mitigation Measures

No substantial changes to the site's topography will occur. Improvements to existing structures will not change the topography of the site. The new odor control system will be installed on a slab-on-grade. Excavation to a depth of approximately 15 feet, and removal of 1100 cubic yards of soil, will be required to construct the new effluent flow monitoring facility, but the surrounding area will remain graded to the existing ground elevation. Best Management Practices (BMP) will be implemented as required by the Department of Health (DOH) NPDES Permit for Storm Water Discharges from Construction Activities and the CCH Grading Permit which will minimize soil erosion and fugitive dust during any grading or excavation.

B. Soils and Geologic Conditions

The project site is located on the remnants of the weathered and eroded Waianae Volcano, which formed the western side of the Waianae Range. The soil is composed predominantly of Mokuleia clay (Mtb). This soil has a very dark grayish-brown clay surface layer that is about 16 inches thick. The characteristics of this soil include slow permeability, very slow runoff, and a slight erosion hazard (Soil Conservation Services, August 1972).

Potential Impacts and Mitigation Measures

The project will disturb soil to replace the utility water underground piping and excavate for the new effluent flow monitoring facility, but will not change the overall soil composition at the site. Construction erosion control practices, incorporated into the Erosion Control Plan and Storm Water Pollution Prevention Plan, will be implemented by the contractor to mitigate impacts of soil erosion from earthwork activities. Review guidelines from ROH Section 25-3.2(a)(4), *"Alterations to existing land forms and vegetation; except crops, and construction of structures shall cause minimum adverse effect to water resources and scenic and recreational amenities and minimum danger of floods, landslides, erosion, siltation, or failure in the event of earthquake,"* will be adhered to such that the development at the site will not have any substantial, adverse environmental or ecological effect.

C. Climate

The project site is located on the semi-arid Waianae coast, which had an average annual precipitation of 24.6 inches over the last 30 years. Average temperatures in Waianae range from 75.6 degrees Fahrenheit in the winter to 77.6 degrees Fahrenheit in the fall. The highest recorded temperature is approximately 97 degrees Fahrenheit. Wind data is unavailable for this project location. The nearest collection location is at Barbers Point Naval Air Station. Typical wind conditions at this location are tradewinds from the northeast at speeds of 3 to 20 knots.

Potential Impacts and Mitigation Measures

Improvements to the site should not have any impacts on the climate. Existing use will remain the same and will not generate additional greenhouse gas emissions; therefore, no mitigation measures are needed.

D. Natural Hazards

i) Flooding

The area of the proposed improvements ranges in elevation from +10 to +34 feet above MSL. As shown in Figure 4-1, a section of the project site lies within Flood Hazard Zone AE. This area is prone to inundation by a 100-year flood, with base flood elevations ranging from +12 to +15 feet above MSL. There are no improvements proposed within the portion of the site designated as Zone AE.

The remaining portions of the site where facility improvements will be constructed lies in the area designated Zone D. Zone D areas have possible but undetermined flood hazards.

ii) Tsunami

Tsunamis potentially destructive to the Hawaiian Islands may originate anywhere around the rim of the Pacific Ocean and may also be locally generated by earthquakes on or near the islands. Approximately 50 tsunamis have been reported in the Hawaiian Islands since the early 1800s. The State of Hawaii Civil Defense established tsunami inundation zones and maps for all coastal areas in Hawaii. The Waianae WWTP is located within the tsunami evacuation zone, see Figure 4-1. The improvements to be implemented for this project would not exacerbate the effects of a tsunami.

iii) Seismic Hazard

International Building Code (IBC) classifies a structure based on its seismic use group and the severity of potential earthquake ground motion at the site. Oahu is designated as Seismic Zone 2a (U.S. Geological Survey, 2001). All of the proposed improvements will conform to Seismic Zone 2a Building Standards, and they will not increase the seismic vulnerability of the site.

iv) Hurricane and Wind

Improvements to the project site will not increase the vulnerability of the site to hurricane and wind loadings. Structures will be designed to meet hurricane wind loadings as specified in the Building Code and equipment will be bolted down to mitigate potential harm.

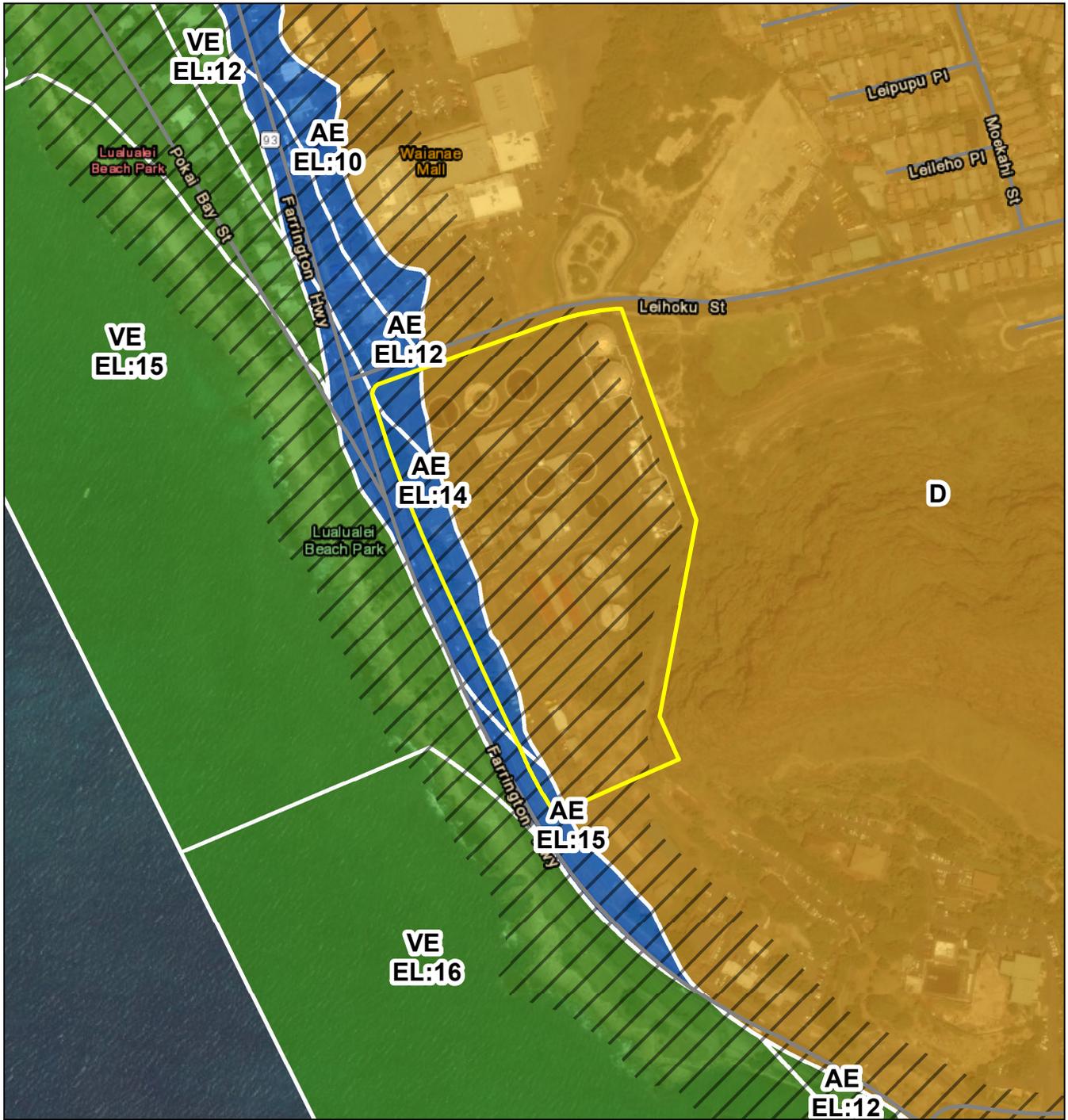
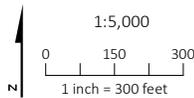


Figure 4-1
Flood and Tsunami Evacuation Zones
Waianae WWTP Improvements and Upgrade Draft Environmental Assessment
Waianae, Hawaii



Note:
 EL = Elevation in Feet



v) Sea Level Rise

Climate changes are currently considered a threat to all coastal areas. Over time, changes due to sea level rise are anticipated to erode beaches and cause damage to low lying areas. Stronger storms and more severe flooding also have the possibility of occurring as sea levels continue to rise.

Planning for sea level rise is challenging as there are several changing and unknown factors. The United States Army Corp of Engineers (USACE) has developed tools and references for guidance. In regards to long range planning, the USACE highlights that *“The climate for which the project was designed can change over the full lifetime of a project to the extent that stability, maintenance, and operation may be impacted, possibly with serious consequences, but also potentially with beneficial consequences.”* SMART (S: Specific, M: Measurable, A: Attainable, R: Risk Informed, and T: Timely) planning is the risk informed, decision making approach recommended to integrate planning and engineering when assessing sea level rise. Collaboration with other Agencies is also encouraged as this threat is likely to have a common impact on all infrastructure alike. (USACE (2014). Procedures to Evaluate Sea Level Change: Impacts, Responses, and Adaptation; ETL 1100-2-1).

The USACE sea level rise calculator, available on the USACE Climate Change website, was utilized to provide sea level rise projections. Figure 4-2 is the output of the results for 2016 to 2036.

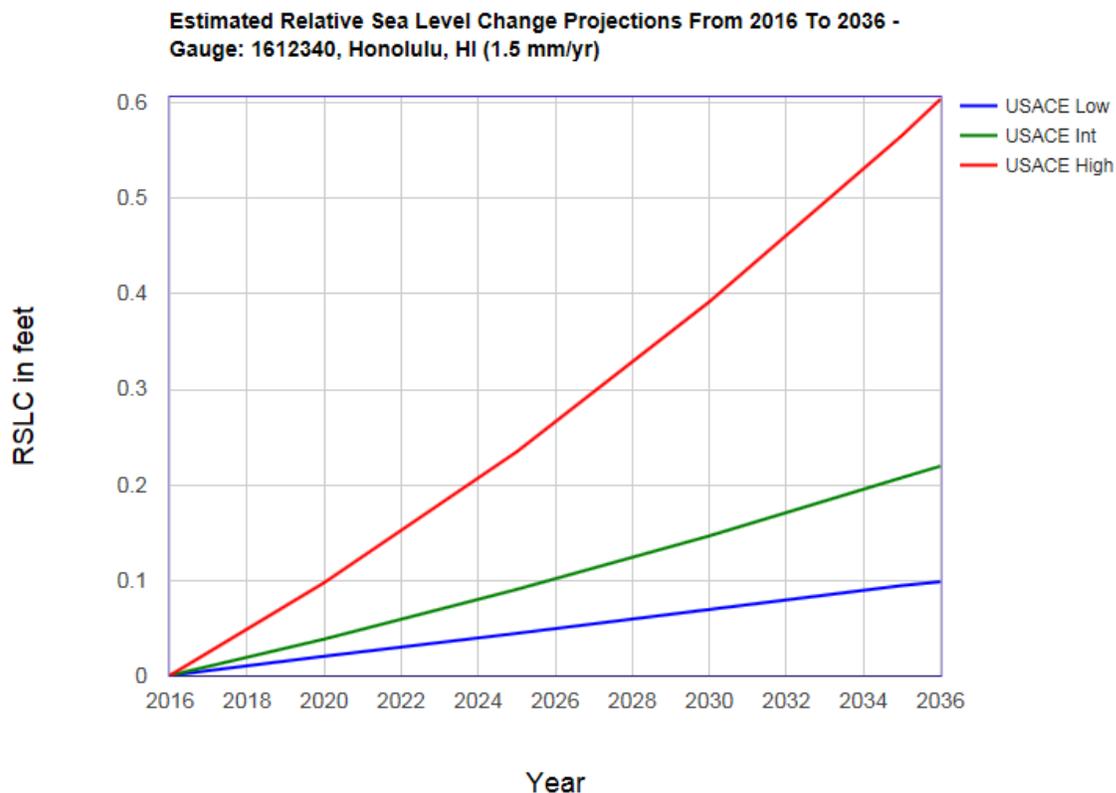


Figure 4-2, Relative Sea Level Change (RSLC) Projections for Honolulu, HI (2016-2036)

In addition to the USACE tools and references, there are also ongoing efforts at the State and CCH to evaluate changes that need to be made to current rules, regulations, and practice standards, with the ultimate goal of establishing a standard that can be implemented State wide.

The University of Hawaii School of Ocean and Earth Science and Technology (UH SOEST) has also been studying sea level rise and is assisting the State in preparing recommendations. UH SOEST is in the preliminary stages of its work at this time.

Potential Impacts and Mitigation Measures

Construction and operations of the proposed improvements are not anticipated to create conditions that could exacerbate the Natural Hazards discussed in this section. The proposed improvements to the existing Waianae WWTP are located in Zone D at an elevation of approximately 17 feet above mean sea level. Adverse effects associated with flooding are not anticipated.

Although the project site is located within the Tsunami Evacuation Zone, outside of the area considered to be safe from tsunami inundation, the proposed project is not anticipated to create conditions that could exacerbate the effects of a tsunami. In the event of a tsunami warning, the Department of Environmental Services, Division of Wastewater Treatment and Disposal, Directive 0-22 “Tsunami Emergency Procedures” will be referred to and followed as necessary. No further mitigation measures for a tsunami are proposed.

Seismic hazards do pose a threat to the proposed project, however, those events are relatively uncommon along the Waianae coast. The proposed project will conform to IBC Seismic Zone 2a Building Standards. In the event of an earthquake, the Department of Environmental Services, Division of Wastewater Treatment and Disposal, Directive S-6 “Earthquake Safety-Emergency Procedures” shall be referred to and followed as necessary. No further mitigation measures for seismic hazards are proposed.

The improvements constructed under the proposed project will be designed to withstand hurricane force winds, meeting wind loading requirements as specified in the IBC. In the event of a hurricane, the Department of Environmental Services, Division of Wastewater Treatment and Disposal, Directive 0-1 “Operator Procedures during Emergency Situations such as Hurricanes, Tsunamis, Rainstorms, Windstorms, Earthquakes, Bob Threats, Power Failures, etc.” shall be referred to and followed as necessary. No further mitigation measures for hurricane and wind are proposed.

Using tools and information made available by the USACE, the proposed project is not anticipated to be significantly affected by sea level rise within the twenty year planning period for this project. The USACE sea level rise calculator results in Table 4-1 indicate that by 2036, the projected sea level rise is in the range of 0.1 to 0.60 feet. At grade improvements constructed under the proposed project are at an average elevation of 17 feet above MSL. State and City policies and regulations on sea level rise mitigation are still in the process of development. As these issues become clearer, the planning for additional long-range improvements at the Waianae WWTP will need to appropriately address these issues in the future. No further mitigation measures for sea level rise are included in the proposed project, which is focused on near-term needs for rehabilitation of the facility.

Table 4-1, Schedule of Sea-level Rise 2016 to 2036

Waianae WWTP Improvements and Upgrade 1612340, Honolulu, HI NOAA's Published Rate: 0.00492 feet/year All values are expressed in feet			
Year	USACE LOW	USACE INT	USACE HIGH
2016	0.00	0.00	0.00
2020	0.02	0.04	0.10
2025	0.04	0.09	0.23
2030	0.07	0.15	0.39
2035	0.09	0.21	0.56
2036	0.10	0.22	0.60

Located at the Waianae WWTP is an existing ocean outfall. It is likely that over time, this existing outfall will experience reduced flow capacity due to the effects of sea level rise. CCH has an ongoing project to assess the current condition of this outfall (“Waianae WWTP Outfall Improvements/Rehabilitation”), which will include assessing the potential damage from shoreline erosion. Addressing all the impacts of sea level rise on this outfall system will likely be done in future planning efforts.

CCH recognizes the threat of sea level rise and the importance of planning for its effects. Full support and participation will be provided towards the ongoing efforts to establish State-wide policies and regulations.

E. Flora and Fauna

During the initial construction of the WWTP the site was completely graded and landscaped with grass or gravel along interior areas, and Kamani trees around the outer periphery. The Environmental Impact Statement on the Expansion and Upgrading of the Waianae Wastewater Treatment and Disposal System (M&E Pacific, Inc., 1977), the Final Supplemental Environmental Impact Statement for the Expansion and Upgrading of the Waianae Wastewater Treatment and Disposal System (M&E Pacific, Inc., 1983), and the Environmental Assessment for the Waianae Wastewater Treatment Plant Secondary Treatment Facilities (R.M. Towill Corporation, 1993) reported that there are no endangered flora or fauna on site.

Potential Impacts and Mitigation Measures

The new effluent flow monitoring facility is located near two Kamani trees. One of the trees will need to be removed in order to place a new driveway for the station. Measures will be put in place to protect the second tree from damage during construction. Development of other new structures will not have an impact on flora and fauna, since gravel covers the entirety of these proposed locations.

F. Water Resources and Water Quality

There will be no significant change to the wastewater treatment process due to this project. The improvements will enhance the reliability of the impacted structures and equipment that are employed in the process. No surface water resources are in the project area.

Improvements for this project will enhance the reliability of the utility water system. The new odor control system will increase water demand by about 675 gallons per day. However, overall there will be a reduction in potable water demand due to the use of recycled effluent, which will conserve the area’s freshwater resources.

The groundwater elevation ranges 9 to 15 feet below grade throughout the site. The new odor control unit pad will be installed on grade and will not have any effect on groundwater. Excavation for the new effluent flow monitoring facility will likely require minimal dewatering, since groundwater is only expected to be encountered within the last few feet of the excavation. The flow is roughly estimated to be 250 gallons per minute.

Potential Impacts and Mitigation Measures

No fresh water resources would be affected by this project. The proposed improvements would not change the treatment capacity or effluent quality; therefore there will be no change in marine water quality.

The uncontaminated pumped groundwater will be reused for dust control where feasible. The remaining water will be disposed of. For the contractor to dispose of groundwater into the wastewater treatment plant, the contractor will comply with the provisions of CCH Industrial Wastewater Discharge Permit for Temporary Discharge into CCH Sewer System. If CCH will not allow this discharge into the wastewater system, the contractor will obtain an NPDES Permit for Storm Water Discharges from

Construction Activities (HAR 11-55 Appendices G and A) from DOH Clean Water Branch and Permit to Discharge into the State Highways Drainage System from Department of Transportation. BMPs will be implemented as required by those permits.

Dewatering required for construction is a small quantity, and BMPs will be implemented if the discharge is disposed of into a storm drain. Therefore, construction would not have an adverse effect on groundwater or nearshore waters. There are no permanent impacts to water resources and water quality expected from this project.

G. Air Quality

In the past, the Waianae WWTP has received complaints about the odor emanating from the site. A recent analysis for air quality at the Waianae WWTP found that H₂S production and release is the most prominent cause of odor at the location.

Potential Impacts and Mitigation Measures

The proposed improvements include a new odor control system for the primary influent and effluent distribution boxes and the covered primary clarifier launders. The addition of this system will improve the air quality for the surrounding Waianae area by reducing levels of H₂S. The Environmental Protection Agency (EPA) is an agency of the U.S. federal government that was created for the purpose of protecting human health and the environment. Under the Clean Air Act, the EPA establishes national ambient air quality standards to protect public health and welfare nationwide. The DOH Clean Air Branch is responsible for air pollution control in the State and limits the average concentration of H₂S in ambient air to 25 parts per billion in any one-hour time period. These regulations are a part of HAR 11-59-4, "Ambient air quality standards." In HAR 11-60.1-62 and 11-60.1-82, a permit is required prior to construction, modification, or operating a stationary air pollution source or air pollution control equipment. Since the installation of the new odor control system will not increase emissions from the site, a request for determination letter for a non-covered source permit exemption will be submitted to DOH. Verification that the improvements are meeting the aforementioned standards will be provided as part of the exemption process.

During construction, the contractor will be responsible for maintaining all its equipment to minimize emissions. The contractor will comply with HAR 11-60.1-33, Fugitive Dust, pertaining to dust control. Implementation of BMPs for soil erosion will minimize fugitive dust from construction activities.

Measures that are expected to be used to control airborne emissions include the following:

- Use water, dust fences, disturbance area limitations, and revegetation to minimize dust emissions
- Stabilize all disturbed areas with erosion control measures
- Cover open-bodied trucks whenever hauling material that can be blown away
- Stabilize construction entrances to avoid offsite tracking of sediment
- Stabilize sites that would not be disturbed for 21 or more days with grass or gravel

No adverse impacts associated with air quality, in the short term (dust) and long term (H₂S emissions) are anticipated to occur as a result of the project.

H. Noise

Current noise generators in the vicinity of the Waianae WWTP are primarily existing fan and pumping systems, as well as motor vehicles on Farrington Highway. Per HAR 11-46-3, the project area is located

in the Class C Zoning District (country, industrial), where maximum permissible sound levels are 70 dBA during the daytime (7 am to 10 pm) and nighttime (10 pm to 7 am).

Potential Impacts and Mitigation Measures

Construction noise impacts are unavoidable, but will be temporary. Noise levels produced during construction are a function of the methods employed during each stage of construction. Equipment likely to be used include crane, excavator, backhoe, grader, forklift, dump trucks, concrete trucks, compactors, paving equipment, and compressors. A Community Noise Permit (HAR 11-46-7) will be obtained prior to beginning construction activities because they are likely to exceed the maximum permissible noise levels at the property line. Specific permit restrictions required for construction projects, per HAR 11-46-7(j), include the following:

- No permit shall allow construction activities creating excessive noise before 7 am and after 6 pm of the same day.
- No permit shall allow construction activities that emit noise in excess of 95 dBA except between 9 am and 5:30 pm of the same day.
- No permit shall allow construction activities that exceed the allowable noise levels on Sundays and on certain holidays. Pile driving and other activities exceeding 95 dBA would be prohibited on Saturdays.

Diversion pumps may also be used to temporarily divert flow to allow construction workers to enter existing structures. These pumps will run 24 hours per day, 7 days per week, as required to control flows. The pumps are typically enclosed to minimize noise.

A Community Noise Variance (HAR 11-46-8) will be obtained for flow diversion pumping activities if the contractor selects a pump that exceeds the maximum permissible noise level (70 dBA) at the property line, and also if work hours need to be extended beyond permit restrictions to implement the overall construction schedule.

The contractor will implement noise mitigation such as maintenance and proper muffling of construction equipment and onsite vehicles that exhaust gas or air.

There are no recent noise complaints on record for the WWTP. Permanent impacts from new noise generators include the new pumps at the effluent flow monitoring facility and the fan for the odor control system. The new odor control system fan is specified to emit 85 dB at 5 feet, otherwise an enclosure to reduce noise will be required. This unit is 368 feet from the nearest fence line and is surrounded by other structures and equipment that generate similar noise levels, so any change to long-term operational noise is not expected to be noticeable. The new roof mounted exhaust fan on the adjacent primary clarifier pump room is estimated to be 62 dB at 5 feet, and for the same reasons is not expected to create adverse noise impacts. The new effluent flow monitoring facility pumps are approximately 150 feet from the fence line along Farrington Highway and 260 feet from the fence line on Leihoku Street. These type of pumps are typically 60-90 dB at 1 meter, which is unlikely to be noticeable at the fence line because it is a similar level to vehicle noise.

I. Utilities and Infrastructure

i) Water System

During construction, potable water use by the contractor will likely be through a temporary hydrant meter. This temporary demand should not adversely impact in-plant or local potable water supplies; otherwise, the contractor will supply its own water.

The only new potable water supply demand is for an emergency eye wash and shower at the effluent flow monitoring facility. Because it is only for emergency use, there will be minimal change to the potable water supply demand or pressure.

The use of recycled plant effluent and the replacement of the in-plant utility water system distribution piping will increase the reliability of the system. Both of these improvements will reduce the demand on the potable water supply.

Expansion of the water recycling system proposed in this project to services outside of the Waianae WWTP boundary can be considered in the future. Additional treatment processes will be required, such as filtration and disinfection for R-1 water quality, as well as storage and distribution facilities. Expansion of the water recycling facility can further reduce demands on the local potable water supply, but is not a direct consideration for this project.

ii) Wastewater

Wastewater enters the Waianae WWTP through a gravity-fed 42-inch sewer main from Farrington Highway. The treated effluent is discharged from the WWTP 6,180 feet offshore through a 36-inch outfall.

The proposed improvements will not change the treatment capacity or effluent quality, and there are no new sources of wastewater generated. Therefore, there will be no increase in wastewater flow induced by this project. These improvements will not affect current compliance with HAR 11-62, Appendix A, Compliance with Wastewater Effluent Standards.

iii) Storm Drainage

The project site is bounded by a steep hill, but the site itself is relatively flat with a gradual slope downward from east to west, towards Farrington Highway. There are no drainage structures in the facility, so runoff sheet flows towards the graveled depression on the northwest corner of the site. There is an existing grassed swale around the perimeter of the site that directs run-on from the mauka side of the site, along Leihoku Street, and also to the graveled depression on the northwest corner of the site. The runoff from the depression can overflow to a culvert along Farrington Highway which discharges into a 48" pipe. The storm drain pipe crosses Farrington Highway and exits near Lualualei Beach. From here, the runoff water flows across the beach to the ocean.

Proposed improvements for the new odor control unit and new effluent flow monitoring facility will result in an increase of impervious area. Because the existing ground surface surrounding these proposed improvements are large gravel areas, stormwater in these localized areas will likely continue to infiltrate through the gravel and underlying soils resulting in a negligible increase in runoff. Other improvements do not increase impervious area, and therefore runoff quantities would remain unchanged. Changes in runoff will be mitigated as required by CCH Storm Water Drainage Standards.

During the construction period, erosion will be minimized through compliance with the CCH grading ordinance and the applicable provisions of the DOH's Water Quality Standards (HAR 11-54) and Water Pollution Control requirements (HAR 11-55). The project will disturb over 1 acre of soil, and therefore will also be subject to the requirements of the NPDES General Permit for Storm Water Discharges from Construction Activities (HAR 11-55 Appendices C and A). Storm water BMPs will be employed to minimize impacts, as detailed in construction plans. No significant storm drainage impacts are anticipated.

The contractor will be responsible for cleaning tracked out sediment or spills, and repairing damages to existing roadways that may occur during construction.

iv) Electrical

During construction, the contractor will need power for their site trailer, equipment, and tools. Power supply may come from the plant's circuit, through a separate drop from Hawaiian Electric, or from the contractor's generators. This temporary demand should not significantly impact HECO or the plant's distribution system.

Overhead electrical and communication lines pass above the entrance to Waianae WWTP. Large equipment/vehicles will need to be checked for clearance before entering the site.

The proposed improvements will not significantly increase the electrical usage of the treatment plant.

v) Solid Waste

Short term impacts will include construction waste and a surplus of soil excavated for the new effluent flow monitoring facility. All construction waste will be disposed at an approved off-site location.

Overall, the proposed improvements will not significantly change the quantity or characteristics of the solid waste or biosolids generated onsite.

J. Hazardous Waste and Materials

No known hazardous waste sites have been identified on the project property. Chemicals classified as hazardous materials are stored at the Waianae WWTP for use in the wastewater treatment process and for facility maintenance.

There could be lead-based paint encountered in the removal of the air gap tank in the utility water building. There also may be lead-based paint in some of the other coatings, but a formal survey has not been performed in order to identify or quantify the extent. It is unlikely that asbestos-containing materials will be found during this work.

Potential Impacts and Mitigation Measures

The proposed improvements include the use of sodium hypochlorite solution for disinfection of the 3W recycled effluent, to reduce the facility operations staff's exposure to pathogenic microorganisms in the secondary effluent. The chemical storage will meet requirements for spill prevention and control as well as fire protection. Otherwise, the project will not change the chemicals used for facility operations.

The contractor will comply with State of Hawaii, DOH regulations during the demolition activities. If hazardous material is discovered during the construction phase the DOH, Environmental Management Division, Solid and Hazardous Waste Branch will be contacted immediately. All work will be halted until mitigation methods are put into place. The contractor will be responsible for receiving a Temporary Emergency Permit (TEP) to treat, store or dispose of hazardous waste.

K. Traffic and Roadways

The proposed improvements are entirely within the WWTP property and do not extend into public thoroughfares. A 20-foot wide main gate from Farrington Highway is the only point of access to the site. Construction workers will enter and exit the site via this gate on a regular basis. Peak traffic is generally southbound in the morning and northbound in the afternoon. The proposed project is not anticipated to increase the volume of traffic in the peak direction significantly, nor will it impede pedestrian and bicycle access along Farrington Highway.

Over the course of construction, there will be occasions when vehicle movements will include transporting office and storage trailers, heavy equipment, construction materials, demolition waste, and excavated soils. An Operating Oversized and Overweight Vehicles on State Highways Permit will be

obtained prior to construction, as needed. Mitigation measures include limiting deliveries to off-peak traffic hours (8:30 AM to 3:30 PM) and using flagmen to regulate traffic flow. Lane closures are not expected for these improvements.

There are no long-term impacts to traffic or roadways anticipated as a result of these improvements. The contractor will be responsible for cleaning tracked out sediment or spills, and repairing damages to adjacent roadways that result from their activities.

L. Parking

Parking for staff and visitors is located within the boundary of the WWTP, from the Administration building to the Maintenance Storage building. There is no parking along Farrington Highway and the closest public parking is on Leihoku Street. Parking for staff and visitors will not be affected by the construction activities. Contractor staff will park at the designated staging area onsite. There will be no impact to public parking during construction, since all construction activities will be confined within the plant boundary. There will be no changes that would have long-term impacts on parking.

M. Socio-Economic Characteristics

The improvements proposed for the Waianae WWTP are required to maintain the current capacity and performance of the plant by rehabilitating or replacing existing process basins and equipment. Because these improvements do not change the use of the plant, they do not have the potential to create changes to land use in the surrounding area or affect growth of the surrounding population. Overall, the project's social impact will be a benefit to the community, as it will continue to be provided a consistent service that meets current regulatory criteria.

A goal in the Waianae Sustainable Communities Plan (2012) is to reduce odor emissions from the Waianae WWTP. Therefore, the installation of a new odor control unit is consistent with the plan. The improvements will rehabilitate and replace existing facilities and equipment at the plant, and new facilities constructed as part of this project are within the function of the existing plant scope. The project will not change the local economy by creating or displacing jobs. No socio-economic mitigation measures are needed.

N. Public Facilities and Services

i) Recreational Facilities

The following recreational facilities are located along the coast within a mile from the Waianae WWTP:

- Waianae Kai Military Reservation
- Pokai Bay Boat Harbor
- Pokai Bay Beach Park
- Lualualei Beach Park
- Maili Beach Park

Potential Impacts and Mitigation Measures

The proposed improvements will have no impact on effluent quality, and therefore there will be no changes in water quality at nearby recreational facilities. The proposed improvements will not generate additional noise or air emissions that would adversely affect the quality of the recreational experience. There will be no effect on access to recreational sites or facilities.

O. Historic, Archaeological and Cultural Resources

i) Historic and Archaeological Resources

The area of potential effect includes the entirety of TMK 8-6-001: 004. The Waianae WWTP was originally constructed in 1967 and began operations in 1968 as a primary treatment plant. The plant was upgraded in 1988 to provide advanced primary treatment plant. Another series of upgrades occurred in 1993, when the plant was improved to provide secondary wastewater treatment. The WWTP facility includes buildings for administration and operations, as well as various tanks, piping systems, and mechanical equipment and controls.

Two environmental review documents were previously completed for the project area. The Environmental Impact Statement on the Expansion and Upgrading of the Waianae Wastewater Treatment and Disposal System (M&E Pacific, Inc., 1977) stated that no historic sites were known to exist in the area affected by that project. The Final Supplemental Environmental Impact Statement for the Expansion and Upgrading of the Waianae Wastewater Treatment and Disposal System (M&E Pacific, Inc., 1983) also stated that no historic sites were known to be present. This finding was acknowledged in a letter from the State Historic Preservation Office dated January 20, 1983.

More recently, improvements to Lualualei Beach Park, located makai of the WWTP, were completed in the late 2000s. The Final Archaeological Monitoring Report for the Reconstruction of the Wastewater System at Lualualei Beach Park, Comfort Stations "A" and "B" (Cultural Surveys Hawaii, Inc., 2009) reported that no archaeological materials were observed within sediments disturbed by the project's activities.

Potential Impacts and Mitigation Measures

The proposed improvements will largely involve construction and equipment upgrades above ground. However, a new recycled water pump station and effluent flow monitoring facility will require construction approximately 15 feet below ground. The building site for the new effluent flow monitoring facility was previously graded, but had remained undeveloped. Replacement of the utility water system's distribution piping and the electrical ductwork will require shallow trenching.

On-site improvements completed in the late 1970s and 1980s and construction activities immediately makai of the project area in the late 2000s did not unearth cultural artifacts. Thus, the likelihood of encountering cultural resources during the proposed construction is expected to be very low.

If burials or other cultural finds are encountered during ground disturbance or other construction activities, work will stop immediately, and the appropriate agencies will be notified pursuant to HRS Chapter 6E.

ii) Cultural Impacts

Since the WWTP was constructed beginning in the 1960s, the property has been fenced for safety and security. Access to public facilities and amenities is available via roadways adjacent to the WWTP, but is not permitted through the plant itself. Because of the existing development, there are no resources for cultural practices within the project area. The proposed improvements will not affect this condition.

P. Visual Resources

The Waianae WWTP is located on the mauka side of Farrington Highway. The highway runs close to the ocean in some areas of the Waianae coast; beaches dot the coastline and panoramic makai views are afforded to motorists and other highway users. The site is near the base of Puu Maililii (elevation 723),

which is a significant visual feature of the Waianae view shed, as identified in the Oahu Coastal View Study (Chu & Jones, City and County of Honolulu, DLU, 1987).

Although Farrington Highway fronts the WWTP, the facility is largely screened from view by Kamani and Plumeria trees planted along the fence line. The view from Waianae Mall Shopping Center just north of the plant and Leihoku Street are somewhat screened by the shower trees planted along the sidewalk and the WWTP's perimeter berm. A residential area is located on higher elevation to the east of the plant. The subdivision consists mostly of two-story single family homes with coastal views over the facility.

Zoning for the WWTP site specifies a maximum height limit of 40 feet (Land Use Ordinance, Section 21-3.140-1). Existing facilities that exceed this height limit have received a variance; these structures will not be modified by this project. The proposed improvements will not affect the current height of any structure, except for the demolition of the chlorine contact tank. The two new structures – the biological odor control system and effluent flow monitoring facility – each has a design height of approximately 15 feet at its highest point.

Potential Impacts and Mitigation Measures

The proposed project would have a short-term aesthetic impact associated with construction activities. The Kamani and Plumeria trees surrounding the property would partially block views of construction activity as seen from the adjacent roads.

The biological odor control vessel is 10 feet tall with additional 3 feet of handrails. It will be located adjacent to the primary influent and effluent distribution boxes, the primary clarifiers at approximately the same height, and the 30-foot-tall solids building. It is similar in height to nearby buildings, and it is in the center of the site, so the view is blocked by many other buildings.

The new effluent flow monitoring facility is close to the fence line along Farrington Highway. The Kamani and Plumeria trees fronting Farrington Highway would mostly hide the visual impact of the new structure, see Figure 4-3. The height of the structure is 15 feet at the highest point, approximately the same height of surrounding buildings. Architectural features will generally match the look of the other structures, resulting in a minimal visual impact.



Figure 4-3, Trees Will Screen the New Effluent Flow Monitoring Facility, Location View from Farrington Highway (Google Maps)

Because the WWTP is located on the mauka side of Farrington Highway and proposed improvements are located in the interior of the complex, the overall visual impression would not change substantially. The proposed project would not change existing coastal views from public roadways.

Q. Potential Cumulative and Indirect Impacts

Waianae WWTP Improvements and Upgrades is a self-contained project. It would not change the capacity of the existing wastewater treatment plant and is not expected to have secondary impacts, such as population change, new land development, or effects on other public facilities and services. No other infrastructure construction projects have been identified in the vicinity of this project, thereby reducing the potential for cumulative adverse impacts to resources such as air quality, water quality, noise, and traffic.

Section 5. Consistency with Plans and Policies

A. The Hawaii State Plan

The Hawaii State Plan was adopted in 1978 to provide a guide to increase the effectiveness of the government and private actions and to identify priorities for the sensible allocation of resources for the future development of the State. HRS Chapter 226 covers three sections:

Part I, covers the overall theme, goals, objectives and policies set in place for the State of Hawaii.

Part II, describes a statewide planning system to coordinate and guide all major state and county activities and to implement the overall theme, goals, objectives, policies, and priority guidelines.

Part III, is to establish overall priority guidelines to address areas of statewide concern.

Section 226-15 of the Hawaii State Plan's goals, objectives, and policies is relevant to the proposed action. Other sections are not applicable.

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

(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.

(2) Provision of adequate sewerage facilities for physical and economic activities that alleviate problems in housing, employment, mobility, and other areas.

(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.

(2) Promote re-use and recycling to reduce solid and liquid wastes and employ a conservation ethic.

The proposed project is consistent with objectives and policies in the Hawaii State Plan. The project will improve the WWTP's ability to meet regulatory requirements and continue to provide reliable wastewater treatment services to the surrounding community. Specifically, improvements to the headworks facility will increase the reliability of the treatment process. The addition of a new odor control unit will reduce odor emissions from the site. Recycling of plant effluent for in-plant water use will conserve potable water supplies.

B. State Land Use Law

The State Land Use Law was originally adopted in 1961, which is responsible for preserving and protecting State lands and encouraging the most effective use to which these lands are suited. The State of Hawaii's lands are classified into four districts: Urban, Rural, Agricultural, and Conservation. The project site is located in the State Land Use Urban District. Wastewater treatment facilities are an approved public use within this District, see Figure 5-1. Land uses within the Urban District are regulated through the CCH Land Use Ordinance, ROH, Chapter 21. No action from the State Land Use Commission is required to implement the proposed project.



LEGEND

- | | | | |
|---|--------------|---|-------------------------|
|  | Project Site |  | State Land Use District |
|  | TMK |  | Agricultural |
| | |  | Conservation |
| | |  | Rural |
| | | | Urban |

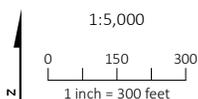


Figure 5-1
State Land Use Designation Map
 Waianae WWTP Improvements and
 Upgrade Draft Environmental Assessment
 Waianae, Hawaii



C. City and County of Honolulu General Plan

The General Plan, adopted in 1977 and amended in 2002, is a written commitment by CCH to address physical, social, economic and environmental concerns affecting the island of Oahu. There are two overarching objectives for the General Plan. The first, are both statements of desirable conditions to be sought over a long term and statements of desirable conditions which can be achieved within approximately 20-years. Second, the General Plan is a statement of broad policies which facilitate the attainment of the objectives of the plan.

Wastewater facilities are considered utilities. Therefore, the scope of this project falls within Section V of the General Plan, entitled “Transportation and Utilities”.

Section V, Transportation and Utilities

Objective B: *To meet the needs of the people of Oahu for an adequate supply of water and for environmentally sound systems of waste disposal.*

Policy 3 – Encourage the development of new technology which will reduce the cost of providing water and the cost of waste disposal.

Policy 5 – Provide safe, efficient, and environmentally sensitive waste-collection and waste-disposal services.

Policy 6 – Support programs to recover resources from solid-waste and recycle wastewater.

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

Policy 1 – Maintain existing utility systems in order to avoid major breakdowns.

Policy 2 – Provide improvements to utilities in existing neighborhoods to reduce substandard conditions.

Policy 3 – Plan for the timely and orderly expansion of utility systems.

Objective D: *To maintain transportation and utility systems which will help Oahu continue to be a desirable place to live and visit*

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

Policy 2 – Use the transportation and utility systems as a means of guiding growth and the pattern of land use on Oahu.

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

Policy 5 – Require the installation of underground utility lines wherever feasible.

The proposed project is consistent with Section V, Objective B, concerning environmentally sound systems of waste disposal. Implementation of the project will promote a safer, more reliable, and environmentally sensitive waste disposal system. Objective C is aimed at maintaining a high level of service for all utilities. The upgrades and improvements to this facility will provide the means to maintain a high level of infrastructure utility service. In addition to Objective C, Objective D is to not only maintain current utilities, but to improve their condition. The improvements of the WWTP will extend the facility’s useful life into the future.

D. CCH Zoning and Land Use Ordinance

The project site is located in CCH I-2 (Intensive Industrial) zoning district, see Figure 5-2, as described in Chapter 21, ROH, the “Land Use Ordinance” (LUO):

§21-3.130 Industrial districts -- Purpose and intent.

(e) The intent of the I-2 intensive industrial district is to set aside areas for the full range of industrial uses necessary to support the city. It is intended for areas with necessary supporting public infrastructure, near major transportation systems and with other locational characteristics necessary to support industrial centers. It shall be located in areas away from residential communities where certain heavy industrial uses would be allowed.

The proposed project will occur entirely within the WWTP facility boundaries and will not require any zoning change.

E. Waianae Sustainable Communities Plan

The Waianae Sustainable Communities Plan, was updated in 2012 and was developed to preserve the region’s rural character by preserving agricultural lands and open space, as described in ROH, Chapter 24, Article 9. The land area is delineated into four major land use types: preservation lands, agricultural lands, rural communities, and coastal lands. The WWTP is located in a rural community area. Policies pertaining to the Waianae WWTP are described as follows:

§4.3.2.2 Improve the Waianae Wastewater Treatment Plant

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

The project includes the addition of a new odor control system to reduce emissions from the primary clarifiers. The view of the odor control system will be obscured by other existing structures. One of two Kamani trees will be removed for the new effluent flow monitoring facility, but overall the facility’s visual impact is expected to be minimal due to the Kamani and Plumeria trees that are planted along Farrington Highway. The demolition of the chlorine contact tank will be a reduction of the overall structural footprint within the property.

F. Special Management Area (SMA) Rules and Regulations

The Special Management Area was established in 1975 and includes areas of the island that are in close proximity to the shoreline. SMA areas are designated environments that should be protected in accordance with the State’s Coastal Zone Management policies, as stated in the ROH, Section 25, Shoreline Management, and HRS, Section 205A, Coastal Zone Management.

The Waianae WWTP, including the proposed project site, is located within the SMA, see Figure 5-3. The project is consistent with the following guidelines.

§25-3.2 Review Guidelines

(a) *All development in the special management area shall be subject to reasonable terms and conditions set by the council to ensure that:*

- (1) Adequate access by dedication or other means, to publicly owned or used beaches, recreation areas, and natural reserves is provided to the extent consistent with sound conservation principles;*
- (2) Adequate and properly located public recreation areas and wildlife preserves are reserved;*

- (3) *Provisions are made for solid and liquid waste treatment, disposition and management which will minimize adverse effects upon special management area resources; and*
- (4) *Alterations to existing land forms and vegetation; except crops, and construction of structures shall cause minimum adverse effect to water resources and scenic and recreational amenities and minimum danger of floods, landslides, erosion, siltation or failure in the event of earthquake.*

The Waianae WWTP is located across Lualualei Beach Park on the mauka side of Farrington Highway. For safety and security reasons, the treatment plant is surrounded by a 6-foot-high chain link fence, and no public access is available through the property. A sidewalk is located along Leihoku Street, along the facility's western boundary, and there is a wide shoulder along Farrington Highway. The intersection of Farrington Highway and Leihoku Street is signalized with crosswalks. The proposed improvements will not modify or affect access to the beach park.

During improvements and upgrades to the WWTP, wastewater treatment will be maintained during construction. Construction activities will not generate significant amounts of wastewater. Construction personnel will have access to existing restroom facilities or be provided with portable toilets. All alterations to the site will be performed on previously graded areas within the WWTP, so the effect to water resources and scenic and recreational amenities will be minimal. No surface waters are located within the vicinity of the improvements. One of two Kamani trees will be removed for the new effluent flow monitoring facility, but the site has previously been graded and covered with gravel. Construction should not impact the canopy and root system of the remaining tree.

(b) *No development shall be approved unless the council has first found that:*

- (1) *The development will not have any substantial, adverse environmental or ecological effect except as such adverse effect is minimized to the extent practicable and clearly outweighed by public health and safety, or compelling public interest. Such adverse effect shall include, but not be limited to, the potential cumulative impact of individual developments, each one of which taken in itself might not have a substantial adverse effect and the elimination of planning options;*
- (2) *That the development is consistent with the objectives, policies, and special management area guidelines of this chapter and any guidelines enacted by the legislature; and*
- (3) *That the development is consistent with the county general plan and zoning. Such a finding of consistency does not preclude concurrent processing where a general plan or zoning amendment may also be required.*

The proposed project is not expected to cause significant degradation to the surrounding environment. The WWTP has been in service since 1967 with significant improvements in 1988 and 1993. The operational effects of these improvements would not be significantly different than the existing. Air quality in the area is expected to improve after the installation of an odor control system for the primary clarifiers. Replacing and repairing deteriorated and obsolete components would result in greater system reliability, thereby providing the community with safe, efficient, and environmentally sensitive waste processing (as stated in the *Oahu General Plan*), while reducing maintenance requirements. Planning and design for this project have included measures to avoid and minimize temporary, construction-related impact to the surrounding environment.

G. Coastal Zone Management

The objective of the Coastal Zone Management (CZM) program is to protect and preserve Hawaii's resources along the coasts and shoreline, where the majority of economic and recreational activities occur. As described in HRS, Chapter 205A, the proposed project will comply with the following policies.



LEGEND

Project Site

City and County of Honolulu Zoning

- B-2 Community Business District
- I-2 Intensive Industrial District
- P-1 Restricted Preservation District
- P-2 General Preservation District
- R-5 Residential District

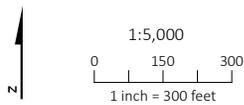


Figure 5-2
City and County of Honolulu Zoning
 Waianae WWTP Improvements and
 Upgrade Draft Environmental Assessment
 Waianae, Hawaii



LEGEND

-  Project Site
-  Special Management Area

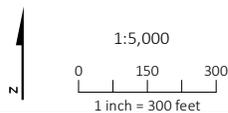


Figure 5-3
Special Management Area
 Waianae WWTP Improvements and
 Upgrade Draft Environmental Assessment
 Waianae, Hawaii



§205A-2 Coastal zone management program; objectives and policies.

(1) Recreational resources;

(a) Provide coastal recreational opportunities accessible to the public.

Improvements and upgrades to the WWTP will not extend past the boundary line of the site. Accessibility to Lualualei Beach Park as well as adjacent public walkways will not be impacted by construction.

(2) Historic resources;

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

Section 4.O. of the EA discusses previous archaeological, cultural, and historical resources at the WWTP. The site has been previously disturbed by construction of the existing facilities for the Waianae WWTP. There have been no record of encounters with historic resources, and the facility is not within a parcel which is known to be culturally significant.

(3) Scenic and open space resources;

(a) Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.

The general height and appearance of the structures will be similar to the existing structures as described in Section 4.P. Plumeria and Kamani trees surrounding the facility, which screen views of the WWTP, will not be changed. There are no adverse scenic or open space resource impacts from this project.

(4) Coastal ecosystems;

(a) Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.

The improvements and upgrades will not have an adverse impact on coastal ecosystems. Runoff from the minimal increase in impervious area will infiltrate into the ground as it does currently. There will be no direct drainage into the Pacific Ocean. The project will implement BMPs to minimize environmental impacts during the construction period.

(5) Economic uses;

(a) Provide public or private facilities and improvements important to the State's economy in suitable locations.

The proposed improvements and upgrades are needed to maintain current treatment levels and capacity, while improving the WWTP's ability to continue to meet regulatory requirements.

(6) Coastal hazards;

(a) Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.

The Waianae WWTP is located within the tsunami evacuation zone. Improvements are located in Flood Zone D. The improvements will not exacerbate the effects of a tsunami or flooding. Structures will be designed to current building standards with applicable loading risks. Erosion is minimal at this site due to the flat slope and majority of the site is covered with gravel or landscaping. The proposed improvements will not increase pollution.

(7) Managing development;

(a) Improve the development review process, communication, and public participation in the management of coastal resources and hazards.

The Proposed Action will require State and CCH permits and approvals as described in Section 1.A that include provisions for public participation and ensure protection of coastal resources. The project is consistent with land use and Waianae Community plans.

(8) Public participation;

(a) Stimulate public awareness, education, and participation in coastal management.

Letters with project information and a request for comments were sent in June 2016 to the Waianae Neighborhood Board and landowners of neighboring properties as part of the pre-assessment consultation process. The public will have an opportunity to comment on the project during the 30-day statutory review period following the notice of availability published in the OEQC Environmental Notice. A list of all parties contacted during the preparation of the Draft EA may be found in Section 6.A. Correspondence from the pre-assessment consultation process is provided in Appendix A.

(9) Beach protection;

(a) Protect beaches for public use and recreation.

Improvements and upgrades to the WWTP will not extend past the boundary line of the site and will not have a direct impact on beaches. Runoff and erosion will be addressed so it will not have an adverse impact on these resources.

(10) Marine resources;

(a) Promote the protection, use, and development of marine and coastal resources to assure their sustainability.

The improvements and upgrades will not have an adverse impact on marine resources. Runoff from the minimal increase in impervious area will infiltrate into the ground as it does currently. There will be no direct drainage into the Pacific Ocean. The project will implement BMPs to minimize environmental impacts during the construction period. Furthermore, the project will improve the reliability of existing facilities, which in turn reduces the potential for spills.

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Section 6. Consultation and Coordination

A. Organizations Consulted During Preparation of the Draft Environmental Assessment

Various agencies, citizen groups, and individuals were sent pre-assessment consultation letters on June 15, 2016. The list of recipients of the letters is provided below.

State of Hawaii

Department of Health, Office of Environmental Quality Control

Department of Health, Environmental Planning Office

Office of Planning

Department of Accounting and General Services

Department of Land and Natural Resources

Department of Transportation

State Historic Preservation Division

Department of Hawaiian Home Lands

City and County of Honolulu

Department of Transportation Services

Honolulu Fire Department

Department of Planning and Permitting

Department of Parks and Recreation

Honolulu Police Department

Department of Facility Maintenance

Department of Emergency Services

Department of Emergency Management

Department of Community Services

Department of Environmental Services

Elected Officials

State Senate District 21

State House District 44

Councilmember District 1

Waianae Neighborhood Board No. 24

Organizations

Office of Hawaiian Affairs

Sierra Club, Oahu Group of Hawaii Chapter

Sandwich Isles Communications

Adjacent Properties

Waianae Mall Shopping Center

A&B Waianae LLC

YMCA of Honolulu

PFI Realty

Gregory Perrin

Utilities

Board of Water Supply

Hawaiian Electric Company

Hawaii Gas

Hawaiian Telcom

Oceanic Time Warner Cable

B. Pre-Assessment Consultation Comment Letters Received

The following agencies responded with substantial comments during the Draft EA preparation period. These comments are summarized below and incorporated into relevant sections of the Draft EA. Letters are reproduced in full in Appendix A.

i) State Agencies

DOH, Environmental Planning Office (letter dated June 24, 2016)

1. Encourages the review of standard comments and available strategies to support sustainable and healthy design
2. GIS website has been recently updated and will be updated frequently.
3. Use of the online Hawaii Environmental Health Portal is encouraged.
4. Review requirements of the CWB and/or the NPDES permit.
5. All wastewater plans must conform to DOH Administrative Rules, Chapter 11-62, "Wastewater Systems".
6. Review the need and/or requirements for a Clean Air Branch Permit.
7. Utilization of Environmental Justice mapping and screening tool called EJSCREEN is encouraged.

Office of Planning (letter dated June 27, 2016)

1. Project must demonstrate that it is consistent with State environmental, social policies, economic goals, and policies.
2. Draft EA should examine the project's potential vulnerability to the effects of sea-level rise.
3. Draft EA should contain an assessment of project conformance with CZM objectives.
4. Consult with DPP on procedures for SMA permits.
5. Draft EA should ensure that the coastline and water resources along the Waianae Coast remain protected.

DOH, Wastewater Branch (letter dated June 29, 2016)

1. All wastewater plans shall conform to HAR, Chapter 11-62, "Wastewater Systems" as amended on March 21, 2016.

Department of Land and Natural Resources, Land Division (letter dated July 15, 2016)

1. Draft EA should address Flood Hazard Zone designation for the project. Flood Hazard Zone designations can be found using the Flood Insurance Rate Map (FIRM).

Department of Transportation (letter dated July 29, 2016)

1. Recommends that a second vehicular access drive way to the WWTP site be provided from the south side of Leihoku Street (across the street from the Waianae Transit Center entry driveway) to the proposed contractor staging area, for the use of all construction vehicles, and prohibiting construction vehicles from using the narrow existing driveway on Farrington Highway. The second vehicular access will prevent construction vehicles from queuing on Farrington Highway when entering the WWTP and interrupting the flow of through traffic.
2. A permit is required from the DOT Highways Division to transport oversized equipment and/or overweight loads within our State highway facilities.

ii) **City Agencies**

Honolulu Fire Department (letter dated July 1, 2016)

1. Compliance with fire department access road and water supply standards.
2. Request for civil drawings for review and approval.

Department of Facility Maintenance (letter dated July 12, 2016)

1. Install approved BMPs fronting all drainage facilities on Leihoku Street.
2. Any damage to Leihoku Street right-of-way shall be corrected to City standards and accepted by the City.
3. Notified that Leihoku Street was recently resurfaced as part of DDC's Rehabilitation of Localized Streets, Phase 15A project.

Department of Transportation Services (letter dated July 13, 2016)

1. Include a Traffic Mitigation Plan.
2. Inform affected Neighborhood Board and community of any local impacts of the proposed project.
3. Minimize any possible disruption to traffic on the local streets by moving construction materials and equipment during off-peak traffic hours (8:30 a.m. to 3:30 p.m.)

Board of Water Supply (letter dated July 19, 2016)

1. When water is made available, the applicant will be required to pay BWS Water System Facilities Charges for resource development, transmission and daily storage.
2. Construction drawings should be submitted for review, and the construction schedule should be coordinated to minimize impact to the water system.
3. Requests that the EA discuss the feasibility of producing recycled water for irrigation of adjacent parks and large landscaped areas such as the Waianae Comprehensive Health Center.

iii) Other Agencies

None

C. Distribution List for Draft EA

The following agencies, organizations, and individuals will be included on the distribution list for notification of the Draft EA public review and comment period.

State of Hawaii

Department of Health, Office of Environmental Quality Control

Department of Health, Environmental Planning Office

Office of Planning

Department of Accounting and General Services

Department of Land and Natural Resources

Department of Transportation

State Historic Preservation Division

Department of Hawaiian Home Lands

City and County of Honolulu

Department of Transportation Services

Honolulu Fire Department

Department of Planning and Permitting

Honolulu Police Department

Department of Facility Maintenance

Department of Emergency Services

Department of Emergency Management

Department of Community Services

Department of Environmental Services

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Waianae Neighborhood Board No. 24

Organizations

Office of Hawaiian Affairs

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Sandwich Isles Communications

Adjacent Properties

Waianae Mall Shopping Center

A&B Waianae LLC

YMCA of Honolulu

PFI Realty

Gregory Perrin

Utilities

Board of Water Supply

Hawaiian Electric Company

Hawaii Gas

Hawaiian Telcom

Oceanic Time Warner Cable

Public Library

Waianae Public Library

Media

Honolulu Star-Advertiser

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Section 7. Findings Supporting the Anticipated Determination

D. Anticipated Determination

This Environmental Assessment provides an evaluation of the impacts of this project. The project is anticipated to not result in significant adverse impacts. In accordance with HRS Chapter 343, a FONSI is anticipated.

E. Reasons Supporting the Anticipated Determination

Significance criteria are outlined under HRS Chapter 343 and HAR 11-200-11.2. The findings of impacts related to these criteria are presented below.

1. Involves an irrevocable commitment to loss or destruction of any natural or cultural resource;

The effects of this project with respect to its natural and cultural resources have been studied. As *Section 4.O.* details, no historic properties have been recorded on the WWTP site. Because of prior ground disturbance and development, there is a low potential for adversely affecting subsurface cultural resources. Though the potential of finding cultural resources is low, if any are found, the State Historic Preservation Office will be notified immediately. Until mitigation measures are applied, all work in the affected area will be stopped.

2. Curtails the range of beneficial uses of the environment;

The project will not curtail the range of beneficial uses of the environment. The proposed project is limited to the boundaries of the current WWTP. Environmental uses outside the secured facility will be unaffected.

3. Conflicts with the State's long-term environmental policies or goals and guidelines as expressed in HRS, Chapter 344, and any revisions thereof and amendments thereto, court decisions, or executive orders;

The project is consistent with the environmental policies, goals, and guidelines defined in HRS, Chapter 344, and any revisions thereof. Potential impacts and mitigation measures have been identified, which will minimize adverse effects from this project.

4. Substantially affects the economic welfare, social welfare, and cultural practices of the community or State;

The project will not create or displace jobs, and will have the same economic effect as the current plant. It will not have any adverse impact on current effluent quality, water quality, noise, or air quality, so it will not adversely affect nearby public facilities and services. However, it will benefit the community by providing more reliable wastewater facilities and a new odor control unit to reduce odors from the WWTP.

5. Substantially affects public health;

The project conforms to current land use and public health should not be affected. However, there may be temporary short-term impacts to air quality and noise; these include slight emissions, dust, and noise from construction activities and equipment. All work will comply with applicable Federal, State, and County regulations including implementation of BMPs to mitigate impacts. There will be a benefit to public health by installing the new odor control unit, reducing emissions for H₂S.

6. Involves substantial secondary impacts, such as population changes or effects on public facilities;

Waianae WWTP Improvements and Upgrades is a self-contained project intended to improve the condition and reliability of the existing facilities. It is not increasing the capacity of the existing wastewater treatment plant and is not intended to accommodate or induce secondary impacts, such as population increase, new land development, or effects on other public facilities and services.

7. Involves a substantial degradation of environmental quality;

The project will provide the community with more reliable facilities, which will reduce the potential for spills, and improve odor control. No substantial degradation of environmental quality is expected, and short-term impacts during construction will be mitigated.

8. Is individually limited but cumulatively has considerable effect on the environment or involves a commitment for larger actions;

No other infrastructure construction projects have been identified in the vicinity of this project, thereby reducing the potential for cumulative adverse impacts to resources such as air quality, water quality, noise, and traffic. The improvements under this project will not create a commitment for larger actions.

9. Substantially affects a rare, threatened, or endangered species, or its habitat;

There have been no findings of endangered flora or fauna species within the project site in any previous studies or construction projects, therefore none are unlikely to be encountered or threatened by construction of this project.

10. Detrimentially affects air or water quality or ambient noise levels;

Short-term impacts related to air quality and ambient noise levels are discussed in *Section 4.G* and *Section 4.H*. These impacts are minor and include slight dust, emissions, and noise from construction. Furthermore, these impacts will be mitigated; BMPs for dust control and erosion will be utilized, contractors will be required to maintain their equipment to reduce emissions, and work within hours allowed by a noise permit to reduce noise inconvenience. The project will not have any adverse short-term or long-term effects on water quality, and it will not have any long-term effects on air quality or ambient noise levels. In general, the project is not expected to detrimentally affect air quality, water quality, or ambient noise levels.

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

Although a small section of the project site is located in flood-prone Hazard Zone AE, improvements will not be made in this area. The section of the project site where improvements will be made in is designated as Zone D. There is no information that Zone D has potential flood hazards, and moderate slopes indicate low likelihood of flooding. The project site is located just outside of the evacuation boundary and will likely be inundated by a tsunami, but the project will not exacerbate any detrimental effects. Oahu is designated as Seismic Zone 2a, and the project will follow Seismic Zone 2a Building Standards. The improvements will not make the area more or less vulnerable to hurricanes or winds than the rest of the island, but Building Codes will be followed and equipment will be bolted down to mitigate potential harm. The improvements will not make the area more prone to suffer damage or cause damage because of its location.

12. Substantially affects scenic vistas and view planes identified in county or state plans or studies; or,

The project will make improvements to the current Waianae WWTP and will not affect scenic vistas and view planes identified in county or state plans or studies. The temporary visual effects of the staging of

construction will be partially blocked by the Kamani trees surrounding the property. The long-term effects include two new structures, the biological odor control and effluent flow monitoring facility. These structures will be about 15 feet at their highest points and do not exceed the maximum height limit or the current tallest height of other structures. Their architectural features match those of the other structures and does not significantly affect view planes.

13. Requires substantial energy consumption.

Upon completion, energy use by the WWTP is expected to be comparable to current levels because no increase in processing capacity will occur.

F. Summary

Based on consideration of the project's impacts to the environment, an Environmental Impact Statement is not warranted. This EA identifies mitigation measures which will reduce the impacts identified. A FONSI is anticipated for this project. The project will provide improvements needed to the Waianae WWTP to continue to provide reliable wastewater treatment, while resulting in minimal impacts to the surrounding environment.

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Appendix A
Pre-Assessment Consultation
Correspondence

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PRE-ASSESSMENT COMMENTS

Template Letter with Project Sheet (attachment)

Comment and Response Letters

- State of Hawaii, Department of Health, Environmental Planning Office
- State of Hawaii, Office of Planning
- State of Hawaii, Department of Health, Wastewater Branch
- State of Hawaii, Department of Accounting and General Services
- State of Hawaii, Department of Land and Natural Resources, Land Division
- State of Hawaii, Department of Transportation
- State of Hawaii, Office of Hawaiian Affairs
- City and County of Honolulu, Police Department
- City and County of Honolulu, Board of Water Supply
- City and County of Honolulu, Department of Facility Maintenance
- City and County of Honolulu, Department of Transportation Services
- City and County of Honolulu, Honolulu Fire Department
- City and County of Honolulu, Department of Emergency Management
- City and County of Honolulu, Department of Parks and Recreation
- Hawaiian Telcom
- Hawaii Gas
- Hawaiian Electric Company

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CH2M
1132 Bishop Street, Suite 1100
Honolulu, HI 96813
O +1 808 943 1133
F +1 808 954 4400
www.ch2m.com

June 15, 2016

Dear Participant:

**Subject: Waianae Wastewater Treatment Plant Improvements and Upgrades
86-100 Farrington Highway, Waianae, Oahu, Hawaii
TMK: [1] 8-6-001: 044
Pre-Assessment Consultation**

CH2M is preparing a Draft Environmental Assessment (EA) for the City and County of Honolulu (City), Department of Environmental Services that will examine the impacts of proposed construction improvements to the existing Waianae Wastewater Treatment Plant (WWTP) to continue to provide reliable wastewater treatment services for the community. The EA will be used, in part, to support the application for a Special Management Area permit.

We are requesting comments and input regarding environmental concerns in all resource areas, and information that might assist in evaluating the project.

Project Location

The project will be constructed within the existing wastewater treatment plant boundary, an 18-acre, City-owned parcel in Waianae at 86-100 Farrington Highway (TMK: 8-6-001:044). The site is southeast of the intersection of Farrington Highway and Leihoku Street. Neighboring properties include the Waianae Mall Shopping Center, the Lualualei Beach Park #1 campsite, the Waianae Transit Center, the Waianae Coast YMCA, and a parcel owned by the Department of Hawaiian Homelands. The nearest residences are along Pokai Bay Street to the northwest.

Project Purpose

The Waianae WWTP was constructed and began operations in 1968. Advanced primary treatment and secondary treatment facilities were constructed in 1988 and 1996, respectively. The facility serves the Leeward coast of Oahu, from Makaha to Nanakuli. The plant is designed for 5.2 million-gallons per day average dry weather flow, and it currently processes an average of 3.3 million gallons per day. The proposed improvements will not increase the capacity of the WWTP.

A wastewater facilities plan for the Waianae WWTP is being prepared under a separate City project. The facilities plan will address long-term treatment process and capacity needs. Shorter-term needs have been identified to improve the operability and reliability of the facility and will be included in this project. These needs are primarily rehabilitation and replacement of existing plant components and structures that have aged beyond their useful economic lives or have experienced deterioration due to environmental factors. These improvements and upgrades will maintain current treatment levels and capacity, while improving the WWTP's ability to continue to meet regulatory requirements.

Project Description

The improvements proposed for this project will occur within the existing wastewater treatment plant property boundary. No off-site improvements are anticipated. Major components of the project are as follows (see preliminary site plan, attached):

- Rehabilitation of the primary clarifiers, primary effluent boxes and piping, and a new odor control unit
- Utility water system improvements
- Demolition of the chlorine contact tank and construction of a new effluent sampling/flow measurement facility
- Replacement of the headworks screens and associated equipment
- Rehabilitation of the grit removal system and preaeration tanks and channels
- Replacement of digester covers, digester mixing system, and waste gas handling
- Upgrade dewatering system

Construction of this project is expected to begin in July 2017 and take approximately 18-24 months.

Pre-Assessment Consultation

The Draft EA for this project is being prepared in accordance with Chapter 343, Hawai'i Revised Statutes. A copy of the draft document will be available for public review, and you will also have an opportunity to provide comments at that time.

Please send written preliminary comments by July 18, 2016 to:

CH2M c/o Alicia Nakano
1132 Bishop Street, Suite 1100
Honolulu, HI 96813

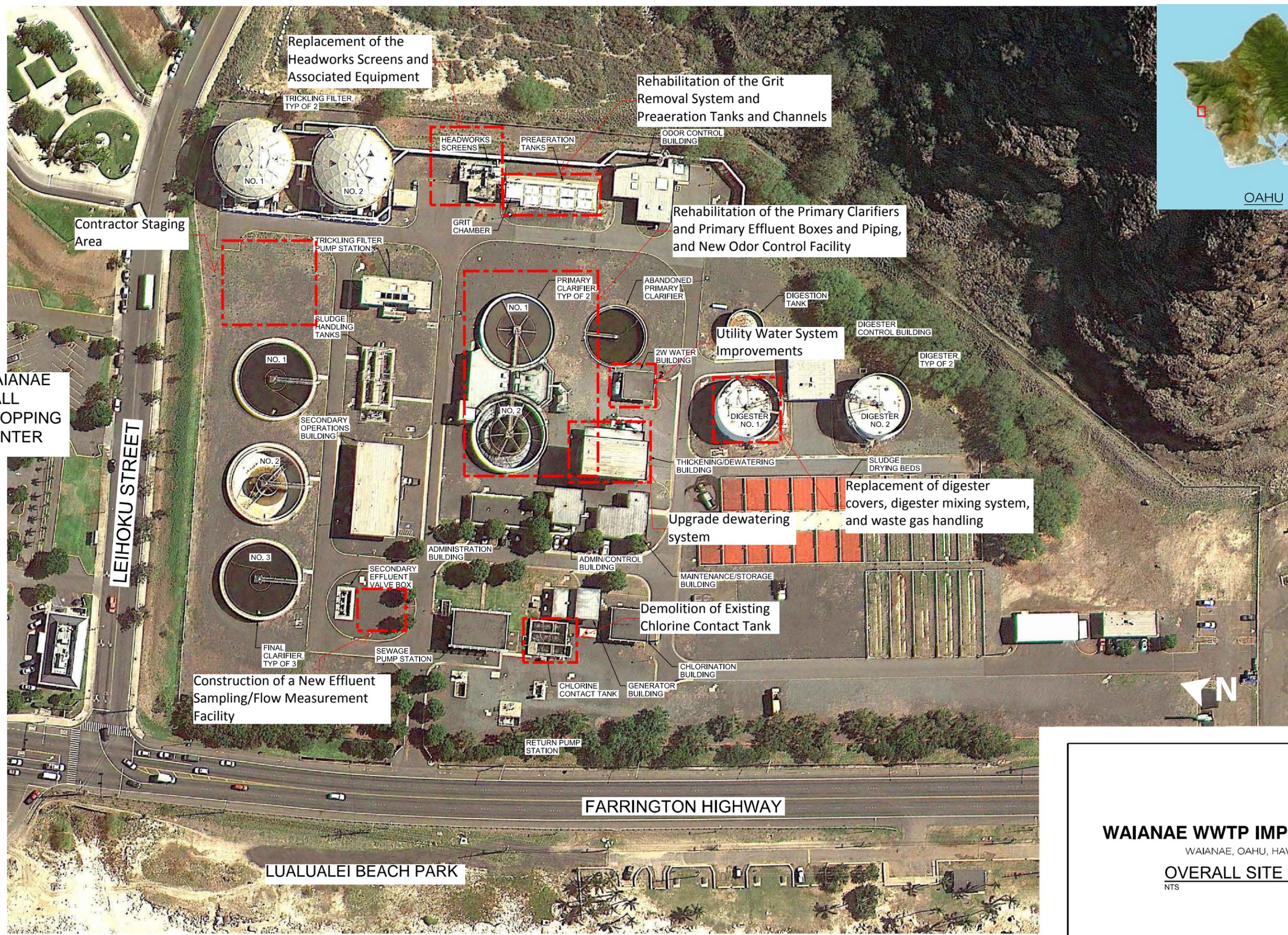
If you have questions, please contact Alicia Nakano, Project Engineer, at alicia.nakano@ch2m.com or (808) 440-0214. Thank you for your participation in this pre-assessment consultation.

Sincerely,



Robin Hirano, PE
Project Manager

Enclosure: Overall Site Plan



WAIANA WWTW IMPROVEMENTS
WAIANA, OAHU, HAWAII
OVERALL SITE PLAN
NTS



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

In reply, please refer to:
File #

EPO 16-216

June 24, 2016

Ms. Alicia Nakano
CH2M
1132 Bishop Street, Suite 1100
Honolulu, Hawaii 96813
Email: Alicia.nakano@ch2m.com

Dear Ms. Nakano:

**SUBJECT: Pre Assessment Consultation (PAC) for Waianae Wastewater Treatment Plant Improvements and Upgrades
86-100 Farrington Highway, Waianae, Oahu
TMK: (1) 8-6-001: 044**

The Department of Health (DOH), Environmental Planning Office (EPO), acknowledges receipt of your PAC to our office on June 17, 2016.

EPO strongly recommends that you review the standard comments and available strategies to support sustainable and healthy design provided at: <http://health.hawaii.gov/epo/landuse>. Projects are required to adhere to all applicable standard comments. EPO has recently updated the environmental Geographic Information System (GIS) website page. It now compiles various maps and viewers from our environmental health programs. The eGIS website page will be continually updated so please visit it regularly at: <http://health.hawaii.gov/epo/eqis>.

EPO also encourages you to examine and utilize the Hawaii Environmental Health Portal at: <https://eha-cloud.doh.hawaii.gov>. This site provides links to our e-Permitting Portal, Environmental Health Warehouse, Groundwater Contamination Viewer, Hawaii Emergency Response Exchange, Hawaii State and Local Emission Inventory System, Water Pollution Control Viewer, Water Quality Data, Warnings, Advisories and Postings.

We suggest you review the requirements of the CWB (HAR, Section 11-54-1.1, -3, 4-8) and/or the National Pollutant Discharge Elimination System (NPDES) permit (HAR, Chapter 11-55) at: <http://health.hawaii.gov/cwb>. If you have any questions, please contact the Clean Water Branch, Engineering Section at (808) 586-4309 or cleanwaterbranch@doh.hawaii.gov. If your project involves waters of the U.S., it is highly recommended that you contact the Army Corps of Engineers, Regulatory Branch at: (808) 835-4303.

Please note that all wastewater plans must conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems". We do reserve the right to review the detailed wastewater plans for conformance to applicable rules. Should you have any questions, please review online guidance at: <http://health.hawaii.gov/wastewater> and contact the Planning and Design Section of the Wastewater Branch at 586-4294.

EPO recommends you review the need and/or requirements for a Clean Air Branch permit. The Clean Air Branch can be consulted via e-mail at: Cab.General@doh.hawaii.gov or via phone: (808) 586-4200.

Ms. Alicia Nakano
Page 2
June 24, 2016

You may also wish to review the draft Office of Environmental Quality Control (OEQC) viewer at: <http://eha-web.doh.hawaii.gov/oeqc-viewer>. This viewer geographically shows where some previous Hawaii Environmental Policy Act (HEPA) (Hawaii Revised Statutes, Chapter 343) documents have been prepared.

In order to better protect public health and the environment, the U.S. Environmental Protection Agency (EPA) has developed a new environmental justice (EJ) mapping and screening tool called EJSCREEN. It is based on nationally consistent data and combines environmental and demographic indicators in maps and reports. EPO encourages you to explore, launch and utilize this powerful tool in planning your project. The EPA EJSCREEN tool is available at: <http://www.epa.gov/ejscreen>.

We request that you utilize all of this information on your proposed project to increase sustainable, innovative, inspirational, transparent and healthy design. Thank you for the opportunity to comment.

Mahalo nui loa,


Laura Lelaloha Phillips McIntyre, AICP
Program Manager, Environmental Planning Office

LM:nn

Attachment 1: Environmental Health Management Web App Snipit of Project Area: <http://health.hawaii.gov/epo/eqis>
Attachment 2: Clean Water Branch: Water Quality Standards Map - Oahu
Attachment 3: Wastewater Branch: Act 120 Cesspool Tax Credit Web App Snipit of Project Area
Attachment 4: Wastewater Branch: Recycled Water Use Map of Project Area
Attachment 5: OEQC Viewer Map of Project Area
Attachment 6: U.S. EPA EJSCREEN Report for Project Area

c: DOH: CWB, WWB, CAB (via email only)

186001044

Inactive Landfills

Active Landfills

Air Quality Monitoring Sites

Superfund Sites

Water Quality Monitoring Sites

Hawaii State House Districts

Hawaii State Senate Districts - State_Senate_Districts

State Land Use Districts

Agricultural

Conservation

Rural

Urban

Hawaii Statewide Parcels

2010 Census Designated Places (CDP) - CDPs_2010

3 Nautical Mile Boundary

Water Quality Classification

A

AA

Underground Injection Control Line



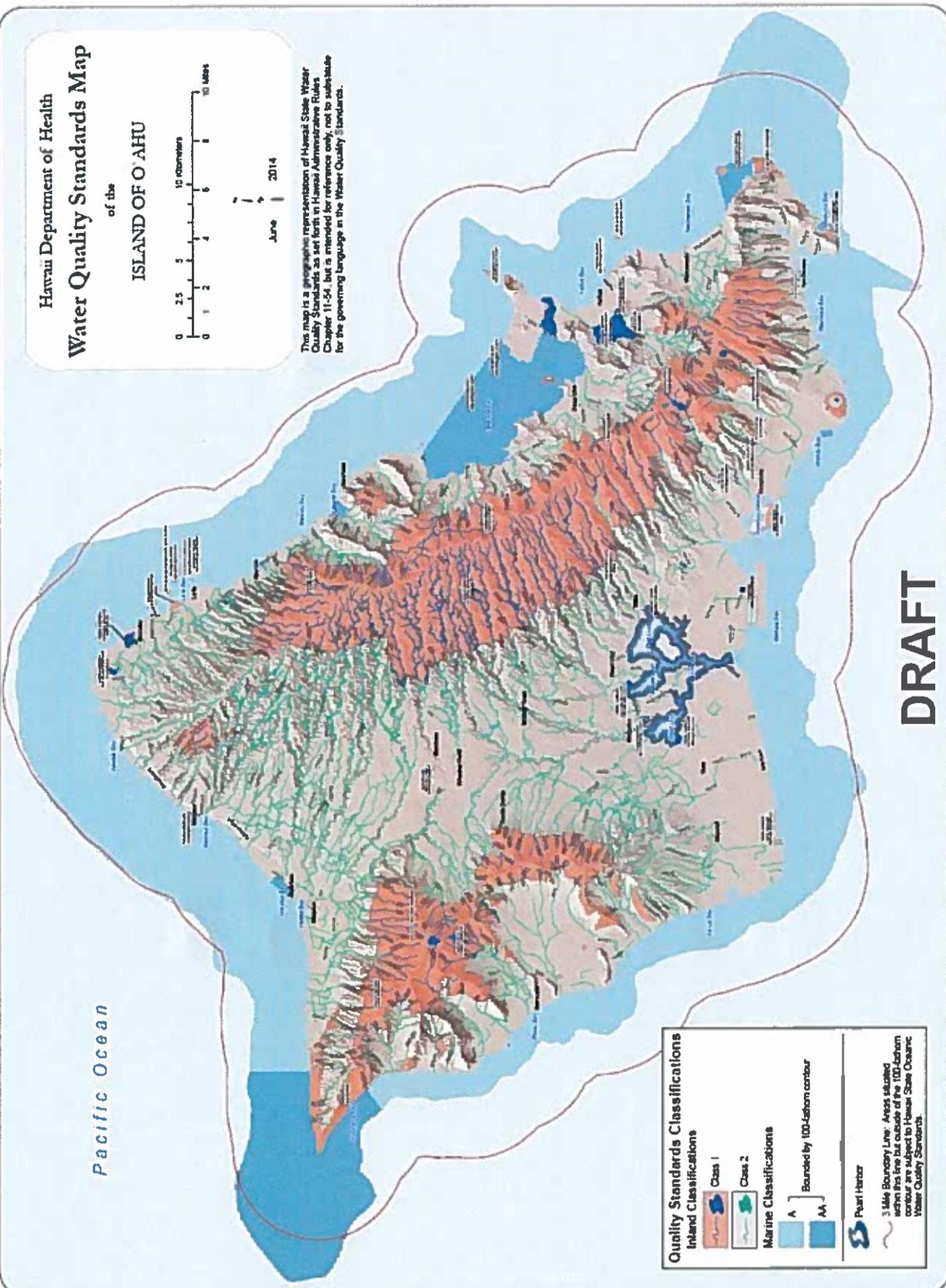
(1 of 9)
Parcels_Statewide: 186001044
link 186001044
geometry 17.93

Hawaii Department of Health
Water Quality Standards Map
 of the
ISLAND OF OAHU



June 2014

This map is a progressive representation of Hawaii State Water Quality Standards as set forth in Hawaii Administrative Rules Chapter 11-54, but is intended for reference only, not to substitute for the governing language in the Water Quality Standards.



Pacific Ocean

DRAFT

Quality Standards Classifications

Inland Classifications

- Class 1
- Class 2

Marine Classifications

- A
- AA

Bounded by 100-foot contour

Puui Hanor

1-Mile Boundary Line: Areas situated within this line but outside of the 100-foot contour are subject to Hawaii State Oceanic Water Quality Standards.

- Geocoded_All_Islands_Cesspools
 - Certification Required
 - No Certification Required
- Hawaii Statewide Parcels
- Streams
 - Perennial
 - Non-Perennial
- Coastline
- Wetlands
 - Estuarine and Marine Wetland
 - Freshwater Emergent Wetland
 - Freshwater Forested/Shrub Wetland
 - Freshwater Pond
 - Lake
 - Riverine

(1 of 3)

186001044
THK 186001044
Acres 17.93
Island
Section 8
Zone 6
Mat 1
Parcel 44



Recycled Water Use Maps

186001044

Map navigation icons: Home, Back, Forward, Refresh, Search, Print, Full Screen, Close

Legend

Hawaii Statewide Parcels

Water Reuse Management Zones

- No Restrictions
- Conditional
- Restricted

(1 of 1)

Parcels_Statewide: 186001044

lmk 186001044

gsacres 17.93

address1

address2



Waiānāi Wastewater Treatment Plant
1 sites found

Filter

Show sites with no location

WAIANAI COAST YMCA (EALFONSI)

Environmental Assessment (upstate)



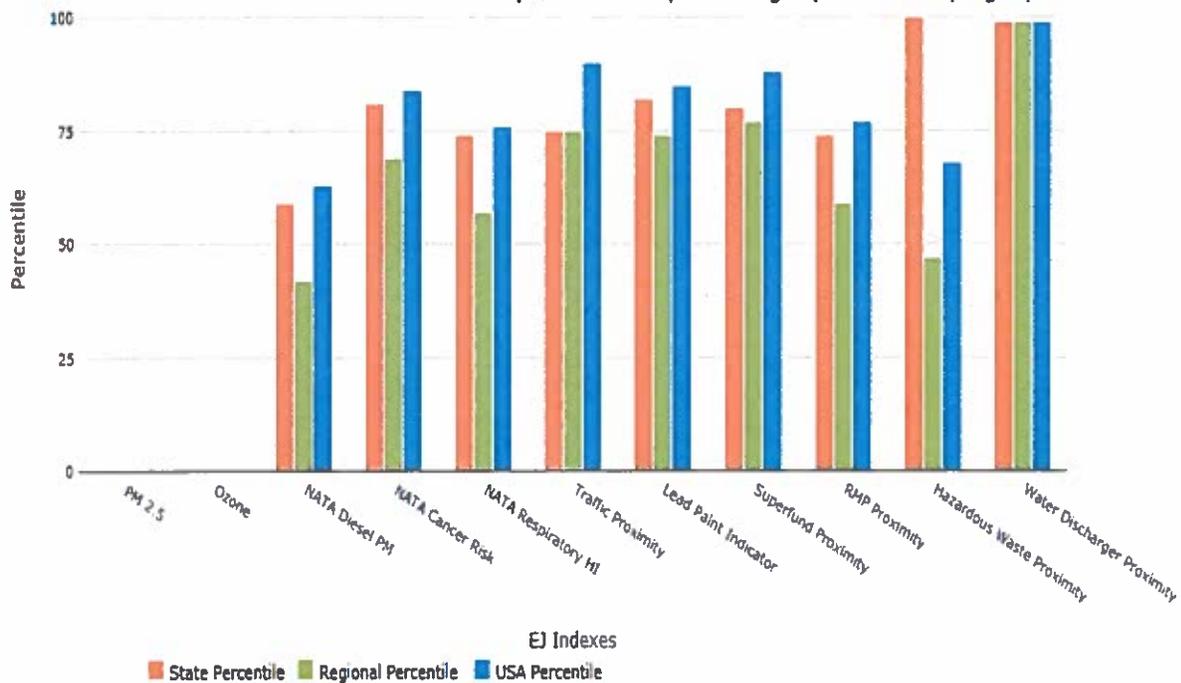


EJSCREEN Report (Version 2016)
1 mile Ring Centered at 21,433900,-158.183180
HAWAII, EPA Region 9
Approximate Population: 7,879
Input Area (sq. miles): 3.14



Selected Variables	Percentile in State	Percentile in EPA Region	Percentile in USA
EJ Indexes			
EJ Index for Particulate Matter (PM 2.5)	N/A	N/A	N/A
EJ Index for Ozone	N/A	N/A	N/A
EJ Index for NATA* Diesel PM	59	42	63
EJ Index for NATA* Air Toxics Cancer Risk	81	69	84
EJ Index for NATA* Respiratory Hazard Index	74	57	76
EJ Index for Traffic Proximity and Volume	75	75	90
EJ Index for Lead Paint Indicator	82	74	85
EJ Index for Superfund Proximity	80	77	88
EJ Index for RMP Proximity	74	59	77
EJ Index for Hazardous Waster Proximity	100	47	68
EJ Index for Water Discharger Proximity	99	99	99

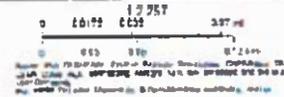
EJ Index for the Selected Area Compared to All People's Blockgroups in the State/Region/US



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.



June 24 2015
 + Design Point



Sites reporting to EPA

Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0
National Pollutant Discharge Elimination System (NPDES)	1

Selected Variables	Value	State Average	Percentile in State	EPA Region Average	Percentile in EPA Region	USA Average	Percentile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in $\mu\text{g}/\text{m}^3$)	N/A	N/A	N/A	9.37	N/A	9.32	N/A
Ozone (ppb)	N/A	N/A	N/A	51	N/A	47.4	N/A
NATA* Diesel PM ($\mu\text{g}/\text{m}^3$)	0.0512	0.149	29	0.978	<50th	0.937	<50th
NATA* Air Toxics Cancer Risk (risk per MM)	29	34	34	43	<50th	40	<50th
NATA* Respiratory Hazard Index	0.71	1	32	2	<50th	1.8	<50th
Traffic Proximity and Volume (daily traffic count/distance to road)	450	990	65	1100	57	590	76
Lead Paint Indicator (% pre-1960s housing)	0.2	0.16	66	0.24	56	0.3	50
Superfund Proximity (site count/km distance)	0.085	0.098	67	0.15	58	0.13	61
RMP Proximity (facility count/km distance)	0.096	0.19	52	0.57	18	0.43	27
Hazardous Waste Proximity (facility count/km distance)	0	0	100	0.11	19	0.072	26
Water Discharger Proximity (count/km)	1.6	0.34	98	0.2	99	0.31	97
Demographic Indicators							
Demographic Index	67%	52%	69	47%	77	36%	86
Minority Population	65%	77%	87	56%	90	37%	94
Low Income Population	39%	26%	78	36%	58	35%	61
Linguistically Isolated Population	8%	6%	72	9%	57	5%	79
Population with Less Than High School Education	19%	9%	87	17%	61	14%	73
Population under Age 5	9%	6%	78	7%	72	6%	76
Population over Age 64	9%	15%	23	13%	43	14%	33

*The National-Scale Air Toxics Assessment (NATA) is EPA's ongoing, comprehensive evaluation of air toxics in the United States. EPA developed the NATA to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that NATA provides broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the NATA analysis can be found at: <https://www.epa.gov/national-air-toxics-assessment>.

For additional information, see: www.epa.gov/environmentaljustice

EJSCREEN is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports. This screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location. EJSCREEN outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.



CH2M

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September 8, 2016

Ms. Laura Leialoha Phillips McIntyre, AICP, Program Manager
Environmental Planning Office
Department of Health
State of Hawaii
P.O. BOX 3378
Honolulu, HI 96801

**Subject: Waianae Wastewater Treatment Plant Improvements and Upgrade
Pre-Assessment Consultation for the Environmental Assessment
86-100 Farrington Highway, Waianae, Oahu
TMK: (1) 8-6-001:004**

Dear Ms. McIntyre,

Thank you for your letter (EPO 16-216) dated June 24, 2016, which provided Agency references and links to online resources to utilize during planning and design of the Waianae Wastewater Treatment Plant Improvements and Upgrade project.

We acknowledge the references and resources provided and will contact the appropriate Agencies. We will also ensure that the project complies with applicable regulations and requirements.

We appreciate your participation in the environmental review process. Your office will be notified when the Draft Environmental Assessment is available for public review and comment. If you have any questions, please contact me at (808) 440-0208, or by email at Robin.Hirano@ch2m.com.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Robin Hirano', written in a cursive style.

Robin Hirano, P.E.
Project Manager

Cc: Christine Imada, City and County of Honolulu Department of Design and Construction



OFFICE OF PLANNING STATE OF HAWAII

DAVID Y. IGE
GOVERNOR

LEO R. ASUNCION
DIRECTOR
OFFICE OF PLANNING

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

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

Ref. No. P-15213

June 27, 2016

Ms. Alicia Nakano
Project Manager
CH2M
1132 Bishop Street, Suite 1100
Honolulu, Hawaii 96813

Dear Ms. Nakano:

Subject: Waianae Wastewater Treatment Plant Improvements and Upgrades,
86-100 Farrington Highway, Waianae, Oahu; Pre-Assessment
Consultation; TMK: (1) 8-6-001:044

Thank you for the opportunity to provide comments on the pre-assessment consultation request for the Waianae Wastewater Treatment Plant (Waianae WWTP) improvements and upgrades project. The pre-consultation review material was transmitted to our office via letter dated June 15, 2016.

It is our understanding that the City and County of Honolulu, Department of Environmental Services (DES) proposes upgrades and improvements to the infrastructure and facilities for the Waianae WWTP. In doing so, the Waianae WWTP may continue to provide reliable services to residents and businesses along the Leeward Coast. All of the proposed upgrades and improvements to the Waianae WWTP will occur within the existing property boundaries.

The proposed improvements include: the restoration of the primary clarifiers, primary effluent boxes and piping; construction of a new odor control unit; installation of utility water enhancements; demolition of the chlorine tank; construction of a new effluent sampling/flow measurement facility; replacement of the headworks screens; reconstruction of the grit removal system, preparation tank, and channels; replacement of digester covers, digester mixing system, and waste gas handling; and modernization of the dewatering system.

The Office of Planning (OP) has reviewed the transmitted material and has the following comments to offer:

1. Pursuant to the Hawaii Administrative Rules (HAR) § 11-200-10(4) – general description of the action's technical, economic, social, and environmental characteristics; this project must demonstrate that it is consistent with a number of

State environmental, social policies, economic goals, and policies. OP provides technical assistance to State and county agencies in administering the statewide planning system in Hawaii Revised Statutes (HRS) Chapter 226, the Hawaii State Plan. The Hawaii State Plan provides goals, objectives, policies, and priority guidelines for growth, development, and the allocation of resources throughout the State in areas of state interest including but not limited to the economy, agriculture, the visitor industry, federal expenditure, the physical environment, facility systems, socio-cultural advancement, climate change adaptation, and sustainability.

The Draft EA should include an analysis that addresses whether the proposed project conforms to or is in conflict with the goals, objectives, policies, and priority guidelines listed in the Hawaii State Plan. This analysis should address all of these themes. If any of these are not applicable, the Draft EA should state that these are “not applicable.” The most efficient method is summarizing these in tabular form, followed by discussion passages.

2. Due to the close proximity of the Waianae WWTP to Lualualei Beach Park and coastal resources, the Draft EA should examine the project’s potential vulnerability to the effects of sea-level rise. It should describe how DES intends to be consistent with the priority guideline on climate change adaptation, HRS § 226-109(7). The climate change priority guidelines seek to 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 adaption options.
3. The coastal zone management (CZM) area is defined as “all lands of the State and the area extending seaward from the shoreline to the limit of the State’s police power and management authority, including the U.S. territorial sea” (see HRS § 205A-1 definition of “coastal zone management area”).

HRS § 205A-5(b) requires all State and county agencies to enforce the CZM objectives and policies. The Draft EA should include an assessment as to how the proposed project conforms to the CZM objectives and its supporting policies set forth in HRS § 205A-2. The assessment on compliance with HRS § 205A-2 is an important component for satisfying the requirements of HRS Chapter 343. These objectives and policies include recreational resources, historic resources, scenic and open space resources, coastal ecosystems, economic uses, coastal hazards, managing development, public participation, beach protection, and marine resources.

4. The parcel that the Waianae WWTP site is situated upon is within the Special Management Area (SMA) delineated by the City and County of Honolulu. This project, therefore, may be subject to the rules and procedures governing the SMA. Please consult with the Department of Planning and Permitting on the procedures for SMA permits.
5. Pursuant to HAR § 11-200-10(6) – identification and summary of impacts and alternatives considered; in order to ensure that the coastline and water resources along the Waianae Coast remain protected, the negative effects of stormwater inundation ensuing from development activities should be evaluated in the Draft EA.

The project area is within the SMA boundary and less than 470 feet from Lualualei Beach Park. There appears to be an extensive drainage ditch network fronting the plant along Farrington Highway. Although the weather along the Leeward Coast is typically arid in nature, during heavy storm or flooding events, the plant and its waste water treatment facilities may be vulnerable to stormwater inundation and thus potentially affecting Leeward Coast marine resources.

The Draft EA should examine potential benefits and/or negative impacts resulting from this project on coastal and marine resources. Issues that may be examined in the Draft EA include, but are not limited to, project site characteristics in relation to flood prone areas and stormwater control drainage systems. These items, as well as the marine water quality classification, should be considered when developing mitigation measures to protect the coastal ecosystem.

The Draft EA should examine the cumulative impact on coastal resources from land-based polluted runoff. It should take into account any of the natural features in the area, undeveloped open spaces, down-sloping topography, hardened non-permeable surfaces that have a cumulative effect on the volume and speed of storm runoff, and soil absorption rates.

OP has a number of resources available to assist in practices which ensure stormwater management on land, thus protecting the nearshore environment. OP recommends consulting these guidance documents and stormwater evaluative tools when developing strategies to address polluted runoff. They offer useful techniques to keep land-based pollutants and sediment in place and prevent contaminating nearshore waters, while considering the practices best suited for this project. The evaluative

Ms. Alicia Nakano
Project Manager
CH2M
June 27, 2016
Page 4

tools that should be used during the design process include:

- Stormwater Impact Assessments can be used to identify and evaluate information on hydrology, stressors, sensitivity of aquatic and riparian resources, and management measures to control runoff, as well as consider secondary and cumulative impacts to the area
http://files.hawaii.gov/dbedt/op/czm/initiative/stomwater_imapct/final_storm_water_impact_assessments_guidance.pdf
- Low Impact Development (LID), A Practitioners Guide covers a range of structural best management practices (BMP's) for stormwater control management, roadway development, and urban layout that minimizes negative environmental impacts
http://files.hawaii.gov/dbedt/op/czm/initiative/lid/lid_guide_2006.pdf

If you have any questions regarding this comment letter, please contact Joshua Hekeia of our office at (808) 587-2845.

Sincerely,



Leo R. Asuncion
Director



CH2M

1132 Bishop Street, Suite 1100
Honolulu, Hawaii 96813
O +1 808 943 1133
F +1 808 954 4400
www.ch2m.com

September 8, 2016

Mr. Leo R. Asuncion, Director
Office of Planning
State of Hawaii
P.O. Box 2359
Honolulu, HI 96804

Subject:

Waianae Wastewater Treatment Plant Improvements and Upgrade
Pre-Assessment Consultation for the Environmental Assessment
86-100 Farrington Highway, Waianae, Oahu
TMK: (1) 8-6-001:004

Dear Mr. Asuncion,

Thank you for your letter (P-15213) dated June 27, 2016, commenting on the proposed Waianae Wastewater Treatment Plant (WWTP) Improvements and Upgrade project. We offer the following responses to your comments:

1. **Hawaii State Plan.** We acknowledge your comment to include “an analysis that addresses whether the proposed project conforms to or is in conflict with the goals, objectives, policies, and priority guidelines listed in the Hawaii State Plan.”

Pursuant to the Hawaii Administrative Rules (HAR) 11-200-10(4), we have included in Section 5.C – City and County of Honolulu General Plan, of the Draft Environmental Assessment (DEA) report a general description of the proposed project’s technical, economic, social, and environmental characteristics. Furthermore, we have reviewed the Hawaii Revised Statutes (HRS) Chapter 226, “Hawaii State Planning Act”, and incorporated an analysis in Section 5.A – The Hawaii State Plan, of the DEA.

2. **Sea Level Rise.** We acknowledge your comment to “examine the project’s potential vulnerability to the effects of sea-level rise” and “describe how DES intends to be consistent with the priority guideline on climate change adaptation, HRS 226-109(7).”

The City and County of Honolulu (CCH), Department of Planning and Permitting (DPP), Development Plans and Zone Change Branch was contacted for general guidance on how to evaluate the effects of sea level rise on the proposed project. We were made aware of the United States Army Corp of Engineers (US ACE) documents and tools, Flood Plain Management Guidelines, and ongoing research efforts being conducted by the University of Hawaii School of Ocean and Earth Science and Technology (UHSOEST).

The US ACE on-line Sea Level Calculator was utilized to generate projections of sea level rise from the present to the year 2036. These projections and discussion have been provided in the DEA and can be found in Section 4 (D)(v) – Sea Level Rise. The other documents, tools, and information provided were reviewed for consideration. State and City policies and regulations on sea level rise mitigation are still in the process of development. As these issues become clearer, the planning for additional long-range improvements will need to appropriately address these issues in the future. The proposed project is focused on the near-term needs for this facility.

The CCH recognizes the threat of sea level rise and the importance of planning for its effects. The CCH also supports the efforts to develop state-wide policies/regulations and will continue to participate in efforts towards establishment.

3. **Coastal Zone Management (CZM).** We acknowledge your comment to “include an assessment as to how the proposed project conforms to the CZM objectives and its supporting policies set forth in HRS 205A-2.”

We have reviewed HRS 205A-2 “Coastal zone management program; objectives and policies” and HRS Chapter 23 “Environmental Impact Statements”. An assessment as to how the proposed project conforms to the CZM objectives and policies has been incorporated in Section 5 (G) – Coastal Zone Management, of the DEA.

4. **Special Management Area (SMA).** We acknowledge your comment that the existing Waianae WWTP is situated within the SMA and therefore subject to SMA rules and regulations.

The CCH, DPP was contacted in regards to the proposed project being located within the SMA. It has been determined that a SMA Use Permit (SMP) is required for the proposed project, due to the proposed improvements being defined as “development” as well as project costs exceeding \$500,000. We will apply for a SMP, which will be processed by CCH DPP and submitted for approval to the Honolulu City Council. Further discussion has been incorporated in Section 5 (F) – Special Management Area (SMA) Rules and Regulations, of the DEA.

5. **Coastal and Marine Resources.** We acknowledge your comments to “examine potential benefits and/or negative impacts resulting from this project on coastal and marine resources” and “examine the cumulative impact on coastal resources from land-based polluted runoff”. We also acknowledge the resources made available to us by the State of Hawaii, Office of Planning, to assist us in stormwater management practices.

Pursuant to HAR 11-200-10(6), an identification and a summary of impacts of the proposed project and alternatives considered been performed. This discussion, as it relates to the impacts and protection of coastal and marine resources, has been incorporated in Section 5 (G) – Coastal Zone Management, of the DEA.

We have also reviewed the resources recommended and made available to us. These resources will be used in the design process to ensure that adequate stormwater management practices are employed and the nearshore environment is protected.

We appreciate your participation in the environmental review process. Your office will be notified when the Draft Environmental Assessment is available for public review and comment. If you have any questions, please contact me at (808) 440-0208, or by email at Robin.Hirano@ch2m.com.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Robin Hirano". The signature is fluid and cursive, with a prominent initial "R" and "H".

Robin Hirano, P.E.
Project Manager

Cc: Christine Imada, City and County of Honolulu, Department of Design and Construction

DAVID Y. IGE
GOVERNOR OF HAWAII



VIRGINIA PRESSLER, M.D.
DIRECTOR OF HEALTH

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

In reply, please refer to:
File:

LUD - 1 8 6 001 044 Waianae
WWTP Improvements-ID2846

June 29, 2016

Mr. Robin Hirano, P.E.
CH2M
1132 Bishop Street, Suite 1100
Honolulu, Hawaii 96813
Attn: Ms. Alicia Nakano
Email: alicia.nakano@ch2m.com

Dear Mr. Hirano:

Subject: Pre-Assessment Consultation
Waianae Wastewater Treatment Plant Improvements and Upgrades
86-100 Farrington Highway, Waianae, Oahu, Hawaii 96792
TMK (1) 8-6-001: 044

Thank you for allowing us the opportunity to provide comments on the above subject project. Please be informed that all wastewater plans shall conform to applicable provisions of Hawaii Administrative Rules, Chapter 11-62, "Wastewater Systems" as amended on March 21, 2016.

Should you have any questions, please call Mark Tomomitsu of our branch at 586-4294.

Sincerely,

A handwritten signature in cursive script, appearing to read "Sina Pruder".

SINA PRUDER, P.E., CHIEF
Wastewater Branch

LM:sp

c: Ms. Laura McIntyre, DOH-Environmental Planning Office, via email



CH2M
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Honolulu, Hawaii 96813
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www.ch2m.com

September 8, 2016

Sina Pruder, P.E., Chief
Wastewater Branch
State of Hawaii
Department of Health
P.O. BOX 3378
Honolulu, HI 96801

Subject:

Waianae Wastewater Treatment Plant Improvements and Upgrade
Pre-Assessment Consultation for the Environmental Assessment
86-100 Farrington Highway, Waianae, Oahu
TMK: (1) 8-6-001:004

Dear Ms. Pruder,

Thank you for your letter (LUD – 186001044 Waianae WWTP Improvements-ID2B46) dated June 29, 2016, commenting on the proposed Waianae Wastewater Treatment Plant Improvements and Upgrade project.

We acknowledge the information provided in the Hawaii Administrative Rules, Chapter 11-62, "Wastewater Systems", amended on March 21, 2016, and will conform to the applicable provisions.

We appreciate your participation in the environmental review process. Your office will be notified when the Draft Environmental Assessment is available for public review and comment. If you have any questions, please contact me at (808) 440-0208, or by email at Robin.Hirano@ch2m.com.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Robin Hirano', written in a cursive style.

Robin Hirano, P.E.
Project Manager

Cc: Christine Imada, City and County of Honolulu, Department of Design and Construction

DAVID Y. IGE
GOVERNOR



DOUGLAS MURDOCK
COMPTROLLER

AUDREY HIDANO
Deputy Comptroller

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

P.O. BOX 119, HONOLULU, HAWAII 96810-0119

JUL 20 2016

RECEIVED

(P)1202.6

JUL 22 2016

Ms. Alicia Nakano
CH2M HILL
1132 Bishop Street, Suite 1100
Honolulu 96813

Dear Ms. Nakano:

Subject: Pre-Assessment Consultation for
Waianae Wastewater Treatment Plant Improvements and Upgrades
86-100 Farrington Highway, Waianae, Oahu, Hawaii
TMK: (1) 8-6-001: 044

Thank you for the opportunity to comment on the subject project. The proposed project does not impact any of the Department of Accounting and General Services' projects or existing facilities and we have no comments to offer at this time.

If you have any questions, your staff may contact Ms. Gayle Takasaki of the Public Works Division at 586-0584.

Sincerely,

A handwritten signature in blue ink, appearing to read "Douglas Murdock".

DOUGLAS MURDOCK
Comptroller



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September 8, 2016

Mr. Douglas Murdock
Comptroller, State of Hawaii
Department of Accounting and General Services
P.O. BOX 119
Honolulu, HI 96810

**Subject: Waianae Wastewater Treatment Plant Improvements and Upgrade
Pre-Assessment Consultation for the Environmental Assessment
86-100 Farrington Highway, Waianae, Oahu
TMK: (1) 8-6-001:004**

Dear Mr. Murdock,

Thank you for your letter dated July 20, 2016, commenting on the proposed Waianae Wastewater Treatment Plant Improvements and Upgrade project. We understand that the Department of Accounting and General Services has no comments to offer at this time.

We appreciate your participation in the environmental review process. Your office will be notified when the Draft Environmental Assessment is available for public review and comment. If you have any questions, please contact me at (808) 440-0208, or by email at Robin.Hirano@ch2m.com.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Robin Hirano', written over a light blue horizontal line.

Robin Hirano, P.E.
Project Manager

Cc: Christine Imada, City and County of Honolulu Department of Design and Construction

DAVID Y. IGE
GOVERNOR OF HAWAII



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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

July 15, 2016

CH2M

Attention: Ms. Alicia Nakano
1132 Bishop Street; Suite 1100
Honolulu, Hawaii 96813

via email: alicia.nakano@ch2m.com

Dear Ms. Nakano:

SUBJECT: Pre-Assessment Consultation for Waianae Wastewater Treatment Plant Improvements and Upgrades

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

At this time, enclosed are comments from the (a) Engineering Division and (b) Land Division – Oahu District on the subject matter. Should you have any questions, please feel free to call Lydia Morikawa at 587-0410. Thank you.

Sincerely,

A handwritten signature in blue ink, appearing to read "Russell Y. Tsuji".

Russell Y. Tsuji
Land Administrator

Enclosure(s)

cc: Central Files

DAVID Y. IGE
GOVERNOR OF HAWAII



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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

June 21, 2016

MEMORANDUM

TO: PR

DLNR Agencies:

- Div. of Aquatic Resources
- Div. of Boating & Ocean Recreation
- Engineering Division
- Div. of Forestry & Wildlife
- Div. of State Parks
- Commission on Water Resource Management
- Office of Conservation & Coastal Lands
- Land Division – Oahu District
- Historic Preservation

2016 JUN 21 AM 11:03 RECEIVED
LAND DIVISION
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

TO:
FROM:

Russell Y. Tsuji, Land Administrator

SUBJECT: Pre-Assessment Consultation for Waianae Wastewater Treatment Plant Improvements and Upgrades

LOCATION: Waianae, Island of Oahu; TMK: (1)8-6-001:044

APPLICANT: City and County of Honolulu, Department of Environmental Services

Transmitted for your review and comment is information on the above-referenced notification. We would appreciate your comments on this notification. Please submit any comments by **July 14, 2016**.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Lydia Morikawa at 587-0410. Thank you.

Attachments

- We have no objections.
- We have no comments.
- Comments are attached.

Signed: _____

Print Name: Carty S. Chang, Chief Engineer

Date: 7/5/16

cc: Central Files

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

To: Land Division

**Ref: Pre-Assessment Consultation for Waianae Wastewater Treatment Plant
Improvements and Upgrades**

COMMENTS

The rules and regulations of the National Flood Insurance Program (NFIP), Title 44 of the Code of Federal Regulations (44CFR), are in effect when development falls within a designated Flood Hazard.

The owner or the project property and/or their representative is responsible to research the Flood Hazard Zone designation for the project. Flood Hazard Zone designations can be found using the Flood Insurance Rate Map (FIRM), which can be accessed through the Flood Hazard Assessment Tool (FHAT) (<http://gis.hawaiiinfip.org/FHAT>).

National Flood Insurance Program establishes the rules and regulations of the NFIP - Title 44 of the Code of Federal Regulations (44CFR). The NFIP Zone X is a designation where there is no perceived flood impact. Therefore, the NFIP does not regulate any development within a Zone X designation.

Be advised that 44CFR reflects the minimum standards as set forth by the NFIP. Local community flood ordinances may take precedence over the NFIP standards as local designations prove to be more restrictive. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

- Oahu: City and County of Honolulu, Department of Planning and Permitting (808) 768-8098.
- Hawaii Island: County of Hawaii, Department of Public Works (808) 961-8327.
- Maui/Molokai/Lanai County of Maui, Department of Planning (808) 270-7253.
- Kauai: County of Kauai, Department of Public Works (808) 241-4846.

Signed: 
CARTY S. CHANG, CHIEF ENGINEER

Date: 7/5/14



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

June 21, 2016

MEMORANDUM

FROM: ~~TO:~~

DLNR Agencies:

- Div. of Aquatic Resources
- Div. of Boating & Ocean Recreation
- Engineering Division
- Div. of Forestry & Wildlife
- Div. of State Parks
- Commission on Water Resource Management
- Office of Conservation & Coastal Lands
- Land Division – Oahu District
- Historic Preservation

RECEIVED
LAND DIVISION
2016 JUN 23 AM 7:49
DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

TO: ~~FROM:~~

SUBJECT:

Russell Y. Tsuji, Land Administrator
Pre-Assessment Consultation for Waianae Wastewater Treatment Plant
Improvements and Upgrades

LOCATION:

Waianae, Island of Oahu; TMK: (1)8-6-001:044

APPLICANT:

City and County of Honolulu, Department of Environmental Services

Transmitted for your review and comment is information on the above-referenced notification. We would appreciate your comments on this notification. Please submit any comments by **July 14, 2016**.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Lydia Morikawa at 587-0410. Thank you.

Attachments

- We have no objections.
- We have no comments.
- Comments are attached.

Signed:

Cher

Print Name:

Timmy Chu

Date:

6/22/16

cc: Central Files

BN



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September 8, 2016

Mr. Russell Y. Tsuji
Land Administrator
Department of Land and Natural Resources
Land Division
P.O. Box 621
Honolulu, HI 96809

**Subject: Waianae Wastewater Treatment Plant Improvements and Upgrade
Pre-Assessment Consultation for the Environmental Assessment
86-100 Farrington Highway, Waianae, Oahu
TMK: (1) 8-6-001:004**

Dear Mr. Tsuji,

Thank you for your letter dated July 15, 2016, in response to the pre-assessment consultation letter regarding the proposed Waianae Wastewater Treatment Plant Improvements and Upgrade project.

According to the National Flood Insurance Program (NFIP) Flood Insurance Rate Map (FIRM) number 15003C0191H, dated January 19, 2011, the Waianae Wastewater Treatment Plant parcel is located in Zone D and Zone AE.

The proposed improvements to be constructed under this project are located in the portion of the parcel designated as Zone D. We are aware of NFIP standards and will coordinate as needed to ensure compliance.

We also understand that the Commission on Water Resource Management, Land Division – Oahu District, and Historic Preservation have no comments to offer at this time.

We appreciate your participation in the environmental review process. Your office will be notified when the Draft Environmental Assessment is available for public review and comment. If you have any questions, please contact me at (808) 440-0208, or by email at Robin.Hirano@ch2m.com.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Robin Hirano', written over a horizontal line.

Robin Hirano, P.E.
Project Manager

Cc: Christine Imada, City and County of Honolulu Department of Design and Construction



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

FORD N. FUCHIGAMI
DIRECTOR

Deputy Directors
JADE T. BUTAY
ROSS M. HIGASHI
EDWIN H. SNIFFEN
DARRELL T. YOUNG
IN REPLY REFER TO

DIR 0864
HWY-PS 2.2837

July 29, 2016

Ms. Alicia Nakano
Project Engineer
CH2M Hill
1132 Bishop Street, Suite 1100
Honolulu, Hawaii 96813

Dear Ms. Nakano:

Subject: Pre-Assessment Consultation for Draft Environmental Assessment (EA)
Waianae Wastewater Treatment Plant (WWTP) Improvements and Upgrades
86-100 Farrington Highway, Waianae, Oahu, Hawaii
TMK: (1) 8-6-001: 044

Thank you for the opportunity to review the proposed improvements and upgrades to the existing Waianae WWTP and provide Pre-Assessment Consultation comments on the Draft EA. The project description indicates that the proposed improvements will rehabilitate and/or replace existing plant components and structures, will maintain current treatment levels and capacity, and will occur within the existing boundaries of the WWTP property. Vehicular access to the WWTP is from an existing driveway on Farrington Highway, State Route 93 with a functional classification of principal arterial in the subject area.

We have the following comments:

1. The Department of Transportation (DOT) recommends that a second vehicular access driveway to the WWTP site be provided from the south side of Leihoku Street (across the street from the Waianae Transit Center entry driveway) to the proposed contractor staging area, for the use of all construction vehicles, and prohibiting construction vehicles from using the narrow existing driveway on Farrington Highway. The second vehicular access will prevent construction vehicles from queuing on Farrington Highway when entering the WWTP and interrupting the flow of through traffic.
2. A permit is required from the DOT Highways Division to transport oversized equipment and/or overweight loads within our State highway facilities.

Ms. Alicia Nakano
July 29, 2016
Page 2

HWY-PS 2.2837

If you have any questions, please contact Nami Wong, Systems Planning Engineer, Highways Division, Planning Branch, at (808) 587-6337. Please reference file review number PS 2016-111 in all contacts and correspondence regarding these comments.

Sincerely,



FORD N. FUCHIGAMI
Director of Transportation



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1132 Bishop Street, Suite 1100
Honolulu, Hawaii 96813
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www.ch2m.com

September 8, 2016

Mr. Ford N. Fuchigami
Director of Transportation, State of Hawaii
Department of Transportation
869 Punchbowl Street
Honolulu, HI 96813

**Subject: Waianae Wastewater Treatment Plant Improvements and Upgrade
Pre-Assessment Consultation for the Environmental Assessment
86-100 Farrington Highway, Waianae, Oahu
TMK: (1) 8-6-001:004**

Dear Mr. Fuchigami,

Thank you for your letter (DIR 0864 HWY-PS 2.2837) dated July 29, 2016, commenting on the proposed Waianae Wastewater Treatment Plant (WWTP) Improvements and Upgrade project. We offer the following responses to your comments:

1. We acknowledge your comment that to help prevent construction vehicles from queuing along Farrington Highway and interrupting traffic flow, the Department of Transportation (DOT) recommends that a second vehicular access driveway to the WWTP be provided.

Nami Wong, DOT Systems Planning Engineer, Highways Division was contacted by telephone and email to discuss this comment (File Review No PS 2016-111). Anticipated construction vehicle traffic and turning movements were provided. It was discussed that based on these anticipated construction movements, traffic flow would not be significantly impacted. However, during the construction period if through traffic is determined to be significantly impacted, alternate arrangements will be discussed and made accordingly. .

2. We acknowledge your comment stating that "A permit is required from the DOT Highways Division to transport oversized equipment and/or overweight loads within our State highway facilities."

A permit application will be submitted for approval prior to construction, as needed.

We appreciate your participation in the environmental review process. Your office will be notified when the Draft Environmental Assessment is available for public review and comment. If you have any questions, please contact me at (808) 440-0208, or by email at Robin.Hirano@ch2m.com.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Robin Hirano". The signature is fluid and cursive, with the first name "Robin" and last name "Hirano" clearly distinguishable.

Robin Hirano, P.E.
Project Manager

Cc: Christine Imada, Department of Design and Construction



**STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
580 N. NIMITZ HWY., SUITE 200
HONOLULU, HAWAII 96817**

HRD16-7899

July 18, 2016

CH2M c/o Alicia Nakano
1132 Bishop Street, Suite 1100
Honolulu, HI 96813

Re: Pre-Assessment Consultation Letter for Draft Environmental Assessment
Wai'anae Wastewater Treatment Plant Improvements and Upgrades
Wai'anae Ahupua'a, Wai'anae District, O'ahu Island
Tax Map Key: (1) 8-6-001:044

Aloha e Alicia Nakano:

The Office of Hawaiian Affairs (OHA) is in receipt of your letter dated June 15, 2016, seeking consultation. According to your letter, the City and County of Honolulu proposes to improve the existing Wai'anae Wastewater Treatment Plant (WWTP) to provide reliable wastewater treatment services for the leeward coast community from Mākaha to Nānākuli. According to your letter, improvements and upgrades will maintain current treatment levels and capacity, while improving the WWTP's ability to continue to meet regulatory requirements. The project improvements include:

- Rehabilitation of the primary clarifiers, primary effluent boxes;
- Utility water system improvements;
- Replacement of the headwork screens and associated equipment;
- Rehabilitation of the grit removal system and pre-aeration tanks and channels, upgrade dewatering system, and
- Replacement of the digester covers, digester mixing system, and waste gas handling

All improvements will be done within the existing plant property.

OHA recognizes the importance of this project and has no substantive comments at this time. We look forward to reviewing the draft environmental assessment as it becomes available. OHA does request assurances that should iwi kūpuna or Native Hawaiian cultural deposits be identified during ground altering activities, all work will immediately cease and the appropriate agencies, including OHA, will be contacted pursuant to applicable law.

Alicia Nakano, CH2M

July 18, 2016

Page 2

Thank you for the opportunity to comment. Should you have any questions, please contact Kathryn Keala at (808) 594-0272 or kathyk@oha.org.

'O wau iho nō me ka 'oia 'i'o,



Kamana'opone M. Crabbe, Ph.D.
Ka Pouhana, Chief Executive Officer

KC:kk

Please address replies and similar, future correspondence to our agency:

Dr. Kamana'opone Crabbe
Attn: OHA Compliance Enforcement
560 N. Nimitz Hwy, Ste. 200
Honolulu, HI 96817



CH2M

1132 Bishop Street, Suite 1100
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September 8, 2016

Dr. Kamana'opono M. Crabbe, Ph.D.
Ka Pouhana, Chief Executive Officer, State of Hawaii
Office of Hawaiian Affairs
560 N. Nimitz Highway, Suite 200
Honolulu, HI 96817

Subject: Waianae Wastewater Treatment Plant Improvements and Upgrade
Pre-Assessment Consultation for the Environmental Assessment
86-100 Farrington Highway, Waianae, Oahu
TMK: (1) 8-6-001:004

Dear Dr. Crabbe,

Thank you for your letter (HRD16-7899) dated July 18, 2016, commenting on the Waianae Wastewater Treatment Plant Improvements and Upgrade project. We understand that the Office of Hawaiian Affairs (OHA) has no substantive comments to offer at this time. Pursuant to your request, should iwi kupuna or Native Hawaiian cultural deposits be identified during ground altering activities, all work will immediately cease, and OHA and the appropriate agencies will be contacted.

We appreciate your participation in the environmental review process. Your office will be notified when the Draft Environmental Assessment is available for public review and comment. If you have any questions, please contact me at (808) 440-0208, or by email at Robin.Hirano@ch2m.com.

Sincerely yours,

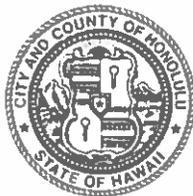
A handwritten signature in black ink, appearing to read 'Robin Hirano', written in a cursive style.

Robin Hirano, P.E.
Project Manager

Cc: Christine Imada, City and County of Honolulu, Department of Design and Construction

POLICE DEPARTMENT
CITY AND COUNTY OF HONOLULU

801 SOUTH BERETANIA STREET · HONOLULU, HAWAII 96813
TELEPHONE: (808) 529-3111 · INTERNET: www.honolulu.org



KIRK CALDWELL
MAYOR

LOUIS M. KEALOHA
CHIEF

MARIE A. McCAULEY
CARY OKIMOTO
DEPUTY CHIEFS

OUR REFERENCE MT-DK

June 27, 2016

Ms. Alicia Nakano
CH2M
1132 Bishop Street, Suite 1100
Honolulu, Hawaii 96813

Dear Ms. Nakano:

This is in response to a letter (dated June 15, 2016) from Robin Hirano, P.E., from your agency requesting comments on a Pre-Assessment Consultation, Environmental Assessment, for the Waianae Wastewater Treatment Plan Improvements and Upgrades project.

Based on the information provided, this project should have no significant impact on the services or operations of the Honolulu Police Department at this time.

If there are any questions, please call Major Sean Naito of District 8 (Kapolei) at 723-8403.

Thank you for the opportunity to review this project.

Sincerely,

LOUIS M. KEALOHA
Chief of Police

By 
MARK TSUYEMURA
Management Analyst VI
Office of the Chief



CH2M

1132 Bishop Street, Suite 1100
Honolulu, Hawaii 96813
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September 8, 2016

Chief Louis M. Kealoha
Chief of Police, City and County of Honolulu
Police Department
801 South Beretania Street
Honolulu, HI 96813

**Subject: Waianae Wastewater Treatment Plant Improvements and Upgrade
Pre-Assessment Consultation for the Environmental Assessment
86-100 Farrington Highway, Waianae, Oahu
TMK: (1) 8-6-001:004**

Dear Chief Kealoha,

Thank you for your letter (MT-DK) dated June 27, 2016, commenting on the proposed Waianae Wastewater Treatment Plant Improvements and Upgrade project. We understand that the project will have no significant impact on the services or operations of the City and County of Honolulu Police Department.

We appreciate your participation in the environmental review process. Your office will be notified when the DEA is available for public review and comment. If you have any questions, please contact me at (808) 440-0208, or by email at Robin.Hirano@ch2m.com.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Robin Hirano', written in a cursive style.

Robin Hirano, P.E.
Project Manager

Cc: Christine Imada, City and County of Honolulu, Department of Design and Construction

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843
WWW.HBWS.ORG



July 19, 2016

KIRK CALDWELL, MAYOR

DUANE R. MIYASHIRO, Chair
ADAM C. WONG, Vice Chair
DAVID C. HULIHEE
KAPUA SPROAT
BRYAN P. ANDAYA

ROSS S. SASAMURA, Ex-Officio
FORD N. FUCHIGAMI, Ex-Officio

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

ELLEN E. KITAMURA, P.E.
Deputy Manager and Chief Engineer *ek*

Ms. Alicia Nakano
CH2M
1132 Bishop Street, Suite 1100
Honolulu, Hawaii 96813

Dear Ms. Nakano:

Subject: Your Letter Dated June 15, 2016 Requesting Comments on the Draft Environmental Assessment for the Proposed Waianae Wastewater Treatment Plant Improvements and Upgrades – Tax Map Key: 8-6-001: 044

Thank you for the opportunity to comment on the proposed wastewater treatment plant improvements project.

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

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

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

The BWS requests that the Environmental Assessment discuss the feasibility of producing recycled water for irrigation of adjacent parks and large landscaped areas such as the Waianae Comprehensive Health Center.

If you have any questions, please contact Robert Chun, Project Review Branch of our Water Resources Division at 748-5443.

Very truly yours,

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



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September 8, 2016

Mr. Ernest Y.W. Lau, P.E.
Manager and Chief Engineer
Board of Water Supply
630 South Beretania Street
Honolulu, HI 96843

**Subject: Waianae Wastewater Treatment Plant Improvements and Upgrade
Pre-Assessment Consultation for the Environmental Assessment
86-100 Farrington Highway, Waianae, Oahu
TMK: (1) 8-6-001:004**

Dear Mr. Lau,

Thank you for your letter dated July 19, 2016, in response to the pre-assessment consultation letter regarding the proposed Waianae Wastewater Treatment Plant Improvements and Upgrade project.

Construction drawings will be submitted for your review as part of the Building Permit application process.

We acknowledge your comment to “discuss the feasibility of producing recycled water for irrigation” in areas surrounding the WWTP in the Environmental Assessment. This project’s scope is limited to the reuse of secondary effluent for in-plant use only. Expansion of the recycled water treatment, storage, and distribution system can be considered in the future. Additional treatment processes will be required, such as filtration and disinfection to meet DOH standards for R-1 water quality (Hawaii Administrative Rules 11-62-26). Such an expansion will be subject to another environmental review.

We appreciate your participation in the environmental review process. Your office will be notified when the Draft Environmental Assessment is available for public review and comment. If you have any questions, please contact me at (808) 440-0208, or by email at Robin.Hirano@ch2m.com.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Robin Hirano', written in a cursive style.

Robin Hirano, P.E.
Project Manager

Cc: Christine Imada, City and County of Honolulu Department of Design and Construction

DEPARTMENT OF FACILITY MAINTENANCE
CITY AND COUNTY OF HONOLULU

1000 Ulu'ohia Street, Suite 215, Kapolei, Hawaii 96707
Phone: (808) 768-3343 • Fax: (808) 768-3381
Website: www.honolulu.gov

KIRK CALDWELL
MAYOR



ROSS S. SASAMURA, P.E.
DIRECTOR AND CHIEF ENGINEER

EDUARDO P. MANGLALLAN
DEPUTY DIRECTOR

IN REPLY REFER TO:
DRM 16-532

July 12, 2016

Ms. Alicia Nakano
Project Engineer
CH2M
1132 Bishop Street, Suite 1100
Honolulu, Hawaii 96813

Dear Ms. Nakano:

**SUBJECT: Waianae Wastewater Treatment Plant Improvements and Upgrades
86-100 Farrington Highway, Waianae, Oahu, Hawaii
TMK: [1] 8-6-001: 044
Pre-Assessment Consultation**

Thank you for the opportunity to review and provide our input regarding your letter dated June 15, 2016, on the above subject project.

Our comments are as follows:

- Once construction phase commences, install approved Best Management Practices fronting all drainage facilities on Leihoku Street.
- During construction and upon completion of the project, any damages/deficiencies to Leihoku Street right-of-way shall be corrected to City standards and accepted by the City.
- Leihoku Street was recently resurfaced as part of the Department of Design and Construction's Rehabilitation of Localized Streets, Phase 15A project.

If you have any questions, please call Mr. Kyle Oyasato of the Division of Road Maintenance at 768-3697.

Sincerely,

A handwritten signature in black ink, appearing to read "Ross S. Sasamura".

Ross S. Sasamura, P.E.
Director and Chief Engineer



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Honolulu, Hawaii 96813
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September 8, 2016

Ross S. Sasamura
Director and Chief Engineer
Department of Facility Maintenance
1000 Uluohia Street, Suite 215
Kapolei, HI 96707

**Subject: Waianae Wastewater Treatment Plant Improvements and Upgrade
Pre-Assessment Consultation for the Environmental Assessment
86-100 Farrington Highway, Waianae, Oahu
TMK: (1) 8-6-001:004**

Dear Mr. Sasamura,

Thank you for your letter (DRM 16-532) dated July 12, 2016, commenting on the proposed Waianae Wastewater Treatment Plant (WWTP) Improvements and Upgrade project. We offer the following responses to your comments:

- We acknowledge your comment to “install approved Best Management Practices fronting all drainage facilities of Leihoku Street” once construction begins.

Best Management Practices will be implemented as required by the Department of Health NPDES Permit for Storm Water Discharges from Construction Activities and City and County of Honolulu Grading Permit. This discussion has been included in the Draft Environmental Assessment (DEA) section on Storm Drainage.

- We acknowledge your comment to correct any “damages/deficiencies to Leihoku Street right-of-way” that may occur during construction and upon completion of the project.

Damages/deficiencies within the Leihoku Street right-of-way determined to be the direct result of construction activities associated with the Waianae WWTP Improvements and Upgrade project will be restored to a condition that is equivalent to or better than existing conditions. Restoration work shall conform to City standards, as applicable.

- We acknowledge your comment that “Leihoku Street was recently resurfaced.”

At this time, we do not anticipate that this project will have an impact to Leihoku Street. To access the site, construction vehicles will likely utilize the existing driveway located along Farrington Highway. Should alternate arrangements become necessary, your Department will be notified and care will be taken such that damages/deficiencies to Leihoku Street are minimized.

We appreciate your participation in the environmental review process. Your office will be notified when the Draft Environmental Assessment is available for public review and comment. If you have any questions, please contact me at (808) 440-0208, or by email at Robin.Hirano@ch2m.com.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Robin Hirano', written in a cursive style.

Robin Hirano, P.E.
Project Manager

Cc: Christine Imada, City and County of Honolulu Department of Design and Construction

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8305 • Fax: (808) 768-4730 • Internet: www.honolulu.gov

KIRK CALDWELL
MAYOR



MICHAEL D. FORMBY
DIRECTOR

MARK N. GARRITY, AICP
DEPUTY DIRECTOR

TP6/16-656850R

July 13, 2016

Ms. Alicia Nakano
Project Engineer
CH2M
1132 Bishop Street, Suite 1100
Honolulu, Hawaii 96813

Dear Ms. Nakano:

SUBJECT: Pre-Consultation for Draft Environmental Assessment (DEA)
Waianae Wastewater Treatment Plant Improvements and Upgrades;
86-100 Farrington Highway, Waianae, Oahu, Hawaii; Tax Map Key:
(1) 8-6-001: 044

In response to a letter from Mr. Robin Hirano, PE, Project Engineer, CH2M, dated June 15, 2016, we have the following comments:

1. The DEA should include a Traffic Mitigation Plan which evaluates existing traffic conditions of the surrounding City roadways, possible impacts to the traffic and pedestrian patterns especially during construction, and possible mitigation measures.
2. The affected Neighborhood Board, as well as the area residents, businesses, etc., should be kept apprised of the details and any local impacts of the proposed project.
3. Any construction materials and equipment should be transferred to and from the project sites during off-peak traffic hours (8:30 a.m. to 3:30 p.m.) to minimize any possible disruption to traffic on the local streets.

We reserve further comment pending submission of the DEA.

Thank you for the opportunity to review this matter. Should you have any further questions, please contact Michael Murphy of my staff at 768-8359.

Very truly yours,


Michael D. Formby
Director



CH2M

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www.ch2m.com

September 8, 2016

Mark N. Garrity, AICP
Acting Director
Department of Transportation Services
650 South King Street, 3rd Floor
Honolulu, HI 96813

**Subject: Waianae Wastewater Treatment Plant Improvements and Upgrade
Pre-Assessment Consultation for the Environmental Assessment
86-100 Farrington Highway, Waianae, Oahu
TMK: (1) 8-6-001:004**

Dear Mr. Garrity,

Thank you for your letter (TP6/16-656850R) dated July 13, 2016, commenting on the proposed Waianae Wastewater Treatment Plant (WWTP) Improvements and Upgrade project. We offer the following responses to your comments:

1. We acknowledge your comment to “include a Traffic Mitigation Plan which evaluates existing traffic conditions of the surrounding City roadways, possible impacts to the traffic and pedestrian patterns especially during construction, and possible mitigation measures.”

Michael Murphy of your office referred me to Layden Akasaki, DTS Traffic Engineer, to follow up on this comment. During our telephone conversation on September 6, 2016, we informed him that the construction of the proposed action is entirely within the bounds of the Waianae WWTP, and that to the sole entrance to the property is on Farrington Highway, a State highway. We also discussed that the traffic related to construction is not anticipated to adversely impact traffic during peak hours in the peak direction on Farrington Highway. Based on this, Mr. Akasaki indicated that a Traffic Mitigation Plan is not required. Further discussion of impacts and mitigation has been incorporated in Section 4.K – Traffic and Roadway, of the Draft Environmental Assessment (DEA).

2. We acknowledge your comment that “affected Neighborhood Board, as well as the area residents, businesses, etc., should be kept apprised of the details and any local impacts of the proposed project.”

As part of this pre-assessment consultation we have sent letters to the Neighborhood Board Chair, elected officials, and adjacent commercial property owners. We will continue to keep them apprised of project. The list of recipients is included in the DEA in Section 6.A – Organizations Consulted During Preparation of the Draft Environmental Assessment.

3. We acknowledge your comment that "Construction materials and equipment should be transferred to and from the project site during off-peak traffic hours (8:30 a.m. to 3:30 p.m.) to minimize any possible disruption to traffic on the local streets."

Discussion of possible mitigation measures are included in Section 4.K – Traffic and Roadways in the DEA.

We appreciate your participation in the environmental review process. Your office will be notified when the Draft Environmental Assessment is available for public review and comment. If you have any questions, please contact me at (808) 440-0208, or by email at Robin.Hirano@ch2m.com.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Robin Hirano". The signature is fluid and cursive, with a prominent initial "R".

Robin Hirano, P.E.
Project Manager

Cc: Christine Imada, City and County of Honolulu, Department of Design and Construction

HONOLULU FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU

636 South Street
Honolulu, Hawaii 96813-5007
Phone: 808-723-7139 Fax: 808-723-7111 Internet: www.honolulu.gov/hfd

KIRK CALDWELL
MAYOR



MANUEL P. NEVES
FIRE CHIEF

LIONEL CAMARA JR.
DEPUTY FIRE CHIEF

July 1, 2016

Ms. Alicia Nakano
Project Engineer
CH2M
1132 Bishop Street, Suite 1100
Honolulu, Hawaii 96813

Dear Ms. Nakano:

Subject: Preassessment Consultation for Draft Environmental Assessment
Waianae Wastewater Treatment Plant Improvements and Upgrades
86-100 Farrington Highway
Waianae, Hawaii
Tax Map Key: 8-6-001: 044

In response to your letter dated June 15, 2016, regarding the above-mentioned subject, the Honolulu Fire Department (HFD) requires that the following be complied with:

1. Fire department access roads shall be provided such that any portion of the facility or any portion of an exterior wall of the first story of the building is located not more than 150 feet from fire department access roads as measured by an approved route around the exterior of the building or facility. (National Fire Protection Association [NFPA] 1; Uniform Fire Code [UFC]TM, 2012 Edition, Sections 18.2.3.2.2, and 18.2.3.2.2.1.)

A fire department access road shall extend to within 50 feet of at least one exterior door that can be opened from the outside and that provides access to the interior of the building. (NFPA 1; UFCTM, 2012 Edition, Section 18.2.3.2.1.)

2. A water supply approved by the county, capable of supplying the required fire flow for fire protection, shall be provided to all premises upon which facilities or buildings, or portions thereof, are hereafter

Ms. Alicia Nakano
Page 2
July 1, 2016

constructed, or moved into or within the county. When any portion of the facility or building is in excess of 150 feet from a water supply on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains capable of supplying the required fire flow shall be provided when required by the AHJ [Authority Having Jurisdiction]. (NFPA 1; UFC™, 2012 Edition, Section 18.3.1, as amended.)

3. The unobstructed width and unobstructed vertical clearance of a fire apparatus access road shall meet county requirements. (NFPA 1; UFC™, 2012 Edition, Sections 18.2.3.4.1.1 and 18.2.3.4.1.2, as amended.)
4. Submit civil drawings to the HFD for review and approval.

Should you have questions, please contact Battalion Chief Terry Seelig of our Fire Prevention Bureau at 723-7151 or tseelig@honolulu.gov.

Sincerely,



SOCRATES D. BRATAKOS
Assistant Chief

SDB/SY:bh



CH2M

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Honolulu, Hawaii 96813
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www.ch2m.com

September 8, 2016

Chief Manuel Neves
Fire Chief
Honolulu Fire Department
636 South Street
Honolulu, HI 96813

**Subject: Waianae Wastewater Treatment Plant Improvements and Upgrade
Pre-Assessment Consultation for the Environmental Assessment
86-100 Farrington Highway, Waianae, Oahu
TMK: (1) 8-6-001:004**

Dear Chief Neves,

Thank you for your letter dated July 1, 2016, commenting on the proposed Waianae Wastewater Treatment Plant Improvements and Upgrade project. We offer the following reply to your comments:

The proposed improvements will not adversely affect the accessibility to existing structures, and new structures will meet the referenced code requirements. The existing onsite roads will be kept clear for fire department access at all times. The improvements will not adversely impact the in-plant water supply for fire protection. Civil drawings are enclosed for HFD's review.

We appreciate your participation in the environmental review process. Your office will be notified when the Draft Environmental Assessment is available for public review and comment. If you have any questions, please contact me at (808) 440-0208, or by email at Robin.Hirano@ch2m.com.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Robin Hirano', written in a cursive style.

Robin Hirano, P.E.
Project Manager

Cc: Christine Imada, City and County of Honolulu Department of Design and Construction

Enclosure: Waianae WWTP Improvements and Upgrade – Civil Drawings

Nakano, Alicia/HNL

From: Hirai, Peter J.S. <PHirai@honolulu.gov>
Sent: Monday, July 11, 2016 9:00 PM
To: Nakano, Alicia/HNL
Cc: Epenesa, Karen
Subject: Draft EA pre-assessment consultation

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Alicia Nakano:

Thank you for your letter of June 15, 2016 requesting comments and input regarding environmental concerns for the pre-assessment consultation of TMK [1]8-6-001:044, the Waianae Wastewater Treatment Plant Improvements and Upgrades.

Our only comment is that the project sits in the designated Tsunami Evacuation Zone; although that does not incur any statutory requirements such that the coastal flood zone would, the project must still exercise caution during construction if there should be a Tsunami Warning. That would place the workers in grave danger.

Thank you for allowing the City department of emergency management to comment on this project.

Respectfully,

Peter J.S. Hirai, MSS, CEM®
Deputy Director
Department of Emergency Management
650 South King Street
Honolulu, Hawaii 96813-3078
Voice: (808) 723-8960 Fax: (808) 768-1458

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TSUNAMI AWARE

Hawai'i

86-100 farrington highway





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September 8, 2016

Mr. Peter J.S. Hirai
Deputy Director
Department of Emergency Management
650 South King Street
Honolulu, HI 96813

Subject: Waianae Wastewater Treatment Plant Improvements and Upgrade
Pre-Assessment Consultation for the Environmental Assessment
86-100 Farrington Highway, Waianae, Oahu
TMK: (1) 8-6-001:004

Dear Mr. Hirai,

Thank you for your email dated July 11, 2016, commenting on the proposed Waianae Wastewater Treatment Plant Improvements and Upgrade project. We understand that the project site is in the designated Tsunami Evacuation Zone and in the event of a tsunami warning, actions will be taken to ensure worker safety, as described in Section 4.D.ii of the Draft Environmental Assessment (DEA).

We appreciate your participation in the environmental review process. Your office will be notified when the Draft Environmental Assessment is available for public review and comment. If you have any questions, please contact me at (808) 440-0208, or by email at Robin.Hirano@ch2m.com.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Robin Hirano', written in a cursive style.

Robin Hirano, P.E.
Project Manager

Cc: Christine Imada, City and County of Honolulu Department of Design and Construction

DEPARTMENT OF PARKS & RECREATION
CITY AND COUNTY OF HONOLULU

1000 Uluohia Street, Suite 309 Kapolei, Hawaii 96707
Phone: (808) 768-3003 • Fax: (808) 768-3053
Website: www.honolulu.gov

KIRK CALDWELL
MAYOR



MICHELE K. NEKOTA
DIRECTOR

JEANNE C. ISHIKAWA
DEPUTY DIRECTOR

August 30, 2016

CH2M
C/O Alicia Nakano
1132 Bishop Street, Suite 1100
Honolulu, Hawaii 96813

Dear Ms. Nakano:

**SUBJECT: Pre-Assessment Consultation
Waianae Wastewater Treatment Plan Improvements and Upgrades
86-100 Farrington Highway, Waianae, Oahu, Hawaii
TMK: [1] 8-6-001:044**

Thank you for the opportunity to review and comment on the Pre-Assessment Consultation stage of the subject Waianae Wastewater Treatment Improvement project.

The Department of Parks and Recreation has no comment as the proposed project will have no impact on any of our programs and facilities. You may remove us as a consulted party for the remainder of the EIS process.

Should you have any questions, please contact John Reid, Planner at 768-3017.

Sincerely,

A handwritten signature in black ink, appearing to read "Michele K. Nekota". The signature is fluid and cursive, written over a white background.

Michele K. Nekota
Director

MKN:jr
(656819)



June 27, 2016

CH2M HILL
1132 Bishop Street
Suite 1100
Honolulu, Hawaii 96813
Attention: Ms. Alicia Nakano

Dear Ms. Nakano:

Subject: Waianae Wastewater Treatment Plant Improvements and Upgrades
86-100 Farrington Highway
Waianae, Oahu, Hawaii
Tax Map Key: [1] 8-6-001: 044
Pre-Assessment Consultation

Thank you for the opportunity to review and comment on the pre-assessment consultation phase for the subject project.

Hawaiian Telcom does not have any comments to offer at this time.

If you have any questions or require assistance in the future on this project, please call me at 546-7761.

Sincerely,



Les Loo
Network Engineer – OSP Engineering
Network Engineering & Planning

cc: File [Waianae]





CH2M

1132 Bishop Street, Suite 1100
Honolulu, Hawaii 96813
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September 8, 2016

Mr. Les Loo
Networking Engineer-OSP Engineering, Network Engineering & Planning
Hawaiian Telcom
P.O. BOX 2200
Honolulu, HI 96841

Subject: Waianae Wastewater Treatment Plant Improvements and Upgrade
Pre-Assessment Consultation for the Environmental Assessment
86-100 Farrington Highway, Waianae, Oahu
TMK: (1) 8-6-001:004

Dear Mr. Loo,

Thank you for your letter dated June 27, 2016, commenting on the proposed Waianae Wastewater Treatment Plant Improvements and Upgrade project. We understand that Hawaiian Telcom does not have any comment to offer at this time.

We appreciate your participation in the environmental review process. Your office will be notified when the Draft Environmental Assessment is available for public review and comment. If you have any questions, please contact me at (808) 440-0208, or by email at Robin.Hirano@ch2m.com.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Robin Hirano', written in a cursive style.

Robin Hirano, P.E.
Project Manager

Cc: Christine Imada, City and County of Honolulu Department of Design and Construction



July 8, 2016

Ms. Alicia Nakano
CH2M
1132 Bishop Street, Suite 1100
Honolulu, Hawaii 96813

Dear Ms. Nakano:

Subject: Waianae Wastewater Treatment Plan Improvements and Upgrades
86-100 Farrington Highway, Waianae, Oahu, Hawaii
TMK: [1] 8-6-001:044
Pre-Assessment Consultation

In response to your letter dated June 15, 2016, it has been determined that the area is currently clear of utility gas facilities.

Thank you for the opportunity to comment on the Pre-Assessment Consultation. Should there be any questions, or if additional information is desired, please feel free to call Colin Chikamoto at 596-1430.

Sincerely,

Hawaii Gas

Keith K. Yamamoto
Manager, Engineering

KKY:krs



CH2M

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Honolulu, Hawaii 96813
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September 8, 2016

Mr. Keith K. Yamamoto
Manager, Engineering
Hawaii Gas
P.O. BOX 3000
Honolulu, HI 96802

**Subject: Waianae Wastewater Treatment Plant Improvements and Upgrade
Pre-Assessment Consultation for the Environmental Assessment
86-100 Farrington Highway, Waianae, Oahu
TMK: (1) 8-6-001:004**

Dear Mr. Yamamoto,

Thank you for your letter dated July 8, 2016, commenting on the proposed Waianae Wastewater Treatment Plant (WWTP) Improvements and Upgrade project. We understand that the area is currently clear of utility gas facilities.

We appreciate your participation in the environmental review process. Your office will be notified when the Draft Environmental Assessment is available for public review and comment. If you have any questions, please contact me at (808) 440-0208, or by email at Robin.Hirano@ch2m.com.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Robin Hirano', written in a cursive style.

Robin Hirano, P.E.
Project Manager

Cc: Christine Imada, City and County of Honolulu Department of Design and Construction

From: [Nakano, Alicia/HNL](mailto:Nakano.Alicia/HNL)
To: [Onaga, Jeff/HNL](mailto:Onaga.Jeff/HNL)
Subject: FW: Waianae Wastewater Treatment Plant Improvements and Upgrades 86-100 Farrington Highway [EXTERNAL]
Date: Friday, July 15, 2016 2:10:59 PM

From: Kuwaye, Kristen [mailto:kristen.kuwaye@hawaiianelectric.com]
Sent: Friday, July 15, 2016 12:55 PM
To: Nakano, Alicia/HNL <Alicia.Nakano@CH2M.com>
Cc: Liu, Rouen <rouen.liu@hawaiianelectric.com>
Subject: Waianae Wastewater Treatment Plant Improvements and Upgrades 86-100 Farrington Highway [EXTERNAL]

Kristen Kuwaye on behalf of Rouen Liu

Dear Ms. Alicia Nakano,

Thank you for the opportunity to comment on the subject project. Hawaiian Electric Company has no objection to the project. Should HECO have existing easements and facilities on the subject property, we will need continued access for maintenance of our facilities.

We appreciate your efforts to keep us apprised of the subject project in the planning process. As the proposed Waianae Wastewater Treatment Plant Improvements and Upgrades Project comes to fruition, please continue to keep us informed. Further along in the design, we will be better able to evaluate the effects on our system facilities. For future letters and inquiries please direct them to Kerstan Wong Manager of Engineering to prevent any delays.

If you have any questions, please call me at 543-7245.

Sincerely,
Rouen Q. W. Liu
Permits Engineer
Tel: (808) 543-7245
Email: Rouen.liu@hawaiianelectric.com

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CH2M

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www.ch2m.com

September 8, 2016

Mr. Kerstan Wong
Manager of Engineering
Hawaiian Electric Company
P.O. BOX 2750
Honolulu, HI 96840

Subject: Waianae Wastewater Treatment Plant Improvements and Upgrades
Pre-Assessment Consultation for the Environmental Assessment
86-100 Farrington Highway, Waianae, Oahu
TMK: (1) 8-6-001:004

Dear Mr. Wong,

Thank you for your email (from Kristen Kuwaye on behalf of Rouen Liu) dated July 15, 2016, commenting on the proposed Waianae Wastewater Treatment Plant (WWTP) Improvements and Upgrade project. The project will provide continued access for maintenance to HECO's existing facilities. We will also keep you informed and will continue to coordinate with HECO as needed.

We appreciate your participation in the environmental review process. Your office will be notified when the DEA is available for public review and comment. If you have any questions, please contact me at (808) 440-0208, or by email at Robin.Hirano@ch2m.com.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Robin Hirano', written over a white background.

Robin Hirano, P.E.
Project Manager

Cc: Christine Imada, City and County of Honolulu Department of Design and Construction