DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8480 • Fax: (808) 768-4567
Web site: www.honolulu.gov

PETER B. CARLISLE
MAYOR

LORI M.K. KAHIKINA, P.E.
DIRECTOR

CHRIS TAKASHIGE, P.E.
DEPUTY DIRECTOR

WW.PDW 12-054

May 10, 2012

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

Dear Mr. Hooser:

Subject: Draft Environmental Assessment for Waimalu Wastewater Pump Station Force Main, Waiau, Oahu

With this letter, the Department of Design and Construction hereby transmits the draft environmental assessment and anticipated finding of no significant impact (DEA-AFONSI) for the Waimalu Wastewater Pump Station Force Main situated at the project area, which consists of the State right-of-way (ROW) on Kamehameha Highway between Waimalu Stream crossing and Kuleana Road, and extends approximately 30 feet beyond the State ROW within Neal Blaisdell Park (the project boundary also includes the property boundary for the Waimalu Wastewater Pump Station), in the Ewa District on the island of Oahu for publication in the available OEQC Environmental Notice.

Enclosed is a completed Publication Form, ~~two (2)~~ one (1) copies of the DEA-FONSI and an Adobe Acrobat PDF file of the same.

If there are any questions, please contact Jocelyn Okino of our Wastewater Division at (808) 768-8774 or Lambert Yamashita, P.E., Senior Project Manager at AECOM at (808) 529-7248.

Very truly yours,

Lori M. K. Kahikina, P.E.
Director

Enclosures

Agency Action EA
Chapter 343, HRS
Publication Form

Project Name: Waimalu Wastewater Pump Station Force Main Draft Environmental Assessment

Island: Oahu
District: Ewa
TMK: The project area consists of the State right-of-way (ROW) on Kamehameha Highway between Waimalu Stream crossing and Kuleana Road, and extends approximately 30 feet beyond the State ROW within the Neal Blaisdell Park. The project area also includes the property boundary for the Waimalu Wastewater Pump Station.
Permits: Construction Plans Approval, Building Permit, Public ROW Permit to Excavate, Grubbing, Grading, and Stockpiling Permit, Special Management Area Permit, Construction Dewatering Permit, Right-of-Entry Permit, Street Usage Permit, Community Noise Permit for Construction Activities, Community Noise Variance, National Pollutant Discharge Elimination System (NPDES) Construction Dewatering Permit, NPDES Construction Stormwater Discharge, Construction Plan Approval and Use, Occupancy Agreement to Perform Work Upon a State Highway, Conformance with Accessibility Guidelines, and Environmental Assessment.
Proposing/Determination: Anticipated Finding of No Significant Impact (AFONSI).
Agency: City and County of Honolulu, Department of Design and Construction, Wastewater Division. 650 South King Street, Honolulu, Hawaii 96813, Jocelyn Okino, (808) 768-8796.
Consultant: AECOM, 1001 Bishop Street, Suite 1600, Honolulu, Hawaii 96813, Lambert Yamashita, P.E., Senior Project Manager, (808) 529-7248.

Status: 30-day comment period for AFONSI

Summary: As part of the Force Main Spill Contingency Program under the 2010 Consent Decree between the United States Environmental Protection Agency (US EPA), State of Hawaii, Department of Health (DOH), and the City and County of Honolulu (CCH), CCH is required to submit a plan describing how wastewater flows would be diverted from the Waimalu Wastewater Pump Station Force Main in the event of failure. The CCH Department of Environmental Services (ENV) is planning for the construction of a new force main to provide redundancy to allow for the rehabilitation and/or replacement of the existing air bleeder assembly to be in compliance with the 2010 Consent Decree.

Of the five alternatives discussed in the *Honouliuli/Waipahu/Pearl City Wastewater Facilities Plan, Design Alternatives Report*¸ the preferred alternative is Alternative 1B, which proposes to construct a new force main using horizontal directional drilling method for the FM extending west on the makai side of Kamehameha Highway within the Neal Blaisdell Park and the State right-of-way and a 45 degree bend across the Kuleana Road using pilot-tube micro tunneling (PTMT) method.

During construction, the project would result in temporary noise, air quality, and traffic impacts. These impacts would shift to different locations within the project area as each FM segment is completed. The degree of impacts for each technology—HDD and PTMT—would be generally comparable. There would be minimal disruption to sewer service. Major sources of noise include sheet pile driving, pavement saw cutting, operating pumps and generators, compaction equipment, and other construction equipment. There would not be significant odors during construction, as temporary bypass lines would be provided, and sewage would generally not be exposed to the atmosphere. Construction work would likely result in fugitive dust. The air quality impacts would be temporary and would cease upon completion of the construction. Because the project area is within the public right-of-way, lane closures and traffic diversion would result in short-term impacts to Kamehameha Highway users. There are no known cultural activities in the project area.

Revised February 2012

Draft Environmental Assessment

Waimalu Wastewater Pump Station Force Main

Prepared For:

Department of Design and Construction
Wastewater Division

City and County of Honolulu

Prepared By:

AECOM

1001 Bishop Street, Suite 1600
Honolulu, Hawaii 96813

May 2012

Executive Summary

A comprehensive settlement reached between the United States Environmental Protection Agency (EPA), State of Hawaii Department of Health (DOH), and the City & County of Honolulu (CCH)—known as the 2010 Consent Decree—replaced a 1995 Consent Decree and terminated all outstanding litigation and administrative compliance orders concerning wastewater treatment plants and collection systems owned and operated by the CCH. As part of the Force Main Spill Contingency Program under the 2010 Consent Decree, the CCH is required to submit a plan describing how flows would be diverted from the Waimalu Wastewater Pump Station (WWPS) Force Main (FM) in the event of failure, by no later than December 31, 2015. A 2007 Stipulated Order lodged by the EPA and DOH to resolve the claim against CCH (a single, Clean Water Act claim against CCH for injunctive relief as a result of a spill referred to as the Beachwalk Force Main Spill) required CCH to take certain actions to evaluate, repair, rehabilitate or replace certain FMs. The Waimalu FM was identified and CCH was required to conduct a FM Condition Assessment and to develop a Follow-up Action Plan. Although the Waimalu WWPS FM Condition Assessment report found the existing FM to be intact, the resulting Follow-up Action Plan identified a need to rehabilitate or replace the existing air bleeder assembly. This work would require bypass pumping and/or night-time shut down of the Waimalu WWPS. The EPA and DOH have set a date of September 30, 2013 to replace the air bleeder. The CCH Department of Environmental Services is planning for the construction of a new FM to function as a redundancy apparatus that would allow for the rehabilitation or replacement of the existing air bleeder assembly to be in compliance with the 2010 Consent Decree.

Five alternatives were assessed in the *Honouliuli/Waipahu/Pearl City Wastewater Facilities Plan, Design Alternatives Report*, (AECOM 2012a), including the No-Action Alternative. Alternative 1B, which proposes to construct a new FM using horizontal directional drilling (HDD) for the first segment (2,635 linear feet [LF]) and intersect Kamehameha Highway using pilot-tube micro tunneling (PTMT) for the second segment (95 LF), is the proposed action and the Preferred Alternative. This environmental assessment is prepared in accordance with the State of Hawaii, Chapter 343, Hawaii Revised Statutes and Chapter 11-200 of the Hawaii Administrative Rules to disclose any potential impacts the proposed action may have on the environment.

During construction, the project would result in temporary noise, air quality, and traffic impacts. These impacts would shift to different locations within the project area as each FM segment is completed. The degree of impacts for each technology—HDD and PTMT—would be generally comparable. In either case, there would be minimal disruption to sewer service.

Major sources of noise include sheet pile driving, pavement saw cutting, operating pumps and generators, compaction equipment, and other construction equipment. There would not be significant odors during construction, as temporary bypass lines would be provided, and sewage would generally not be exposed to the atmosphere.

Construction work would likely result in fugitive dust. The use of construction equipment at the project site would create dust and exhaust emissions. The air quality impacts would be temporary and would cease upon completion of the construction. The contractor would be required to control the generation of dust by adequately watering down the construction site and soil stockpiles, keeping the construction site and access roadways reasonably free of dust causing materials.

Because the project area is within the public right-of-way, lane closures and traffic diversion would result in short-term impacts to Kamehameha Highway users. To mitigate these impacts, vehicle and pedestrian detours, traffic control devices, and warning signs would be used. Where necessary, traffic flow would be directed by construction workers or special duty police officers. Access for local traffic and emergency vehicles would be maintained at all times. Residents and businesses in the affected areas would be notified in advance when work is scheduled through community meetings, distribution of flyers, and press releases.

There are no known cultural activities in the project area; therefore, the proposed project is not anticipated to cause negative impacts to the known cultural resources within the region and therefore, no mitigation measures are proposed.

Table of Contents

List of Figures

List of Tables

Appendix

This Page Left Intentionally Blank

Acronyms and Abbreviations

°F	degree Fahrenheit
µg	microgram
ADT	average daily traffic
AFONSI	Anticipated Finding of No Significant Impact
BMP	best management practice
CAB	Clean Air Branch
CCH	City & County of Honolulu
CDA	Civil Defense Agency
CDP	census designated place
CO	carbon monoxide
CWA	Clean Water Act
DAR	Design Alternatives Report
dBA	A-weighed decibels
DLNR	Department of Land and Natural Resources
DOH	Department of Health
DOT	Department of Transportation
DPP	Department of Planning and Permitting
EA	environmental assessment
EIS	environmental impact statement
ENV	Department of Environmental Services
EPA	Environmental Protection Agency, United States
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FM	force main
ft	foot or feet
HAR	Hawaii Administrative Rules
HDD	horizontal directional drilling
HDPE	high density polyethylene
HECO	Hawaiian Electric Company
HHCTCP	Honolulu High-Capacity Transit Corridor Project
HnB	Hanalei silty clay
HRHP	Hawaii Register of Historic Places
HRS	Hawaii Revised Statutes
IWDP	Industrial Wastewater Discharge Permit
KHG	Kamehameha Highway Guideway
KmbA	Keaau clay
kv	kilovolt
LF	linear foot
LWCF	Land and Water Conservation Fund
M	million
m3	cubic meter
MBTA	Migratory Bird Treaty Act
MSL	mean sea level
MuB	Molokai silty clay loam
MuC	Molokai silty clay loam
NPDES	National Pollutants Discharge Elimination System
NPS	National Park Service

NRHP	National Register of Historic Places
O&M	operation and management
OIBC	Oahu Island Burial Council
OSHA	Occupational Safety and Health Act
OTS	Oahu Transit Services
PM10	particulate matter 10
PM2.5	particulate matter 25
PTMT	pilot-tube micro-tunneling
PUC DP	Primary Urban Center Development Plan
PVC	polyvinyl chloride
ROH	Revised Ordinance of Honolulu
ROM	rough order of magnitude
ROW	right-of-way
SHPD	State Historic Preservation Division
SMA	Special Management Area
TMP	Transportation Management Plan
TR	Tropaquepts
UIC	underground injection control
US	United States
WWPS	Wastewater Pump Station
WzA	Waipahu silty clay
WzC	Waipahu silty clay
Ph	Pearl Harbor clay

Project Profile

Applicant:	City & County of Honolulu Department of Design and Construction, Wastewater Division 650 South King Street Honolulu, Hawaii 96813
Agent:	AECOM 1001 Bishop Street, Suite 1600 Honolulu, Hawaii 96813 Contact: Lambert Yamashita, P.E., Senior Project Manager (808) 529-7248
Project Name:	Waimalu Wastewater Pump Station Force Main
Determination:	Anticipated Finding of No Significant Impact, Draft Environmental Assessment
Project Location:	The project area consists of the State right-of-way (ROW) on Kamehameha Highway between Waimalu Stream crossing and Kuleana Road, and extends approximately 30 feet beyond the State ROW within the Neal Blaisdell Park. The project area also includes the property boundary for the Waimalu Wastewater Pump Station.
State Land Use District:	Urban
County Land Use Zoning:	A-1 (low-density apartment), AG-2 (general agriculture), B-2 (community business), I-2 (intensive industrial), R-5 (residential), and P-2 (preservation district, general). Additionally, there is a Federal parklands easement traversing the project area abutting the shoreline.
Special Management Area:	Area makai (seaward) of Kamehameha Highway is within a Special Management Area.
Flood Zone:	D (undetermined, but possible flood hazards) according to Federal Emergency Management Agency Flood Insurance Rate Map .

This Page Left Intentionally Blank

1 PROJECT OVERVIEW

The proposed action is to construct a new force main (FM) that will provide redundant service to the existing Waimalu Wastewater Pump Station (WWPS) FM. The environmental assessment (EA) is being prepared to assess the proposed action and alternatives for potential impacts (if any) to natural, built, and social environments.

1.1 Project Area

The project area is in the vicinity of the Waimalu WWPS, located at 245 Kamehameha Highway on the leeward side of the island of Oahu. The project area consists of the State right-of-way (ROW) on Kamehameha Highway between Waimalu Stream crossing and Kuleana Road, and extends approximately 30 feet (ft) beyond the State ROW within the Neal Blaisdell Park. The project area also includes the property boundary for the Waimalu WWPS (see Figure 1). From the Waimalu WWPS, the existing FM traverses Kamehameha Highway on the makai (seaward) side in the westerly direction—approximately 2,750 linear feet (LF)—and discharges into sewer manhole #599045 on the mauka (landward) side of the Highway. The existing FM is located in the State ROW and a sewer easement at the Neal Blaisdell Park.

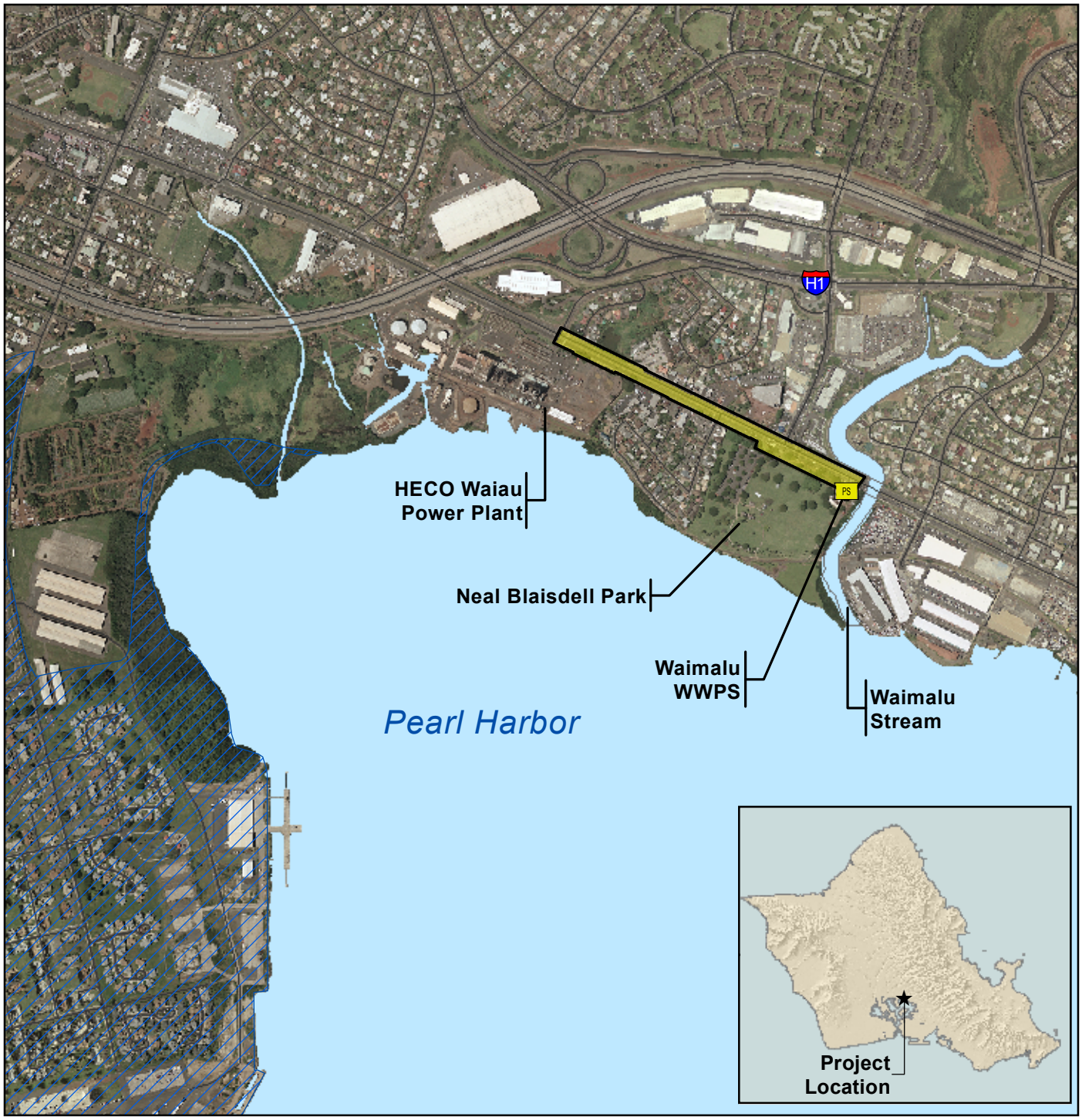
1.2 Purpose of and Need for Action

1.2.1 Project Background

The existing FM was built in 1964 and mostly consists of 30-inch diameter reinforced concrete pipe; the first 69 ft of the FM near the WWPS is cast iron pipe. The service area of the Waimalu WWPS FM includes Foster Village, Makalapa, Halawa, Red Hill, Halawa Heights, Aiea Heights, Aiea, Newtown, Royal Summit, Pearlridge, and Waimalu.

A 1995 Consent Decree between the United States Environmental Protection Agency (US EPA), State of Hawaii Department of Health (DOH), and the City & County of Honolulu (CCH) required the CCH to “undertake certain steps to remedy Clean Water Act (CWA) violations” alleged in the original complaint filed on October 3, 1994. The 1995 Consent Decree also required CCH to improve conditions in its wastewater collection system, including (but not limited to) implementing comprehensive collection system maintenance and capacity programs and undertaking two Supplemental Environmental Projects (*Consent Decree, EPA 2010*).

The EPA and DOH filed a complaint against CCH in 2007, asserting a single CWA claim for injunctive relief as a result of a spill referred to as the Beachwalk Force Main Spill. Concurrent with the 2007 Complaint, the EPA and DOH lodged a Stipulated Order to resolve the claim. The 2007 Stipulated Order required CCH to take certain actions to evaluate, repair, rehabilitate, or replace certain FMs. The Waimalu FM Project was identified, and CCH was required to conduct a FM Condition Assessment and to develop a Follow-up Action Plan. CCH was also required to prepare a site-specific Spill Contingency Plan designed to minimize the volume of any spills from the Waimalu WWPS FM. The CCH complied with the 2007 Stipulated Order by completing and submitting both a Condition Assessment Report and a Spill Contingency Plan for the Waimalu WWPS FM.



Waimalu Wastewater Pump Station Force Main
Figure 1
Project Area

- Project Study Area
- PS Pump Station
- O'ahu Road Centerlines
- Underground Injection Control (UIC) Areas
- Open Water

City and County of Honolulu,
Department of Design and Construction

DRAFT

0 200 400
Feet

Figure Date: 5/10/2012

AECOM

Task 13.A.1 Waimalu FM Draft EA

Path: P:\PDD\60220849 Waimalu EA\06GIS\6.3Layout\mxd\Waimalu_EA_STUDY_AREA_09MAY2012.mxd

In 2010, a new Consent Decree was entered in Court replacing the 1995 Consent Decree and the 2007 Stipulated Order, the 1994 and 2007 complaints, and all outstanding litigations and administrative compliance orders concerning the CCH's wastewater treatment plants and collection systems.

The 2010 Consent Decree incorporated the Follow-up Action Plan from the Condition Assessment Report for the Waimalu WWPS FM and made the recommended improvements enforceable under the decree. Although the Condition Assessment report found the Waimalu WWPS FM to be generally intact, the resulting Follow-up Action Plan recommended the rehabilitation or replacement of the existing air bleeder assembly. ENV has determined it to be in CCH's interest to construct a new FM to ensure continued reliable service in the future.

1.3 Proposed Action and Alternatives

The *Honouliuli/Waipahu/Pearl City Wastewater Facilities Plan Design Alternatives Report, Work Task 13-Waimalu Wastewater Pump Station Redundant Force Main* (referred to as the Design Alternatives Report [DAR]; AECOM 2012a) contains the methodology used to develop alternatives for a new FM (each alternative has two sub-alternatives). Each of the five alternative (four alternatives and a No-Action Alternative) was evaluated against six criteria: constructability; surface disturbance; construction cost; operations and maintenance; utility conflicts; and project clearances. The descriptions of the five alternatives are provided in Sections 1.3.2 to 1.3.6 of this report and the evaluation of the alternatives can be found in the 2012 DAR. The Preferred Alternative and the No-Action Alternative are assessed for potential environmental impacts in this draft EA.

1.3.1 Construction Methods Considered

The constructability of a project deals with the ease and efficiency with which a project can be built. For underground utility projects such as this, constructability is directly related to the construction method selected and the associated construction activities that would add to the complexity of the project and impact the project schedule. Three construction methods were used to define the various alternatives for the Waimalu WWPS FM: open trenching, horizontal directional drilling (HDD), and pilot-tube micro-tunneling (PTMT).

Open Trenching Method

Open trenching is a conventional construction method for installing any type of underground utility. Specific site conditions may require many additional activities besides excavating a trench to install utilities such as traffic control, detouring of roads, storage of excavated materials on the site, backfilling and compaction, ground water management, and restoration of surfaces that add to the complexity of a project. Open trenching requires a longer construction period compared to trenchless construction methods, particularly in areas congested with traffic and existing underground utilities

HDD Method

HDD uses steerable trenchless technology to install underground utility pipes ranging in diameters of 2 inches to 54 inches in a vertical arc along a designed bore path. The horizontal alignment can be adjusted, but is limited to a radius between 800 ft. HDD is typically used for

crossing waterways, roadways, shore approaches, congested areas, environmentally sensitive areas, and areas where other methods are costlier and when the tight control of the pipeline grade is not as important. HDD requires the construction of two pits, an entrance pit and an exit pit. An entrance pit would be sized to accommodate the connection of the underground pipe installed by HDD. The pullback operation is located at the exit pit and is typically sized to accommodate the acceptable bending limitations of the pipe as it moves from the surface into the bore hole. For a 30-inch diameter pipe, the receiving/pullback pit is 100 ft long by 8 ft wide. Depending on soil conditions, the drive length of HDD can be greater than 5,000 ft. In terms of accuracy for HDD, in ideal conditions the exit trajectory may have an error of 2 ft ± per 1,000 ft of drive length.

The drilling process begins with a pilot hole that is controlled to follow a desired alignment and profile. Next, the pilot hole is enlarged by passing a larger cutting tool known as the back reamer. A viscous fluid, usually a mixture of water and bentonite or polymer, is continuously pumped to the cutting head or drill bit to facilitate the removal of cuttings, stabilize the bore hole, cool the cutting head, and lubricate the passage of the product pipe. The drilling fluid is sent into a machine called a reclaimer which removes the drill cuttings and maintains the proper viscosity of the fluid. The final step places the product pipe or casing pipe in the enlarged hole and is pulled behind the reamer.

Due to their high tensile strengths, plastic pipes such as high density polyethylene (HDPE) and polyvinyl chloride (PVC) are extensively used with HDD which pulls the product pipe into place. Steel and ductile iron pipes are also used with HDD.

PTMT Method

PTMT is a steerable trenchless technology used to install underground utility pipes typically up to 24 inches in diameter, but ranges in diameters of 4 inches to 48 inches. PTMT is typically used for gravity sewers with tight constraints. PTMT requires the construction of two pits, an entrance pit for jacking the pipe, and an exit or receiving pit. The entrance/jacking pit is typically 10 ft by 15 ft to allow room for the jacking equipment, whereas the exit/receiving pit is smaller typically 8 ft in diameter to allow for pipe connections to be made. The drive length for PTMT is 300 ft, which is significantly shorter than HDD. The accuracy for PTMT is 0.25 inches per 300 ft.

PTMT evolved from a combination of three other existing trenchless technologies (micro-tunneling, HDD, and auger boring). The installation process of PTMT resembles that of HDD through the use of pilot boring followed by reaming and product pipe installation. Both PTMT and HDD use a slant faced steering head for directional control. PTMT adopts its accurate guidance system from micro-tunneling and is similar to auger boring in the use of a jacking system and auger flights for spoils removal. Plastic pipes such as PVC and HDPE cannot be used with conventional PTMT because of their low compressive strengths. Pipe materials with high compressive strengths such as vitrified clay, concrete, steel, and fiberglass are typically used.

Trenchless construction methods such as HDD and PTMT are considered more complex construction methods as they are relatively new in the construction industry, require more in-depth geotechnical information, require specialized equipment, and have a smaller pool of experienced and local contractors. However, use of trenchless method benefits may decrease the complexity of a project by minimizing or avoiding the additional construction activities associated with open trenching including, but not limited to, traffic control, detouring of roads,

storage of excavated materials on the site, backfilling and compaction, ground water management, and restoration of surfaces.

Along with construction methods, other considerations such as surface disturbance, utility conflicts, construction costs, operation and maintenance (O&M), and project clearance were used as criteria for alternatives evaluation. Detailed findings can be found in the 2012 DAR.

1.3.2 Alternative 1

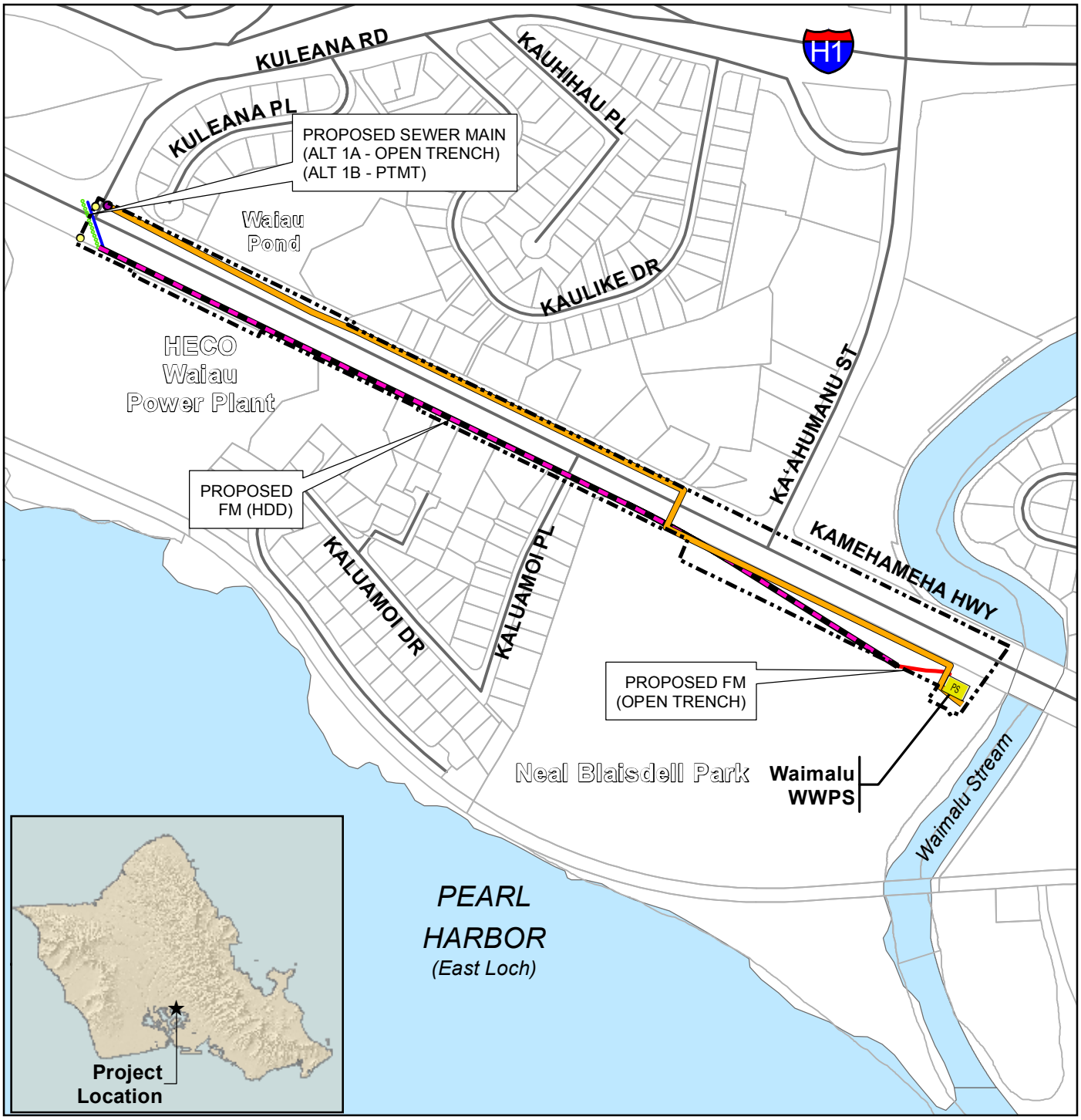
Alternative 1 consists of a FM alignment located on the makai side of Kamehameha Highway. The initial 200 feet of the FM near the Waimalu WWPS would be constructed using open trenching method within Neal Blaisdell Park. The second segment of the FM extends west on the makai side of Kamehameha Highway, within Neal Blaisdell Park and State ROW, to be constructed using HDD and ends with 45 degree bend at the across of Kuleana Road. Sub-alternatives to Alternative 1 were identified for the third segment of the alignment to cross Kamehameha Highway beginning at the 45 degree bend and ending at a new discharge manhole. The discharge manhole has a short section of 36-in gravity line connected to new sewer manhole constructed over existing 36-in sewer line downstream of existing discharge manhole. Sub-Alternative 1A crosses Kamehameha Highway using open trenching. Sub-Alternative 1B crosses Kamehameha Highway using PTMT. Alternative 1 and its sub-alternatives are shown in Figure 2

1.3.3 Alternative 2

Alternative 2 proposes to utilize PTMT method for the first segment due to the existing trees at the Neal Blaisdell Park. The FM would be installed by PTMT along the makai-side of and parallel to the existing FM from the WWPS to where the existing force main crosses Kamehameha Highway (near Highway Station 387+30, see Figure 3). The second segment of the FM would be installed by HDD, staying along the makai side of Kamehameha Highway to the *makai*-side of the existing discharge manhole. Sub-alternatives to Alternative 2 were identified for the third segment of the alignment crossing Kamehameha Highway and tie into a new discharge manhole. Sub-Alternative 2A crosses Kamehameha Highway using open trenching. Sub-Alternative 2B crosses Kamehameha Highway using PTMT. Alternative 2 and its sub-alternatives are illustrated in Figure 3.

1.3.4 Alternative 3

Alternative 3 consists of installing the FM primarily by using open trenching method, adjacent to the existing FM along its entire alignment. The FM would discharge to a new manhole downstream of the existing discharge manhole. Sub-alternatives to Alternative 3 were identified for the first segment of the alignment within Neal Blaisdell Park due to presence of several large trees. Sub-Alternative 3A includes construction of the first segment using open trenching. Sub-alternative 3B includes construction of the first and second segment using PTMT to minimize impact to the existing trees and traffic. Alternative 3 and its sub-alternatives are illustrated in Figure 4 .



Waimalu Wastewater Pump Station Force Main
Figure 2
Alternative 1A & 1B

City and County of Honolulu,
Department of Design and Construction

DRAFT

- Project Study Area
- O'ahu Road Centerlines
- TMK Parcels
- PS Pump Station
- Existing Discharge MH
- Existing Force Main

Alternative 1A
- Force Main (HDD)
- Force Main (Open Trench)
- Sewer Main (Open Trench)

Alternative 1B
- Force Main (HDD)
- Force Main (Open Trench)
- Sewer Main (Pilot Tube)

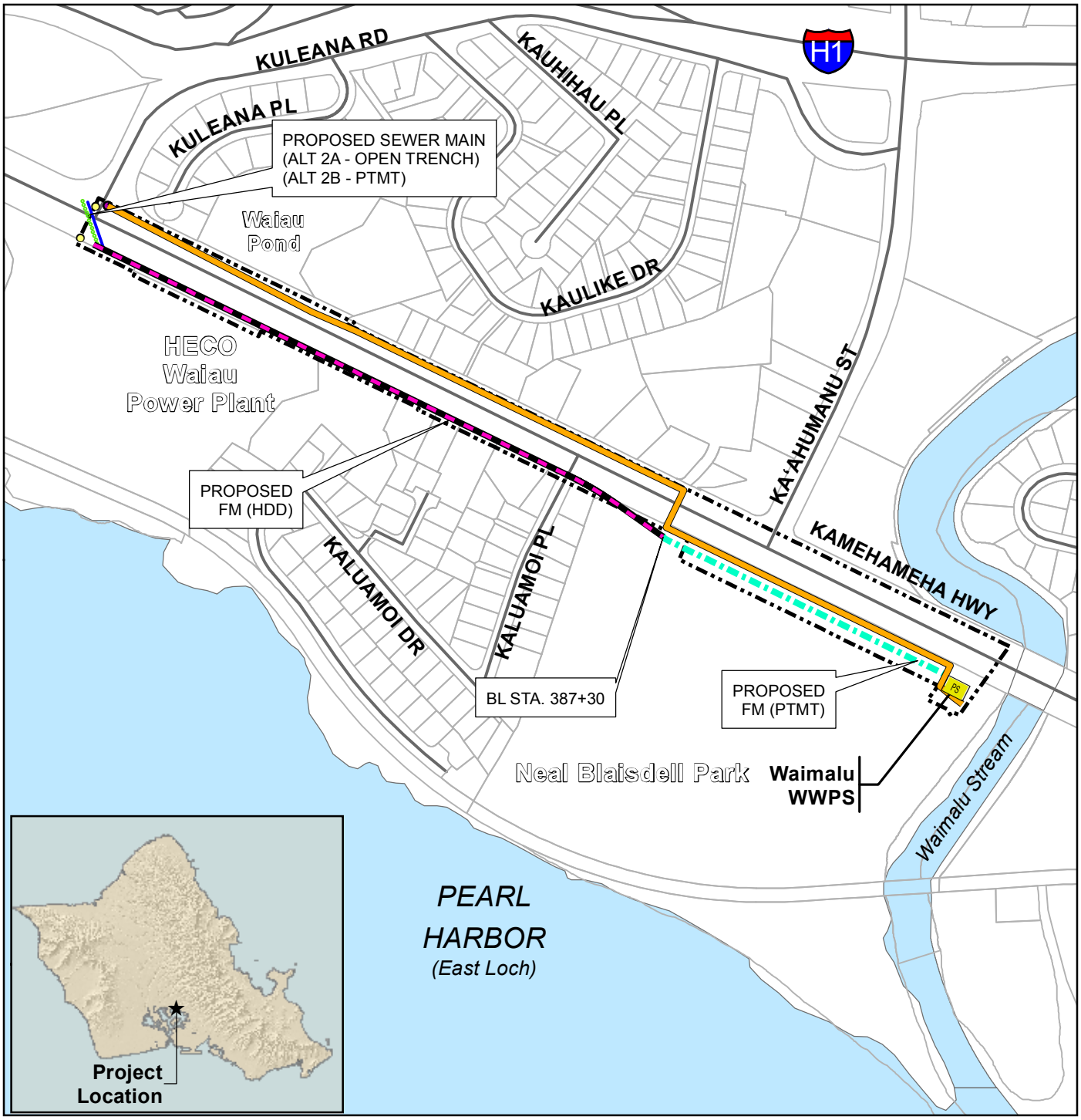
0 200 400
Feet

Figure Date: 5/10/2012

AECOM

Task 13.A.1 Waimalu FM Draft EA

Path: P:\PDD\60220849 Waimalu EA\06GIS\6.3Layout\mxd\Waimalu_EA_ALT_1A_1B_09MAY2012.mxd



Waimalu Wastewater Pump Station Force Main
Figure 3
Alternative 2A & 2B

City and County of Honolulu,
Department of Design and Construction

DRAFT

- Project Study Area
- O'ahu Road Centerlines
- TMK Parcels
- PS Pump Station
- Existing Discharge MH
- Existing Force Main

Alternative 2A
- Force Main (HDD)
- Force Main (PTMT)
- Sewer Main (Open Trench)

Alternative 2B
- Force Main (HDD)
- Force Main (PTMT)
- Sewer Main (PTMT)

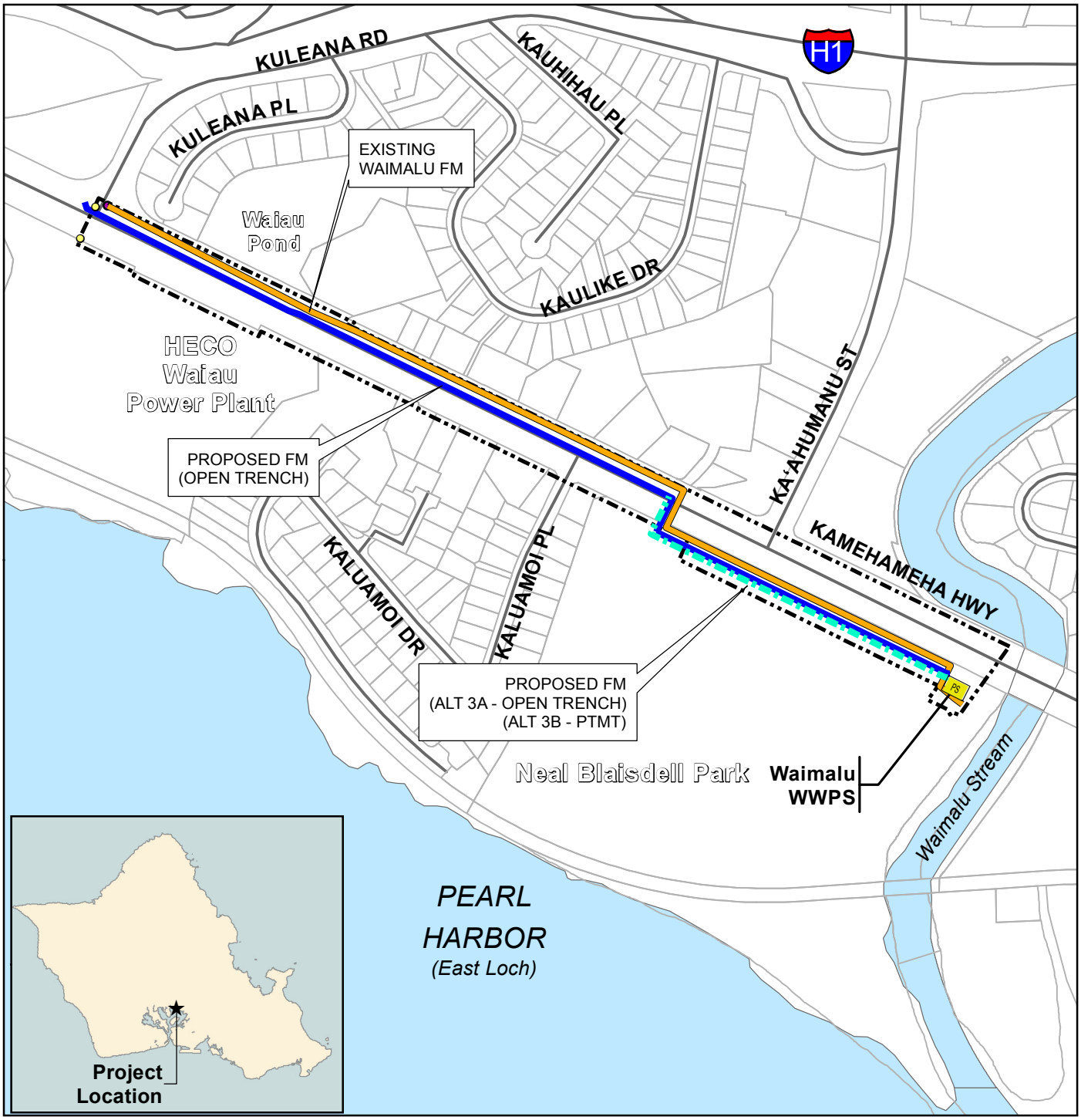
0 200 400
Feet

Figure Date: 5/10/2012

AECOM

Task 13.A.1 Waimalu FM Draft EA

Path: P:\PDD\60220849 Waimalu EA\06GIS\6.3Layout\mxd\Waimalu_EA_ALT_2A_2B_09MAY2012.mxd



Waimalu Wastewater Pump Station Force Main
Figure 4
Alternative 3A & 3B

City and County of Honolulu,
Department of Design and Construction

DRAFT

- Project Study Area
- O'ahu Road Centerlines
- TMK Parcels
- PS Pump Station
- Existing Discharge MH
- Existing Force Main

Alternative 3A
- Force Main (Open Trench)

Alternative 3B
- Force Main (PTMT)
- Force Main (PTMT)

0 200 400
Feet

Figure Date: 5/10/2012

AECOM

Task 13.A.1 Waimalu FM Draft EA

Path: P:\PDD\60220849 Waimalu EA\06GIS\6.3Layout\mxd\Waimalu_EA_ALT_3A_3B_09MAY2012.mxd

1.3.5 Alternative 4

Alternative 4 consists of a FM alignment located on the mauka side of Kamehameha Highway primarily constructed by HDD. Sub-alternatives to Alternative 4 were identified for the first segment of the alignment crossing Kamehameha Highway. Sub-Alternative 4A includes the construction of the first segment using open trenching. Sub-Alternative 4B includes the construction of the first segment using PTMT. The FM would discharge into a new manhole constructed downstream of the existing discharge manhole. Alternative 4 and its sub-alternatives are illustrated in Figure 5.

1.3.6 No-Action Alternative

The No-Action Alternative represents the continued operation of the existing Waimalu WWPS FM under current conditions as a baseline condition.

1.3.7 The Preferred Alternative

Alternative 1B was rated the highest in the evaluation of constructability, surface disturbance, and utility conflicts. The use of HDD for the majority of the alignment would reduce the overall project complexity by reducing the additional construction activities associated with open trenching and shortening the construction schedule. With a deeper pipe profile, utility conflicts would be minimized. The shorter construction schedule would also help meet the six months time restriction for construction work within the Neal Blaisdell Park. The rough order of magnitude (ROM) construction cost for Alternative 1B is $10.8M. Figure 6 shows the Preferred Alternative.

Table 1 shows the construction method per pipeline segment and the overall construction cost for each alternative.

Table 1 Summary of Alternatives by Method of Construction

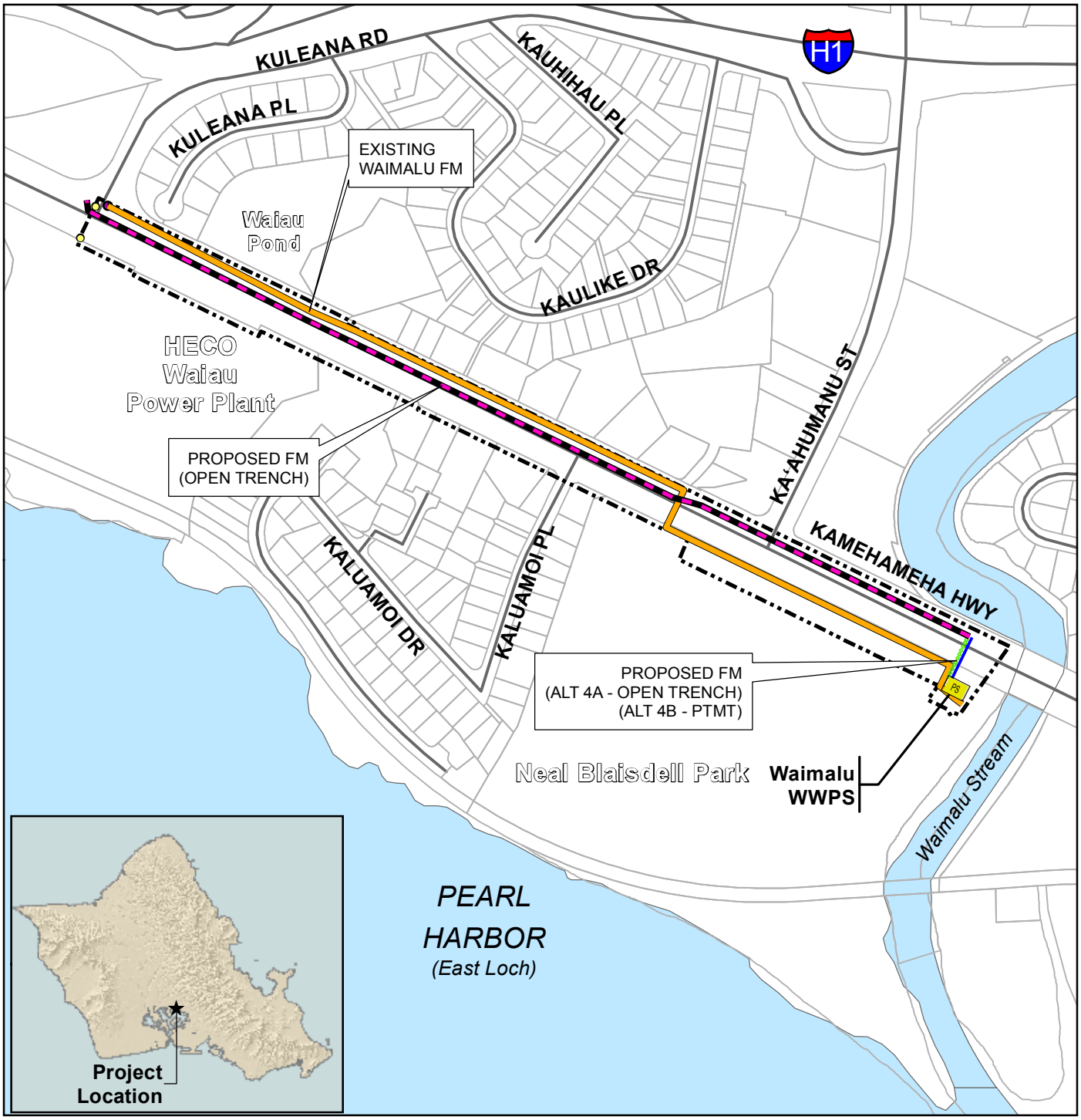
Alternative		Pipeline Construction			Construction Cost	Description
		First Segment	Second Segment	Third Segment		
	A	Open Trench	HDD	Open Trench	$9.9M	1. First Segment is on the makai side of Kamehameha Highway.
1	B	HDD	PTMT	PTMT	$10.8M	2. Second Segment intersects Kamehameha Highway.
	A	PTMT	HDD	Open Trench	$14.1M	1. First Segment is on the makai side of Kamehameha Highway within Neal Blaisdell Park.
2	B	PTMT	HDD	PTMT	$14.9M	2. Second Segment is on the makai side of Kamehameha Highway within the State ROW. 3. Third Segment intersects Kamehameha Highway.
3	A	Open Trench			$9.9M	1. First Segment is parallel to the existing FM within Neal Blaisdell Park.

	B	PTMT	PTMT		$15.0M	2. Second Segment intersects Kamehameha Highway. 3. Third Segment is on the mauka side of Kamehameha Highway within the State ROW.
4	A	Open Trench	HDD		$9.7M	1. First Segment intersects Kamehameha Highway. 2. Second Segment is on the mauka side of Kamehameha Highway within the State ROW.
	B	PTMT	HDD		$10.5M	

Note: The cell containing information on the Preferred Alternative is shaded.
Source: AECOM 2012a

1.3.8 Project Schedule

Construction of the project is expected to commence on or about February 23, 2013.



Waimalu Wastewater Pump Station Force Main
Figure 5
Alternative 4A & 4B

City and County of Honolulu,
Department of Design and Construction

DRAFT

- Project Study Area
- O'ahu Road Centerlines
- TMK Parcels
- PS Pump Station
- Existing Discharge MH
- Existing Force Main

Alternative 4A
- Force Main (HDD)
- Force Main (Open Trench)

Alternative 4B
- Force Main (HDD)
- Force Main (PTMT)

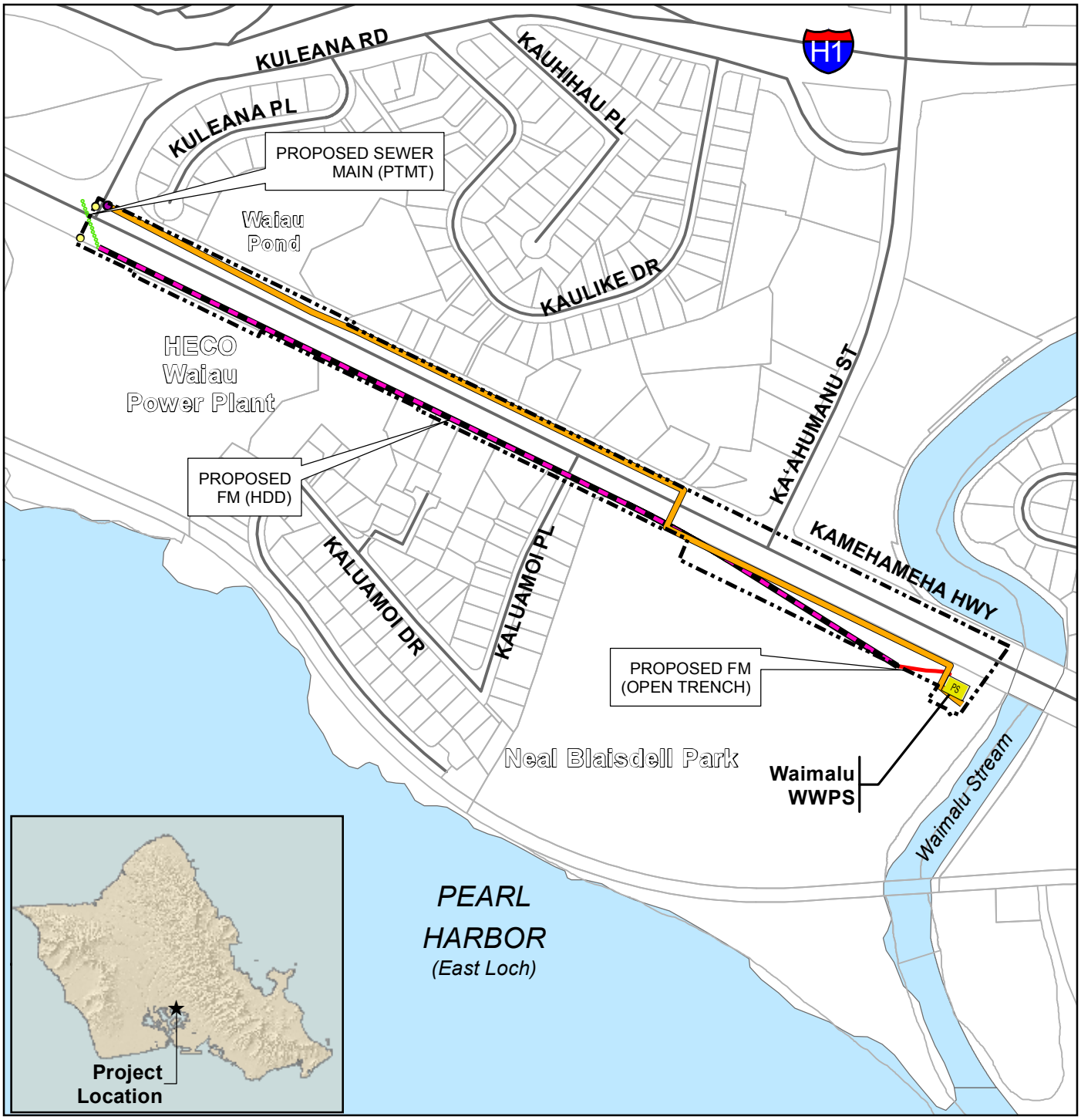
0 200 400
Feet

Figure Date: 5/10/2012

AECOM

Task 13.A.1 Waimalu FM Draft EA

Path: P:\PDD\60220849 Waimalu EA\06GIS\6.3Layout\mxd\Waimalu_EA_ALT_4A_4B_09MAY2012.mxd



Waimalu Wastewater Pump Station Force Main
Figure 6
Alternative 1B: Preferred Alternative

City and County of Honolulu,
Department of Design and Construction

DRAFT

- Project Study Area
- O'ahu Road Centerlines
- TMK Parcels
- Pump Station
- Existing Discharge MH
- Existing Force Main
- project_limits
- Force Main (HDD)
- Force Main (Open Trench)
- Sewer Main (Pilot Tube)
- New Discharge MHs

0 200 400
Feet

Figure Date: 5/10/2012

Task 13.A.1 Waimalu FM Draft EA

Path: P:\PDD\60220849 Waimalu EA\06GIS\6.3Layout\mxd\Waimalu_EA_PREF_ALT_09MAY2012.mxd

1.3.9 Permits and Approval Required

Table 2 lists required approvals and permits for the Preferred Alternative.

Table 2 Required Approvals and Permits

City & County of Honolulu	
Department of Planning and Permitting	Construction Plans Approval
	Building Permit (for work in the Waimalu WWPS)
	Public ROW Permit to Excavate
	Grubbing, Grading, and Stockpiling Permit
	SMA Permit
	Construction Dewatering Permit (temporary)
Department of Parks and Recreation	Right-of-Entry Permit
Department of Transportation Services	Street Usage Permit
State of Hawaii	
Department of Health	Community Noise Permit for Construction Activities
	Community Noise Variance
	NPDES Construction Dewatering Permit
	NPDES Construction Stormwater Discharge
Department of Transportation, Highways Division	Construction Plan Approval
	Use and Occupancy Agreement to Perform Work Upon a State Highway
Disability and Communication Access Board	Conformance with Accessibility Guidelines
Office of Environmental Quality Control	Environmental Assessment

Source: AECOM 2011

This Page Left Intentionally Blank

2 ENVIRONMENTAL SETTING

2.1 Topography

The topography of the project area is generally flat, particularly within the pavement limits of Kamehameha Highway. Higher sloped areas (2:1 or less) along the existing FM alignment occur along the western perimeter of the Waimalu WWPS and along a drainage channel on the makai side of Kamehameha Highway between the entrance to Neil Blaisdell Park and the Waimalu WWPS. Elevations within the project site range from 1.5 ft to 30.1 ft above mean sea level (MSL).

2.2 Climate

2.2.1 Temperature and Rainfall

Honolulu's climate and that of the project area are typical of the leeward coastal lowlands characterized by mild temperatures, abundant sunshine, infrequent severe storms, moderate humidity, and persistent northeasterly trade winds. For most of Hawaii, there are two seasons: summer from May to October and winter from October to April. The warmest months are in August and September with an average high of 89° Fahrenheit (°F) and low of 74 and 75°F, while the coldest month is February with a high of 81°F and a low of 65°F. Typically, rainfall occurs between the months of October and April, varying from year to year; the mean annual rainfall is approximately 18.3 inches (U.S. Climate Data 2012).

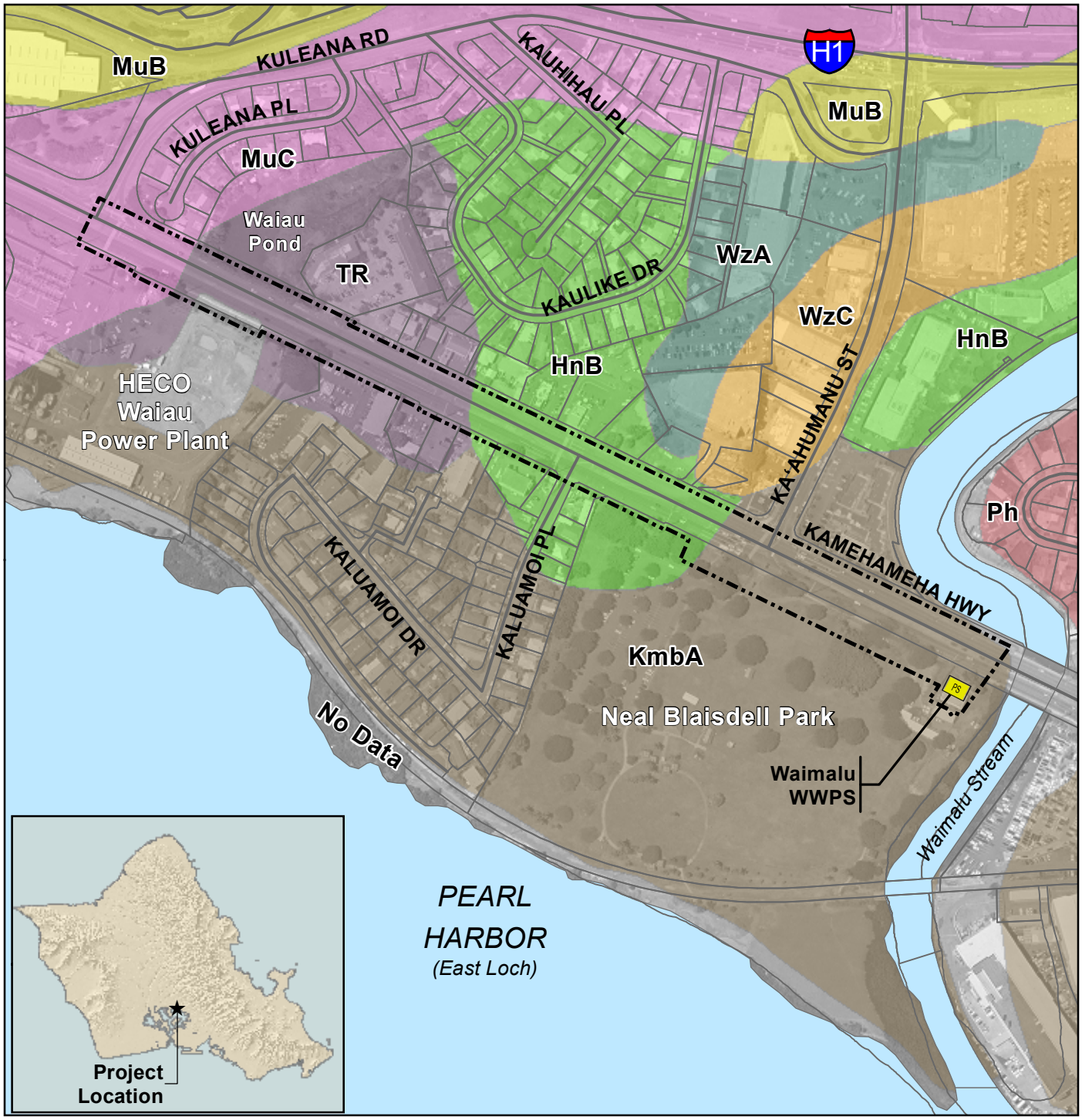
2.2.2 Winds

The project area is located in an urbanized environment; its microclimate varies somewhat from the overall climate of the region. Typically prevailing trade winds are from the northeast throughout most of the year. However, the occasional Kona winds bring warm humid air from the south. In the core of the project area, an abundance of brick, concrete, and asphalt surfaces tend to absorb the solar energy, heat up, and re-radiate that heat to the ambient air resulting in slight temperature differences.

2.3 Geology and Soils

The project area and the surrounding area contain the following soil types, according to the *Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii* (USDA SCS 1972) *(*see Figure 7).

- Hanalei silty clay (HnB), with 2 to 6 percent slopes. Runoff is slow and erosion hazard is slight.
- Keaau clay (KmbA), saline with zero to 2 percent slopes. Keaau clay occurs in depressions adjacent to the ocean or in pockets within the limestone areas where seepage water evaporates. Runoff is slow, and the erosion hazard is slight.
- Molokai silty clay loam (MuB), with 3 to 7 percent slopes. Runoff is slow to medium and the erosion hazard is slight to moderate.



Waimalu Wastewater Pump Station Force Main
Figure 7
Soils Data in the Project Area

City and County of Honolulu,
Department of Design and Construction

DRAFT

- Project Study Area
- Pump Station
- O'ahu Road Centerlines
- TMK Parcels
- Open Water

SSURGO Soil Type

- HnB - Hanalei Silty Clay
- KmbA - Kea'au Clay
- MuB - Moloka'i Silty Clay
- MuC - Moloka'i Silty Clay
- Ph - Pearl Harbor
- TR - Tropaquepts
- WzA - Waipahu Silty Clay
- WzC - Waipahu Silty Clay
- No Data

0 200 400
Feet

Figure Date: 5/10/2012

AECOM

Task 13.A.1 Waimalu FM Draft EA

Path: P:\PDD\60220849 Waimalu EA\06GIS\6.3Layout\mxd\Waimalu_EA_Soils_09MAY2012.mxd

- Molokai silty clay loam (MuC), with 7 to 15 percent slopes. This soil occurs on knolls and sharp slope breaks. Runoff is medium and the erosion hazard is moderate.
- Tropaquepts (TR), are poorly drained soils that are periodically flooded by irrigation in order to grow crops that thrive in water.
- Waipahu silty clay (WzA), with zero to 2 percent slopes. This soil is nearly level and occurs on dissected terraces adjacent to the ocean. Runoff is slow or very slow and erosion hazard is none to slight.
- Waipahu silty clay (WzC), with 6 to 12 percent slopes. Runoff is medium and the erosion hazard is moderate.
- Pearl Harbor clay (Ph), with zero to 2 percent slopes. This soil drains poorly (USDA NRCS 2011).

2.4 Flood, Tsunami, and Earthquake Hazards

The project area is situated adjacent to Waimalu Stream to the east and mauka of Pearl Harbor. As indicated by the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), the project area is located in Zone D. In such an area, flood hazard is possible even though its base elevation or the possibility of flood hazard has not been determined.

According to the Oahu Civil Defense Agency (CDA) Tsunami Inundation Map for Oahu, the project area is outside of the tsunami inundation zone (CCH DEM 2010a). Nevertheless, in anticipation of future natural disasters, the Oahu CDA has identified emergency shelters at Asing Community Park (91-1450 Renton Road) and Ewa Mahiko District Park (Renton Road) in Ewa Beach (CCH DEM 2010b).

Oahu is in Seismic Zone 2A, which is characterized as being susceptible to earthquakes that may cause minor damage to structures. Zone 2A is based on the International Building Code, which contain six seismic zones, ranging from 0 (no chance of severe ground shaking) to 4 (10 percent chance of severe shaking in a 50-year interval); Zone 2 is subdivided into two zones that correspond numerically to the effective horizontal peak bedrock acceleration (or equivalent velocity) that is estimated as a component of the design base shear calculation. Seismic Zone 2A has a Z-factor (seismic zone factor) of 0.15 and is not associated with a particular fault zone. Seismic Zone 2B has a factor of 0.20 and indicates an association with known crustal faults.

2.5 Hydrology

Waimalu and Kalauao Springs are situated outside of the project area within the Waimalu aquifer system, a major source of potable water with a sustainable yield of 45 million gallons per day (DLNR CWRM 2008). The underground injection control (UIC) line, or the boundary between non-drinking water aquifers and underground sources of potable water, abuts the Pearl Harbor shoreline (DOH 1999). Figure 1 shows the UIC line as it relates to the project area. Some of the basal groundwater in the Pearl Harbor area exits through these springs.

2.6 Flora and Fauna

A biological assessment of the project area was conducted on January 19, 2012 (AECOM 2012b). The project area and the existing conditions concerning the flora and fauna are provided below.

2.6.1 Flora

No federally-listed (threatened or endangered) plant species or suitable habitat for federally-listed plant species was identified within the project area. Vegetation within the project area is characterized by urban plantings including, but not limited to, monkeypod (*Samanea saman*) and African tulip (*Spathodea campanulata*), landscape shrubs along the roadway and mowed non-native grass.

2.6.2 Fauna

No federally-listed (threatened or endangered) wildlife species or suitable habitat for federally-listed wildlife species was identified within the project area. Bird species observed during the field survey included Pacific golden plover (*Pluvialis dominica*), (common migratory shorebird and winter resident of Oahu), cattle egret (*Bulbulcus ibis*), common myna (*Acridotheres tristis*), red-whiskered bulbul (*Pycnonotus jocosus*), spotted dove (*Streptopelia chinensis*), zebra dove (*Geopelia striata*), rock dove (*Columba livia*), house finch (*Carpodacus mexicanus*), red-crested cardinal (*Paroaria coronata*), java sparrow (*Padda oryzivora*), house sparrow (*Passer domesticus*), and saffron finch (*Sicalis flaveola*). Table 3 lists wildlife species observed in the project area.

The Federal Migratory Bird Treaty Act (MBTA) (16 United States Code 703-711) protects migratory birds listed in the MBTA by prohibiting the taking of any listed bird, or any part, nest, or egg of any such bird. “Take” is defined as an attempt to “pursue, hunt, shoot, capture, collect, or kill.” This act applies to all persons and organizations in the United States, including Federal and State agencies. The Pacific golden plover, or *kolea*, is a federally protected migratory shorebird and is a common winter resident of Oahu. This species was observed foraging within the project area and surrounding area; however, would not be expected to breed within the area.

Table 3 Wildlife Species Observed within the Project Area

Species	Scientific Name	Status
Pacific Golden Plover	Pluvialis dominica	MBTA-Protected Indigenous
cattle egret	Bulbulcus ibis	MBTA-Protected Non-indigenous
common myna	Acridotheres tristis	
red-whiskered bulbul	Pycnonotus jocosus	
spotted dove	Streptopelia chinensis	Gamebird
zebra dove	Geopelia striata	Gamebird
rock dove	Columba livia	
house finch	Carpodacus mexicanus	MBTA-Protected Non-indigenous
red-crested cardinal	Paroaria coronata	
java sparrow	Padda oryzivora	
house sparrow	Passer domesticus	
saffron finch	Sicalis flaveola	

Source: AECOM 2012b

Although most of the project area is a highly modified urban environment, there are two types of wetlands adjacent to the project area (see Figure 8):

- Freshwater emergent wetland (Palustrine emergent): Herbaceous march, fen, swale, and wet meadow
- Estuarine and marine wetland (Estuarine intertidal and Marine intertidal wetland): vegetated and non-vegetated brackish and saltwater marsh, shrubs, beach, bar, shoal or flat

A wetland is an area of land where soil is saturated with moisture either permanently or seasonally. The area may also be covered partially or completely by shallow pools of water. Wetlands are considered the most biologically diverse of all ecosystems (USFWS 2011).

Although the proposed project does not involve any discharge of dredged or fill materials in said wetlands, due to the proximity of the wetlands to the project area, notably the Waiau Pond (see Figure 4), the U.S. Army Corps of Engineers would be consulted.

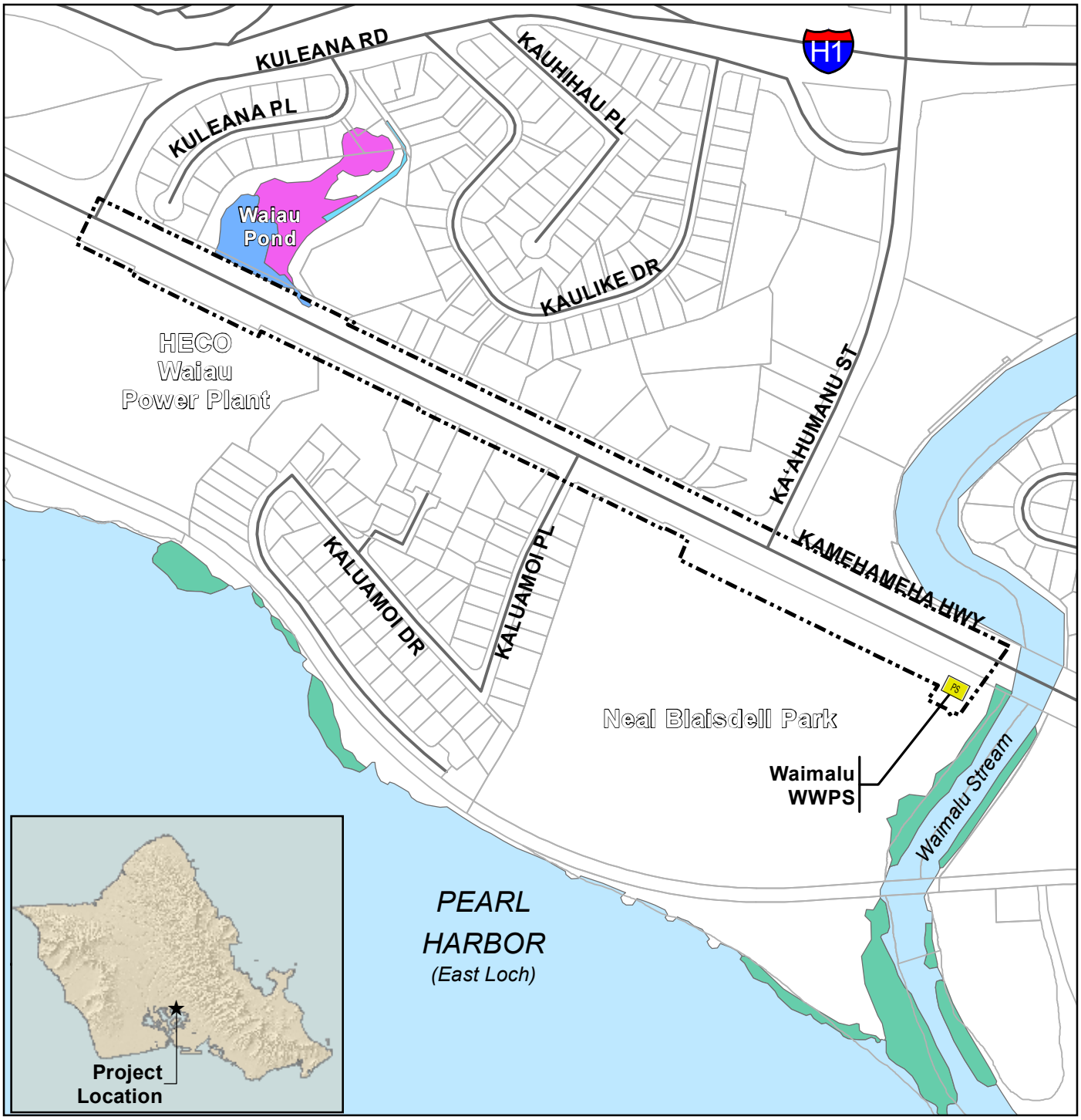
2.7 Historic and Archaeological Sites

At this time, there are no sites listed on the Hawaii Register of Historic Places (HRHP) or the National Register of Historic Place (NRHP), and there are no known archaeological resources within the project area. The area of potential effect with respect to historic and archaeological resources is limited to the public ROW (including the portion of Kamehameha Highway within the project area) and a 20-ft sewer easement at Neal Blaisdell Park.

The shoreline of Pearl Harbor was heavily utilized by early Hawaiians for fishing, food gathering, and fish cultivation in dozens of fishponds prior to the twentieth century (Bishop Museum 1997). Human skeletal remains that may possibly date back to the nineteenth century were identified by the Department of Land and Natural Resources, State Historic Preservation Division (DLNR SHPD) staff at the adjoining Blaisdell Park (Engineers Surveyors Hawaii 2003). There are many historic sites associated with the nearby Pearl Harbor Naval Base, but none are situated in the project area and would not be directly or indirectly affected.

2.8 Cultural Resources and Practices

Pearl City, which encompasses the project area, is associated with aquaculture and traditional agriculture (taro terraces and patches, or *loi kalo*, and other subsistence crops such as sweet potatoes, yams, and bananas) during the pre- and post-Contact periods. These practices continued through the late nineteenth century, when cash cropping (sugar cane, rice) dominated the area. In the late nineteenth century, the northern coastline of Pearl Harbor became the site of population growth. Government and military acquisition of lands in the area began at the turn of the century and much of the lands became utilized as military zones (Dega and O'Rourke 2003). Many streams, including Waimalu Stream, flowed into Pearl Harbor, bringing nutrients and life to native *gobi* whose lifecycle included moving from the mountains to the sea for spawning/mating, and to other endemic fish (DOT FTA & CCH 2010). The ancient Hawaiians took advantage of the nutrient-rich areas by constructing networks of fishponds, or *loko*, to nurture natural resources. Abutting the project area to the east is Neal Blaisdell Park, which has a documented site of the *Loko Paakea (1897)*. Most fish ponds have been destroyed, dredged, or filled to accommodate urban expansion.



Waimalu Wastewater Pump Station Force Main
Figure 8
Wetlands in the Project Area

City and County of Honolulu,
Department of Design and Construction

DRAFT

Project Study Area
PS Pump Station
O'ahu Road Centerlines
TMK Parcels

Wetland Type
Estuarine and Marine Wetland
Freshwater Emergent Wetland
Freshwater Pond
Riverine
Estuarine and Marine Open Water

0 200 400
Feet

Figure Date: 5/10/2012

AECOM

Task 13.A.1 Waimalu FM Draft EA

Path: P:\PDD\60220849 Waimalu EA\06GIS\6.3Layout\mxd\Waimalu_EA_wetlands_09MAY2012.mxd

The project area has been recently inventoried for any cultural resources and practices as part of the due diligence effort for the Honolulu High-Capacity Transit Corridor Project (HHCTCP). No cultural resources, practices, or beliefs associated with the project area or the surrounding area have been identified to date. The project area is highly urbanized, with uses ranging from residential development and commercial activities, to inactive agricultural use.

2.9 Air Quality

Vehicular traffic is the primary source of air pollutants affecting the project area. The Kamehameha Highway, H-1 freeway, and Moanalua Road are major roadways that impact the air quality of the project area. The average daily traffic (ADT) on Kamehameha Highway affecting the project area is 18,835 and 22,394 for eastbound and westbound, respectively.

Hawaii's oceanic setting and trade wind-dominated climate account for exceptionally clean air. Generally speaking, air quality in the State of Hawaii is among the best in the nation and criteria pollutant levels remain well below State and Federal ambient air quality standards. Favorable topography and relatively little heavy industry are other factors contributing to the good overall air quality. However, the large number of automobiles concentrated in the Honolulu urban core (Pearl Harbor to Diamond Head) is a recognized source of air pollution. During times of unfavorable meteorological conditions (e.g., low wind speed) and heavy traffic, carbon monoxide can reach relatively high levels in the immediate vicinity of major traffic corridors, but long-term persistence of air pollution is rare.

The DOH Clean Air Branch (CAB) maintains five air quality monitoring stations on Oahu that measure various types of pollutants. Air quality monitoring data compiled by DOH in 2009 indicates that the established air quality standards for all monitored parameters are consistently met on the island of Oahu (DOH 2010).

The DOH air quality monitoring site nearest the project area is located in Pearl City at the Leeward Health Center (860 4th Street, Pearl City) in a commercial, residential, and light industrial area near the Pearl Harbor Naval Complex. The site is located approximately 1.5 miles west of the project area. The monitoring site was established in 1971 and monitors particulate matter 10 and 25 (PM_{10}, $PM_{2.5}$) and air toxics.

According to the *Annual Summary of the Hawaii Air Quality Data 2007* (DOH 2008), 596 of the 597 samples collected at the Pearl City monitoring site tested for PM_{10} (10 microns or less) met the Hawaii State air quality standards. The State PM_{10} standards are 150 micrograms (µg) of particulate matter less than 10 microns in diameter per cubic meter (m^3) over a 24-hour period, and 50 $\mu g/m^3$ on an annual arithmetic average basis. The site had annual mean PM_{10} particulate concentration of 15 $\mu g/m^3$ for 2007. The PM_{10} particulate data represents coarser particles from sources such as road and windblown dust.

In 2007, $PM_{2.5}$ particulate matter data, which measures fine particles typically produced by fuel combustion, was also monitored at the Pearl City site. Based on 186 readings, the $PM_{2.5}$ particulate averaged 4 $\mu g/m^3$ at the Pearl City site. The Federal standards are 65 $\mu g/m^3$ over a 24-hour period and 15 $\mu g/m^3$ for the annual average.

DOH operates four monitoring stations for carbon monoxide (CO), none of which are located near the project area. Data from the monitoring stations located in downtown Honolulu, Waikiki, Kapolei, and West Beach indicate that CO concentrations are also well below State and Federal

standards, even in areas with heavy vehicular traffic. In the 8,687 one-hour readings taken in Waikiki in 2007, the highest maximum CO reading recorded was 3,420 µg/m^3, which is substantially lower than the 10,000 µg/m^3 and 40,000 µg/m^3 for Hawaii and Federal standards, respectively.

2.10 Noise

2.10.1 Noise Limits

According to Title 11, Chapter 46 of the Hawaii Administrative Rules (HAR), *Community Noise Control*, "noise" means any sound that may produce adverse physiological effects or interfere with individual or group activities, including, but not limited to, communication, work, rest, recreation, or sleep. "Noise pollution" is noise emitted from any excessive noise source in excess of the maximum permissible sound levels. The accepted unit of measure for noise levels is the decibel because it reflects the way humans perceive changes in sound amplitude. Sound levels are easily measured, but human response and perception of the wide variability in sound amplitude is subjective.

Various local and federal agencies have established guidelines and standards for assessing environmental noise impacts and set noise limits as a function of land use. Chapter 46, HAR defines three classes of zoning districts and specifies corresponding maximum permissible sound levels due to stationary noise sources, such as air conditioning units, exhaust systems, generators, compressors, pumps, etc., and equipment related to agricultural, construction, and industrial activities. In determining the maximum permissible sound level, the background noise level is taken into account. These levels are enforced by DOH for any location at or beyond the property line. The DOH monitors noise issues in accordance with Chapter 19-342F, Hawaii Revised Statutes (HRS).

The current allowable noise limits for single and multi-family residential and commercial uses on Oahu are shown in Table 4. The Occupational Safety and Health Act (OSHA) of 1970 was established to "assure the safe and healthy working conditions for working men and women". OSHA regulations established a maximum noise level of 90 A-weighted decibels (dBA) for a continuous 8-hour exposure (i.e., typical work day) with higher maximum noise levels for shorter duration periods. The A-weighted sound level is a unit of sound pressure that accounts for the difference in human sensitivity to higher and lower frequency sounds at the same decibel level. Thus, different sounds with the same A-weighted sound level are perceived as being equally loud. Table 5 summarizes the maximum sound levels for various noise durations.

2.10.2 Existing Noise Levels

Although no existing baseline for noise levels were taken for the project area, the project area experiences ambient noise resulting from four principal sources: 1) automobile traffic; occasional operation of 2) industrial and 3) construction equipments; and 4) occasional distant fly-bys from aircraft. Noise from stationary equipment and business activities within the project area are generally masked by traffic noise during daytime periods. Traffic and construction activities are among the more audible and consistent source of noise within the project area.

Table 4 Allowable Noise Limits for Single and Multi-Family Residences and Commercial Uses

Zoning District	Day Hours (7 a.m. to 10 p.m.)	Night Hours (10 p.m. to 7 a.m.)
Class A: residential, conservation, preservation, public space, open space, or similar type	55 dBA	45 dBA
Class B: multi-family dwellings, apartments, business, commercial, hotel, resort, or similar type	60 dBA	50 dBA
Class C: agriculture, country, industrial, or similar type	70 dBA	70 dBA

Source: Title 11, Chapter 46, HAR

Table 5 Maximum Sound Levels for Various Noise Durations

Duration (Hours/Day)	Permissible Sound Level (dBA)
8	90
6	92
4	95
3	97
2	100
1 to 1 ½	102
1	105
½	110
¼ or less	115

Source: 29 Code of Federal Regulations 1910.95

2.11 Utilities Infrastructure

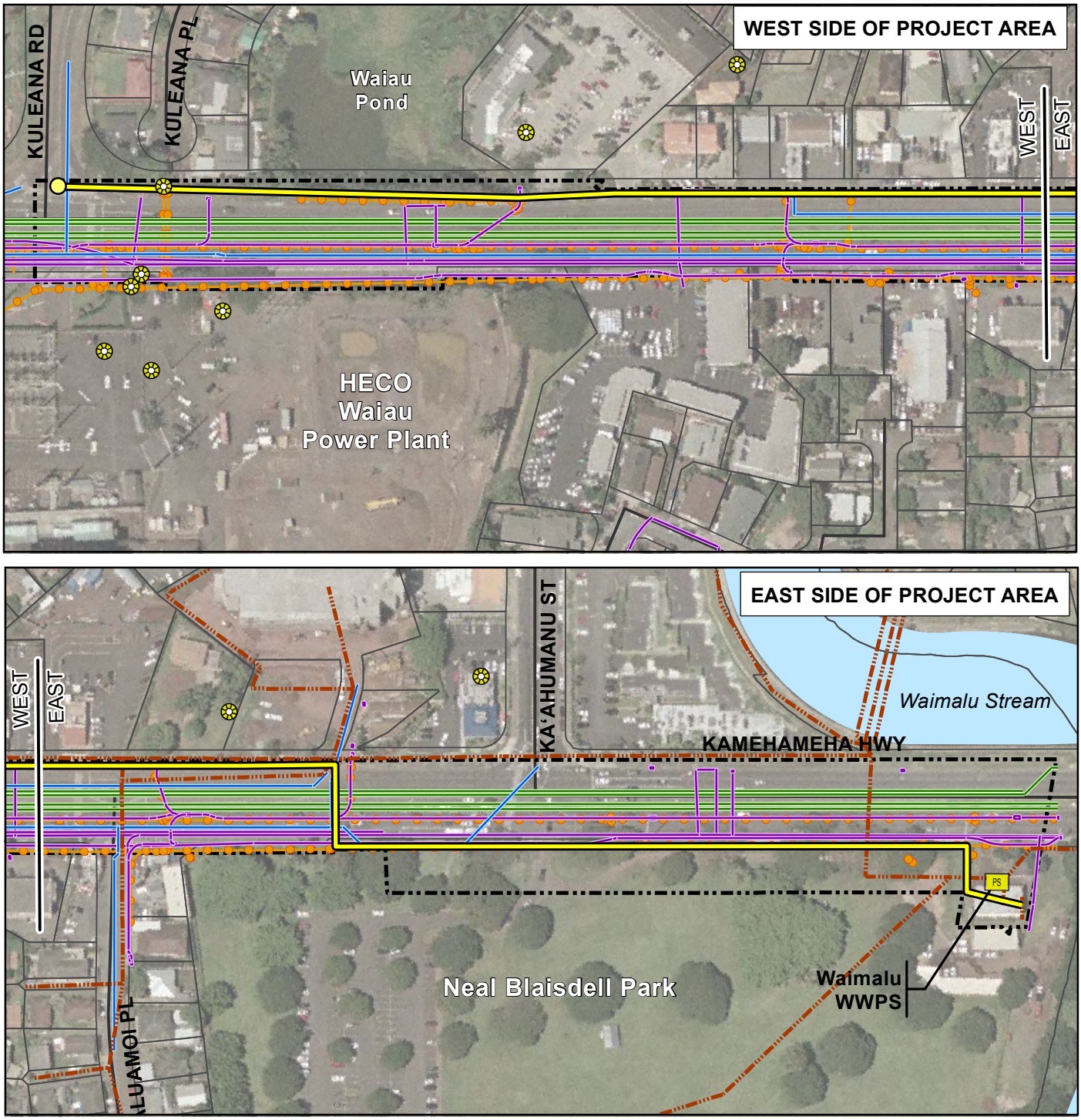
The following sections describe the current conditions of the utility infrastructure found at and near the project area. Figure 9 shows the existing utilities services for the project area and the area surrounding it.

2.11.1 Sewer

The existing sewer lines within the project area range in size from 8 inches to 36 inches. Most of the sewer lines traverse Kamehameha Highway on the mauka side. There are a total of four sewer crossings along the existing Waimalu WWPS FM alignment.

2.11.2 Drainage

The drainage system consists of inlets, catch basins, storm drain manholes, and underground storm drain lines. These underground storm drain lines are composed of reinforced concrete pipe ranging in size from 12 inches to 48 inches in diameter. A major drainage crossing along the Waimalu WWPS FM alignment occurs near the Waiau Pond with a 72-inch by 42-inch (width by height) reinforced concrete box culvert and three 48-inch diameter culverts. The drainage system collects storm runoff in the project area and discharges into the Waimalu.



Waimalu Wastewater Pump Station Force Main
Figure 9
Existing Utilities in the Project Area

City and County of Honolulu,
Department of Design and Construction

DRAFT

- Project Study Area
- Pump Station (PS)
- O'ahu Road Centerlines
- TMK Parcels
- Open Water
- Exist Discharge MH
- Existing Manholes
- Existing Waimalu WWPS Force Main
- Existing Sewer Lines
- Existing Water Lines
- Existing Communication-Cable Lines
- Existing Gas-Fuel Lines
- Existing Electrical Lines

0 100 200
Feet

Figure Date: 5/10/2012

AECOM

Task 13.A.1 Waimalu FM Draft EA

Path: P:\PDD\60220849 Waimalu EA\06GIS\6.3Layout\mxd\Waimalu_EA_ExUTIL_09MAY2012.mxd

Stream or the Waiau Pond. There are four drainage utility crossings with the existing Waimalu WWPS FM and five additional drainage lines that are abandoned along the FM alignment

2.11.3 Water

The water utilities within the project area consist of valves, valve boxes with manholes, fire hydrants, underground water mains (sizes include 6-inch, 8-inch, and 12-inch) and water laterals (4 inches or smaller). Several abandoned water lines exist and they range from 2 inches to 12 inches in size, and are assumed to be available for potential corridors for the new FM. There are eight water lines crossing along the existing Waimalu WWPS FM.

2.11.4 Gas

The gas utilities within the project area consist of two supply lines, valves, and valve boxes. The two gas supply lines (6-inch and 16-inch) are located in Kamehameha Highway. The gas laterals are ¾ inch, 1 inch, and 2 inches in size. A 10-inch fuel line is also located in Kamehameha Highway adjacent to the existing 16-inch gas line. An abandoned 10-inch fuel line is located adjacent to the existing 6-inch gas line. As part of the HHCTCP, the relocation of the existing 6-inch gas supply line further north on the mauka side of Kamehameha Highway and the removal of the 10-inch abandoned fuel line is planned. Currently, the existing Waimalu WWPS FM crosses the gas/fuel utilities at a point.

2.11.5 Electrical

The electrical utilities in the project area consist of a 138-kilovolt (kv) overhead high voltage power line along the mauka side of Kamehameha Highway. Additional overhead power lines are located along the makai side of Kamehameha Highway. There are also underground transmission lines, transformers, and appurtenances in the project area. An abandoned Hawaiian Electric Company (HECO) underpass (6.42 ft x 8.42 ft, width by depth) runs perpendicular to Kamehameha Highway near the discharge manhole. There are seven underground electrical utility crossings associated with the existing Waimalu WWPS FM.

2.11.6 Telephone

There are overhead and underground telephone lines in the project area. The majority of the underground lines traverse the southern half of Kamehameha Highway. There are 14 underground telephone line crossings associated with the existing Waimalu WWPS FM.

2.12 Roadways and Traffic

The project area is situated along Kamehameha Highway, which is classified as an Urban Principal Arterial. Kamehameha Highway starts from Nimitz Highway near Joint Base Pearl Harbor-Hickam and serves the population in some of the older suburbs in the metropolitan Honolulu area, as well as across the Central Valley to the North Shore. Kamehameha Highway is popularly used by commuters and area residents. Heavy traffic can be expected during a.m. and p.m. peak hours. There are six through lanes of traffic (three in each direction).

2.13 Socio-Economic Setting

The project area is situated in the Waimalu census designated place (CDP) — a concentration of population identified by the United States Census Bureau for statistical purposes. Some characteristics that define the project area include single and multi-family residences, high level of commercial activities, and heavy traffic on Kamehameha Highway and Moanalua Road. The Waimalu CDP has a population of 13,730 with 5,587 households. The average household size is 2.45 persons and there are 3,376 families. The average family size is 3.10 persons (DBEDT 2011).

The Waimalu CDP is a part of the larger Pearl City Neighborhood (Neighborhood 21), which contains 14,010 households with an average household size of 3.14. The median age is 37.9 years old, with 80 percent of households have individuals over 18 years of age and 15.7 percent of the households have individuals above 65 years and older. In comparison, 74.3 percent of the households on Oahu have individuals over 18 years of age and 12.4 percent of households have individuals above the age of 65. The median age on Oahu is 35.7 (DBEDT 2011).

Workforce and economic statistics in the neighborhood have also been compiled. Approximately 91 percent of the residents older than 25 have a high school education or better. The median household income of $61,000 is substantially higher than the median household income of $44,000 for Oahu. The unemployment rate for the civilian workforce is 5 percent and the percentage of the families below the poverty level is 4.1 percent (DBEDT 2011).

Commercial uses near the project area generate significant traffic during lunch and dinner hours. Kamehameha Highway is also used by commuters during morning and afternoon peak hours as an alternative to freeways.

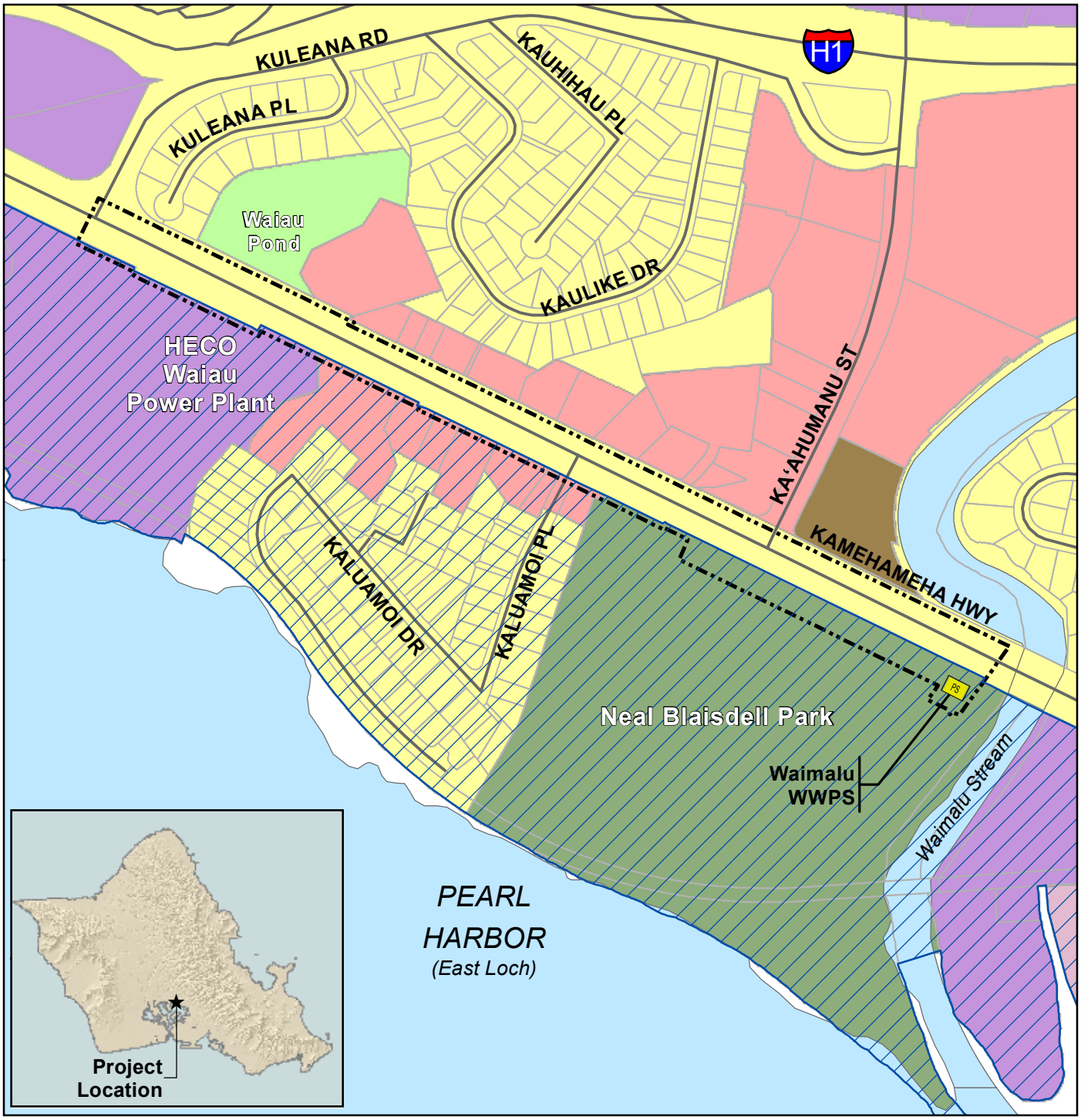
2.14 Landholdings and Land Use Designations

Most of the project area is on State lands, specifically, the ROW of Kamehameha Highway. A portion of the project area is located at Neal Blaisdell Park, which is administered by CCH Department of Parks and Recreation, but is also subject to National Park Service Land & Water Conservation Fund (NPS LWCF) 6(f) restrictions since the park was developed in part through LWCF-matching grants to the City in 1990.

The project area is classified as Urban by the State Land Use Commission. The land use designations include: B-2 (community business), I-2 (intensive industrial), R-5 (residential), and P-2 (preservation, general). Other land use designations adjacent to the project area include AG-2 (agricultural district, general) and A-1 (low-density apartments). The Special Management Area (SMA) boundary, designated to control development along the shoreline, is located along the makai boundary of the Kamehameha Highway (see Figure 10).

2.15 Recreational Resources

Per a site visit conducted on January 19, 2012, Neal Blaisdell Park in the project area is in generally good condition and includes clean restroom cabana, functional park furniture, and play equipment. The park also contains a couple of picnic table pods under a roofed gazebo for use by park users. On the makai side of the park is a trail that traverses between the park and the



Waimalu Wastewater Pump Station Force Main
Figure 10
Land Use in the Project Area

City and County of Honolulu,
Department of Design and Construction

DRAFT

- Project Study Area
- Pump Station
- O'ahu Road Centerlines
- TMK Parcels
- Open Water
- Special Management Area

Oahu Zoning (09/25/2010)

- Residential Dist. (R-5)
- Low-Density Apt. Dist. (A-1)
- Community Business Dist. (B-2)
- Intensive Industrial Dist. (I-2)
- Industrial Mixed Use Dist. (IMX-1)
- AG Dist.- General (AG-2)
- Preservation Dist. - General (P-2)
- No Data

0 200 400
Feet

Figure Date: 5/10/2012

AECOM

Task 13.A.1 Waimalu FM Draft EA

Path: P:\PDD\60220849 Waimalu EA\06GIS\6.3Layout\mxd\Waimalu_EA_landuse_09MAY2012.mxd

Pearl Harbor shoreline and extends beyond the park in both directions. It accommodates bicycle riders, walkers, runners, and skateboarders. A bridge extends over Waimalu Stream and continues east into an industrial area and west into a residential area.

When the site visit was conducted, it was observed that no more than 20 people were observed in the park at any one time. there were three types of visitors: those passing through mostly on the trail; those sitting at tables or on mats on the ground; and encampments of homeless people. The parking lot was about a quarter full (number of spaces not known), with approximately a quarter of the vehicles containing drivers sitting and/or resting in their cars (AECOM 2012c).

3 POTENTIAL IMPACTS AND MITIGATION MEASURES

This chapter discusses the potential environmental impacts and proposed mitigation measures for the proposed project. Generally speaking, long-term adverse impacts associated with the proposed project are not anticipated. Environmental impacts would be limited to short-term disruptions associated with construction activities.

3.1 Land Alteration and Aesthetics

Short-term impacts associated with land alteration and aesthetics would result from construction activities. For instance, HDD requires the construction of a receiving pit and an entrance pit. The visual and aesthetic alteration from the work would cease upon completion of construction and the affected areas would be restored to their original conditions to the extent possible. Construction inspection and monitoring services would help ensure that the contractor performing the work adheres to all environmental regulations applicable to construction activities. Construction waste would be hauled to a DOH-permitted solid waste disposal site or a recycling facility as required.

Construction activities may slightly increase the potential for erosion in localized active work areas due to removal of asphalt pavement and groundcover within the work areas. Erosion control measures, however, would be implemented during construction to minimize the impacts of erosion during and following construction. The contractor would be required to comply with the best management practices (BMPs) for erosion control in the project's construction drawings and Erosion Control Plan. As part of the trenching permit approval process, the erosion control documents would be reviewed by the Department of Planning and Permitting (DPP) for conformance to applicable regulations and guidelines.

Long-term adverse impacts to visual resources are not anticipated because the proposed FM would be located underground.

3.2 Flood Hazard

The FEMA FIRM indicates that the project site is located in Zone D, which is an area of undetermined, but possible flood hazards. The construction contract documents would require contractors to monitor weather conditions and prepare the work area to prevent flood damage.

3.3 Hydrology

The proposed project is not anticipated to have any impact on groundwater resources. Using trenchless construction methods minimizes the potential for sediments from entering surface waters through stormwater runoff. Appropriate BMPs, such as installing sediment barriers at storm drain inlets, will be implemented during construction. Impacts would be mitigated by complying with the conditions of the project National Pollutants Discharge Elimination System (NPDES) stormwater permit.

3.3.1 Surface Water Quality

Materials that may potentially enter nearby Waimalu Stream as the result of the construction work include soils from excavation and material stockpiles, particles from asphalt concrete pavement materials, fuel and oil from construction equipment, and suspended clay particles in dewatering effluent. Potentially adverse impacts to the water quality of Waimalu Stream would be mitigated by employing erosion control measures, keeping the construction site as clean as possible to minimize contaminants in stormwater runoff, and treating dewatering effluent discharges to remove silt. Silt fences and sediment trapping drain inlet filters would be used to minimize the entry of contaminants through storm drain inlets. Construction would be phased and scheduled to limit the extent and time that bare ground is exposed to minimize erosion from rainfall and stormwater runoff. Construction vehicles would be fueled off site or in a designated area with appropriate spill containment features.

The contractor would be required to treat the dewatering effluent using appropriate BMP methods, such as sedimentation, chemical pretreatment, and filtration prior to discharge to the stream. NPDES general permit coverage would be obtained from DOH for the following: 1) construction activities; 2) construction dewatering effluent disposal; and, 3) hydrotesting water disposal. Water quality testing would be performed as required to comply with requirements of the NPDES general permit. Discharge pollution controls would be required to be monitored and maintained by the contractor on a routine basis and immediately (within 24 hours) after each significant rain event (1/2 inch or greater rainfall within a 24-hour period). The contractor would be required to halt work and take action as necessary to protect the work site and stored materials from storm damage and erosion.

Dewatering effluent that is contaminated with sewage would be discharged to the sewer system. Accidental sewage spills during construction will be reported in accordance with standard DOH protocol. The contractor would be required to submit a spill mitigation plan prior to commencing work. Additionally, an industrial wastewater discharge permit (IWDP) would be needed.

The project would not be subject to the Department of Army Section 10 and 404 permits for activities in waterways since all proposed construction activities would be outside the limits of applicability.

3.3.2 Groundwater Quality

During construction, contractors would be required to minimize spillage of sewage to prevent potential groundwater contamination. BMPs for consideration include dewatering effluent contaminated with sewage to be discharged to the sewer system; and performing groundwater water quality testing during the design phase to verify that no hazard constituents are present in the discharge. The impact of any contamination of groundwater in the pipe trenches would not be significant because little or no contamination water would exfiltrate (groundwater would be entering the trench) into the surrounding soil during trench dewatering. Application of the BMPs discussed above would minimize potentially adverse impacts to groundwater quality. Therefore, mitigation measures are not proposed.

3.4 Flora and Fauna

There are no federally-listed (threatened or endangered) plant species or suitable habitat for federally-listed plant species identified in the project area. Vegetation observed in the project area is characterized by urban plantings. Generally speaking, potentially impacted vegetation could be restored after construction activities.

There are no federally-listed (threatened or endangered) wildlife species or suitable habitat for federally-listed wildlife species identified within the project area. Although a federally protected migratory shorebird (*kolea,* Pacific golden plover) was observed foraging within the project area, construction work would be generally limited to the paved roadway and shoulder areas within the public ROW. The preferred alternative involves construction on the west side of the existing Waimalu WWPS, away from the existing estuarine and marine wetland. The proposed FM continues to traverse westward on the makai side of Kamehameha Highway, on the opposite side of the existing freshwater pond, and terminate west of Kuleana Road. At no point in time would the proposed FM construction abut the identified wetland and freshwater pond. Therefore, it is not anticipated that the proposed project would adversely impact these bodies of water.

3.5 Air Quality and Wastewater Odors

The use of construction equipment at the project site would create dust and exhaust emissions. The contractor would be required to comply with Chapter 11-60.1, HAR, *Air Pollution Control*, which includes the requirements of Section 1-33 on fugitive dust.

The air quality impacts during construction would be temporary and would cease upon completion of the construction. The project would be implemented in appropriate incremental phases to minimize the extent of dust generating materials and activities.

Although the existing high water table would tend to minimize dry soil conditions, the contractor will be required to control the generation of dust by adequately watering down the construction site and soil stockpiles, keeping the construction site and access roadways reasonably free of dust causing materials, covering trucks hauling materials, and implementing other appropriate dust control practices.

The contractor would be required to control exhaust emissions by maintaining construction equipment, including emission control devices, in proper working condition and minimizing unnecessary idling of engines. The construction emissions would not significantly change the quality of air in the project area as the major factors affecting air quality are prevailing winds and existing exhaust emissions generated from traffic in the area.

The proposed project is not anticipated to generate significant odor during construction because the contractor will be required to bypass sewage flow around impediments using enclosed pumping/piping systems and not allow stagnation to occur.

3.6 Noise

Construction activities would be required to meet the requirements of Chapter 11-46, HAR, *Community Noise Control*. The noise level would increase during the construction period due to

the use of construction equipment such as sheet pile drivers, backhoes, trucks, compactors, and pavers. Homes and businesses near the active construction area would be impacted by the sound of construction equipment that typically generate noise levels ranging from 80 to 90 dBA at a distance of 50 ft. Contractors would be required to obtain a noise permit from DOH for the daytime noise level to be exceeded from 8:30 a.m. to 3:30 p.m., Monday through Friday, and 9 a.m. to 6 p.m. on Saturday. A noise variance would be required for all other hours to allow continuous operation of the pumps at night and weekends on Kamehameha Highway. To minimize noise impact, mufflers would be required on construction equipments, and construction activities would be restricted to aforementioned working hours to the extent possible. Noise impact would be a short-term inconvenience and would not last beyond the period of construction activities.

3.7 Archaeological and Historic Sites

The proposed construction will take place within roadway and easement areas that have been previously disturbed and where no historic sites are known to exist. The affected areas would be on constructed spaces that have been significantly altered due to past cultivation of the land, grubbing, and grading work.

To mitigate potential impacts resulting from inadvertent encounter with artifacts or *iwi* (remains), an archaeological monitoring plan would be submitted to SHPD for review and approval prior to the commencement of any ground-altering activities. In the event an *iwi* is encountered, work would be halted in the immediate vicinity of the *iwi* and archaeological consultation would be sought with SHPD in accordance with applicable regulations. Upon the onset and completion of the proposed project, SHPD would be notified.

3.8 Cultural Resources

Cultural practices discussed in Section 2.8 of this report have been documented on a regional scale, most recently during the preparation of an environmental impact statement (EIS) for the HHCTHP. According to the cultural impact assessment conducted for the HHCTHP project, there are no known cultural practices specific to the project area. Based on conversations with SHPD, it does not appear that there are known cultural descendants in and/or associated with the project area (DLNR SHPD 2009). According to SHPD staff, this reveals that 1) no burials were discovered in Waiau that came to the Oahu Island Burial Council (OIBC) attention for determination—to relocate or preserve in place; 2) there are no “recognized descendants” affiliated either culturally or lineally to any known or unmarked burials in Waiau that required “recognition” by OIBC; and/or 3) most people become aware of burials when a Legal Notice is posted by the archaeology company doing the work and it lists land commission awards, traditional landowners, and etc. There are no known activities in the project area; therefore, the proposed project is not anticipated to cause negative impacts to the known cultural resources within the region; and therefore, no mitigation measures are proposed.

3.9 Traffic

The project site is along a section of Kamehameha Highway classified as an Urban Principal Arterial. There is a considerable amount of traffic flow volume through this section. Traffic on Kamehameha Highway would be disrupted during the construction of the proposed FM;

increased congestion on Kamehameha Highway and Moanalua Road would likely result. Increased traffic due to the FM installation work would also be a concern for collector streets of Kuleana Road and Kaluamoi Place. Construction activities on Kamehameha Highway and on or near the Blaisdell Park may disrupt pedestrian access on parts of Kamehameha Highway and access to the Blaisdell Park.

The Transportation Management Plan (TMP) implementation guideline for the State of Hawaii Department of Transportation (DOT) Highways Division, based on the *Hawaii DOT 2009 Traffic Station Maps* traffic volume counts, does not classify one-lane closure for construction on this section of Kamehameha Highway as a "significant project (Level 3)" for developing the highest level of description for traffic control. As such, closing one lane for construction is not likely to significantly impact the traffic flow along this section of the highway. On Kamehameha Highway, construction work would be generally limited to 8:30 a.m. and 3:30 p.m., Monday through Friday, and 9 a.m. to 6 p.m. on Saturday to the extent possible, and some nights to reduce potentially significant impact to the vehicular traffic. It is advised that construction activities not take place during back-to-school weeks and holidays.

It may be necessary for the contractor to use the public ROW as a staging area to park and temporarily store vehicles and construction equipment. The contractor would be required to provide adequate and safe sidewalk widths, allow for adequate visibility, and institute other actions to ensure pedestrian and motorist safety.

The contractor would be required to comply with traffic control plans approved by DPP and DOT Highways. Construction would be phased and the contractor would generally be required to limit the work area to one where the work within the area can be completed during the day. Traffic control plans would cover each phase of work.

The contractor would be required to comply with safety precautions and measures as prescribed in Chapter 19-129, HAR, *Administrative Rules of Hawaii Governing the Use of Traffic Control Devices at Work Sites on or Adjacent to Public Streets and Highways*, as adopted by the Director of DOT; and Part IV "Standards and Guides for Traffic Controls for Street and Highway Construction, Maintenance, Utility, and Incident Management Operations," of the *Manual of Uniform Traffic Control Devices for Streets and Highways* (DOT 2009). Special duty police officers would be employed as required to facilitate traffic flow and minimize traffic hazards. Monitoring would be performed to verify compliance with conditions imposed by permits issued for the construction work in the streets and highway. Existing traffic control devices, which may be damaged or removed during construction, would be required to be replaced immediately after the construction in the area is completed.

Area residents and businesses would be kept informed of the project prior to and during the construction work. Information would be published in the major daily newspapers to inform affected residents and commuters of upcoming major construction work, road closures, detours, and suggested alternate routes.

The contractor would be required to minimize inconvenience to residents and visitors to Neal Blaisdell Park. Vehicular and pedestrian access to and from the private properties would be provided at all times, or the contractor would provide other suitable temporary accommodations.

The contractor would be required to make provisions for emergency access and would be required to provide full access during non-working hours. Emergency services (e.g., fire, ambulance, and police) would be notified prior to implementation of any required detours or

street closures. The Honolulu Police Department may see an increase in complaints and calls related to traffic and other project related concerns.

The contractor would be required to notify Oahu Transit Services (OTS) a minimum of two weeks prior to construction of the location, scope of work, proposed closure of any streets or traffic lanes, and the need to relocate any bus stops. Bus routes potentially affected by increased traffic would likely be:

- Kamehameha Highway:
- Route 40/A (Makaha Beach/Towers-Honolulu/Ala Moana);
- Route 42 (Ewa Beach-Waikiki);
- Route 52 (Wahiawa Circle Isle/Heights-Halawa/Ala Moana);
- Route 53 (Pacific Palisades-Halawa/Ala Moana);
- Route 62 (Honolulu-Ala Moana Center);
- Route 88A (Express-North Shore; Honolulu); and
- Route A (Waipahu-U.H. Manoa).

Traffic control plans include temporary relocation of the bus stops as required based on input from OTS.

3.10 Utilities, Roads, and Other Infrastructure

The construction work would take place within the existing ROW containing various utility lines. There may be temporary localized disruptions to sewer, water, and possibly other utility services during the project. Construction plans would be submitted to the utility companies and City and State agencies for review and approval and the work would be scheduled and coordinated to the extent possible to minimize impacts to other utilities. Existing utility lines would be located by toning, potholing, or hand excavation as required to minimize the risk of damaging the lines. Residents would be given advance notice of utility outages for such work as relocation of water and other utility lines, and connections to new sewer lines. All existing street improvements (i.e., pavement, curbs, gutters, sidewalks, driveways, traffic control devices, etc.), utilities, and other public and private property improvements would be restored to their original or upgraded condition after the installation of the FM.

3.11 Socioeconomics

The estimated cost of the proposed project—construction of a FM that measures 2,653 LF along the makai side of Kamehameha Highway using HDD method and 95 LF across the Highway using PTMT method—is $10.8M. A breakdown of the cost estimates is provided in the DAR (AECOM 2012a). The project will be funded by CCH. As wastewater user fees are assessed uniformly islandwide, this project and other proposed sewer projects on Oahu are projected to result in increases to user fees for all sewer customers.

The project would provide employment for contractors and their employees, material suppliers, and others associated with the construction. The increased employment, however, would be temporary and would generally not directly benefit residents in the vicinity of the project area (i.e., Waimalu CDP and Pearl City Neighborhood). Traffic impacts during construction may temporarily reduce the number of customers at the existing commercial uses in the vicinity of the project area.

3.12 Land Use

This project would benefit the residents of the service area by minimizing the probability of future public health hazards and sewer service disruptions caused by sewage FM break. CCH would benefit from reductions in the expenditure of manpower for maintenance of the sewer FM, for cleanup of wastewater spills, and for reporting/administrative tasks associated with wastewater spills.

3.13 Recreational Resources

Construction activities associated with the proposed project would occur on or near the Neal Blaisdell Park. Vehicles trying to access the park may experience delays entering the park, especially if the ROW adjacent to the park is used as a staging area for construction equipment. However, direct impacts to the access and use of its recreational resources are not expected. This is because construction activities would not encroach beyond the existing sewer easement and the ROW adjacent to it. After construction activities, the proposed project would remain underground and would not affect the recreational uses at the park.

This Page Left Intentionally Blank

4 RELATIONSHIP TO LAND USE POLICIES AND CONTROLS

4.1 State Land Use Plan

The State Land Use Law, Chapter 205, HRS, is intended to preserve, protect, and encourage the development of lands in the State for uses that are best suited to the public health and welfare for Hawaii's people. The project area is located within the State "urban" land use district and the proposed project is consistent with this designation.

4.2 Hawaii State Plan

The Hawaii State Plan, Chapter 226, HRS, adopted in 1978, outlines broad goals, policies, and objectives to serve as guidelines for the future growth and development of the State. The proposed project is consistent with the objective of "maintenance and pursuit of improved quality in Hawaii's land, air, and water resources" (§226-13a.2). It is also consistent with the policy of the State to "promote the proper management of Hawaii's land and water resources," (§226-13.b.2) and "promote effective measures to achieve desired quality in Hawaii's surface, ground, and coastal waters" (§226-13.b.b). The project will decrease the risk of sewage spills and thereby protect stream and coastal water quality. The project will meet the needs of the community in the vicinity of the project area (i.e., Waimalu CDP and Pearl City Neighborhood) and does not conflict with the State Plan with respect to the well-being of the residents and protection of the environmental and cultural resources.

4.3 City and County of Honolulu General Plan

The Oahu General Plan (CCH DPP 1992) sets forth broad statements of social, economic, environmental, and design objectives and policies that are desired for the island of Oahu over the long-term. The General Plan was originally adopted in 1977; revised in 1992; and was most recently amended in 1992 and 2002.

The proposed project is consistent with the following policies and objectives of the General Plan (CCH DPP 1992):

III. Natural Environment

Objective A: To protect and preserve the natural environment.

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

V. Transportation and Utilities

Objective B: To meet the needs of the people of Oahu for an adequate supply of water and for environmentally sensitive waste collection and waste disposal services.

Policy 5: Provide safe, efficient, and environmentally sensitive wastewater collection and waste disposal services.

Objective C: To maintain a high level of services 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 4: Evaluate the social, economic, and environmental impact of additions to the transportation and utility systems before they are constructed.

VII. Physical Development and Urban Design

Objective A: To coordinate changes in the physical environment of Oahu to ensure that all new developments are timely, well-designed, and appropriate for the areas in which they will be located.

Policy 1: Plan for the construction of new public facilities and utilities in the various parts of the Island according to the following order or priority: first, in the primary urban center; second, in the secondary urban center at Kapolei; and third, in the urban fringe and rural areas.

4.4 Primary Urban Center Development Plan

The Primary Urban Center Development Plan (PUC DP) (CCH DPP 2004) helps to implement the objectives and policies of the General Plan (CCH DPP 1992) by providing relatively detailed development schemes for Central Oahu. The PUC DP was approved on June 21, 2004 as Ordinance 04-14. The proposed project is consistent with the following sections of PUC DP:

- The vision statement in Section 2.1 of the PUC DP projects a vision in which beaches and coastal waters are actively managed and improved. The proposed project would protect beaches and coastal waters by improving water quality through reduction of sewage spills.

- Under Section 4.2.2 of the PUC DP, one of the stated wastewater policies is to "implement wastewater collection system improvements to provide adequate service and sound facilities to existing neighborhoods." The proposed FM construction is to provide redundant service to the existing FM, thereby reducing accidental spills.

- Under Section 4.2.3., the stated development plan guidelines include, "complete current projects needed to correct identified service or facility inadequacies to neighborhoods where change in service demand is not anticipated." A 2007 Stipulated Order lodged by the EPA and DOH against CCH required the latter to take certain actions to evaluate, repair, rehabilitate or replace certain FMs; the proposed project was identified as one of the FMs requiring additional work.

4.5 Public Infrastructure Map

Underground sewer lines are not a type of public infrastructure that is required to be shown on the PUC Public Infrastructure Map.

4.6 Special Management Area (SMA)

The portion of the project located in Neal Blaisdell Park is situated in the SMA (see Figure 4) and is subject to approval of the SMA Use Permit because the valuation of the project is in excess of $125,000 (§25-1.3, Revised Ordinance of Honolulu [ROH]). Demonstrated compliance with the guidelines set forth for proposed development in the SMA is shown below.

Compliance of Proposed Project with ROH 25-3.2

§25-3.2.a All development in the special management area shall be subject to reasonable terms and conditions set by the council to ensure that:

- §25-3.2.a.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;

  Project conforms: The proposed project would not impede the access and the enjoyment of the existing recreational resource in the project area—Neal Blaisdell Park. The staging of the construction equipment and related construction activities would be situated at or near the existing sewer easement on the Park property. Ingress and egress for the Park property would remain open and accessible to the public.

- §25-3.2.a.2 Adequate and properly located public recreation areas and wildlife preserves are reserved;

  Project conforms: The proposed project would maintain existing public recreation areas. There are no wildlife preserves in the project area.

- §25-3.2.a.3 Provisions are made for solid and liquid waste treatment, disposition, and management, which will minimize adverse effects upon SMA resources; and

  Project conforms: Solids and liquid byproducts would be treated using standard BMPs to ensure adverse effects to the project area and its vicinity are minimized.

- §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.

Project conforms: There would be site disturbances during construction activity to accommodate for trenchless construction. The existing site form would be restored thereafter. It is not anticipated that the construction activities would affect the existing water resources, scenic and recreational amenities, nor endanger the project area and its vicinity due to floods, landslides, erosion, siltation or failure in the event of earthquake.

§25.3.2.b No development shall be approved unless the council has first found that:

- §25.3.2.1 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;

  Project conforms: The proposed project would result in delays and inconveniences for Kamehameha Highway users during the duration of the construction period. Afterwards, disturbances to the traffic activities would be limited to intermittent maintenance activities. This effect does not meet the significance criteria set forth in §11-200-12, HAR ("Environmental Impact Statement Rules, Significance Criteria").

- §25.3.2.2 The development is consistent with the objectives and policies set forth in Section 25-3.1 and area guidelines contained in HRS Section 205A-26;

  Project conforms: The proposed project is aligned with the objectives and policies set forth in §25-3.1, ROH and §205A-26, HRS.

- §25.3.2.3 The development is consistent with the county general plan, development plans and zoning. Such a finding of consistency does not preclude concurrent processing where a development plan amendment or zone change may also be required.

  Project conforms: The proposed project conforms to the Oahu General Plan and the PUC DP.

§25.3.2.c The council shall seek to minimize, where reasonable:

- §25.3.2.1 Dredging, filling or otherwise altering any bay, estuary, salt marsh, river mouth, slough or lagoon;

  Project conforms: The proposed project does not involve dredging, filling or otherwise altering any bay, estuary, salt marsh, river mouth, slough or lagoon.

- §25.3.2.2 Any development which would reduce the size of any beach or other area usable for public recreation;

Project conforms: The proposed project would not reduce the size of any beach or other area usable for public recreation.

- §25.3.2.3 Any development which would reduce or impose restrictions upon public access to tidal and submerged lands, beaches, portions of rivers and streams within the special management area and the mean high tide line where there is no beach;

  Project conforms: The proposed project would neither reduce nor impose restrictions upon public access to tidal and submerged lands, beaches, portions of rivers and streams within the SMA and the mean high tide line where there is no beach.

- §25.3.2.4 Any development which would substantially interfere with or detract from the line of sight toward the sea from the state highway nearest the coast; and

  Project conforms: The proposed project would not substantially alter the existing visual resources by interfering with or detracting from the line of sight toward the sea from the Kamehameha Highway to the nearest coast.

- §25.3.2.5 Any development which would adversely affect water quality, existing areas of open water free of visible structures, existing and potential fisheries and fishing grounds, wildlife habitats, or potential or existing agricultural uses of land.

  Project conforms: The proposed project would not adversely affect water quality, existing areas of open water free of visible structures, existing and potential fisheries and fishing grounds, wildlife habitats, or potential or existing agricultural uses of land.

This Page Left Intentionally Blank

5 DETERMINATION AND FINDINGS

5.1 Anticipated Determination Pursuant to Chapter 343, HRS

Based on the information and analysis contained in this document, it is not anticipated that the proposed project would result in significant impacts on the environment. As such, a Finding of No Significant Impact (AFONSI), pursuant to requirements of Chapter 343, HRS, will be issued with a recommendation that an EIS not be required.

5.2 Chapter 343, HRS, Significance Criteria

In determining whether an action may have significant impact on the environment, the applicant must consider all phases of the project, its expected primary and secondary consequences, the cumulative impacts with other projects, and its short and long-term effects. Section 11-200-12, HAR (revised 1996) established 13 significance criteria to be used as a basis for identifying whether significant impact on the environment would result.

An applicant/agency will determine an action may have a significant impact on the environment if it meets any of the following criteria:

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

The FM construction would occur primarily within State ROWs. There are no significant biological resources within the area where improvements are proposed, including threatened or endangered species or their habitats. No contemporary or continuing cultural practices occur at the project area. In the event an *iwi* is encountered, work would be halted in the immediate vicinity of the *iwi* and archaeological consultation would be sought with SHPD in accordance with applicable regulations.

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

The proposed project is not anticipated to curtail the range of beneficial uses of the environment. The project improvements would occur within or adjacent to the ROW with few, if any, alternative beneficial uses.

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

The proposed project is consistent with the environmental policies in Chapter 344, HRS, which establishes a state policy to encourage productive and enjoyable harmony between people and their environment, promotes efforts to prevent or eliminate damage to the environment, and stimulate community health and welfare.

The project is consistent with the environmental policy to "Conserve the natural resources so that land, water, mineral, visual, air, and other natural resources are protected by controlling

pollution" (§344.3). It is consistent with the stated guideline to "Encourage the reduction of environmental pollution which may degrade a community" (§344.4.8.C).

4. Substantially affects the economic or social welfare of the community or state.

The proposed project would be financed through increased user fees. While raising the user fees for the sewer customers would be considered a potential economic impact for those ultimately paying the increased fee, the completed project would have beneficial long-term impacts to the economic and social environments by providing properly functioning wastewater collection infrastructure and provide redundancy, which would minimize impacts to the FM system.

5. Substantially affects public health.

The proposed project would allow wastewater overflow to be diverted if necessary; having a redundant FM would minimize impacts to public health and safety.

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

The proposed project would not result in a population increase, generate additional vehicle traffic, or affect demand for public facilities or utilities.

7. Involves a substantial degradation of environmental quality.

Construction period impacts related to traffic, noise, and air quality would be temporary and short-term. Short-term impacts would be mitigated through phased construction, traffic management and control, equipment noise attenuation, and the use of BMPs to control erosion and dispose of dewatering effluent.

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

The proposed project is limited in scope to the construction of a new FM, and is part of a long-term effort by the City to rehabilitate Honolulu's aging sewer system. It would have beneficial impacts on the environment.

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

No rare, threatened, or endangered species or its habitat would be impacted by the proposed project. The project area is highly urbanized, and there are no significant biological resources located where the improvements are proposed.

10. Detrimentally affects air or water quality or ambient noise levels.

The proposed project would result in fugitive dust and noise generation during construction. These impacts would be minimized by applying the BMPs identified, as well as adherence to the applicable controls. The proposed project would have beneficial impacts on air and water quality by reducing the likelihood of spills.

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, freshwater, or coastal waters.

The proposed project is not in an environmentally sensitive area.

12. Substantially affects scenic vista and view plane identified in county or state plans or studies.

According to the PUC DP, there are no protected scenic vistas in the project area.

13. Requires substantial energy consumption.

The proposed project would not require substantial energy consumption. Energy resources would be consumed during project construction. In the long-term, the project improvements would decrease energy consumption associated with the need for repair of the City's aging sewer facilities.

This Page Left Intentionally Blank

6 PERSONS AND AGENCIES CONSULTED FOR PRE-ASSESSMENT CONSULTATION

A pre-assessment consultation was conducted for the proposed project from September 9 to October 5, 2011. The parties who provided written comments are identified by a check mark (✓). Written comments received during this procedure are included in their entirety in Appendix A ("Comments Received") of this report.

6.1 Federal Government

Department of Interior, Fish and Wildlife Services

6.2 State Government

Department of Health, Environmental Planning Office
Department of Health, Office of Environmental Quality Control
✓Department of Health, Wastewater
✓Department of Land and Natural Resources, Land Division-Oahu District
✓Department of Land and Natural Resources, Engineering Division
✓Department of Land and Natural Resources, Commission on Water Resource Management
Department of Land and Natural Resources, State Historic Preservation Division
Department of Land and Natural Resources, State Parks
✓Department of Land and Natural Resources, Office of Conservation and Coastal Lands
✓Department of Transportation, Highways Division
State Senator, District 16
State Representative, District 32
State Representative, District 33
State Representative, District 35
State Representative, District 36
University of Hawaii at Manoa, Hawaii Natural Heritage Program, Hawaii Biodiversity Mapping Program

6.3 City & County of Honolulu

✓Board of Water Supply
City Councilman, District 8
Department of Environmental Services
✓Department of Facility Maintenance
Department of Parks and Recreation
✓Department of Planning and Permitting
✓Department of Transportation Services
✓Honolulu Fire Department
✓Honolulu Police Department
Neighborhood Commission Office

6.4 Others

Hawaiian Tel
HECO
Oceanic Time Warner Cable
Sierra Club
The Gas Company

7 REFERENCES

AECOM. 2010. *Waiau Area Sewer Rehabilitation/Reconstruction Final EA*.

AECOM. 2012a. *Honouliuli/Waipahu/Pearl City Wastewater Facilities Plan Design Analysis Report: Work Task 13 – Waimalu Wastewater Pump Station Redundant Force Main.* (draft).

AECOM. 2012b. Biological Assessment of the Project Area. Site Visit (January 19, 2012) Notes.

AECOM. 2012c. Recreational Activities at the Neal Blaisdell Park. Site Visit (January 19, 2012)

Bishop Museum. 1997. B*iodiversity of Marine Communities in Pearl Harbor, Oahu, Hawaii with Observations on Introduced Exotic Species, Bishop Museum Technical Report No. 10*. Prepared for the U.S. Navy.

City & County of Honolulu Department of Emergency Management (CCH DEM). 2010a. Tsunami Evacuation Maps. Map 20 (Pearl Harbor). http://www1.honolulu.gov/dem/map%2020_pearl%20harbor%20(inset%201).pdf. Accessed 15 January 2012.

City & County of Honolulu Department of Emergency Management (CCH DEM). 2010b. Tsunami Refuge Center List. http://www1.honolulu.gov/dem/tsunamirefuge-arealistoct11.pdf. Accessed 15 January 2012.

City & County of Honolulu Department of Planning and Permitting (CCH DPP). 1992. *General Plan*, *Objectives and Policies.* Resolution 02-205, CD1. Revised 1992 with Amendments in 1992 and 2002.

City & County of Honolulu Department of Planning and Permitting (CCH DPP). 2004. *Primary Urban Center Development Plan*. June.

Dega, Michael F., Ph.D. and Laura C. O'Rourke, Ph.D (Dega and O'Rourke). 2003. *Archaeological Evaluation Report of Additional Environmental Focused Site Inspection Data at Blaisdell Park (Former Waiau Drum Storage Facility), Pearl City, and Archival Research on Napuanani Park (Former Aiea Anti-Aircraft Artillery [AAA] Command Post), Oahu Island, Hawaii, for the Defense Environmental Restoration Program for Formerly Used Defense Sites*. Prepared for the U.S. Army Corps of Engineers, Revised November.

Department of Business, Economic Development & Tourism, State of Hawaii (DBEDT). 2011. *2010 State of Hawaii Data Book*.

Department of Health, State of Hawaii. (DOH). 1999. *Island of Oahu, Underground Injection Control Areas.* Honolulu: Safe Drinking Water Branch. Honolulu. http://hawaii.gov/health/environmental/water/sdwb/uic/uic/pdf/oahuic.pdf. September. Accessed December 2009.

Department of Health, State of Hawaii. (DOH). 2008. *State of Hawaii Annual Summary 2007 Air Quality Data*. September.

September 2008.

2010Department of Health, State of Hawaii. (DOH). 2010. *State of Hawaii Annual Summary 2009 Air Quality Data.*

Department of Land and Natural Resources, Commission on Water Resource Management, State of Hawaii (DLNR CWRM). 2008. *Ground Water Hydrologic Unit Map, Island of Oahu.* http://hawaii.gov/dlnr/cwrm/mapsillustrations/gwhu_oahu.pdf. Accessed December 2009.

Department of Land and Natural Resources, State Historic Preservation Division, State of Hawaii (DLNR SHPD). 2009. Personal Communication via email with Phyllis "Coochie" Cayan, History and Cultural Branch Chief, 5 August and 10 August. Information regarding cultural descendants in or associated with the project area. Honolulu, Hawaii.

Department of Land and Natural Resources, State Historic Preservation Division, State of Hawaii (DLNR SHPD). Recent Additions to the Hawaii Register of Historic Places (to 05/28/2011). Accessed October 17, 2011.

Department of Transportation Federal Transit Administration and the City & County of Honolulu (DOT FTA & CCH). 2010. *Honolulu High-Capacity Transit Corridor Project, Final Environmental Impact Statement, Cultural Resources Technical Report.* June.

Department of Transportation, United States (DOT). 2009. *Manual on Uniform Traffic Control Devices (MUTCD)*. Federal Highway Administration. December.

Engineers Surveyors Hawaii. 2003. *Final Environmental Assessment, Waimalu Stream Dredging, City & County of Honolulu*. Prepared for the City and County of Honolulu, Department of Design and Construction.

Environmental Protection Agency, United States (EPA). 2010. *Consent Decree for City and County of Honolulu.* http://www.epa.gov/compliance/resources/decrees/civil/cwa/-honolulucwa-cd.pdf. August. Accessed January 3, 2012.

United States Climate Data (U.S. Climate Data). Climate data for Honolulu, Hawaii. http://www.usclimatedata.com/-climate.php?location=USHI0026. Accessed January 5, 2012.

United States Department of Agriculture, Soil Conservation Service (USDA SCS). 1972. *Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii*. August.

United States Department of Agriculture, Natural Resources Conservation Service (USDA NRCS). 2011. Web Soil Survey. National Cooperative Soil Survey. Soil Map—Island of Oahu, Hawaii. Accessed October 14, 2011.

United States Fish Wildlife Service (USFWS). *National Wetlands Inventory, Map Creation and Mapper Display.* http:www.fws.gov/wetlands/Data/MapperTips.html. Accessed October 17, 2011.

Appendix A

Comments

This Page Left Intentionally Blank

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

September 16, 2011

MEMORANDUM

TO: **DLNR Agencies:**
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
X Engineering Division
__Div. of Forestry & Wildlife
X Div. of State Parks
X Commission on Water Resource Management
X Office of Conservation & Coastal Lands
X Land Division – Oahu District
__Historic Preservation

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: Pre-Assessment Consultation Process for the proposed Waimalu Wastewater Pumping Station Force Main Environmental Assessment (EA)
LOCATION: 245 Kamehameha Highway, Aiea, HI; TMK: (1) 9-8-05: 06, 8, 20, and 21
APPLICANT: AECOM on behalf of the City and County of Honolulu

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by September 30, 2011.

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 Darlene Nakamura at 587-0417. Thank you.

Attachments

( ) We have no objections.
(✓) We have no comments.
( ) Comments are attached.

Signed: _____
Date: 9/19/11

cc: Central Files

AECOM

AECOM
1001 Bishop Street
Suite 1600
Honolulu, Hawaii 96813
www.aecom.com

808 521 3051 tel
808 524 8677 fax

November 2, 2011

Mr. Russell Y. Tsuji
Director
Department of Land and Natural Resources
Land Division
Post Office Box 621
Honolulu, Hawaii 96809

Dear Mr. Tsuji:

Subject: Pre-assessment Consultation Process for the Proposed Waimalu Wastewater Pump Station Force Main Environmental Assessment

Thank you for your letter dated September 16, 2011 stating that you have no comments or recommendations to offer on the proposed project.

We appreciate your participation in the environmental review process.

Sincerely yours,

Lambert Yamashita

Lambert Yamashita, P.E.
Senior Project Manager
AECOM

This Page Left Intentionally Blank

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

'11 SEP 19 PM04:06 ENGINEERING

RECEIVED
LAND DIVISION

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

2011 SEP 22 P 3:09

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

DEPT OF LAND & NATURAL RESOURCES STATE OF HAWAII

September 16, 2011

MEMORANDUM

TO: **DLNR Agencies:**
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
X Engineering Division
__Div. of Forestry & Wildlife
X Div. of State Parks
X Commission on Water Resource Management
X Office of Conservation & Coastal Lands
X Land Division – Oahu District
__Historic Preservation

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: Pre-Assessment Consultation Process for the proposed Waimalu Wastewater Pumping Station Force Main Environmental Assessment (EA)
LOCATION: 245 Kamehameha Highway, Aiea, HI; TMK: (1) 9-8-05: 06, 8, 20, and 21
APPLICANT: AECOM on behalf of the City and County of Honolulu

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by September 30, 2011.

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 Darlene Nakamura at 587-0417. Thank you.

Attachments

( ) We have no objections.
( ) We have no comments.
(X) Comments are attached.

Signed:
Date: 9/21/11

cc: Central Files

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/DarleneNakamura
RE:PreAssessmentConsultWaimaluWastewater
Oahu.858

COMMENTS

( ) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone ___.

(X) Please take note that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone D. The Flood Insurance Program does not have any regulations for developments within Flood Zone D.

( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is ___.

( ) Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

( ) Mr. Robert Sumitomo at (808) 768-8097 or Mr. Mario Siu Li at (808) 768-8098 of the City and County of Honolulu, Department of Planning and Permitting.
( ) Mr. Frank DeMarco at (808) 961-8042 of the County of Hawaii, Department of Public Works.
( ) Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.
( ) Ms. Wynne Ushigome at (808) 241-4890 of the County of Kauai, Department of Public Works.

( ) The applicant should include water demands and infrastructure required to meet project needs. Please note that projects within State lands requiring water service from the Honolulu Board of Water Supply system will be required to pay a resource development charge, in addition to Water Facilities Charges for transmission and daily storage.

( ) The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.

( ) Additional Comments: _____

( ) Other: _____

Should you have any questions, please call Ms. Suzie S. Agraan of the Planning Branch at 587-0258.

Signed: _____
CARTY S. CHANG, CHIEF ENGINEER
Date: 9/21/11

AECOM
1001 Bishop Street
Suite 1600
Honolulu, Hawaii 96813
www.aecom.com

808 521 3051 tel
808 524 8677 fax

November 2, 2011

Mr. Carty S. Chang
Chief Engineer
Department of Land and Natural Resources
Engineering Division
Post Office Box 621
Honolulu, Hawaii 96809

Dear Mr. Chang:

Subject: Pre-assessment Consultation Process for the Proposed Waimalu Wastewater Pump Station Force Main Environmental Assessment

Thank you for your letter dated September 16, 2011 regarding the proposed project. As you mentioned, the project site is located in Zone D of the Floor Insurance Rate Map (FIRM). We acknowledge that the Flood Insurance Program does not have any regulations for developments within Flood Zone D.

We appreciate your participation in the environmental review process.

Sincerely yours,

Lambert Yamashita, P.E.
Senior Project Manager
AECOM

From: Robert.K.Chong@hawaii.gov
To: Nishimura, Kristen
Subject: Pre-Assessment Consultation Process for Waimalu Wastewater Pump Station Force Main Environmental Assessment
Date: Wednesday, September 14, 2011 11:23:29 AM

Hi Kristen,

This is Robert Chong with the State Water Commission.
This email is in response to your September 9, 2011 letter to the Commission on Water Resource Management (Commission) requesting a determination on Pre-Assessment Consultation Process for the Waimalu Wastewater Pump Station Force Main Environmental Assessment in Waiau, Oahu at TMKs: (1) 9-8-005:006, 008. 020 and 021.

The Commission's Stream Protection and Management Branch, has the responsibility to protect stream channels from alteration whenever practicable to provide for fishery, wildlife, recreational, aesthetic, scenic, and other beneficial instream uses in the State of Hawaii under the authorization of the State Water Code (Code), Chapter 174C, Hawaii Revised Statutes, and Chapter 13-169, Hawaii Administrative Rules (Protection of Instream Uses of Water).

Pursuant to the Code, §174C-71(3)(A), the Commission "shall require persons to obtain a permit from the Commission prior to undertaking a stream channel alteration." The term "stream channel" is defined in the Code, §174C-3, as a "watercourse with a definite bed and banks which periodically or continuously contains flowing water." Furthermore, the Code defines "stream" as any "natural watercourse in which water usually flows in a defined bed or channel."

The Commission will require additional information on the proposed construction methods for the force main and how horizontal drilling, pilot-tube tunneling and open trenching may affect the springs located adjacent to the TMK parcels.

Please be advised that your proposal may require other agency approvals regarding wetlands, water quality, grading, stockpiling, and floodways. This letter should not be used for other regulatory jurisdictions or used to imply compliance with other federal, state, or county rules.

Aloha,
Robert

Robert K. Chong, Planner

Commission on Water Resource Management
1151 Punchbowl Street, Room 227
Honolulu, HI 96813
Phone: (808) 587-0266

AECOM
1001 Bishop Street
Suite 1600
Honolulu, Hawaii 96813
www.aecom.com

808 521 3051 tel
808 524 8677 fax

November 2, 2011

Mr. Robert K. Chong
Planner
Commission on Water Resource Management
1151 Punchbowl Street, Room 227
Honolulu, Hawaii 96813

Dear Mr. Chong:

Subject: Pre-assessment Consultation Process for the Proposed Waimalu Wastewater Pump Station Force Main Environmental Assessment

Thank you for your email dated September 14, 2011. We acknowledge that the Commission on Water Resource Management (CWRM) requires a Stream Channel Alteration Permit before any alterations can be made to the bed and/or banks of a stream channel. Additional information on the proposed methods of construction—horizontal directional drilling (HDD) and pilot-tube micro tunneling (PTMT)—have been included in the draft environmental assessment. Generally speaking, trenchless technologies such as HDD and PTMT are typically used for crossing waterways, roadways, shore approaches, congested area, environmentally sensitive areas because it minimizes environmental impacts associated with excavation.

We appreciate your participation in the environmental review process.

Sincerely yours,

Lambert Yamashita, P.E.
Senior Project Manager
AECOM

This Page Left Intentionally Blank

CDRR: DA 12-74
A.J.

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RECEIVED
LAND DIVISION
2011 SEP 21 P 3:09
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

RECEIVED
OFFICE OF CONSERVATION
& COASTAL LANDS
2011 SEP 19 A 11:08
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

September 16, 2011

MEMORANDUM

TO: **DLNR Agencies:**
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
X Engineering Division
__Div. of Forestry & Wildlife
X Div. of State Parks
X Commission on Water Resource Management
X Office of Conservation & Coastal Lands
X Land Division – Oahu District
__Historic Preservation

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: Pre-Assessment Consultation Process for the proposed Waimalu Wastewater Pumping Station Force Main Environmental Assessment (EA)
LOCATION: 245 Kamehameha Highway, Aiea, HI; TMK: (1) 9-8-05: 06, 8, 20, and 21
APPLICANT: AECOM on behalf of the City and County of Honolulu

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by September 30, 2011.

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 Darlene Nakamura at 587-0417. Thank you.

Attachments

* Not in Conservation Lands

(X) We have no objections.
(X) We have no comments. *
( ) Comments are attached.

Signed:
Date: 9-20-2011

cc: Central Files

AECOM

AECOM
1001 Bishop Street
Suite 1600
Honolulu, Hawaii 96813
www.aecom.com
808 521 3051 tel
808 524 8677 fax

November 2, 2011

Mr. Samuel J. Lemmo
Administrator
Department of Land and Natural Resources
Office of Conservation and Coastal Lands
Post Office Box 621
Honolulu, Hawaii 96809

Dear Mr. Lemmo:

Subject: Pre-assessment Consultation Process for the Proposed Waimalu Wastewater Pump Station Force Main Environmental Assessment

Thank you for your letter dated September 16, 2011 stating that you have no comments or recommendations to offer on the proposed project.

We appreciate your participation in the environmental review process.

Sincerely yours,

Lambert Yamashita, P.E.
Senior Project Manager
AECOM

This Page Left Intentionally Blank

NEIL ABERCROMBIE
GOVERNOR

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

GLENN M. OKIMOTO
DIRECTOR

Deputy Directors
JADE T. BUTAY
FORD N. FUCHIGAMI
RANDY GRUNE
JADINE URASAKI

IN REPLY REFER TO:
STP 8.0606

October 11, 2011

Mr. Lambert Yamashita, P.E.
Senior Project Manager
AECOM
1001 Bishop Street, Suite 1600
Honolulu, Hawaii 96813

Dear Mr. Yamashita:

Subject: Waimalu Wastewater Pump Station Force Main
Draft Environmental Assessment (DEA)

Thank you for requesting the State Department of Transportation's (DOT) review of the subject project that includes constructing a new force main (FM) to provide redundant service to the existing 30-inch diameter Waimalu Wastewater Pumping Station (WWPS) Force Main. The subject project runs approximately 2,700 linear feet west along Kamehameha Highway and discharges to a manhole at the intersection of Kuleana Road and Kamehameha Highway.

Given the potential impacts to the State highway (Kamehameha Highway), the DOT needs to carefully check the subject project. DOT Highways Division is still conducting its review of the subject DEA and will provide additional comments as necessary.

DOT appreciates the opportunity to provide these interim comments. If there are any questions or need to meet with Highways Division staff, please contact Mr. David Shimokawa of the DOT Statewide Transportation Planning Office at telephone number (808) 831-7976.

Very truly yours,

GLENN M. OKIMOTO, Ph.D.
Director of Transportation

c: Collins Lam, City and County of Honolulu, Department of Design and Construction

AECOM

AECOM
1001 Bishop Street
Suite 1600
Honolulu, Hawaii 96813
www.aecom.com

808 521 3051 tel
808 524 8677 fax

November 2, 2011

Dr. Glenn M. Okimoto
Director
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

Dear Dr. Okimoto:

Subject: Pre-assessment Consultation Process for the Proposed Waimalu Wastewater Pump Station Force Main Environmental Assessment

Thank you for your letter dated October 11, 2011 regarding the proposed project. We note that DOT will provide comments as necessary.

We appreciate your participation in the environmental review process.

Sincerely yours,

Lambert Yamashita, P.E.
Senior Project Manager
AECOM

This Page Left Intentionally Blank

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843

September 16, 2011

RECEIVED
SEP 20 2011
AECOM

Ms. Kristen Nishimura
AECOM
1001 Bishop Street, Suite 1600
Honolulu, Hawaii 96813

Dear Ms. Nishimura:

Subject: The Letter Dated September 9, 2011 Requesting Comments on the Environmental Assessment Pre-Assessment Consultation for the Waimalu Wastewater Pump Station Force Main, TMK: 9-8-5: 6, 8, 20, 21

Thank you for the opportunity to comment on the proposed project.

The construction drawings should be submitted for our review.

The construction schedule should be coordinated to minimize impact to the water system.

If you have any questions, please contact Robert Chun at 748-5443.

Very truly yours,

SUSAN UYESUGI
Program Administrator
Customer Care Division

Water for Life . . . Ka Wai Ola

AECOM

AECOM
1001 Bishop Street
Suite 1600
Honolulu, Hawaii 96813
www.aecom.com

808 521 3051 tel
808 524 8677 fax

November 2, 2011

Ms. Susan Uyesugi
Program Administrator
Board of Water Supply, City and County of Honolulu
630 South Beretania Street
Honolulu, Hawaii 96843

Dear Ms. Uyesugi:

Subject: Pre-assessment Consultation Process for the Proposed Waimalu Wastewater Pump Station Force Main Environmental Assessment

Thank you for your letter dated September 16, 2011. The project construction drawings will be submitted to the Board of Water Supply for review and approval. We will work towards coordinating the construction schedule to minimize impact to the water system.

We appreciate your participation in the environmental review process.

Sincerely yours,

Lambert Yamashita, P.E.
Senior Project Manager
AECOM

This Page Left Intentionally Blank

From:	Yoneda, Lan
To:	Nishimura, Kristen
Cc:	Sugihara, Tyler; Okazaki, Trudy (DFM); Chun, Westley K C; Mostoles, Sindy S
Subject:	Pre-assessment Counsultation Process for the propesed Waimalu Wastewater Pump Station (FM) Enviornmental Assessment (EA)
Date:	Friday, October 07, 2011 12:47:42 PM

Kristen Nishimura
AECOM
1001 Bishop Street
Honolulu, HI 96813

Dear Kristen Nishimura

We received your September 9, 2011 letter on subject project signed by Lambert Yamashita.

The Department of Facility Maintenance reviewed your map on the proposed project area. It would have minimal impact on the city roads and drainage systems since most of the work has been identified in the State Highways area. Therefore we have no comments on the proposed project.

Should you have any further questions, please give me a call.

Warm Regards,

Lan Yoneda

Lan Yoneda, PE
Assistant Chief of Road Division
Department of Facility Maintenance
City and County of Honolulu
99-999 Iwaena St. Aiea, HI 96701
Ph: 808-768-3600, Fax: 808-768-1622, Cell: 808-478-1687, Nextel Direct Connect 184*7*1
email: lyoneda@honolulu.gov

AECOM
1001 Bishop Street
Suite 1600
Honolulu, Hawaii 96813
www.aecom.com

808 521 3051 tel
808 524 8677 fax

November 2, 2011

Lan Yoneda
Assistant Chief of Road Division
Department of Facility Maintenance
City and County of Honolulu
99-999 Iwaena Street
Aiea, Hawaii 96701

Dear Mr. Yoneda:

Subject: Pre-assessment Consultation Process for the Proposed Waimalu Wastewater Pump Station Force Main Environmental Assessment

Thank you for your email dated October 7, 2011. We note your comment that the proposed project would have minimal impact on the City roads and drainage systems since the project area is located on the State right-of-way (ROW) on Kamehameha Highway and the existing sewer easement at Neal Blaisdell Park.

We appreciate your participation in the environmental review process.

Sincerely yours,

Lambert Yamashita, P.E.
Senior Project Manager
AECOM

This Page Left Intentionally Blank

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
TELEPHONE: (808) 768-8000 • FAX: (808) 768-6041
DEPT. WEB SITE: www.honolulu/udpp.org • CITY WEB SITE: www.honolulu.gov

PETER B. CARLISLE
MAYOR

DAVID K. TANOUE
DIRECTOR

JIRO A. SUMADA
DEPUTY DIRECTOR

2011/ELOG-2027(sn)

September 27, 2011

Ms. Kristen Nishimura
AECOM
1001 Bishop Street, Suite 1600
Honolulu, Hawai'i 96813

Dear Ms. Nishimura:

Subject: Pre-Environmental Assessment Request
Department of Design and Construction
Waimalu Wastewater Pump Station Force Main Project

This is in response to your September 9, 2011 request for comments on the above subject. We have reviewed the information provided and offer the following comments in the preparation of the Draft Environmental Assessment (DEA).

1. Clarify the Tax Map Keys (TMK) involved in the project. The TMKs listed in your request, 9-8-5: 6, 8, 20, and 21, appear to identify privately-owned, residential lots on Kuleana Place. The existing Waimalu Wastewater Pumping Station (WWPS) appears to be on TMK 9-8-7: 8, the same TMK as Neal S. Blaisdell Park.

2. Clarify the trigger for the Environmental Assessment (EA) under Chapter 343, Hawai'i Revised Statutes (HRS). Your request indicates that the EA is required for a project that involves the use of State lands. However, it appears that City lands are also involved with the Waimalu WWPS.

3. Provide a discussion on how the proposed project is consistent with the policies and guidelines of the City and County of Honolulu's Primary Urban Center (PUC) Development Plan dated June 2004, including whether the project will help support development of the PUC by providing additional capacity.

4. Provide a complete listing of required permits and approvals. The existing Waimalu WWPS is located in the Special Management Area (SMA), Chapter 25 of the Revised Ordinances of Honolulu (ROH). If a Special Management Area Use Permit (SMP) is required, then the DEA should also address the EA requirements of Chapter 25, ROH. Consult with our Land Use Approval Branch at 768-8015 on whether the project is considered exempt or will require a permit once additional details on the project are available.

Should you have any questions, please contact Sharon Nishiura of my staff at 768-8031.

Very truly yours,

for David K. Tanoue, Director
Department of Planning and Permitting

DKT:bkg
879089

AECOM
1001 Bishop Street
Suite 1600
Honolulu, Hawaii 96813
www.aecom.com

808 521 3051 tel
808 524 8677 fax

November 2, 2011

Mr. David K. Tanoue
Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

Dear Mr. Tanoue:

Subject: Pre-assessment Consultation Process for the Proposed Waimalu Wastewater Pump Station Force Main Environmental Assessment

Thank you for your letter dated September 27, 2011 regarding the proposed project. We offer the following responses:

1. The project limits are within the State right-of-way (ROW) on Kamehameha Highway between the Waimalu Stream crossing and Kuleana Road, and extends approximately 30' beyond the State ROW within the Neal Blaisdell Park. The project limits also include the property boundary for the Waimalu Wastewater Pump Station. Please disregard the erroneous tax map keys (TMKs) disclosed in the pre-assessment consultation letter.

2. As you stated, a portion of the proposed force main alignment is on City lands—the sewer easement at Neal Blaisdell Park. The remainder of the proposed alignment is on the State ROW on Kamehameha Highway; the proposed construction on State lands is the trigger for the preparation of an environmental assessment (EA) pursuant to Chapter 343, Hawaii Revised Statutes and Title 11-200 Hawaii Administrative Rules.

3. Alignment with the goals set forth in the Primary Urban Center Development Plan (PUC DP) is provided in Section 4.4 of the draft environmental assessment. The proposed project is consistent with the following sections of the PUC DP in the following ways:

    a. The vision statement in Section 2.1 of the PUCDP projects a vision in which beaches and coastal waters are actively managed and improved. The proposed project will protect beaches and coastal waters by improving water quality through reduction of the chances of a sewage spill.

    b. Under Section 4.2.2 of the PUCDP, one of the stated wastewater policies is to "implement wastewater collection system improvements to provide adequate service and sound facilities to existing neighborhoods." The proposed force main (FM) construction is to provide redundant service to the existing FM, thereby reducing the chances of an accidental spill.

    c. Under Section 4.2.3., the stated development plan guidelines include, "complete current projects needed to correct identified service or facility inadequacies to neighborhoods where change in service demand is not anticipated." The proposed project to construct a new FM conforms to the wastewater policies and guidelines of the PUCDP.

AECOM

4. Section 1.2.3 of the draft EA provides a list of permits and planning approvals for the proposed project. We acknowledge that the area makai of the Kamehameha Highway is situated in the Special Management Area (SMA); the proposed force main is situated in the SMA. Discussion on the pertinence of SMA rules is provided in Section 4.6 of the draft EA.

We appreciate your participation in the environmental review process.

Sincerely yours,

Lambert Yamashita, P.E.
Senior Project Manager
AECOM

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

PETER B. CARLISLE
MAYOR

WAYNE Y. YOSHIOKA
DIRECTOR

KAI NANI KRAUT, P.E.
DEPUTY DIRECTOR

TP9/11-433439R

September 30, 2011

Mr. Lambert Yamashita, P.E.
AECOM
1001 Bishop Street, Suite 1600
Honolulu, Hawaii 96813

Dear Mr. Yamashita:

Subject: Pre-Assessment Consultation Process for the proposed Waimalu Wastewater Pump Station Force Main (FM) Draft Environmental Assessment (DEA); Tax Map Key (TMK): 9-8-05: 06, 8, 20, and 21

This responds to your letter of September 9, 2011, requesting our comments concerning this proposed project.

Our Traffic Engineering Division (TED) has the following comment. The DEA should include a traffic assessment and discuss traffic impacts as a result of the project, including short-term impacts during construction and proposed mitigating measures.

Our Public Transit Division (PTD) has the following comments:

- Your DEA should include a description of Public Transit services and operations, the impact of your project on Public Transit bus operations during construction. Basic information is available on our websites: www.thebus.org and www.honolulu.gov/dts. For more details, you may contact our staff at 768-8370.

- Construction notes should include the following note regarding transit:

  "This project may affect bus routes, bus stops, and paratransit operations, therefore, the Contractor shall notify the Department of Transportation Services, Public Transit Division at 768-8396 and Oahu Transit Services, Inc. (bus operations: 848-4578 or 852-6016 and paratransit operations:

454-5041 or 454-5020) of the scope of work, location, proposed closure of any street, traffic lane, sidewalk, or bus stop and duration of project at least two weeks prior to construction."

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,

WAYNE Y. YOSHIOKA
Director

AECOM
1001 Bishop Street
Suite 1600
Honolulu, Hawaii 96813
www.aecom.com

808 521 3051 tel
808 524 8677 fax

November 2, 2011

Mr. Wayne Y. Yoshioka
Director
Department of Transportation Services
City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, Hawaii 96813

Dear Mr. Yoshioka:

Subject: Pre-assessment Consultation Process for the Proposed Waimalu Wastewater Pump Station Force Main Environmental Assessment

Thank you for your letter dated September 30, 2011 regarding the proposed project. We have consulted the resources you have provided in your letter (www.thebus.org and www.honolulu.gov/dts) and have identified bus routes that may be affected during the project construction in Section 3.8 of the draft environmental assessment.

Our construction notes will include the following note regarding transit:

> *This project may affect bus routes, bus stops, and paratransit operations, therefore, the Contractor shall notify the Department of Transportation Services, Public Transit Division at 768-8396 and Oahu Transit Services, Inc. (bus operations: 848-4578 or 852-6016 and paratransit operations: 454-5041 or 454-5020) of the scope of work, location, proposed closure of any street, traffic lane, sidewalk, or bus stop and duration of project at least two weeks prior to construction.*

We appreciate your participation in the environmental review process.

Sincerely yours,

Lambert Yamashita, P.E.
Senior Project Manager
AECOM

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

PETER B. CARLISLE
MAYOR

KENNETH G. SILVA
FIRE CHIEF

EMMIT A. KANE
DEPUTY FIRE CHIEF

September 28, 2011

Mr. Lambert Yamashita, P.E.
Senior Project Manager
AECOM
1001 Bishop Street, Suite 1600
Honolulu, Hawaii 96813

Dear Mr. Yamashita:

Subject: Preassessment Consultation for Environmental Assessment
Waimalu Wastewater Pump Station Force Main
Tax Map Keys: 9-8-005: 006, 008, 020, and 021

In response to your letter of September 9, 2011, regarding the above-mentioned subject, the Honolulu Fire Department reviewed the information provided and determined that there will be no significant impact to its services.

Should you have any questions, please contact Battalion Chief Socrates Bratakos of our Fire Prevention Bureau at 723-7151 or sbratakos@honolulu.gov.

Sincerely,

KENNETH G. SILVA
Fire Chief

KGS/KM:bh

AECOM

AECOM
1001 Bishop Street
Suite 1600
Honolulu, Hawaii 96813
www.aecom.com

808 521 3051 tel
808 524 8677 fax

November 2, 2011

Mr. Kenneth G. Silva
Fire Chief
Honolulu Fire Department
City and County of Honolulu
636 South Street
Honolulu, Hawaii 96813-5007

Dear Mr. Silva:

Subject: Pre-assessment Consultation Process for the Proposed Waimalu Wastewater Pump Station Force Main Environmental Assessment

Thank you for your letter dated September 28, 2011 regarding the proposed project stating the determination of no significant impact to the Fire Department services.

We appreciate your participation in the environmental review process.

Sincerely yours,

Lambert Yamashita, P.E.
Senior Project Manager
AECOM

This Page Left Intentionally Blank

POLICE DEPARTMENT
CITY AND COUNTY OF HONOLULU
801 SOUTH BERETANIA STREET · HONOLULU, HAWAII 96813
TELEPHONE: (808) 529-3111 · INTERNET: www.honolulupd.org

PETER B. CARLISLE
MAYOR

LOUIS M. KEALOHA
CHIEF

DAVE M. KAJIHIRO
MARIE A. McCAULEY
DEPUTY CHIEFS

OUR REFERENCE DAT-LS

September 28, 2011

RECEIVED
OCT - 3 2011
AECOM

Ms. Kristen Nishimura
AECOM
1001 Bishop Street, Suite 1600
Honolulu, Hawaii 96813

Dear Ms. Nishimura:

This is in response to your letter dated September 9, 2011, requesting comments on the Pre-assessment Consultation, Environmental Assessment, for the proposed Waimalu Wastewater Pump Station Force Main project.

This project should have no significant impact on the facilities or operations of the Honolulu Police Department.

If there are any questions, please call Major Clayton Saito of District 3 (Pearl City) at 723-8800.

Sincerely,

LOUIS M. KEALOHA
Chief of Police

By
DEBORA A. TANDAL
Assistant Chief of Police
Support Services Bureau

Serving and Protecting With Aloha

AECOM
1001 Bishop Street
Suite 1600
Honolulu, Hawaii 96813
www.aecom.com

808 521 3051 tel
808 524 8677 fax

November 2, 2011

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

Dear Mr. Kealoha:

Subject: Pre-assessment Consultation Process for the Proposed Waimalu Wastewater Pump Station Force Main Environmental Assessment

Thank you for your letter dated September 28, 2011 stating that the proposed project would not have a significant impact on the facilities or operations of the Honolulu Police Department.

We appreciate your participation in the environmental review process.

Sincerely yours,

Lambert Yamashita, P.E.
Senior Project Manager
AECOM

This Page Left Intentionally Blank

NEIL ABERCROMBIE
GOVERNOR

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

GLENN M. OKIMOTO
DIRECTOR

Deputy Directors
JADE T. BUTAY
FORD N. FUCHIGAMI
RANDY GRUNE
JADINE URASAKI

IN REPLY REFER TO:
STP 8.0630

November 8, 2011

Mr. Lambert Yamashita, P.E.
Senior Project Manager
AECOM
1001 Bishop Street, Suite 1600
Honolulu, Hawaii 96813

Dear Mr. Yamashita:

Subject: Waimalu Wastewater Pump Station Force Main
Pre-assessment Consultation for Draft Environmental Assessment (DEA)

The State Department of Transportation (DOT) previously commented on the subject project in its letter STP 8.0606 dated October 11, 2011 (copy attached). DOT now offers the following supplemental highway comments.

1. Kamehameha Highway is a busy and heavily traveled principal arterial facility and it is important that disruption of vehicle traffic should be minimized. Construction during evenings should be strongly considered.

2. The use of construction vehicles and heavy equipment that will be used at the job site will require a permit from the DOT Highways Division to transport oversized and overweight equipment and loads within the State highway facilities.

3. Construction plans for all work done within the State highway right-of-way is required to be submitted to the DOT Highways Division for review and approval.

4. The DEA should also address the following areas:

   A. Inconvenience to the motoring public, bicyclists, pedestrians, merchants, joggers, park users at Blaisdell Park, etc.

   B. Noise, odor and noise pollution.

   C. Construction activity hours of operation and project completion time.

   D. Emergency traffic detouring plans in case a segment of Kamehameha Highway is closed.

DOT appreciates the opportunity to provide these supplemental comments. If there are any questions, including the need to meet with DOT Highways Division staffs, please contact Mr. David Shimokawa of the DOT Statewide Transportation Planning Office at telephone number (808) 831-7976.

Very truly yours,

GLENN M. OKIMOTO, Ph.D.
Director of Transportation

Attachment: Ltr. STP 8.0606 dtd. 10/11/11

AECOM
1001 Bishop Street
Suite 1600
Honolulu, Hawaii 96813
www.aecom.com

808 521 3051 tel
808 524 8677 fax

November 17, 2011

Dr. Glenn M. Okimoto
Director
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

Dear Dr. Okimoto:

Subject: Pre-assessment Consultation Process for the Proposed Waimalu Wastewater Pump Station Force Main Environmental Assessment

Thank you for your letter dated October 11, 2011 and November 8, 2011 regarding the proposed project. Our responses to your comments are as follows:

1. Recognizing that Kamehameha Highway is a busy and heavily traveled principal arterial facility, we will coordinate with the contractor to the extent possible to perform construction during evenings.
2. We note that a Department of Transportation Highways Division ("DOT-Highways") permit would be required to transport any oversized equipment/overweight loads on State highway facilities.
3. We will submit a permit application and detailed construction plans to DOT-Highways for review and approval for any work proposed in the State right-of-way (ROW). All improvements in the State ROW will conform to nationally accepted design standards.
4. a. The draft EA will disclose and address short-term traffic impacts generated by the proposed project during construction. Potential impacts include: inconvenience to the motoring public, bicyclists, pedestrians, joggers, park users at Blaisdell Park, residents, merchants, and etc.
   b. The draft EA will disclose potential impacts to noise, odor, and noise pollution.
   c. The draft EA will address construction activity hours of operation. The project completion date is not known at this time.
   d. Traffic control plans associated with the EA will include detour plans in the event extensive lane closures occurs.

We appreciate your participation in the environmental review process.

Sincerely yours,

Lambert Yamashita, P.E.
Senior Project Manager
AECOM

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

LORETTA J. FUDDY, A.C.S.W., M.P.H.
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 9 8 005 006 etc – ID778
PreAssmnt Waimalu WWPS & FM

September 14, 2011

RECEIVED
SEP 19 2011
AECOM

Mr. Lambert Yamashita, P.E.
Senior Project Manager
AECOM
1001 Bishop Street Suite 1600
Honolulu, Hawaii 96813

Dear Mr. Yamashita:

Subject: Pre-assessment Consultation Process for the proposed Waimalu Wastewater Pump Station Force Main (FM) Environmental Assessment (EA)
Kuleana Place, Pearl City, 96782 TMK (1) 9-8-005: 006, 008, 020 & 021

Thank you for allowing us the opportunity to review the above subject project which requests comments on the Pre-assessment Consultation for the proposed Waimalu Wastewater Pump Station Force Main Environmental Assessment. We have the following comments and information on the above subject property:

The subject project is located in the critical wastewater disposal area as determined by the Oahu Wastewater Advisory Committee. We do not have any individual wastewater system (IWS) information on file.

We are always satisfied to have improvements done to our existing wastewater systems and therefore have no objections to the proposed pump station and force main. Where possible, we encourage the developer to work with the City and utilize recycled water for irrigation and other non-potable water purposes such as dust control, open spaces or landscaping areas.

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 contact the Planning & Design Section of the Wastewater Branch at 586-4294 or fax to 586-4300.

Sincerely,

SINA PRUDER, P.E., ACTING CHIEF
Wastewater Branch

LM:cle

c: DOH's Environmental Planning Office
City & County of Honolulu, Dept. of Planning & Permitting

AECOM

AECOM
1001 Bishop Street
Suite 1600
Honolulu, Hawaii 96813
www.aecom.com

808 521 3051 tel
808 524 8677 fax

November 2, 2011

Sina Pruder, P.E.
Acting Chief, Wastewater Branch
Department of Health
State of Hawaii
P. O. Box 3378
Honolulu, Hawaii 96803-3378

Dear Ms. Pruder:

Subject: Pre-assessment Consultation Process for the Proposed Waimalu Wastewater Pump Station Force Main Environmental Assessment

Thank you for your letter dated September 14, 2011 regarding the proposed project. We appreciate your advise on utilizing recycled water for irrigation and other non-potable water puposes such as dust control, open spaces, or landscaping areas whenever possible.

We acknowledge that all wastewater plan to conform to applicable provisions of the Department of Health's (DOH's) Administrative Rules, Chapter 11-62 ("Wastewater Systems"). We understand you reserve the right to review the detailed wastewater plans for conformance to applicable DOH rules.

We appreciate your participation in the environmental review process.

Sincerely yours,

Lambert Yamashita, P.E.
Senior Project Manager
AECOM

Appendix B

Biological Assessment

This Page Left Intentionally Blank

Flora and Fauna Survey: Waimalu EA

Location: Kamehameha Hwy, Neal Blaisdell Park northwest to Kuleana Road
AECOM biologist: Barbie Blann
Date: January 19, 2012
Time: 1000 to 1215
Weather: Sunny and humid with temperature approximately 80 F, 0-2 mph wind
Project Number 60220849 Task 13.1

Flora

No federally-listed (threatened or endangered) plant species or suitable habitat for federally-listed plant species was identified within the project corridor. Vegetation within the project area is characterized by urban plantings including, but not limited to, monkeypod (*Samanea saman*) and African tulip (*Spathodea campanulata*), landscape shrubs along the roadway and mowed non-native grass.

Fauna

No federally-listed (threatened or endangered) wildlife species or suitable habitat for federally-listed wildlife species was identified within the project corridor. Bird species observed during the field survey included Pacific golden plover (*Pluvialis dominica*), (common migratory shorebird and winter resident of Oahu), cattle egret (*Bulbulcus ibis*), common myna (*Acridotheres tristis*), red-whiskered bulbul (*Pycnonotus jocosus*), spotted dove (*Streptopelia chinensis*), zebra dove (*Geopelia striata*), rock dove (*Columba livia*), house finch (*Carpodacus mexicanus*), red-crested cardinal (*Paroaria coronata*), java sparrow (*Padda oryzivora*), house sparrow (*Passer domesticus*), and saffron finch (*Sicalis flaveola*).

The Federal Migratory Bird Treaty Act (MBTC) (16 USC 703-711) protects migratory birds listed in the MBTA by prohibiting the taking of any listed bird, or any part, nest, or egg of any such bird. “Take” is defined as an attempt to “pursue, hunt, shoot, capture, collect, or kill.” This act applies to all persons and organizations in the U.S., including Federal and State agencies. The Pacific golden plover is a federally protected migratory shorebird and is a common winter resident of Oahu. This species was observed foraging within the project corridor and surrounding area; however, would not be expected to breed within the area because the species is a winter resident of the islands.

Table

Wildlife Species Observed within the Project Corridor

Species	Scientific Name	Status
Pacific Golden Plover	*Pluvialis dominica*	MBTA-Protected Indigenous
cattle egret	*Bulbulcus ibis*	MBTA-Protected Non-indigenous
common myna	*Acridotheres tristis*	
red-whiskered bulbul	*Pycnonotus jocosus*	
spotted dove	*Streptopelia chinensis*	Gamebird
zebra dove	*Geopelia striata*	Gamebird
rock dove	*Columba livia*	

This Page Left Intentionally Blank

Appendix C

Neal Blaisdell Park Site Visit

This Page Left Intentionally Blank

Site visit for Waimalu EA Neal Blaisdell Park

Project Number 60220849 Task 13.1

Date of visit: January 19th, 2012 Initial time: 10:00 am Humid, 80 F degrees, clear skies

Transportation: Pictures #005, 006, 022

There is a bus stop/shelter at the entrance to the park. Quite a few bus riders were waiting at the stop and crossing Kam Highway to get to the stop. Buses are frequent along this route.

The parking lot was approximately a quarter full (space count not known) with approximately a quarter of the vehicles containing drivers sitting/resting in their cars.

Maintenance: Picture #007

Maintenance was occurring at the park including lawn mowing, edging and trash collection. The park was in good condition including drainage, little graffiti, clean restroom cabana and functional park furniture and play equipment.

Facilities: Pictures #008, 010, 016, 017

The park contains two picnic table pods consisting of 3-4 tables under a roofed gazebo. There are two rudimentary child play jungle gym areas and an Asian-style pagoda (far SE corner of site, near stream)

Pearl Harbor Shoreline Trail: Pictures #012, 013, 014, 015, 019

This trail runs between the park and the Pearl Harbor shoreline and extends beyond the park in both directions. It accommodates bikers, walkers, runners, skateboarders. A bridge extends over Waimalu creek and continues east into an industrial area and west into a residential area. Portions of the trail right of way appear to be the old Oahu Railway route.

Activities: Pictures #016, 020, 021

Nor more than approximately 20 people were observed in the park at any one time. There were three types of visitors: passing through mostly on the trail, sitting at the tables or on mats on the ground and encampments of homeless groups. There was one child riding a bike, a total of 6 bicyclists, 4 joggers, one skateboarder and 10 walkers along the trail during the two hour observation period. There were also two men and two women each pushing a stroller baby around the park trails, during the visit. There was one group of elderly women who mustered at a picnic table and then left on a hike down the trail.

The homeless groups included a couple with a tent near the Asian pagoda and three couples occupying a gazebo pod of three tables and a shade covering, closest to the shore.