FINAL ENVIRONMENTAL ASSESSMENT
AND FINDING OF NO SIGNIFICANT IMPACT
Prepared and Submitted in Accordance with Chapters 205A and 343, HRS

WET SLUDGE STORAGE TANK ADDITION
Sand Island Wastewater Treatment Plant Modifications and Expansion
Honolulu, Island of O'ahu, Hawai'i

May 2011

APPLICANT

Department of Design and Construction
City and County of Honolulu
650 South Beretania Street
Honolulu, HI 96813

PREPARED BY

R. M. Towill Corporation
2024 North King Street, Suite 200
Honolulu, Hawaii 96819-3494
(RMTC Ref: 1-19933-80)

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Project Summary

Project:	WET SLUDGE STORAGE TANK ADDITION Sand Island Wastewater Treatment Plant Modifications and Expansion
Applicant:	Department of Design and Construction (DDC) City and County of Honolulu (CCH)
Accepting Agency:	DDC, CCH
Agent:	R.M. Towill Corporation James Niermann, AICP, LEED AP, Senior Planner 2024 North King Street, Suite 200 Honolulu, Hawai'i 96819 (808) 842-1133
Location:	Honolulu, Island of O'ahu
Tax Map Key:	(1) 1-5-041: 005
Proposed Action:	The DDC plans to construct a new, fifth wet sludge storage tank to add to the existing four wet sludge storage tanks at the Sand Island Wastewater Treatment Plant (WWTP) solids handling building. The existing Solids Handling Building will be modified to provide access to the roof of the new WSST. The pump of the mixing system and piping will be located in the Solids Handling Building. The modified structure will have a footprint of approximately 30 feet by 30 feet, and will be approximately 40 feet in height, consistent with the existing storage tank facilities. The proposed new tank is required to add redundant capacity to accommodate WWTP design flows while allowing at least one tank to be taken off-line for maintenance or repair. The new, additional tank is part of the programmed Sand Island WWTP Primary Expansion work.
Land Area:	Construction of the new tank will require approximately 10,000 sf of land area for site work and construction staging. Following construction, the new tank and related solids handling building expansion will occupy approximately 900 sf of land area at the center of the Sand Island WWTP.
Present Use:	The project site presently includes of unused, vacant space adjacent to the existing Solids Handling Building, and an area that is partially occupied by decommissioned equipment previously used for thermal sludge conditioning.
State Land Use District:	Urban
PUC Development Plan Land Use Designation:	Industrial (Map A.5 Land Use Map, PUC – Central)
County Zoning District:	I-3, Waterfront Industrial
Special Management Area:	Yes
FEMA/FIRM Designation	X (Outside the 0.2 percent annual chance floodplain.)

Permits Required:	*Clearances and permits needed from the various Federal, State and City and County of Honolulu agencies include but are not limited to the following.* **<u>City and County of Honolulu (CCH)</u>** **DDC** - Finding of No Significant Impact **Department of Planning and Permitting (DPP)** - Special Management Area Permit - Construction plan review and approval - Building Permit - Grading and Stockpiling Permits **<u>State of Hawai'i</u>** **Department of Health (DOH)** - Construction plan review and approval

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SECTION 1
Introduction

1.1 PROJECT OVERVIEW

The City and County of Honolulu (CCH), Department of Design and Construction (DDC) plans to construct a new, fifth wet sludge storage tank (WSST) to add to the existing four WSSTs at the Sand Island Wastewater Treatment Plant (WWTP) Solids Handling Building. The Sand Island WWTP is located on Sand Island on land owned by the State of Hawai'i and identified by Tax Map Key (TMK) parcel (1) 1-5-041: 005. The CCH Department of Environmental Services (ENV) owns and operates the Sand Island WWTP facility, see **Figure 1 – Project Location**.

The WSSTs are used for mixing and storage of primary scum and sludge, providing a homogeneous sludge at a constant feed rate throughout the solids stream treatment process. The proposed new tank is required to add redundant capacity to accommodate WWTP solids loadings while allowing at least one tank to be taken off-line for maintenance or repair. The new, additional tank is part of the programmed Sand Island WWTP Modifications and Expansion work.

An environmental assessment (EA) was prepared for the Modifications and Expansion work and a Finding of No Significant Impact (FONSI) was issued in April 2001 (DDC, 2001). The 2001 EA addresses the need for refurbishment and improvements to the sludge holding and mixing systems, including improvements to the existing wet sludge storage tanks. It was subsequently determined that a new, fifth wet sludge storage tank is required in addition to the refurbishment of the existing WSSTs in order to handle the solids loading and facilitate the maintenance and repair work. This EA assesses environmental effects from the construction of the new wet sludge storage tank that is required.

The new WSST will be located adjacent to the four existing tanks adjacent to the existing Solids Handling Building, situated at the center of the Sand Island WWTP facility. The new tank and structure will occupy approximately 30 feet by 30 feet of area and will not exceed 40 feet in height, consistent with the existing storage tank facilities.

1.2 PROJECT PURPOSE AND NEED

The Sand Island WWTP currently has four WSSTs that provide storage and proper mixing of thickened primary sludge from the Gravity Thickeners and scum from the Primary Clarifiers. After mixing in the WSSTs, sludge is pumped to a mesophilic Anaerobic Digester for stabilization. The additional, fifth WSST is required at this time for the following reasons:


FIGURE 1-1
PROJECT LOCATION
SIWWTP Wet SludgeStorage Tank
Honolulu, O'ahu, Hawai'i
R. M. TOWILL CORPORATION
O'ahu
Project Location
Legend
Project Area
GIS Layer Source: City & County of Honolulu -HoLIS
Hawaii Statewide GIS Program
Sand Island WWTP
PACIFIC OCEAN
SAND ISLAND PKWY
DILLINGHAM BLVD
ALAKAWA ST
N KING ST
KAAAHI ST
KUWILI ST
SUMNER ST
WILEI RD
PUUWAI ST
MIKOLE ST
MAKEPONO ST
AUIKI ST
PUUHUE PL
E H1 FWY
N VINEYARD BLVD
NUUANU AVE
PALI HWY
S BERETANIA ST
S HOTEL ST
PUNCHBOWL ST
QUEEN ST
S KING ST
ALAKEA ST
RICHARDS ST
BISHOP ST
FORT ST MALL
BETHEL ST
NUUANU AVE
SMITH ST
MAUNAKEA ST
KEKAULIKE ST
RIVER ST
ALA LA ST
LILIHA ST
HALEKAUWI
KAWAI
Feet
0 437.5 875 1,750 2,625 3,500
N

- All four tanks were built in 1970s. The tanks are aging and require major structural rehabilitation with mechanical equipment replacement. Since all four tanks are needed for daily operation, the rehabilitation of the tanks is impeded until a new, redundant tank can be constructed. An additional tank will allow operators to shut down one tank at a time to perform the rehabilitation measures.
- Under normal operating conditions, the plant utilizes all four tanks. The addition of a fifth WSST tank would make available a standby tank in the event any of the four existing tanks are required to be shut down for maintenance or repair.
- The privately operated anaerobic digester downstream from the WSSTs has exceeded the design solids loading rate and is susceptible to overloading during peak flow conditions. The additional tank would provide additional storage capacity to assist in regulating and equalizing the loading rates to the digester.

1.3 BASIS FOR THE ENVIRONMENTAL ASSESSMENT

In accordance with Chapter 343, Section 5, Hawai'i Revised Statutes (HRS), this project involves the following action that requires the preparation of an environmental assessment:

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

In addition, the project is located within the Special Management Area (SMA), therefore the proposed activity is subject to the preparation of an environmental assessment per the requirements of Chapter 25, Revised Ordinances of Honolulu, (ROH), and Chapter 205A HRS.

Pursuant to the requirements of Chapter 343 HRS, and Chapter 11-200, Hawai'i Administrative Rules (HAR), the proposing agency, the DDC, has determined that the proposed project is not expected to have significant environmental effects. Based on analysis and review of environmental conditions, project effects, and proposed mitigation measures, that a Finding of No Significant Impact (FONSI) will be issued for this project.

1.4 PROPOSING AGENCY AND ACCEPTING AUTHORITY

In accordance with HRS Chapter 343, Section 5, the proposing agency and accepting authority for this EA is the CCH DDC.

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SECTION 2
Project Description and Alternatives Considered

2.1 BACKGROUND INFORMATION

2.1.1 PROJECT LOCATION

The project site is located on Sand Island at the center of the Sand Island WWTP, adjacent to the existing Solids Handling Building. The entrance to the Sand Island WWTP is located on Sand Island Parkway, approximately 0.5 miles southeast from the Kalihi Channel bridge. Within the WWTP facility, the project site is located on the south side of utility road 'N', see **Figure 2-1: Sand Island WWTP Site Plan**,

2.1.2 OWNER INFORMATION

The Sand Island WWTP is located on land owned by the State of Hawai'i and managed by the CCH ENV in accordance with Executive Order No. 3939. The property is identified by TMK parcel (1) 1-5-041: 005.

2.1.3 SAND ISLAND WWTP OPERATIONS

The Sand Island WWTP began operations in 1978 as an advanced primary treatment wastewater treatment plant. The facility treats all of the wastewater flows generated in the Sand Island Sewer Basin service area, which extends from Niu Valley in the east, to Salt Lake / Aliamanu in the west.

The Sand Island WWTP has undergone a number of major modifications in the past decade in accordance with programmed Sand Island WWTP Modifications and Expansion work (DDC, 2001). As a result of these projects, the facility capacity was expanded to average daily flow of 90 million gallons per day (mgd) and its hydraulic capacity to 271 mgd. The current design data for the existing facility is presented in **Table 2-1**. A site plan of the existing Sand Island WWTP is shown in **Figure 2-1**. The facility treatment process is described below in terms of liquid waste streams and solid waste streams.

Table 2-1.
Sand Island WWTP – Current (2009) Design Information

Flows		
	Design Average Flow	90 mgd
	Intraday Elevated Flow	113 mgd
	Design Peak Wet Weather Flow	271 mgd
	Design Storm	2 year 6 hour

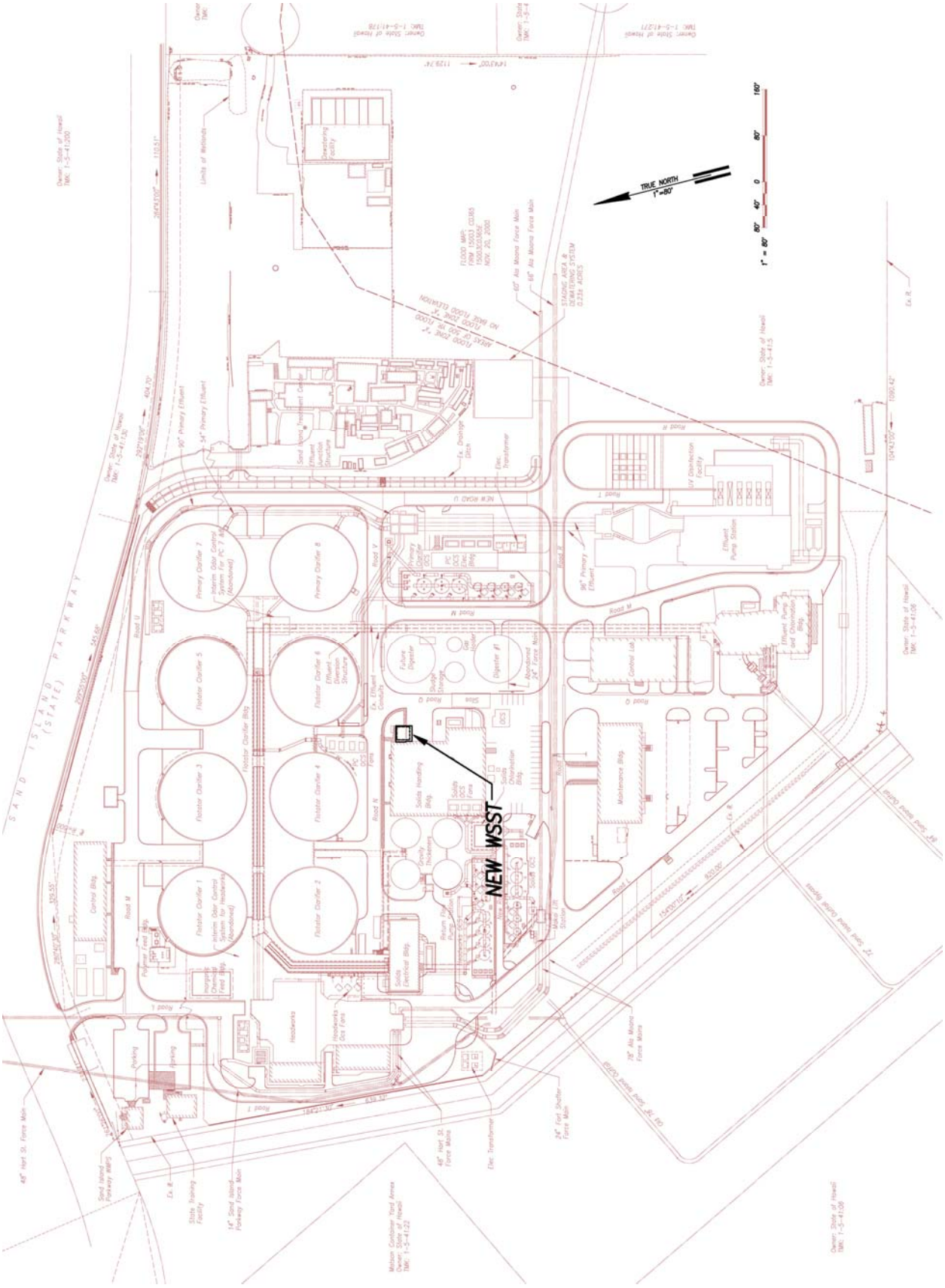

Figure 2-1. Sand Island WWTP Site Plan

Liquid Waste Stream Processes

The process flow diagram of the Sand Island WWTP is shown in **Figure 2-2**. The following is a description of the major liquid stream units:

New Headworks: This facility was placed in operation in 2005 and replaced the original Screenings Building. An influent receiving area receives flows from the Ala Moana Pump Station (PS), Hart Street PS, Sand Island Parkway PS, and the Fort Shafter PS. The Headworks facility consists of six bar screens with associated screenings washers and compactors for screenings removal, six Parshall flumes for flow measurement and four aerated grit chambers for grit removal. Screenings and grit are conveyed and discharged into a dump truck for disposal at the Waimānalo Gulch landfill.

Flotator Clarifiers and Primary Clarifiers: The plant consists of six flotator clarifiers and two primary clarifiers. The original Sand Island WWTP had only six flotator clarifiers to provide advanced primary treatment. The flotator clarifiers were originally designed to utilize dissolved air flotation to "float" the solids to the surface where surface skimmers remove the solids. Currently, the flotator clarifiers are typically utilized in gravity mode as traditional primary clarifiers.

Primary Clarifiers 7 and 8 were added to increase the capacity of the clarification system to an average daily flow of 90 mgd. These primary clarifiers were designed as gravity-type primary clarifiers. In recent years, the six flotator clarifiers and the primary clarifiers have all been operated in gravity mode.

Inorganic Chemical Feed Building (ICFB): The ICFB allows the injection of chemicals used for chemically enhanced primary treatment (CEPT). Currently iron chloride ($FeCl_3$, ferric chloride) is being utilized for advanced primary treatment and odor control.

Ultraviolet (UV) Disinfection Facility: This facility consists of three effluent screens, six UV disinfection channels and an effluent WWPS. Five of the six UV disinfection channels are currently populated with UV lamps. The UV system has room for expansion from the current six UV disinfection channels to ten. During high flow conditions, the effluent pump station is used to provide additional pumping head to discharge the treated primary effluent through the 84-inch diameter ocean outfall pipeline. At low flow conditions effluent can be discharged through the 84-inch ocean outfall pipeline by gravity.

Ocean Outfall: Effluent is discharged through an 84-inch diameter ocean outfall extending nearly two miles offshore to a depth of over 220 feet. The total length of the outfall is approximately 14,000 linear feet (lf). The wastewater is diffused through the final approximately 3,400 lf of the outfall pipe.

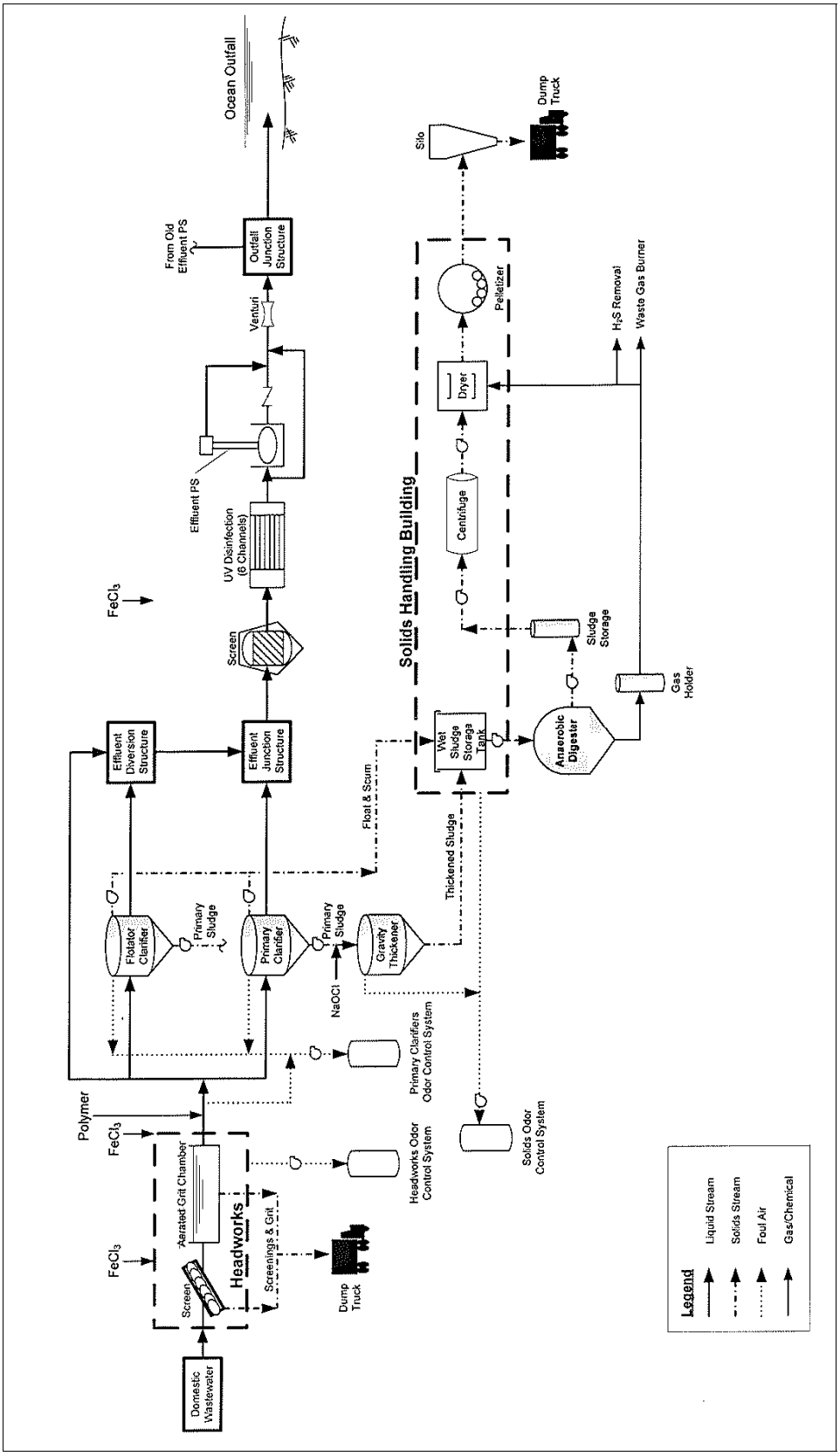

Figure 2-2. Sand Island WWTP Process Schematic (Existing)

Solid Waste Stream Processes

The major solid waste stream processes are as follows:

Gravity Thickeners (GT): Primary sludge from the flotator clarifiers and primary clarifiers is pumped to four gravity thickeners where chlorine is added to control odors and assist in thickening.

Wet Sludge Storage Tanks (WSST): Thickened sludge from the GTs is pumped to the four existing WSSTs. The WSSTs were originally designed to serve as sludge equalization tanks for the original solids handling processes, which formerly included a thermal conditioning system, centrifuges and sludge incinerators. These systems have been replaced with a turn-key sludge drying and pelletizing system now in operation.

Sludge Drying and Pelletizing System: The sludge drying and reuse system consists of digestion containment, centrifuges and final drying and pelletizing. Pelletized sludge is available for use as fertilizer. The system is a turn-key design-build-operate system by Synagro Technologies Incorporated (STI).

Odor Control System

Foul air emissions for the Sand Island WWTP are governed by Non-covered Source Permit (NSP) No. 0216-05-N Application for Renewal No. 0216-13, issued on August 13, 2009. The permit is scheduled to expire on August 12, 2014. The permit governs systems as of the date of issuance, a transition period, and the final configuration after scheduled construction is completed. Four electric / diesel engine effluent pumps are covered by the same non-covered source permit governing the foul air systems. Limits on operational hours and emission opacity are included in the permit.

The existing odor control systems (OCS) at the Sand Island WWTP include the following:

1. Lo-Cat OCS – Treats foul air from the Primary Flotator Clarifiers Influent Channels, Effluent Launders and Sludge Thickener Tanks.
2. Clarifier OCS – Treats foul air from the Influent Channels and Primary Clarifiers 7 and 8. This system is also referred to as the "Interim Odor Control System".
3. Headworks OCS – Treats foul air from various areas of the New Headworks Facility.

OCS facilities currently under construction include the following:

1. Primary Clarifier OCS (new)
2. Solids OCS (new)
3. Headworks OCS (upgrade)

When the Primary OCS and Solids OCS are completed, the Lo-Cat OCS and Clarifier OCS will be permanently shut down.

Electrical Power

The Solids Handling Building, in which the existing four WSSTs are located, is served by a City-owned 11.5 kV distribution system within the Sand Island WWTP. The system is serviced by two HECo 11.5 kV feeder lines (Sand Island 1 and 2) that connect to a Primary Switching Station Building along Sand Island Parkway. See **Section 3.3.5 Electrical Systems** for further description. In the event of a utility power outage, a system of backup generators located throughout the plant automatically start and provide power to the pumps and essential equipment.

Water
Water is provided to the Sand Island WWTP through a 12-inch water main which is connected to a Board of Water Supply (BWS) 16-inch water main located along Sand Island Parkway.

2.2 PROJECT DESCRIPTION

Planned project improvements are described below. A site plan and elevation drawings are included as **Figure 2-3**, **New WSST Project Site**, **Figure 2-4, New WSST Elevation – View West, and Figure 2-5, New WSST Elevation – View North.**

- Existing, decommissioned thermal treatment equipment, consisting of metal piping, scaffolding, and appurtenances, located on the project site will be demolished and cleared from the site.
- A new, fifth WSST will be constructed adjacent to the existing four WSSTs. The new tank will be constructed above grade using cast-in-place, reinforced concrete and will have a footprint of approximately 22 feet by 22 feet, and a height of 29 feet and 8 inches. Tank wall thickness will be approximately 2 feet. To facilitate sludge processing, the bottom of the tank will be sloped from at-grade elevation up to an approximate internal height of 10 feet. Construction of the tank foundation will require minor excavation and fill.
- A new mixing system and piping will be installed with the tank, including two 20 horse power (hp) pumps each with 1,400 gallons per minute (gpm) capacity.
- The existing Solids Handling Building will be modified to provide access to the roof of the new WSST. The pump of the mixing system and piping will be located in the Solids Handling Building. Reinforced concrete wall panels, consistent with the existing building, will be used to construct the WSST housing and tie into the existing structure. The modified structure will have a footprint of approximately 30 feet by 30 feet, and will be approximately 40 feet in height to match the height of the existing tanks.
- The new WSST and equipment will not require additional water source for wet sludge processing. Hose bibs will be provided for general utility purposes.

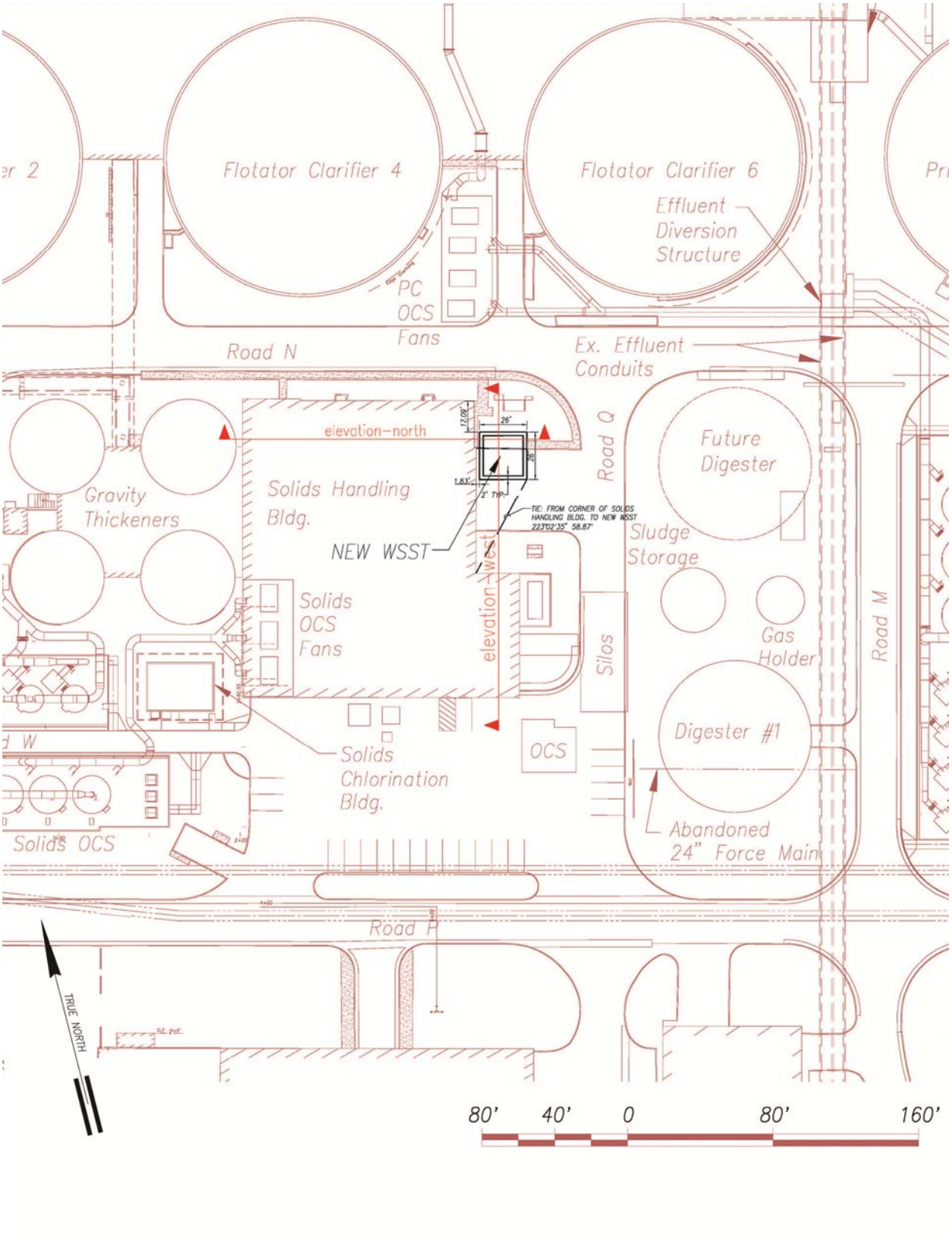

Figure 2-3, New WSST Project Site

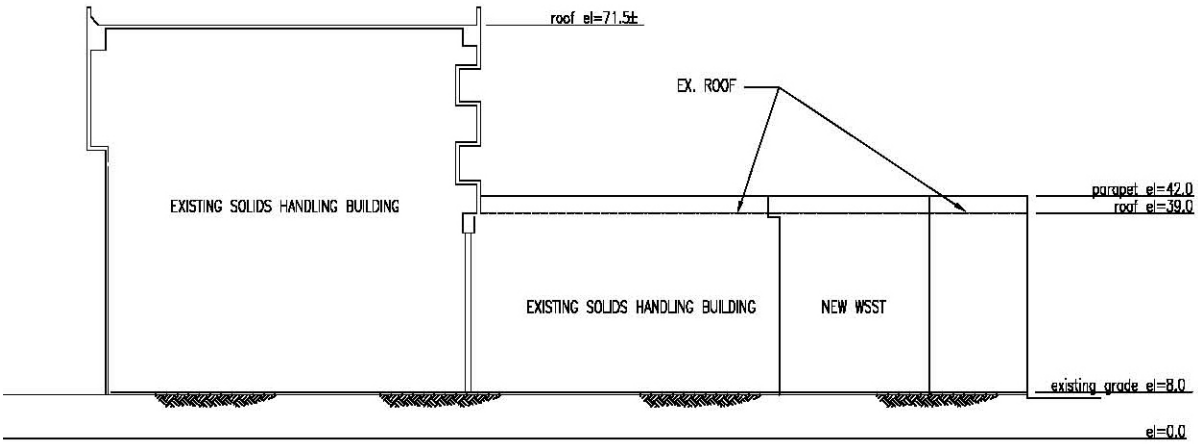

Figure 2-4, New WSST Elevation – View West

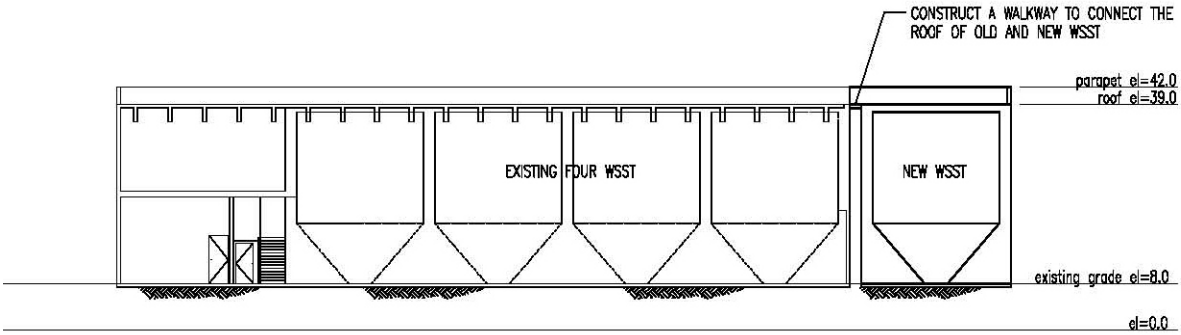

Figure 2-5, New WSST Elevation – View North

- Miscellaneous electrical work is also required to provide power to the mixing system equipment and facility lighting. Power for the electrical equipment will be provided from the HECo Mokuone substation located on the Sand Island WWTP property.
- Exterior lighting will be installed as necessary for operations and safety. Exterior lighting will be shielded and angled downward to minimize glare.
- Foul air from the new WSST will be treated using the existing odor control system (OCS) provided for the Solids Handling Building. A new OCS is not required for this project.

2.3 PROJECT SCHEDULE AND COST

2.3.1 SCHEDULE

Completion of Permitting and Entitlements	November 2011
Bidding and Contractor Selection	November 2011 – February 2012
Start of Construction	March 2012
Completion of Construction	March 2013

2.3.2 COST

The engineering estimate for the planned new WSST is $5 million.

2.4 ALTERNATIVES CONSIDERED

2.4.1 NO ACTION

State legislation requires that a "no-action" alternative be considered to serve as a baseline against which potential actions can be measured. The no-action alternative would involve no effort to construct a new, additional WSST. Under this option, environmental impacts resulting from work activities would be averted and project costs would be spared. However, the "no-action" alternative would fail to provide the redundant tank capacity that is required to facilitate necessary rehabilitation and on-going maintenance work on the four existing WSSTs. Without rehabilitation and maintenance, the existing WSSTs will eventually fail, resulting in disruption in Sand Island WWTP operations and a potential wastewater spill. For these reasons, this alternative was rejected.

2.4.2 DELAYED ACTION

The delayed action alternative would postpone construction of the new tank to an unspecified future date. Under this alternative, environmental impacts resulting from work activities would be delayed, but are anticipated to be generally the same as with the proposed project schedule. Project costs would also be postponed to a later date. It is reasonable to assume that future costs for labor and materials will be greater than present day costs due to inflation. Under this alternative, necessary rehabilitation work and routine maintenance and repair activities would also be delayed indefinitely until a new WSST is budgeted and constructed. The outcome would be increased wear and deterioration of existing WSST equipment, increased repair requirements and corresponding increase in costs, and an increased risk of disruptions in operations. For these reasons, this alternative was rejected.

2.4.3 TEMPORARY TANK

As an alternative to construction of a new, permanent WSST, a temporary tank and mixing equipment could be installed to provide the system redundancy necessary to allow rehabilitation of the existing four WSSTs. Installation of a temporary tank would require clearing the site adjacent to the Solids Handling Building and modification to the existing building structure to connect to the existing sludge processing system with temporary piping. The temporary system would use a pre-fabricated tank and be housed in a temporary structure. Under this option, the duration of work activities would likely be shortened and excavation for the tank foundation would be eliminated. However, environmental effects resulting from project activities would otherwise be similar to construction of the proposed, permanent WSST.

The cost to install a temporary system would likely be less than construction of the proposed permanent system, however reductions in the costs of material and labor would be offset by the additional cost of restoring the solids handling building and work site following completion of the WSST rehabilitation. In addition, the labor and material value in the temporary system would be expended upon completion of the rehabilitation work and would have no depreciable value.

Construction of a temporary WSST would meet the project objective of accommodating the necessary rehabilitation of the existing WSSTs. However, it would not provide permanent system redundancy to allow for ongoing maintenance and repair work, or future rehabilitation work. Moreover, a temporary WSST would not function as additional storage to assist in regulating and equalizing downstream flows. Costs and environmental effects would be similar to the proposed permanent WSST. However, the value and utility of the improvements would be short-term and would not meet all of the project objectives. For these reasons, this alternative was considered, but rejected.

SECTION 3
Description of Affected Environment

3.1 PHYSICAL ENVIRONMENT

3.1.1 CLIMATE

The project is located at Sand Island within an industrialized sector of urban Honolulu on the south shore of Oʻahu. Temperatures range from mid-70° F (degrees Fahrenheit) to the upper 80°s F with occasional reaches into the 90°+ F range (Atlas of Hawaiʻi, 1998). The average annual temperature recorded at nearby Honolulu International Airport is 77.5° F. Winds are primarily northeasterly tradewinds. Occasionally, during the winter months, storms are accompanied by winds from the south. Average wind speeds for Honolulu range from approximately 10 to 15 miles per hour with occasional gusts of 40+ miles per hour. (Hawaiʻi State Data Book, 2009).

Rainfall for the Honolulu area ranges from approximately 4 to 5 inches monthly from November through January, to less than 1 inch during the drier summer months. Annual rainfall averages approximately 15 to 20 inches throughout the remainder of the year. Average relative humidity in Honolulu has historically ranged from a high of 77.2% during January, to a low of 64.8% which is typically reached in June. The average annual humidity level is approximately 69 to 70% (Atlas of Hawaiʻi, 1998).

Impacts and Mitigation Measures

The proposed project will have no impacts on the existing climate of the region. Mitigation measures will not be required.

3.1.2 TOPOGRAPHY, GEOLOGY, AND SOILS

The proposed project will be constructed within the existing Sand Island WWTP on man-made terrain comprised of dredged fill material. The project site is virtually flat with ground elevation of 8 feet above mean sea level (msl). The existing grades were established during the original construction of the Sand Island WWTP.

Soils underlying the project site are identified as Fill Land, mixed (FL). Fill land, mixed soils occur mostly near Pearl Harbor and in Honolulu, adjacent to the ocean. It consists of areas filled with material dredged from the ocean or hauled from nearby areas, garbage, and general material from other sources. This land type is used for urban development including airports, housing areas and industrial facilities (Soil Conservation Service, 1972). See **Figure 3-1, Soils**.

Impacts and Mitigation Measures

The proposed project will not have a significant effect on the topography or soils of the area. The new WSST facilities will be constructed at grade and will have a building footprint of less than 900 square feet. Construction activities will require minimal excavation and ground disturbing activities. Fill material will be required to support the WSST foundation. Project activities are not expected to generate excess excavated material. Any excess soils resulting from excavation activities will be disposed by storage at the Sand Island WWTP Soil Management Area.

3.1.3 SURFACE WATERS AND HYDROLOGY

There are no standing water bodies, streams, or other surface water features in the immediate vicinity of the project site. Rainfall and stormwater runoff from the site is directed to the Sand Island WWTP's existing storm drain system consisting of catch basins and underground piping and discharges into a man-made drainage ditch located at the north side of the facility. The drainage ditch begins near the existing Flotation Clarifier Nos. 5 and 6 and extends eastward approximately 700 feet to the edge of the treatment plant property, then northward for approximately 120 feet to a 6-foot by 8-foot box culvert that passes under the Sand Island Parkway and nearby cargo container yard located north of the WWTP, and discharges to Honolulu Harbor.

The drainage ditch is approximately five feet deep with steeply sloped banks and is part of the WWTP drainage system. The drainage ditch meets at least two criteria used by the U. S. Army Corps of Engineers (USACE) to identify wetlands: (1) hydrophytic vegetation (pickleweed and red mangrove) is present in all parts of the canal, and (2) standing water is present the full length of the ditch at depths ranging from a few inches to several feet. Because the ditch is constructed on old fill soils, it was not evaluated for the presence of hydric soils, the third criteria used by the USACE.

Impacts and Mitigation Measures

The project is not expected to have adverse effects on surface waters or ground waters. Best Management Practices (BMPs) will be installed and maintained during all phases of construction activities to ensure that sediments and other contaminants are not discharged in runoff water from the site. Implementation of BMPs will serve to protect the wetland conditions in the ditch and the drainage system outfall waters of Honolulu Harbor.

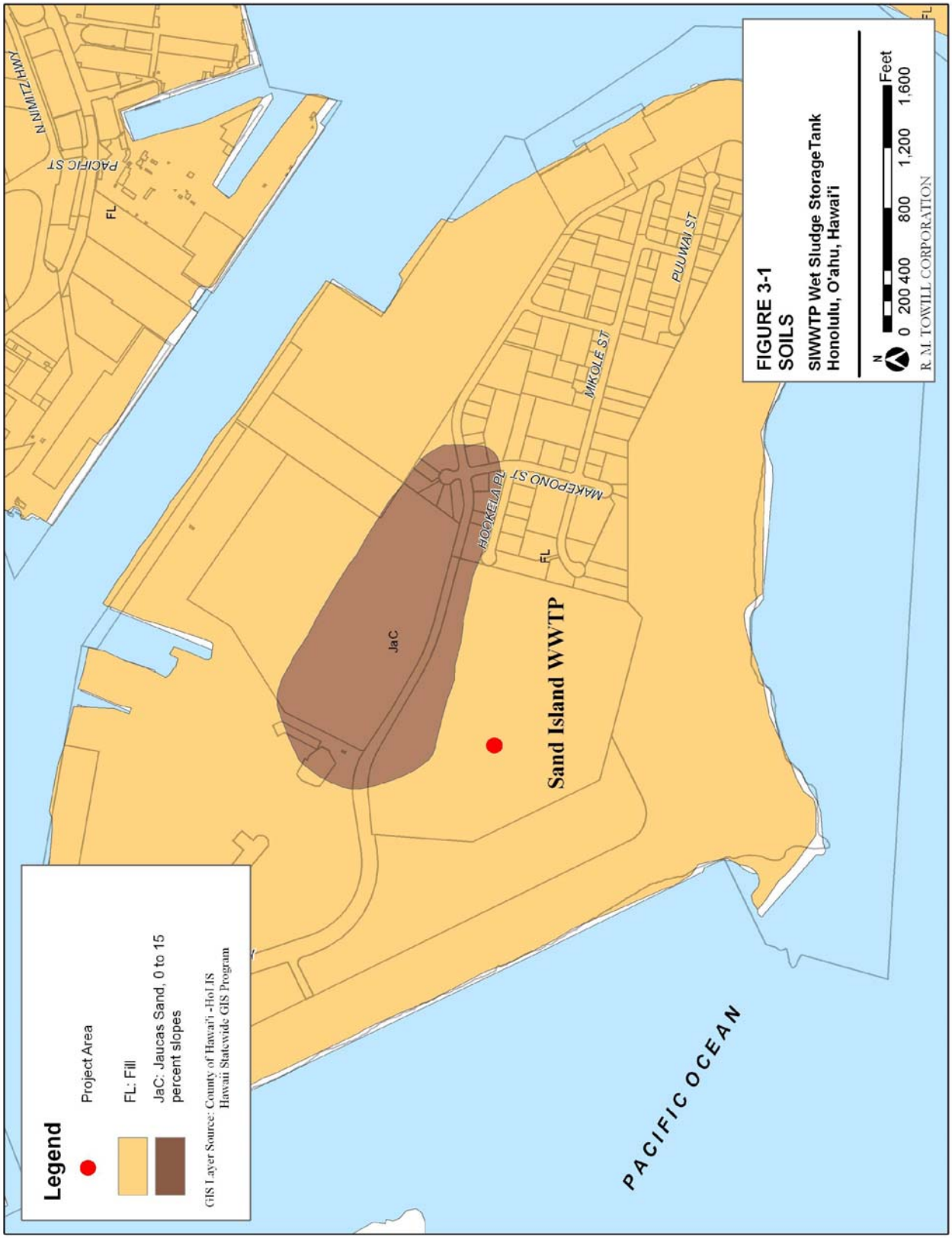
FIGURE 3-1
SOILS
SIWWTP Wet Sludge Storage Tank
Honolulu, O'ahu, Hawai'i
R. M. TOWILL CORPORATION
N
0 200 400 800 1,200 1,600
Feet
Legend
Project Area
FL: Fill
JaC: Jaucas Sand, 0 to 15 percent slopes
GIS Layer Source: County of Hawai'i - Hol IS
Hawaii Statewide GIS Program
Sand Island WWTP
JaC
FL
PACIFIC OCEAN
N NIMITZ HWY
PACIFIC ST
MAKEPONO ST
HOOKELA PL
MIKOLE ST
PUUWAI ST

Excavation required for the project will affect only a few feet below existing grade and is not expected to encounter ground water. Work activities and WSST operations will occur in FEMA flood zone X, thus are at very low risk for flood inundation.

3.1.4 AIR QUALITY

Hawai'i lies within the Northern Hemisphere Hadley Cell, which is responsible for persistent northeast trade winds. Consequently, air quality is relatively good with the exception of occasional Kona or leeward storms that produce a low pressure system that brings southerly winds and precipitation. The Sand Island area is located within an industrial area that generally receives favorable trades.

The State Department of Health maintains an air quality monitoring station near Sand Island Access Road, near the entrance to the Sand Island State Recreation Area. The station monitors for ozone (O_3), and PM2.5 (particulate matter 2.5 micron size or smaller), as well as wind speed and direction. Monitoring at this station consistently shows readings well in compliance with State and Federal air quality standards for the measured parameters. The most current published summary of State air quality data, which includes measurements from the years 2006 to 2008, records no instance where measured parameters at this station exceed air quality standards (DOH, 2008).

Impacts and Mitigation Measures

Dust and exhaust emissions will be generated from construction vehicles and equipment including backhoes, trucks, pile driving equipment, generators, fuel tanks, etc., during construction. Mitigation of fugitive dust generated during construction will be handled through the use of periodic site watering and applicable on-site BMPs. Additional measures as provided in Hawai'i Administrative Rules (HAR) Chapter 11-60.1 - Air Pollution Control will also be followed and will include, but not be limited to, the following:

- The planning of project construction operations will focus on: minimizing the amount of dust-generating materials and activities; centralizing material transfer points and on-site vehicular traffic routes; and, locating potentially dusty equipment in areas of least impact;
- An adequate water source at the site will be provided prior to start-up of construction activities for dust control wet-down application;
- Disturbed soils will be stabilized as soon as possible by means of grassing, hydromulch, geo-fabric, or other methods of cover;
- Dust will be controlled by stabilizing ground conditions at project entrances to prevent dirt tracking onto adjacent access roads, and by covering or wetting down construction vehicles carrying dust-generating materials; and,
- Adequate dust control measures will be provided on weekends, after hours, and prior to daily start-up of construction activities.

Vehicle and construction equipment exhausts are a source of air pollution. Mitigation of potential adverse effects associated with use of construction equipment, fuel tanks, and vehicle exhausts will be handled through adherence to applicable Federal, State and County regulations. As required, all machinery and vehicles will be required to be in proper working order with appropriate use of mufflers.

3.1.5 NOISE

The project site is subject to noise generated from the existing Sand Island WWTP. Other existing sources of noise include overflights of aircraft within the 70 DNL (decibel noise level) noise contour of Honolulu International Airport; industrial activities from light industrial parcels located east of the site involving auto repair, metals recycling and recovery, and related activities; and traffic from the nearby Sand Island Parkway.

Impacts and Mitigation Measures

Short-term noise impacts associated with the proposed project will result from construction activity. Construction related noise will be generated by use of construction equipment and machinery such as bulldozers, backhoes, compressors, and pile driving equipment. Management of short term noise impacts will involve use of mufflers and related noise reduction technologies. As required, construction equipment with mufflers in poor working condition shall be replaced or repaired. Noise generated by the construction activities will be similar in character and intensity as the existing noise conditions in the surrounding industrial areas and is not expected to have an adverse effect.

Construction noise will cease at project completion. Long-term noise effects are not expected to result from the operation of the new WSST following completion of construction. The new WSST equipment will be operated at levels that are consistent with existing rules and standards of the State and County, including HAR, Chapter 11-46, Community Noise Control, which provides for the prevention, abatement and control of noise pollution in the State from stationary, agricultural, and industrial activities.

Mitigative measures to address noise generated by new WSST equipment will include enclosure and muffling of noise generating equipment and use of acoustical walls. Existing use of these practices at the Sand Island WWTP has helped to reduce noise to acceptable safe workplace levels. It is expected that continued use of these practices will be sufficient for the proposed project.

3.1.6 NATURAL HAZARDS

Flood

As shown on FIRM panel 15003C0361G, dated January 19, 2011, the project site is located within flood zone X, which designates areas outside of the 0.2 percent annual chance (500 year) floodplain. See **Figure 3-2, FEMA-FIRM Map**.

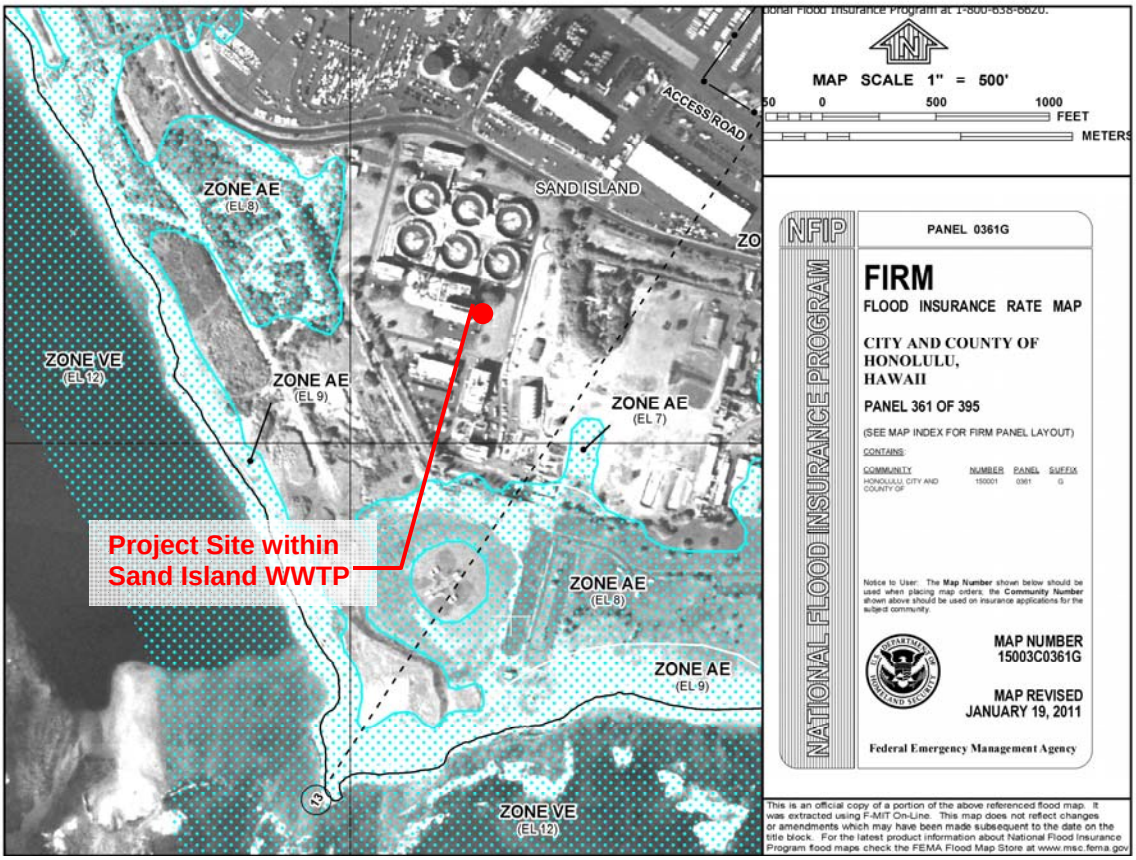

Figure 3-2, Sand Island WWTP, FEMA FIRM Panel 15003C0361G (January 19, 2011)

Tsunami

A tsunami involves the generation of a series of destructive ocean waves that can affect all shorelines. These waves can occur at any time with limited or no warning. Persons in low lying shoreline or beach areas are advised to immediately go to higher ground.

On the Tsunami Evacuation Zone Map prepared by the Department of Emergency Management, the proposed project site is located outside of the evacuation boundary within an area considered to be safe from wave action and that would not likely be subject to inundation by a tsunami. See **Figure 3-3, Tsunami Evacuation Zone**.

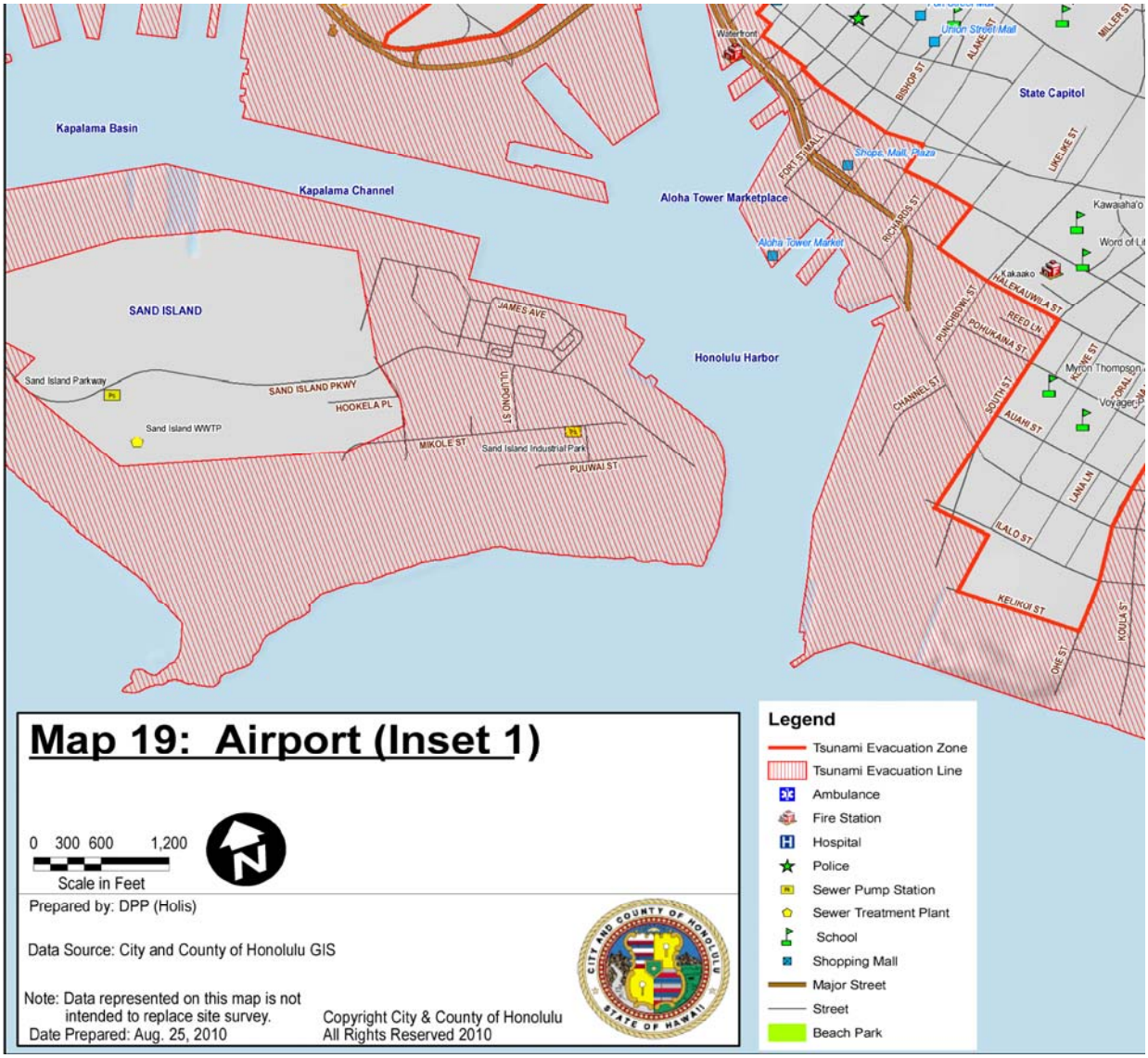

Figure 3-3, Tsunami Evacuation Zone

Seismic Hazard

The Islands of Hawai'i experience thousands of earthquakes each year but most are so small that they can only be detected by instruments. Some are strong enough to be felt and a few cause minor to moderate damage. Most of Hawai'i's earthquakes are directly related to volcanic activity and are caused by magma moving beneath the earth's surface.

The seismic design category as defined in the International Building Code 2003 (IBC) is a classification assigned to a structure based on its seismic use group and the severity of potential earthquake ground motion at the site. The seismic design category recognizes that building performance during a seismic event depends not only on the severity of sub-surface rock motion in a particular location, but also on the type of soil upon which a structure is founded. The seismic design category is thus a function of location (seismic zone), building occupancy (seismic use group), and soil type (site class). There are four seismic design categories: A,

B, C and D with D having the highest seismic load effect on a structure and A having the lowest seismic load effect. New WSST will have a seismic design category rating of D, the highest load effect on a structure.

The seismic use group in the IBC corresponds to the occupancy importance factor in seismic design. For new wastewater PS structures, the seismic use group III should be considered (Chapter 16, Table 1604.5 ROH). Seismic use group III structures are those having essential facilities that are required for post earthquake recovery and those containing substantial quantities of hazardous substances. The design of the proposed WSST will be in accordance with all applicable CCH standards.

Hurricane and Wind

The Hawaiian Islands are seasonally affected by Pacific hurricanes from the late summer to early winter months. The State has been affected twice since 1982 by significant hurricanes, 'Iwa in 1982 and 'Iniki in 1992. During hurricanes and storm conditions, high winds cause strong uplift forces on structures, particularly on roofs. Wind-driven materials and debris can attain high velocity and cause devastating property damage and harm to life and limb. It is difficult to predict these natural occurrences, but it is reasonable to assume that future events will occur. The project area is, however, no more or less vulnerable than the rest of the island to the destructive winds and torrential rains associated with hurricanes.

Impacts and Mitigation Measures

The site is located at elevation 8 feet above msl within FEMA flood zone X. No adverse effects to human health or safety associated with flooding are anticipated.

Tsunami and tsunami related flooding in the project area are unlikely due to the fact that the project site is located outside of the Tsunami Evacuation Zone. The project is not expected to be adversely affected and no adverse effects are expected to result from construction and operation of the new WSST. No further mitigation measures related to the potential threat of a tsunami are proposed.

The potential for hurricanes, while relatively rare, is present. The site facilities are designed to withstand hurricane force winds principally through the use of high wind resistant enclosures. To safeguard against hurricane damage, the new facility will be designed in compliance with 2003 IBC standards for wind exposure rating C, and will carry a design wind load of 105 mph (ROH Chapter 16).

Earthquakes pose a threat throughout Hawai'i, but disruptive seismic events are relatively uncommon in this region. Design and construction of the proposed WSST will be in accordance IBC design category rating D and Seismic Use Group III, per CCH standards. No further mitigation measures related to seismic disturbance are proposed.

3.1.7 FLORA AND FAUNA

The proposed project is located within an existing wastewater treatment facility in a highly altered environment. Consequently, no rare, threatened or endangered flora or fauna species have been observed to exist at the project site. Species most commonly frequented at the site are typical of urbanized areas and consist of common introduced flora and fauna. Several introduced fauna including the Common Indian Mynah (*Acridotheres tristis*), House Sparrow (*Passer domesticus*), Spotted or Lace-necked Dove (*Streptopelia chinensis*), Zebra Dove (*Geopelia striata*), and Cardinal (*Cardinalis cardinalis*) have been observed at the project location. Mammals such as stray cats, rats and mice have also been observed in the vicinity. Vegetation at the project site is limited to sparse, opportunistic growth of introduced weeds and grasses, including Centipede

Grass (*Eremochloa ophiuroides)* and Bermuda Grass (*Cynodon dactylon)*. No other landscape plantings or natural vegetation occurs in the project vicinity.

Some migratory seabirds and native waterfowl are known to visit areas within the wider coastal region. Endangered native species such as the Hawaiian hoary bat (*Lasiurus cinereus semotus*) and Short-eared owl or Pueo (*Asio flammeus sandwichensis*) do occur on rare occasions in the lowlands of O'ahu, but due to the high level of development and human activity are highly unlikely to visit areas where project activities will occur.

Impacts and Mitigation Measures

Potential for adverse effects to flora and fauna is not anticipated. The project site is located within the Sand Island WWTP. No listed or protected plant species are known from the project area. Rare, threatened, or endangered fauna are not known to utilize the site for either habitat or foraging purposes. Construction activities may temporarily disrupt routine behavior of common faunal species in the immediate project area, but will not result in permanent displacement, or adversely affect regional distribution of affected fauna. Once project activities are complete, faunal activity in the vicinity of the work site is expected to return to pre-existing conditions.

Although there is no evidence of migratory seabirds and native waterfowl species using the project site for breeding or habitation, some are known to visit areas within the wider project study area. Mitigation measures to prevent adverse effects to avifauna from night lighting will include the following:

- During construction activities, all nighttime lighting will be shielded and angled downward to reduce glare and disruption of bird flight.
- Following construction, permanent light sources will be shielded and angled downward to eliminate glare that could disturb or disorient animals.

No other mitigation measures are proposed.

3.2 SOCIO-ECONOMIC ENVIRONMENT

3.2.1 LAND USE

The project site occupies approximately 1,000 square feet at the center of the Sand Island WWTP. Surrounding WWTP facilities include the Solids Handling Building, Primary Clarifier Tanks, and Digester Tower. Uses on the surrounding properties include industrial harbor facilities to the north; the Sand Island Industrial Park to the east; the Sand Island State Recreation Area to the south-east and immediate south of the WWTP; and the State Department of Transportation, Harbors Division container yard to the west. The project site is located on land zoned I-3, (industrial waterfront) by the CCH. The existing Sand Island WWTP and proposed WSST are permitted "public uses" in the I-3 zoning district.

Impacts and Mitigation Measures

The proposed new WSST comprises a minor addition to the existing Sand Island WWTP facilities. The new WSST will provide necessary redundant capacity for repair, maintenance, and improved flow control, and will not result in an expansion of WWTP operations. The new WSST is relatively small in scope and compatible in use with the existing WWTP facilities. It will not result in significant changes in land use at the WTTP and will not detract from or induce changes to the existing land uses on the surrounding properties. No mitigation measures are proposed.

3.2.2 HISTORIC AND ARCHAEOLOGICAL RESOURCES

The project site is situated within artificially created Fill Land, mixed (FL) which was entirely submerged by the ocean during pre- and post-contact periods. In addition, the project site was subject to extensive ground disturbance and modification during construction of the existing Sand Island WWTP. As a result, no archaeological sites are known or expected to be encountered at the project site

Impacts and Mitigation Measures

The proposed project is not expected to result in potential for negative adverse effects on archaeological resources. This is due to the artificially created, mixed fill soils found at the project site. A review of records with the Department of Land and Natural Resources (DLNR), State Historic Preservation Division (SHPD), also indicates that there are no known historic sites at the project location (See Appendix A: Correspondence, SHPD letter to the Department of Design and Construction, March 5, 2001). However, in the event of unexpected discovery of historic or archaeological resources, the SHPD will be immediately notified for appropriate response and action.

3.2.3 CULURAL RESOURCES AND PRACTICES

The project site and surrounding Sand Island WWTP facility is not used for traditional, customary, or cultural practices. The project site is located on artificially created land comprised of mixed fill soils in an area that was submerged by the ocean until modern times. The site was heavily modified during construction of the Sand Island WWTP. Plants found at the site are introduced grass species not associated with cultural gathering or use activities. The artificial creation and developed condition of the site is not conducive to the presence of wahi pana (storied place) or other sites associated with cultural practices.

Impacts and Mitigation Measures

Based on the above, the potential for adverse effects on traditional and cultural practices is not anticipated. Construction of the new WSST will not disturb traditional sacred sites or traditional cultural objects; will not result in the degradation of resources used by native Hawaiians for subsistence or traditional cultural practices; will not obstruct landforms or wayfinding features; and will not result in loss of access to the shoreline or other areas customarily used by Hawaiians or others for resource gathering or traditional cultural practices. No mitigation measures are proposed.

3.2.4 SCENIC AND VISUAL RESOURCES

The Sand Island WWTP is located in an industrial harbor area containing large commercial / industrial buildings, fuel tanks, and tall cranes used for container shipping operations. The WWTP facilities include several prominent structures, including clarifier tanks, gas tank (40 feet tall), incinerator building (80 feet tall), and anaerobic digester tower (108 feet tall). These facilities are visible from the ocean, from Ke'ehi Lagoon, from various vantages within urban Honolulu and the immediate surrounding properties, and from areas with elevations exceeding 100 feet above sea level, including Punchbowl, Pacific Heights, Alewa Heights, Upper Kalihi, Tantalus/Roundtop, Diamond Head, and high-rise buildings along Ala Moana Boulevard and Nimitz Highway. Within view planes from the urban coastal areas laterally down the shoreline or towards the sea, the Sand Island WWTP facilities are subordinate to the much taller cargo facility loading cranes (approximately 250 feet in height) and are consistent in appearance with other industrial facilities on Sand Island.

Impacts and Mitigation Measures

The project is not expected to adversely affect scenic and visual resources in the project area. The new WSST will not obstruct or degrade lateral coastal views or mauka-makai views from Sand Island Parkway, the Sand Island State Recreation Area, or other areas in the vicinity of the Sand Island

WWTP. The proposed site for the new WSST is located at the center of the Sand Island WWTP adjacent to the existing solids handling building. The new WSST facilities will be approximately 40 feet in height and will occupy a footprint less than 30 feet by 30 feet in area. The scale and massing of the new WSST tank will be smaller than the surrounding WWTP facilities, including the solids handling building, the primary clarifier tanks, and the digester tanks, and will be consistent in appearance with the industrial character of the existing facilities. The height of the new WSST structure will be below the maximum building height of 60 feet for the underlying zoning district.

3.2.5 RECREATIONAL FACILITIES

Located on Sand Island at the entrance to Honolulu Harbor, the Sand Island State Recreation Area (SRA) is an approximately 141-acre coastal recreational area managed by the DLNR, Division of State Parks (DSP). Sand Island was extensively used by the military during WWII for coastal defense with bunkers and lookout towers still present throughout the SRA. Sand Island was known as Quarantine Island during the nineteenth century when it was used to quarantine ships believed to hold contagious diseases. During World War II, Sand Island was used to camp Japanese-American citizens and foreign nationals from Germany, Italy, and other countries as part of the wartime effort.

Approximately 97 acres of the SRA, at the east end of Sand Island adjacent to the Honolulu Harbor Channel, is existing developed park area. Facilities in this area include picnic tables, BBQs, campgrounds, open lawn passive recreation areas, baseball diamonds, exercise and play apparatus, multi-use paths, covered pavilions, shade trees, and comfort stations. The park provides a wide sand beach that is over a half-mile long.

The remaining approximately 44 acres of the SRA extends along the south and southwest facing shores of Sand Island, and includes the lands makai of the Sand Island WWTP. The area is relatively undeveloped. Existing facilities include marine education and training center, boat ramp, canoe pavilion, and parking at the mouth of the Kapalama Basin Kalihi Channel. The remaining area, comprising approximately 30 acres, is currently used as an off-highway vehicle (OHV) recreation area under a pilot project managed by the DLNR Na Ala Hele program.

There are no other recreational resources in the vicinity of the project site.

Impacts and Mitigation Measures

The proposed project will not have an adverse effect on recreational resources. The project site at the center of the Sand Island WWTP will not be visible from the affect the Sand Island State Recreation Area and will not affect activities at the park. Operation of the new WSST following construction will not result in noticeable change from existing operations at the WWTP facility. Public access and use of the park and shoreline areas will remain unaffected by project activities. No mitigation measures are proposed or anticipated to be required.

3.2.6 FIRE, POLICE AND MEDICAL SERVICES

The nearest fire station is Kakaʻako Fire Station located on Queen Street approximately 1 mile from the project site. The closest Police Station is on South Beretania Street, roughly 2 miles from the project site. And the closest hospital is Queen's Medical Center, approximately 1.5 miles from the project site.

Impacts and Mitigation Measures

The proposed project is not expected to have an adverse effect on or result in an increase in calls for fire, police or medical services. Planned improvements will not result in an increase in population. Emergency vehicle access will be maintained throughout the construction site for the duration of the project. Operation of the WSST following construction will not result in significant or noticeable change from existing operations at the WTTP facility. No mitigation measures are required or recommended.

3.2.7 SOCIO-ECONOMIC CONDITIONS

The service area for the existing Sand Island WWTP is metropolitan Honolulu from Moanalua-Aliamanu to Niu Valley-Paiko Peninsula and includes the U.S. Army facilities at Fort Shafter and Tripler Army Medical Center. The facility serves a combined urban resident and visitor population of approximately 403,000. From 2000 to 2008, the service area experienced only a 0.8 percent growth in population, the smallest growth among all counties in Hawaiʻi. The rest of Oʻahu gained 5.1 percent in population during the same time period, and statewide population growth was 6.3 percent. The median age among residents in the service area in 2010 is 43 years, three years older than the county-wide median age among residents.

Households in the Sand Island WWTP service area somewhat smaller than households islandwide (2.5 versus 2.9 persons per household, respectively). This finding is consistent with the older population, and therefore fewer children present in households. The number of housing units in the service area has remained fairly consistent over the past several years, increasing by less than one percent between 2005 and 2008. Countywide, the number of housing units has increased at double the rate during the same time period. A large proportion of the residents of the service area live in high-rise accommodations, with 44 percent of all the housing units in structures with 20 or more units. These units also tend to be older, with fully half of them constructed more than 30 years ago.

The Sand Island WWTP service area contains the central business district, Waikīkī and numerous other tourist attractions, industrial areas at Sand Island, Kakaʻako, and Mapunapuna, and is home to approximately three-quarters of jobs statewide. Waikīkī alone accounts for an estimated eight percent of Hawaiʻi's Gross State Product. This region also contains Honolulu Harbor and the Honolulu International Airport, which have relatively small work forces and total revenues, but together facilitate nearly all of the commercial activity in the State. While the number of jobs in the Honolulu area is expected to remain generally consistent for the foreseeable future, the composition of job types in the SISB Phase I Area will likely change as more commercial and government growth occurs in west and central Oʻahu.

Impacts and Mitigation Measures

The project will not have an adverse effect on area demographics of economic conditions. The new WSST will provide redundant capacity for solids handling processes at the Sand Island WWTP for purposes of facility rehabilitation, maintenance, and improved operations, but will not increase overall treatment capacity. The proposed improvements to the treatment plant will not accommodate or induce an increase or change in population. Construction of the new WSST will result in temporary, positive economic activity in the form of construction jobs and material procurements.

These effects will be temporary however, and will cease upon project completion. Facility operations following construction will remain generally unchanged from existing conditions. No mitigation measures are recommended or required.

3.3 INFRASTRUCTURE AND UTILITIES

3.3.1 TRAFFIC AND TRANSPORTATION SYSTEMS

Existing Traffic Conditions

Sand Island Parkway Road (State Highway 64) is the major thoroughfare serving Sand Island. It is the continuation of Sand Island Access Road, which extends from Nimitz Highway to and across Bascule Bridge, which crosses the Kalihi Channel between Sand Island and Kalihi Kai. The majority of the traffic near the project site is generated by surrounding activities, including the transportation of shipping containers from Honolulu Harbor to other locations; the U.S. Coast Guard Station Honolulu; the Sand Island State Recreation Area; and a number of small businesses and industries located in the area.

Impacts and Mitigation Measures

No significant increase in traffic associated with the proposed WSST project is expected.

On a short-term basis, construction-related traffic may be temporarily noticeable on Sand Island Access Road. However due to the limited scope of the project, construction-related traffic will not significantly alter the total volume of traffic on Sand Island Access Road. The contractor will be required to keep all construction vehicles in proper operating condition and ensure that material loads are properly secured to prevent dust, debris, leakage, or other adverse conditions from affecting public roadways. No other mitigation measures are required or recommended.

Should any proposed construction activities require the temporary closure of a traffic lane, parking, etc., on a local street, a street usage permit from the Department of Transportation Services will be obtained by the Department of Design and Construction.

3.3.2 DRAINAGE SYSTEM

Rainfall and stormwater runoff from the site is directed to the Sand Island WWTP's existing storm drain system consisting of catch basins and underground piping and discharges into a man-made drainage ditch located at the north side of the facility. The drainage ditch begins near the existing Flotation Clarifier Nos. 7 and 8 and extends eastward approximately 700 feet to the edge of the treatment plant property, then northward for approximately 120 feet to a 6-foot by 8-foot box culvert. The box culvert passes under the Sand Island Parkway and nearby cargo container yard located north of the WWTP, and discharges to Honolulu Harbor.

Impacts and Mitigation Measures

No adverse effects to the drainage system or receiving waters are expected to result from the project. The project does not involve any modifications to the existing drainage system and will not result in an increase in impervious area. The project contractor will employ construction stormwater BMPs to prevent sediment or other pollutants from discharging in stormwater runoff from the site. The construction site and staging area will be smaller than one acre, therefore a National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Permit is not required.

3.3.3 WATER SYSTEM

Water is provided to the Sand Island WWTP through an existing 12-inch water main which is connected to a Board of Water Supply (BWS) 16-inch water main located along Sand Island Parkway.

Impacts and Mitigation Measures

Construction and use of the proposed project will not disrupt or otherwise adversely affect the water system. Construction activities will require use of water for dust control, vehicle wash down, concrete mixing, general housekeeping activities, and for pipe pressure testing. These uses will be intermittent and of short duration and will cease upon project completion. Quantities of water required for these uses are relatively minor. The existing water system has sufficient capacity to accommodate the temporary demands from construction activities. Following construction, operation of the new WSST will require water use for tank wash down as part of periodic maintenance, however additional water use is not required for normal operation of the tank. No additional mitigation measures are required or recommended.

The existing water system is adequate to accommodate the proposed storage tank addition. However, the Board of Water Supply will confirm this finding and make its final decision on the availability of water when the building permit application for the project is submitted for approval. DDC will be required to pay the Board of Water Supply's Water System Facilities Charges for resource development, transmission and daily storage. DDC also will coordinate on-site protection requirements with the Fire Prevention Bureau of the Honolulu Fire Department.

3.3.4 WASTEWATER SYSTEM

Wastewater generated by personnel and maintenance activities at the Sand Island WWTP is conveyed to the Makai Lift Station located within the Sand Island WWTP property. Influent is then pumped through a 8-inch force main directly to the Sand Island WWTP headworks. The facility provides primary wastewater treatment. The treatment process is described in **Section 2.1.3**. Treated effluent is disposed through a deep ocean outfall. The Solids Handling Building, where project activities will occur, contains toilet and wash basin for use by facility personnel.

Impacts and Mitigation Measures

Construction and use of the proposed project will not disrupt or otherwise adversely affect wastewater systems. The new WSST will benefit the Sand Island WWTP by providing redundant tank capacity that is required to accommodate necessary rehabilitation work and on-going maintenance on the four existing WSSTs. The new tank will also benefit normal plant operations by providing additional capacity to assist in regulating and equalizing peak flow loading rates to downstream treatment processes.

Construction activities will not generate a significant quantity of wastewater. Construction personnel will have access to existing restroom facilities or be provided with Port-a-Johns. No other mitigation measures are recommended or required.

3.3.5 ELECTRICAL SYSTEMS

Electrical service for customers on Sand Island is provided by HECo. Sand Island is served by two HECo 46 kV transmission lines, Iwilei 1 and 2. These two 46 kV circuits are run overhead through Kalihi Kai, cross Kalihi Channel as submarine cables, and continue underground to the HECo Sand Island Substation located near the east end of Bascule Bridge, adjacent to Kalihi Channel. The Sand Island Substation steps the 46 kV

transmission voltage down to 11.5 kV for distribution on Sand Island. The 11.5 kV distribution feeders are designated Sand Island 1 and 2. The feeder lines are overhead lines supported on utility poles.

The two 46 kV lines have also recently been extended from the HECo Sand Island Substation to the Mokuone Substation to support the increasing loads at the Sand Island WWTP. Mokuone Substation steps the 46 kV transmission voltage down to 11.5 kV for distribution on Sand Island. The two 11.5 kV distribution feeders from the Mokuone Substation are designated as Mokuone 1 and 2.

On-site electrical power distribution systems at the Sand Island WWTP consist of a combination of underground HECo-owned and City-owned 11.5 kV, 3-phase systems serviced by the Mokuone 1, and Sand Island 1 and 2 feeder lines. The Solids Handling Building, in which the existing four WSST's are located, is served by the City-owned 11.5 kV distribution system. The system is serviced by the Sand Island 1 and 2 11.5 kV feeders which connect to primary switch gear located in the Primary Switching Station Building along Sand Island Parkway. The main switchgear then feeds City-owned and maintained 11.5 kV feeders, transformers, and primary distribution equipment within the Sand Island WWTP. A single HECo meter located within the primary switchgear is used to measure use.

In the event of a utility power outage, a system of backup generators located throughout the Sand Island WWTP automatically start and provide power to the pumps and essential equipment.

Impacts and Mitigation Measures

Construction of the new WSST will not adversely affect the provision of electrical power at the facility. The existing HECo system has adequate capacity to meet the power requirements during construction activities. Following construction, electrical power will be required for the new WSST mixing system equipment and facility lighting. Power demand for the new WSST will be relatively low and intermittent in nature. Under typical operating conditions, power use at the new WSST will be offset by power savings at tanks being shut down for maintenance purposes. No mitigation measures are required or recommended.

3.3.6 SOLID WASTE DISPOSAL

Solid waste collection, transport and disposal operations are the responsibility of the CCH ENV Refuse Division. Solid waste is collected and disposed of at either the Waimānalo Gulch Landfill in the ʻEwa district, or the H-Power facility at Campbell Industrial Park. PVT Land Company operates a privately owned and operated, licensed solid waste facility for recovery of recyclable materials and disposal of construction and demolition materials. The PVT Landfill accepts waste on a pre-arranged basis from registered contractors. Waste loads are screened to remove recyclable materials and the remaining wastes are landfilled.

Impacts and Mitigation Measures

Construction activities will result in the generation of small amounts of construction and demolition debris. Construction and demolition debris will be disposed of at the PVT Landfill in accordance with CCH and State DOH regulations and provisions of the PVT facility license. Non-construction solid waste generated by project activities may be collected and disposed at the Waimānalo Gulch Landfill or H-Power. Project activities are not expected to generate excess excavated material. Any excess soils resulting from excavation activities will be disposed by storage at the Sand Island WWTP Soil Management Area.

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SECTION 4
Relationship to Land Use Plans and Policies

4.1 THE HAWAIʻI STATE PLAN

The Hawaiʻi State Plan, adopted in 1978, and promulgated in HRS, Chapter 226, consists of three major parts:

Part I, describes the overall theme including Hawaiʻi's desired future and quality of life as expressed in goals, objectives, and policies.

Part II, Planning Coordination and Implementation, describing a statewide planning system designed to coordinate and guide all major state and county activities and to implement the goals, objectives, policies, and priority guidelines of the Hawaiʻi State Plan.

Part III, Priority Guidelines, which express the pursuit of desirable courses of action in major areas of statewide concern.

The proposed project is consistent with the objectives and policies of the Hawaiʻi State Plan. Specifically, the proposed action will provide a new Wet Sludge Storage Tank (WSST) to serve as a standby tank in case any one tank is required to shut down for maintenance or repair. Described below are sections of the Hawaiʻi State Plan's goals, objectives, and policies that are relevant to the proposed action.

§226-15 Objectives and policies for facility systems--solid and liquid wastes. (a)
Planning for the State's facility systems with regard to solid and liquid wastes shall be directed towards the achievement of the following objectives:
(1) Maintenance of basic public health and sanitation standards relating to treatment and disposal of solid and liquid wastes.
(2) Provision of adequate sewerage facilities for physical and economic activities that alleviate problems in housing, employment, mobility, and other areas.
(b) To achieve solid and liquid waste objectives, it shall be the policy of this State to:
(1) Encourage the adequate development of sewerage facilities that complement planned growth.
(2) Promote re-use and recycling to reduce solid and liquid wastes and employ a conservation ethic.
(3) Promote research to develop more efficient and economical treatment and disposal of solid and liquid wastes. [L 1978, c 100, pt of §2; am L 1986, c 276, §14]

The proposed project supports the State Plan objectives and policies related to the adequate development of sewerage facilities. The project will provide a new, fifth WSST to supplement the existing four WSST's. Four tanks are required for normal operations. The existing tanks are in need of rehabilitation. An additional tank will provide system redundancy so that any one tank may be shut down for necessary rehabilitation work, and on-going maintenance and repair. In addition, the new tank will improve treatment system operations by providing additional capacity that can be used to regulate flows to downstream processes under peak-flow conditions.

4.2 STATE LAND USE LAW

The State Land Use Commission classifies all lands in the State of Hawai'i into one of four land use designations: Urban, Rural, Agricultural and Conservation. The project site is located in the State Land Use Urban District. Wastewater treatment facilities are an approved public use within this District. Land uses within the Urban District are regulated through the City and County of Honolulu (CCH) Land Use Ordinance, Chapter 21, Revised Ordinances of Honolulu (ROH). No action from the State Land Use Commission is required to implement the proposed project (see **Figure 4-1**, **State Land Use District**).

4.3 CITY AND COUNTY OF HONOLULU (CCH) GENERAL PLAN

The General Plan, a requirement of the CCH Charter, is a written commitment by CCH to a future for the Island of O'ahu. The current plan, approved in 2006, is a statement of the long-range social, economic, environmental, and design objectives and a statement of broad policies which facilitate the attainment of the objectives of the plan.

Wastewater facilities are considered utilities. Therefore, the most relevant section of the General Plan is Section V, entitled "Transportation and Utilities".

Section V, Transportation and Utilities

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

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

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


FIGURE 4-1
STATE LAND USE DISTRICT
SIWWTP Wet Sludge
Honolulu, O'ahu, Hawai'i
R. M. TOWILL CORPORATION
N
0 200 400 800 1,200 1,600
Feet
Legend
Project Area
Rural
Agricultural
Conservation
Urban
GIS Layer Source: County of Hawai'i -HoLIS
Hawaii Statewide GIS Program
Sand Island WWTP
PACIFIC OCEAN
PACIFIC ST
NIMITZ HWY
HOOKELA PL
MAKEPONO ST
MIKOLE ST
PUUWAI ST

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

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

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

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

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

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

Policy 2 - Use the transportation and utility systems as a means of guiding growth and the pattern of land use on O'ahu.

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

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

The proposed project is consistent with Section V, *Objective B*, concerning environmentally-sound utility systems. Implementation of the project will extend the equipment life and improve solids handling operations that are an essential component of the existing Sand Island WWTP. *Objective C* is aimed at maintaining a high level of service for all utilities under the jurisdiction of CCH, including wastewater collection and treatment. The new WSST will provide missing system redundancy that will improve system reliability and operations, and assist in maintain a high level of utility service. With regard to *Objective D*, maintaining utility systems, the planned improvements are intended not only to maintain, but to improve, wastewater treatment process.

4.4 CCH ZONING AND LAND USE ORDINANCE

The project site is located in the CCH I-3 (Waterfront Industrial) zoning district, as defined in Chapter 21, ROH, the "Land Use Ordinance" (LUO):

"Sec. 21-3.130 Industrial districts--Purpose and intent.

(f) The intent of the I-3 waterfront industrial district is to set apart and protect areas considered vital to the performance of port functions and to their efficient operation. It is the intent to permit a full range of facilities necessary for successful and efficient performance of port functions. It is intended to exclude uses which are not only inappropriate but which could locate elsewhere.

(Added by Ord. 99-12)"

According to LUO Table 21-3, *Master Use Table,* the Sand Island WWTP facilities, including the proposed WSST addition, are defined as "public uses and structures" and are permitted in the I-3 zoning district. The project is thus consistent with the purpose and uses of the land's associated zoning district classifications under the CCH LUO. See **Figure 4-2, Zoning**.


FIGURE 4-2
ZONING
SIWWTP Wet Sludge
Honolulu, O'ahu, Hawai'i
R. M. TOWILL CORPORATION
N
0 200 400 800 1,200 1,600
Feet
Legend
Project Area
I-3 Waterfront
F-1 Military and Federal
I-2 Intensive
P-2 General
MX-1 Industrial and Mixed Use
P-1 Restricted
GIS Layer Source: County of Hawai'i -HoLIS
Hawaii Statewide GIS Program
Sand Island WWTP
PACIFIC OCEAN
MX-1 Industrial Mixed Use
I-3 Waterfront
P-1 Restricted
F-1 Military and Federal
B-2 Community Business
I-2 Intensive
P-2 General
HOOKELA PL
MAKEPONO ST
ULUPONO ST
MIKOLE ST
PUUWAI ST

4.5 PRIMARY URBAN CENTER (PUC) DEVELOPMENT PLAN

The PUC Development Plan, most recently updated in 2004, implements the objectives and policies of the General Plan for the PUC, which is described as the "cultural, governmental and economic center of both O'ahu and the State." The PUC Development Plan is incorporated into Ordinance 04-14 by reference. The proposed project is consistent with the policies described in the PUC Development Plan, Chapter 4.2, Wastewater:

Section 4.2.2 Policies

- *Implement adequate and timely upgrades/expansion of wastewater treatment facilities to meet the growth demands of the PUC.*

The proposed new, fifth WSST is not required to address increased service demands at the Sand Island WWTP, however it is a required upgrade to ensure continued, reliable operations and maintenance of the existing treatment processes. The project site is located within land identified for "Industrial" use on the PUC DP Map A.5: Land Use Map PUC – Central. Wastewater treatment facilities are an approved use within this land use designation.

The project is consistent with the PUC Development Plan, Section 3.4.2.4, "Military, Airport, Harbor, and Industrial Areas Policy" which states: "Promote compatibility with the surrounding urban and natural environment. Where industrial areas are mixed with or adjacent ot residential communities or natural areas, mitigate visual, noise, and other environmental impacts by adopting performance standards." The new WSST will not be visible from any vantage point within the Sand Island State Recreation Area, as it will be hidden by existing buildings and structures. Noise in the vicinity of the project site will be generated during construction by heavy equipment, internal combustion vehicles, and power tools used during construction. Due to the distance between the project site and the Sand Island State Recreation Area, and the intervening industrial structures, construction-generated noise is not expected to adversely affect public enjoyment of the recreation area. Construction noise will cease at project completion. Operation of the constructed WSST, primarily a passive storage facility, will not result in noticeable changes in sound levels compared to existing operations.

4.6 SPECIAL MANAGEMENT AREA (SMA) RULES AND REGULATIONS

The City and County of Honolulu has designated the shoreline and certain inland areas of O'ahu as being within the Special Management Area (SMA). SMA areas are designated sensitive environments that should be protected in accordance with the State's Coastal Zone Management policies, as set forth in Revised Ordinances of Honolulu (ROH), Section 25, Shoreline Management, and Hawai'i Revised Statutes (HRS), Section 205A, Coastal Zone Management.

The Sand Island WWTP, including the proposed project site, is located within the SMA. See **Figure 4-3, Special Management Area**.


FIGURE 4-3
SPECIAL MANAGEMENT AREA
SIWWTP Wet Sludge
Honolulu, O'ahu, Hawai'i
R. M. TOWILL CORPORATION
N
0 200 400 800 1,200 1,600
Feet
Sand Island WWTP
PACIFIC OCEAN
N NIMITZ HWY
PACIFIC ST
PIIUWAI ST
MIKOLE ST
MAKEPONO ST
HOOKELA PL
D PKWY
Legend
Project Area
Special Management Area
GIS Layer Source: County of Hawai'i -HoLIS
Hawaii Statewide GIS Program

4.6.1 SHORELINE MANAGEMENT, ROH SECTION 25

The potential effects of the proposed project are evaluated based on the review guidelines in the Revised Ordinances of Honolulu (ROH) Section 25-3.2. The following is a discussion of the applicability of the guidelines to the planned construction of a new wet sludge storage tank.

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

(1) Adequate access, by dedication or other means, to publicly owned or used beaches, recreation areas and natural reserves is provided to the extent consistent with sound conservation principles;

The project site is located within the Sand Island WWTP facility. Access to beaches, recreation areas, and natural reserves will not be affected by project activities or operation of the WSST following construction.

(2) Adequate and properly located public recreation areas and wildlife preserves are reserved;

The project consists of improvements within an existing, established WWTP facility. Public recreation areas and wildlife preserves will not be affected by project activities or operation of the WSST following construction.

(3) Provisions are made for solid and liquid waste treatment, disposition and management which will minimize adverse effects upon special management area resources; and,

Construction activities will not generate a significant quantity of wastewater. Construction personnel will have access to existing restroom facilities at the Solids Handling Building or be provided with Port-a-Johns. No other mitigation measures are recommended or required. Construction and use of the proposed project will not disrupt or otherwise adversely affect wastewater systems. The new WSST will benefit the Sand Island WWTP by providing redundant tank capacity that is required to accommodate necessary rehabilitation work and on-going maintenance on the four existing WSSTs. The new tank will also benefit normal plant operations by providing additional capacity to assist in regulating and equalizing peak flow loading rates to downstream treatment processes.

Construction activities will result in the generation of small amounts of construction and demolition debris. Construction and demolition debris will be disposed of at the PVT Landfill in accordance with CCH and State DOH regulations and provisions of the PVT facility license. Non-construction solid waste generated by project activities may be collected and disposed at the Waimānalo Gulch Landfill or H-Power. Project activities are not expected to generate excess excavated material. Any excess soils resulting from excavation activities would be disposed by storage at the Sand Island WWTP Soil Management Area.

(4) Alterations to existing land forms and vegetation; except crops, and construction of structures shall cause minimum adverse effect to water resources and scenic and recreational amenities and minimum danger of floods, landslides, erosion, siltation or failure in the event of earthquake.

The new WSST and housing is being constructed in a vacant area adjacent to the existing Solids Handling Building located at the center of the Sand Island WWTP. The project site is flat with an existing elevation of approximately 8 feet above mean sea level (msl), and is not susceptible to landslides or erosion. There are no surface waters in the immediate vicinity. Best management practices will be undertaken during construction activities to ensure that silt and dust will not escape the project site during ground disturbing activities. The site is located in FEMA flood Zone X, which designates areas with 0.2 percent annual chance of flooding, thus is exposed to minimal risk from flooding. The site is located outside of the tsunami evacuation zone. All

structures will be constructed to meet International Building Code 2003 standards for seismic design category rating 'D', which designates the highest load effect on a structure; and seismic use group III (Chapter 16, Table 1604.5 ROH), which designates essential facilities that are required for post earthquake recovery and those containing substantial quantities of hazardous substances.

The existing Solids Handling Building will be modified to provide access to the roof of the new WSST. The pump of the mixing system and piping will be located in the Solids Handling Building. Reinforced concrete wall panels, consistent with the existing building, will be used to construct the WSST housing and tie into the existing structure. The modified structure will have a footprint of approximately 30 feet by 30 feet, and will be approximately 40 feet in height to match the height of the existing tank. The expansion height and massing is consistent with the existing building height and is below the maximum building height of 60 feet for the underlying zoning district. The project site is surrounded by existing large structures and tanks, some of which exceed 60 feet in height, that are part of the Sand Island WWTP facilities. The surrounding area is primarily used as an industrial harbor and contains large commercial / industrial buildings, fuel tanks, and tall cranes (approximately 250 feet in height) used for shipping operations. Within view planes from the urban coastline towards the sea, the Sand Island WWTP facilities are subordinate to the much taller cargo facility loading cranes and are consistent in appearance with other industrial facilities on Sand Island. The proposed WSST and housing will not occupy views from recreational areas toward the ocean or toward scenic view planes or landmarks.

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

(1) The development will not have any substantial, adverse environmental or ecological effect except as such adverse effect is minimized to the extent practicable and clearly outweighed by public health and safety, or compelling public interest. Such adverse effect shall include, but not be limited to, the potential cumulative impact of individual developments, each one of which taken in itself might not have a substantial adverse effect and the elimination of planning options;

The proposed project is not anticipated to involve a substantial degradation of environmental quality. The site has long been developed and in use as Honolulu's primary wastewater treatment facility. The planned construction and operation of the new WSST and housing will not substantially alter environmental conditions at the project site. Planning and design for the project includes mitigation measures to prevent or minimize potential adverse environmental effects. The project will not result in cumulative impacts, will not involve a commitment to larger actions, and will not result in the elimination of planning options.

The minor environmental effects from construction activities should be considered in light of the project's benefit to wastewater treatment operations which include facilitating the rehabilitation of the existing WSSTs, providing a standby tank for redundancy in the event an existing tank needs to be shut down for maintenance or repair, and providing additional capacity to help equalize peak flows through the treatment system.

(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;

The project is in compliance with the objectives and policies set forth in HRS 205A-2, and SMA guidelines contained in HRS 205-A26. This document is prepared to summarize the project effects in relation to the SMA guidelines in HRS Section 205A-26 and ROH Section 25. See Section 4.6.2 for discussion of the project's compliance with the State's objectives and policies for the Coastal Zone.

(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.

The project is in conformance with the General Plan objectives for *Transportation and Utilities*, as described in **Section 4.3**. The County zoning designation for the project site is I-3, Waterfront Industrial. According to Table 21-3, *Master Use Table*, of the LUO, the planned WSST is considered a "public use and structure" and is a permitted use in the I-3 zoning district, as described in **Section 4.4**. The project site is designated as "Industrial" in the Development Plan for the Primary Urban Core. The planned WSST is in compliance with this designation, as described in **Section 4.5**.

(c) The council shall seek to minimize, where reasonable:

(1) Dredging, filling or otherwise altering any bay, estuary, salt marsh, river mouth, slough or lagoon;

The project does not involve filling or otherwise altering any water body.

(2) Any development which would reduce the size of any beach or other area usable for public recreation;

The project site is located within the existing Sand Island WWTP and does not affect any beach or other area usable for public recreation.

(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;

The project is not located where it would reduce or impose restrictions upon public access to any shoreline areas or surface waters.

(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

The new WSST and appurtenant equipment will not be visible from Sand Island Parkway, and will not interfere with or detract from line of sight toward the sea from the roadway. Waterfront industrial structures in the area, including facilities at Sand Island WWTP, are visible from the ocean, from Keʻehi Lagoon, from various vantages within urban Honolulu and the immediate surrounding properties, and from areas with elevations exceeding 100 feet above sea level, including Punchbowl, Pacific Heights, Alewa Heights, Upper Kalihi, Tantalus/Roundtop, Diamond Head, and high-rise buildings along Ala Moana Boulevard and Nimitz Highway. Within view planes from the urban coastline towards the sea, the Sand Island WWTP facilities are subordinate to the much taller cargo facility loading cranes and are consistent in appearance with other industrial facilities on Sand Island.

(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.

The project site is located within an existing, developed industrial facility at the Sand Island WWTP. The new WSST will result in improved operations and wastewater treatment system reliability at the plant. The project will 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

4.6.2 COASTAL ZONE MANAGEMENT, HRS 205(A)

The State of Hawai'i designates the Coastal Zone Management Program (CZMP) to manage the intent, purpose and provisions of Chapter 205(A)-2 of the Hawai'i Revised Statutes (HRS), as amended, for the areas from the shoreline to the seaward limit of the State's jurisdiction, and any other area which a lead agency may designate for the purpose of administering the Coastal Zone Management program. The following is an assessment of the project with respect to the CZMP objectives and policies set forth in Section 205(A)-2.

1. Recreational resources

Objective: *Provide coastal recreational opportunities accessible to the public.*

Policies:

A) Improve coordination and funding of coastal recreational planning and management; and

B) Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:

(i) Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;

(ii) Requiring replacement of coastal resources having significant recreational value including, but not limited to, surfing sites, fishponds, and sand beaches, when such resources will be unavoidably damaged by development; or requiring reasonable monetary compensation to the State for recreation when replacement is not feasible or desirable;

(iii) Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;

(iv) Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;

(v) Ensuring public recreational uses of county, state, and federally owned or controlled shoreline lands and waters having recreational value consistent with public safety standards and conservation of natural resources;

(vi) Adopting water quality standards and regulating point and nonpoint sources of pollution to protect, and where feasible, restore the recreational value of coastal waters;

(vii) Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, and artificial reefs for surfing and fishing; and

(viii) Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the land use commission, board of land and natural resources, and county authorities; and crediting such dedication against the requirements of section 46-6.

Discussion:

The proposed project will not have an adverse effect on the adjacent Sand Island State Recreation Area or other recreational resources. The project site at the center of the Sand Island WWTP may be visible from limited areas of the park, however due to distance and the small project scale, construction activities will not be generally noticeable nor have an adverse effect on recreational activities at the park. Operation of the new WSST following construction will not result in noticeable change from existing operations at the WWTP facility. Public access and use of the park and shoreline areas will remain unaffected by project activities.

Water quality will be protected during construction through the application of construction stormwater BMPs to prevent sediment or other pollutants from discharging in runoff from the site. The construction site and staging area will be smaller than one acre, therefore a National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Permit is not required. Planned improvements will not alter existing drainage patterns.

Operation of the new WSST following construction will not result in a change in the quality or quantity of treated effluent discharge from the Sand Island WWTP.

2. Historic resources

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

Policies:

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

Discussion:

The project site is situated within artificially created Fill Land, mixed (FL) which was entirely submerged by the ocean during pre- and post-contact periods. In addition, the project site was subject to extensive ground disturbance and modification during construction of the existing Sand Island WWTP. As a result, no archaeological sites are known or expected to be encountered at the project site

The proposed project is not expected to result in potential for negative adverse effects to archaeological resources. This is due to the artificially created, mixed fill soils found at the project site. A review of records with the Department of Land and Natural Resources (DLNR), State Historic Preservation Division (SHPD), also indicates that there are no known historic sites at the project location (SHPD letter to DDC, March 5, 2001, in **Appendix A, Correspondence**). However, in the event of unexpected discovery of historic or archaeological resources, the SHPD will be immediately notified for appropriate response and action.

The project site and surrounding Sand Island WWTP facility is not used for traditional, customary, or cultural practices. The project site is located on artificially created land comprised of mixed fill soils in an area that was submerged by the ocean until modern times. The site was heavily modified during construction of the Sand Island WWTP. Plants found at the site are introduced grass species not associated with cultural gathering or use activities. The artificial creation and developed condition of the site is not conducive to the presence of wahi pana (storied place) or other sites associated with cultural practices.

Based on the above, the potential for adverse effects to traditional and cultural practices is not anticipated. Construction of the new WSST will not disturb traditional sacred sites or traditional cultural objects; will not result in the degradation of resources used by native Hawaiians for subsistence or traditional cultural practices; will not obstruct landforms or wayfinding features; and will not result in loss of access to the shoreline or other areas customarily used by Hawaiians or others for resource gathering or traditional cultural practices. No mitigation measures are proposed.

3. Scenic and open space resources

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

Policies:

(A) Identify valued scenic resources in the coastal zone management area;
(B) Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;
(C) Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources; and
(D) Encourage those developments that are not coastal dependent to locate in inland areas.

Discussion:
The Sand Island WWTP is located in an industrial harbor area containing large commercial / industrial buildings, fuel tanks, and tall cranes used for container shipping operations. The WWTP facilities include several prominent structures, including clarifier tanks, gas tank (40 feet tall), incinerator building (80 feet tall) and anaerobic digester tower (108 feet tall). These facilities are visible from the ocean, from Ke'ehi Lagoon, from various vantages within urban Honolulu and the immediate surrounding properties, and from areas with elevations exceeding 100 feet above sea level, including Punchbowl, Pacific Heights, Alewa Heights, Upper Kalihi, Tantalus/Roundtop, Diamond Head, and high-rise buildings along Ala Moana Boulevard and Nimitz Highway. Within view planes from the urban coastal areas laterally down the shoreline or towards the sea, the Sand Island WWTP facilities are subordinate to the much taller cargo facility loading cranes (approximately 250 feet in height) and are consistent in appearance with other industrial facilities on Sand Island.

The proposed site for the new WSST is located at the center of the Sand Island WWTP adjacent to the existing Solids Handling Building. The new WSST facilities will be approximately 40 feet in height and will occupy a footprint less than 30 feet by 30 feet in area. The scale and massing of the new WSST tank will be smaller than the surrounding WWTP facilities, including the Solids Handling Building, the primary clarifier tanks, and the digester tanks, and will be consistent in appearance with the industrial character of the existing facilities. The height of the new WSST structure will be below the maximum building height of 60 feet for the underlying zoning district.

Due to the relatively small scale, location at the center of the existing Sand Island WWTP, and industrial context of the surrounding area, the project is not expected to adversely affect scenic and visual resources in the shoreline area. The new WSST will not obstruct or degrade lateral coastal views or mauka-makai views from the shoreline, Sand Island Parkway, or the Sand Island State Recreation Area.

4. Coastal ecosystems

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

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

Discussion:
The proposed project is not expected have any adverse affects on marine resources. Project activities do not involve work in the coastal waters or alterations to stream channels or other water bodies or water sources. Following project completion there will be no noticeable change in wastewater treatment operations, or in discharge effluent quantity or quality over existing conditions.

During construction, construction stormwater BMPs will be employed to prevent pollutant discharge in storm water runoff. Discharge pollution prevention measures will be installed for each project action as required by project activities. Measures to prevent sediment discharge in storm water runoff during construction will be in place and functional before project activities begin and will be maintained throughout the construction period. Planned improvements will not alter existing drainage patterns or involve modifications to existing drainage systems.

5. Economic uses

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

Policies:

(A) Concentrate coastal dependent development in appropriate areas;

(B) Ensure that coastal dependent development such as harbors and ports, and coastal related development such as visitor industry facilities and energy generating facilities, are located, designed, and constructed to minimize adverse social, visual, and environmental impacts in the coastal zone management area; and

(C) Direct the location and expansion of coastal dependent developments to areas presently designated and used for such developments and permit reasonable long-term growth at such areas, and permit coastal dependent development outside of presently designated areas when:

(i) Use of presently designated locations is not feasible;

(ii) Adverse environmental effects are minimized; and

(iii) The development is important to the State's economy.

Discussion:
The proposed project is located at the center of the existing Sand Island WWTP and involves a relatively minor upgrade to the existing facilities. The new, fifth WSST is required to facilitate necessary rehabilitation and on-going maintenance and repair work to the existing sludge processing facilities at the WWTP, and to generally ensure the continued reliable operation of wastewater treatment processes.

The project has been assessed for social, visual, and environmental impacts in accordance with Chapter 343, HRS. With the implementation of mitigation measures outlined in this document, no adverse impacts are expected to result from this project.

6. Coastal hazards

Objective: *Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence, and pollution.*

Policies:

(A) Develop and communicate adequate information about storm wave, tsunami, flood, erosion, subsidence, and point and nonpoint source pollution hazards;

(B) Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and nonpoint source pollution hazards;

(C) Ensure that developments comply with requirements of the Federal Flood Insurance Program; and

(D) Prevent coastal flooding from inland projects.

Discussion:

The project will be undertaken in a manner that will reduce potential harm to life and property from coastal hazards.

- The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) panel 15003C0361G, dated July 22, 2009, identifies the project site within flood zone X, which designates areas outside of the 0.2 percent annual chance (500 year) floodplain. The project will not exacerbate conditions that would contribute to coastal flooding. No special provisions for flood risk mitigation are recommended.
- The project will not result in changes to existing drainage patterns. Rainfall and stormwater runoff from the site is directed to the Sand Island WWTP's existing storm drain system consisting of catch basins and underground piping, and discharges into a man-made drainage ditch located at the north side of the facility. The drainage ditch connects to a 6-foot by 8-foot box culvert that passes under the Sand Island Parkway and nearby cargo container yard located north of the WWTP, and discharges to Honolulu Harbor. No modifications to the drainage system are proposed.
- On the Tsunami Evacuation Zone Map prepared by the Department of Emergency Management, the proposed project site is located outside of the evacuation boundary within an area considered to be safe from wave action and that would not likely be subject to inundation by a tsunami.
- The potential for hurricanes, while relatively rare, is present. To safeguard against hurricane damage, the new facility will be designed in compliance with 2003 IBC standards for wind exposure rating C, and will carry a design wind load of 105 mph (ROH Chapter 16).
- Earthquakes pose a threat throughout Hawai'i, but disruptive seismic events are relatively uncommon in this region. Design and construction of the proposed facility will be in accordance IBC design category rating D and Seismic Use Group III, per CCH standards.

7. Managing development

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

Policies:

(A) Use, implement, and enforce existing law effectively to the maximum extent possible in managing present and future coastal zone development;

(B) Facilitate timely processing of applications for development permits and resolve overlapping or conflicting permit requirements; and

(C) Communicate the potential short and long-term impacts of proposed significant coastal developments early in their life cycle and in terms understandable to the public to facilitate public participation in the planning and review process.

Discussion:

All work activities will be conducted in compliance with federal, state, and county environmental rules and regulations. This environmental assessment document is prepared to identify and, where necessary, propose mitigation measures to address impacts anticipated from the construction and operation of proposed improvements. The Draft Environmental Assessment was published for public review and comment in compliance with procedures set forth in HRS Chapter 343. Comments and responses are provided in **Appendix A, Correspondence**.

8. Public participation;

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

Policies:

(A) Promote public involvement in coastal zone management processes;

(B) Disseminate information on coastal management issues by means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal issues, developments, and government activities; and

(C) Organize workshops, policy dialogues, and site-specific mediations to respond to coastal issues and conflicts.

Discussion:

Public participation in the project was accommodated during the Draft Environmental Assessment (EA) publication period, and during public hearings to be conducted as part of the SMA permit application process. Public notice of the proposed action is provided through publication of the EA and SMA permit application in the OEQC Bulletin. As part of the environmental review process, the public had an opportunity to review and comment on the project during the 30-day public review period. All public comments have been addressed in writing (see **Appendix A, Correspondence**). Mitigation measures have been developed where appropriate to address issues raised during public review of the project.

9. Beach protection;

Objective: *Protect beaches for public use and recreation.*

Policies:

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

(B) Prohibit construction of private erosion-protection structures seaward of the shoreline, except when they result in improved aesthetic and engineering solutions to erosion at the sites and do not interfere with existing recreational and waterline activities; and

(C) Minimize the construction of public erosion-protection structures seaward of the shoreline.

Discussion:

The project site is located approximately ¼ mile inland from the shoreline and will not interfere with coastal open space or natural shoreline processes. The project site is situated on flat topography within a developed, industrial wastewater treatment facility. The site is not susceptible to erosion.

10. Marine resources

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

Policies:

(A) Ensure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;

(B) Coordinate the management of marine and coastal resources and activities to improve effectiveness and efficiency;

(C) Assert and articulate the interests of the State as a partner with federal agencies in the sound management of ocean resources within the United States exclusive economic zone;

(D) Promote research, study, and understanding of ocean processes, marine life, and other ocean resources in order to acquire and inventory information necessary to understand how ocean development activities relate to and impact upon ocean and coastal resources; and

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

Discussion:

The proposed project does not involve construction activities within a sensitive marine environment. The project site is located approximately ¼ mile from the shoreline within the Sand Island WWTP. The new, fifth WSST is required to ensure the continued reliable operation of wastewater treatment processes at the facility for the protection of public health and safety and for the protection of the natural environment and water resources. Following project completion there will be no noticeable change in wastewater treatment operations, or in discharge effluent quantity or quality over existing conditions.

No listed or protected plant species are known from the area surrounding the project site. Rare, threatened, or endangered fauna are not known to utilize the site for either habitat or for foraging purposes. Although there is no evidence of migratory seabirds and native waterfowl species using the project site for breeding or habitation, some are known to visit areas within the wider project study area. Mitigation measures to prevent adverse effects to avifauna from night lighting will include the following:

- During construction activities, all nighttime lighting will be shielded and angled downward to reduce glare and disruption of bird flight.
- Following construction, permanent light sources will be shielded and angled downward to eliminate glare that could disturb or disorient animals.

No other mitigation measures are proposed.

SECTION 5
Necessary Permits and Approvals

5.1 CITY AND COUNTY OF HONOLULU

Department of Design and Construction

- Finding of No Significant Impact

Department of Planning and Permitting

- Special Management Area Use Permit
- Construction Plan Review and Approval (including Grading and Erosion Control Plan Review as appropriate with concurrent review by Department of Design and Construction)
- Building Permit
- Grading and Stockpiling Permits

5.2 STATE OF HAWAIʻI

Department of Health

- Construction Plan Review and Approval

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SECTION 6
Organizations and Agencies Consulted During the Preparation of the DEA

6.1 City and County of Honolulu

- Department Environmental Services
- Department of Planning and Permitting
- Department of Design and Construction
- Department of Transportation Services

6.2 State of Hawai'i

- Office of Environmental Quality Control
- DLNR, Land Division

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SECTION 7
Organizations and Agencies Consulted During the 30 Day DEA Review Period

7.1 City and County of Honolulu

Department of Design and Construction

Department of Facilities Maintenance

Department of Parks and Recreation

Department of Planning and Permitting

Department of Transportation Services

Honolulu Board of Water Supply

Honolulu Fire Department

Honolulu Police Department

7.2 State of Hawai'i

Department of Accounting and General Services

Department of Business, Economic Development and Tourism

Department of Health

Department of Land and Natural Resources

Department of Transportation

Disability and Communication Access Board

Office of Environmental Quality Control

Office of Hawaiian Affairs

State Historic Preservation Division, DLNR

University of Hawai'i Environmental Center

7.3 Federal Agencies

U. S. Army Corps of Engineers

U. S. Environmental Protection Agency – Pacific Islands Office

U. S. Fish & Wildlife Service

National Marine Fisheries Service

7.4 Elected Officials and Boards

City and County of Honolulu

Mayor Peter Carlisle

Councilmember Tom Berg, District 1

Councilmember Ernest Martin, District 2

Councilmember Ikaika Anderson, District 3

Councilmember Stanley Chang, District 4

Councilmember Ann Kobayashi, District 5

Councilmember Tulsi Gabbard Tamayo, District 6

Councilmember Romy Cachola, District 7

Councilmember Breene Harimoto, District 8

Councilmember Nestor Garcia, District 9

Neighborhood Board

Kalihi Palama Neighborhood Board No. 15

State of Hawai'i

Senator Suzanne Chun Oakland, Senate District 13
Representative Joey Manahan, House District 29

7.5 Utility Companies

Hawaiian Electric Company, Inc.

Hawaiian Telcom

SECTION 8
Determination

In accordance with the content requirements of Chapter 343, Hawai'i Revised Statutes, and the significance criteria in Section 11-200-12 of Title 11, Chapter 200, it is anticipated that this project will have no significant adverse impact to water quality, air quality, existing utilities, noise, archaeological sites, or wildlife habitat. All anticipated impacts will be temporary and will not adversely impact the environmental quality of the area. According to the significance criteria:

1. Irrevocable commitment to loss or destruction of natural or cultural resources.

The proposed project is not expected to adversely impact any natural or cultural resources. The proposed activity will involve use of fill land on Sand Island. This area contains the existing wastewater treatment plant which has already been subject to extensive grading and land disturbance.

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

The proposed project will involve use of disturbed areas of land within the existing Sand Island WWTP site. No curtailment of the range of beneficial uses that may be exercised at the site are therefore expected. With or without the project, the Sand Island WWTP will continue to handle a major part of the wastewater processing needs of the City and County of Honolulu.

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, goals and guidelines expressed in Chapter 343, HRS. Potential sources of adverse impacts have been identified and appropriate measures have been developed to either mitigate or minimize potential impacts to negligible levels.

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

The proposed project is expected to enhance the future long term stability of the City and State through the provision of basic public works infrastructure necessary to the health and welfare, of the community and region.

5. Substantially affects public health.

The proposed project will be constructed in accordance with Federal, State, and City and County of Honolulu, rules and regulations governing public safety and health. Concerns involving air, water, noise, and waste impacts have been addressed in this EA document by use of appropriate mitigation measures as described. Upon completion, the proposed modifications will benefit public health by improving the reliability of wastewater treatment processes at the Sand Island WWTP.

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

The proposed project will involve the construction of modifications necessary for improved operations of a wastewater treatment facility which is consistent with the General Plan, Population, Objectives and Policies. The proposed project will create short-term employment opportunities, but will not be an inducement to changes in population size or distribution. Public infrastructure requirements, including power and water services, which will be utilized by the project have been evaluated and no negative adverse effects to the public utilities are anticipated. The project will not influence use by the public of the Sand Island State Recreation Area and related shoreline areas. Following project completion there will be no noticeable change in wastewater treatment operations, or in discharge effluent quantity or quality over existing conditions.

7. Involves substantial degradation of environmental quality.

The proposed project will be developed in accordance with the environmental polices of Chapter 343, HRS, and the National Environmental Policy Act. The project will also utilize an existing, industrial wastewater facility site with minimal development requirements. No degradation of environmental quality is, therefore, anticipated or expected.

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

Based on the description of the proposed action and mitigation measures identified in this document, potential for considerable adverse environmental effects and a commitment for larger actions, are neither anticipated nor expected.

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

There are no endangered flora or fauna species within the project site.

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

As required, any potential impacts to air, water quality, or noise levels will be addressed through the implementation of appropriate mitigation measures described in this document.

11. Affects or is likely to stiffer 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 activity will be undertaken within an existing industrial area which is home to Sand Island WWTP. The site contains no especially sensitive environmental characteristics which would detract from continued use for this activity.

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

The proposed project is not expected to adversely affect the public's enjoyment of scenic vistas or mauka-makai and lateral shoreline views planes from urban Honolulu, Sand Island Parkway, the Sand Island State Recreation Area, or other areas in the vicinity of the Sand Island WWTP. The project site at the center of the

Sand Island WWTP may be visible from limited areas of the State Recreation Area, however due to distance and the small project scale, construction activities will not be generally noticeable nor have an adverse effect on recreational activities at the park. The project is consistent with the industrial zoning designation of the site which allows for a wastewater treatment facility. The proposed project will also be consistent with the building height restriction of 60 feet.

13. Requires substantial energy consumption.

The facilities identified in this project will utilize the same or less energy than the existing facilities. Construction activities will result in a short-term increase in power demand, but the increase will be of short-duration and will cease upon project completion.

Based on the above evaluation and the information contained in this Final Environmental Assessment, an Environmental Impact Statement (EIS) will not be required and a Finding of No Significant Impact (FONSI) will be published for this project.

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SECTION 9
References

(DDC, 2001) Sand Island Wastewater Treatment Plant Modifications and Expansion, Honolulu, Oʻahu, Hawaiʻi. R. M. Towill Corporation, prepared for the City and County of Honolulu, Department of Planning and Permitting. Honolulu, HI. April, 2001.

(DOH, 1988) Water Quality Standards Map of the Island of Oʻahu, to be used in Conjunction with Hawaiʻi Department of Health, Chapter 54, Water Quality Standards. State of Hawaiʻi, Department of Health. 1988.

(DOH, 2010) Island of Oʻahu, Daily Air Quality Data. State of Hawaiʻi, Department of Health. June 10, 2010. http://www.state.hi.us/doh/air-quality/main.html

(DPP, 2004). Primary Urban Center Development Plan (ROH, Ch. 24, Article 2). Department of Planning and Permitting, City and County of Honolulu. Honolulu, HI. June 2004.

(FEMA, 2009) Federal Insurance Rate Map (FIRM), City and County of Honolulu. Map No. 15003C0361G, dated July 22, 2009. Federal Emergency Management Agency.

(HoLIS, 2009) Honolulu Land Information System, Geographic Information System. City and County of Honolulu, Department of Planning and Permitting. 2009.

(UH, 1998) University of HawaiʻI, Department of Geography, Atlas of Hawaiʻi, University of Hawaiʻi Press, Honolulu, HI.

(Stearns and Vaksviks, 1935) Geology and Groundwater Resources of the Island of Oʻahu, Hawaiʻi. Division of Hydrography, Volume 1. H. T. Stearns and K. N. Vaksviks. Honolulu, HI. 1935.

(USDA, 1972) Soil Survey of Islands of Kauaʻi, Oʻahu, Maui, Molokaʻi and Lānaʻi, State of Hawaiʻi. Published by the United States Department of Agriculture (USDA), Soil Conservation Service, in Cooperation with The University of Hawaiʻi Agricultural Experiment Station. Honolulu, HI. August 1972.

(USGS, 2000) Ground Water in Hawaiʻi. U. S. Geological Survey. Honolulu, HI. 2000

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SECTION 10
Correspondence

Appendix A

Letter from State Historic Preservation Division, March 5, 2001
Chapter 6E Historic Preservation Review
Sand Island Wastewater Treatment Plant, Modifications and Expansion

21-2001 07:24 FAX 808 527 5142 C&C DESIGN & CONSTR. → R.M. TOWILL 002

FILE

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

01 MAR 15 PM 1:16

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
Kakuhihewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawaii 96707

GILBERT S. COLOMA-AGARAN, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES
JANET E. KAWELO
LINNEL NISHIOKA

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND
STATE PARKS

March 5, 2001

Rae M. Loui, Acting Director
Department of Design and Construction
City & County of Honolulu
650 South King Street, 11th floor
Honolulu, Hawaii 96813

LOG NO: 27043 ✓
DOC NO: 0102EJ15

RECEIVED
MAR 15 2 37 PM '01
DIV. OF LAND SURVEY AND ACQUISITION

Dear Ms Loui:

SUBJECT: **Chapter 6E-8 Historic Preservation Review – Draft Environmental Assessment for the Sand Island Wastewater Treatment Plant, Modifications and Expansion**
Honolulu, Kona, O'ahu
TMK:1-5-041:005

Thank you for the opportunity to comment on the DEA for the Sand Island Wastewater Treatment Plant Modifications and Expansion. Our review is based on historic reports, maps, and aerial photographs maintained at the State Historic Preservation Division; no field inspection was made of the project areas.

The DEA is correct in stating that the project site is comprised of fill lands and mixed fill lands. A review of our records shows that there are no known historic sites at the project location. This area of Sand Island has been in-filled to enlarge the shoreline. Since modifications are proposed for the existing Sand Island WWTP, and the plant is built upon fill soils, we believe that this project will have "no effect" on historic sites.

If you have any questions please call Elaine Jourdane at 692-8027.

Aloha,

Don Hibbard, Administrator
State Historic Preservation Division

EJ:jk

Appendix B

Letters Received in Response to the Draft Environmental Assessment during 30-Day Public Comment Period Ending April 21, 2011

The following agencies commented on the Draft Environmental Assessment. Their letters, and the responses on behalf of the Department of Design and Construction, are found on the following pages in the order received, as shown in the table below.

	Respondent	Date of Comment Letter
1	Board of Water Supply, City and County of Honolulu	April 1, 2011
2	Hawaiian Telcom	April 4, 2011
3	Department of Parks and Recreation, City and County of Honolulu	April 6, 2011
4	Department of Accounting and General Services, State of Hawai'i	April 7, 2011
5	Fire Department, City and County of Honolulu	April 12, 2011
6	Police Department, City and County of Honolulu	April 14, 2011
7	State of Hawai'i, Department of Transportation	April 15, 2011
8	Department of Transportation Service, City and County of Honolulu	April 19, 2011
9	Department of Facility Maintenance, City and County of Honolulu	April 20, 2011
10	Department of Land and Natural Resources, State of Hawai'i	April 20, 2011
11	U.S. Army Corps of Engineers	April 22, 2011
12	Office of Hawaiian Affairs, State of Hawai'i	April 19, 2011 (received May 6, 2011)
13	Department of Planning and Permitting, City and County of Honolulu	May 19, 2011

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BOARD OF WATER SUPPLY

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

April 1, 2011

Mr. Jim Niermann, AICP, LEED AP
R. M. Towill Corporation
2024 N. King Street, Suite 200
Honolulu, Hawaii 96819-3494

Dear Mr. Nierman:

Subject: Your Letter Dated March 22, 2011 on the Draft Environmental Assessment for Proposed Wet Sludge Storage Tank Addition, Sand Island Wastewater Treatment Plant Modifications and Expansion, TMK: 1-5-41: 5

Thank you for the opportunity to comment on the proposed storage tank addition.

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

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

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

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

Very truly yours,

for PAUL S. KIKUCHI
Chief Financial Officer
Customer Care Division

2024 N. King Street
Suite 200
Honolulu HI 96819-3494
Tel 808 842-1133
Fax 808 842-1937
rmtowill@rmtowill.com

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Construction Management

May 9, 2011

Wayne M. Hashiro, Chief Engineer
Board of Water Supply
City and County of Honolulu
630 S. Beretania Street
Honolulu, Hawai'i 96813

Response to Comments on the proposed Wet Sludge Storage Tank Addition
Sand Island Wastewater Treatment Plant Modifications and Expansion
Honolulu, O'ahu, Hawai'i

Dear Mr. Hashiro:

On behalf of the City and County of Honolulu, Department of Design and Construction, we thank you for your letter dated April 1, 2011.

We acknowledge your comment that the existing water system is adequate to accommodate the proposed storage tank addition. We understand that the Board of Water Supply will confirm this finding and make its final decision on the availability of water when the building permit application for the project is submitted for approval.

We acknowledge that the applicant will be required to pay the Board of Water Supply's Water System Facilities Charges for resource development, transmission and daily storage.

As noted in your letter, the Department of Design and Construction will coordinate on-site protection requirements with the Fire Prevention Bureau of the Honolulu Fire Department.

We appreciate your comments. Should you have any questions or require additional information, please contact the undersigned at (808) 842-1133.

Very truly yours,

James Niermann, AICP, LEED AP
Senior Planner

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Hawaiian Telcom

April 4, 2011

R.M. Towill Corporation
2024 North King Street, Suite 200
Honolulu, Hawaii 96819-3494
Attention: Mr. James Niermann, AICP, LEED, AP

Dear Mr. Niermann:

Subject: **Public Review of Draft Environmental Assessment (DEA) for Proposed Wet Sludge Storage Tank Addition**
Sand Island Wastewater Treatment Plant Modifications and Expansion
Honolulu, Oahu, Hawaii

Thank you for the opportunity to review and comment on the Public Review of the Draft Environmental Assessment (DEA) for the subject project.

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

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

Sincerely,

Les Loo
Network Engineer – OSP Engineering
Network Engineering & Planning

cc: File [Kalihi]

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Fax 808 842-1937
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May 9, 2011

Les Loo, Network Engineer – OSP Engineering
Network Engineering and Planning
Hawaiian Telcom
P.O. Box 2200
Honolulu, Hawai'i 96841

Response to Comments on the proposed Wet Sludge Storage Tank Addition
Sand Island Wastewater Treatment Plant Modifications and Expansion
Honolulu, O'ahu, Hawai'i

On behalf of the City and County of Honolulu, Department of Design and Construction, we thank you for your letter dated April 4, 2011.

We acknowledge that Hawaiian Telcom has no comments pertaining to this project.

Should you have any questions or require additional information, please contact the undersigned at (808) 842-1133.

Very truly yours,

James Niermann

James Niermann, AICP, LEED AP
Senior Planner

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DEPARTMENT OF PARKS & RECREATION

CITY AND COUNTY OF HONOLULU

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

PETER B. CARLISLE
MAYOR

GARY B. CABATO
DIRECTOR

ALBERT TUFONO
DEPUTY DIRECTOR

April 6, 2011

Mr. James Niermann, AICP, LEED AP
R. M. Towill Corporation
2024 N. King Street, Suite 200
Honolulu, Hawaii 96819-3494

Dear Mr. Niermann:

Subject: Public Review Draft Environmental Assessment
Wet Sludge Storage Tank Addition
Sand Island Wastewater Treatment Plant Modifications and Expansion
Honolulu, Oahu, Hawaii

Thank you for the opportunity to review and comment on the subject public review draft environmental assessment.

The Department of Parks and Recreation has no comment, as the proposed project will not impact any program or facility of the department. You may remove us as a consulted party to the balance of the EIS process.

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

Sincerely,

GARY B. CABATO
Director

GBC:jr
(409677)

2024 N. King Street
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Fax 808 842-1937
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May 9, 2011

Gary B. Cabato, Director
Department of Parks and Recreation
City and County of Honolulu
1000 Uluohia Street, Suite 309
Kapolei, Hawai'i 96707

Response to Comments on the proposed Wet Sludge Storage Tank Addition
Sand Island Wastewater Treatment Plant Modifications and Expansion
Honolulu, O'ahu, Hawai'i

Dear Mr. Cabato:

On behalf of the City and County of Honolulu, Department of Design and Construction, we thank you for your letter dated April 6, 2011.

We acknowledge that the Department of Parks and Recreation has no comments and the proposed project will not impact any program or facility of the department. As requested, we will remove your department as a consulted party for the remainder of the EA process.

Should you have any questions or require additional information, please contact the undersigned at (808) 842-1133.

Very truly yours,

James Niermann

James Niermann, AICP, LEED AP
Senior Planner

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NEIL ABERCROMBIE
GOVERNOR

BRUCE A. COPPA
COMPTROLLER

RYAN T. OKAHARA
DEPUTY COMPTROLLER

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

(P)1071.1

APR - 7 2011

Mr. Jim Niermann
R. M. Towill Corporation
2024 N. King Street, Suite 200
Honolulu, HI 96819-3494

Dear Mr. Niermann:

Subject: Draft Environmental Assessment (DEA) for
Wet Sludge Storage Tank Addition
Sand Island Wastewater Treatment Plant Modifications and Expansion
Honolulu, Oahu, Hawaii

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

If you have any questions, please call me at 586-0400, or have your staff call Ms. Gayle Takasaki of the Public Works Division at 586-0584.

Sincerely,

BRUCE A. COPPA
State Comptroller

GT:lnn

2024 N. King Street
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May 9, 2011

Bruce A Coppa, State Comptroller
Dept. of Accounting & General Services
1151 Punchbowl Street
Honolulu, Hawai'i 96813

Response to Comments on the proposed Wet Sludge Storage Tank Addition
Sand Island Wastewater Treatment Plant Modifications and Expansion
Honolulu, O'ahu, Hawai'i

Dear Mr. Coppa:

On behalf of the City and County of Honolulu, Department of Design and Construction, we thank you for your letter dated April 7, 2011.

We acknowledge that you have no comments, as the proposed project does not impact any Department of Accounting and General Services projects or existing facilities.

Should you have any questions or require additional information, please contact the undersigned at (808) 842-1133.

Very truly yours,

James Niermann

James Niermann, AICP, LEED AP
Senior Planner

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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

ROLLAND J. HARVEST
DEPUTY FIRE CHIEF

April 12, 2011

Mr. James Niermann, AICP, LEED AP
Senior Planner
R. M. Towill Corporation
2024 North King Street
Honolulu, Hawaii 96819

Dear Mr. Niermann:

Subject: Draft Environmental Assessment
Proposed Wet Sludge Storage Tank Addition
Sand Island Wastewater Treatment Plant Modifications and Expansion
Honolulu, Oahu, Hawaii

In response to your letter of March 22, 2011, regarding the above-mentioned subject, the Honolulu Fire Department reviewed the material provided and determined that there will be no significant impact to its services.

Should you have any questions, please call Acting Battalion Chief Gary Lum of our Fire Prevention Bureau at 723-7152.

Sincerely,

KENNETH G. SILVA
Fire Chief

KGS/SY:bh

2024 N. King Street
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May 9, 2011

Kenneth G. Silva, Fire Chief
Fire Department
City and County of Honolulu
636 South Street
Honolulu, Hawai'i 96813

Response to Comments on the proposed Wet Sludge Storage Tank Addition
Sand Island Wastewater Treatment Plant Modifications and Expansion
Honolulu, O'ahu, Hawai'i

Dear Chief Silva:

On behalf of the City and County of Honolulu, Department of Design and Construction, we thank you for your letter dated April 12, 2011.

We acknowledge that the Honolulu Fire Department reviewed the Draft Environmental Assessment and determined that the proposed project will have no significant impact to its services.

Should you have any questions or require additional information, please contact the undersigned at (808) 842-1133.

Very truly yours,

James Niermann, AICP, LEED AP
Senior Planner

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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

DELBERT T. TATSUYAMA
RANDAL K. MACADANGDANG
DEPUTY CHIEFS

OUR REFERENCE DMK-LS

April 14, 2011

Mr. James Niermann, AICP, LEED AP
Senior Planner
R. M. Towill Corporation
2024 North King Street, Suite 200
Honolulu, Hawaii 96819-3494

Dear Mr. Niermann:

This is in response to your letter dated March 22, 2011, requesting comments on a Public Review of the Draft Environmental Assessment for the proposed Wet Sludge Storage Tank Addition, Sand Island Wastewater Treatment Plant Modifications and Expansion project.

This project may have a negative impact on calls for police service because of the anticipated traffic congestion during the construction phase.

If there are any questions, please call Major William Chur of District 5 (Kalihi) at 723-8200.

Sincerely,

LOUIS M. KEALOHA
Chief of Police

By
DAVE M. KAJIHIRO
Assistant Chief of Police
Support Services Bureau

2024 N. King Street
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May 9, 2011

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

Response to Comments on the proposed Wet Sludge Storage Tank Addition
Sand Island Wastewater Treatment Plant Modifications and Expansion
Honolulu, O'ahu, Hawai'i

Dear Chief Kealoha:

On behalf of the City and County of Honolulu, Department of Design and Construction, we thank you for your letter dated April 14, 2011, reference DMK-LS.

The Police Department commented, "This project may have a negative impact on calls for police service because of the anticipated traffic congestion during the construction phase." As the additional Wet Sludge Storage Tank will be located close to the center of the industrial facilities of the Sand Island Wastewater Treatment Plant, and is limited to construction on a footprint of less than 900 square feet, we do not anticipate any calls for police service due to construction-related traffic congestion on City streets.

Should you have any questions or require additional information, please contact the undersigned at (808) 842-1133.

Very truly yours,

James Niermann

James Niermann, AICP, LEED AP
Senior Planner

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NEIL ABERCROMBIE
GOVERNOR

GLENN M. OKIMOTO
DIRECTOR

Deputy Directors
FORD N. FUCHIGAMI
JAN S. GOUVEIA
RANDY GRUNE
JADINE URASAKI

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

IN REPLY REFER TO:

STP 8.0408

April 15, 2011

Mr. Jim Niermann
R. M. Towill Corporation
2024 N. King Street, Suite 200
Honolulu, Hawaii 96819-3494

Dear Mr. Niermann:

Subject: Sand Island Wastewater Treatment Plant Modification and Expansion, Wet Sludge Storage Tank Addition – Draft Environmental Assessment (DEA)

Thank you for requesting the State Department of Transportation's (DOT) review of the subject project. DOT understands The City and County of Honolulu (CCH), Department of Design and Construction (DDC) plans to construct a new, fifth wet sludge storage tank (WSST) to add to the existing four WSSTs at the Sand Island Wastewater Treatment Plant (WWTP) Solids Handling Building. Access to the project is from Sand Island Access Road.

DOT does not anticipate any significant adverse impacts to the State transportation facilities. However the applicant is required to obtain a permit from DOT Highways Division, to transport oversize and overweight equipment/loads within the State highways facilities.

DOT appreciates the opportunity to provide comment. If there are any questions or the need to meet with DOT 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

2024 N. King Street
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Tel 808 842-1133
Fax 808 842-1937
rmtowill@rmtowill.com

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May 9, 2011

Glenn M. Okimoto, Ph.D.
Director of Transportation
State of Hawai'i
869 Punchbowl Street
Honolulu, Hawai'i 95813-5097

Response to Comments on the proposed Wet Sludge Storage Tank Addition
Sand Island Wastewater Treatment Plant Modifications and Expansion
Honolulu, O'ahu, Hawai'i

Dear Dr. Okimoto:

On behalf of the City and County of Honolulu, Department of Design and Construction, we thank you for your letter dated April 15, 2011.

We acknowledge that the Department of Transportation (DOT) does not anticipate any significant adverse impacts to State transportation facilities due to construction of the proposed project. Although not anticipated, the Department of Design and Construction will obtain a permit from DOT, Highways Division, to transport oversize and overweight equipment/loads within State highways facilities if necessary for construction.

Should you have any questions or require additional information, please contact the undersigned at (808) 842-1133.

Very truly yours,

James Niermann

James Niermann, AICP, LEED AP
Senior Planner

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PHONE (808) 594-1888 FAX (808) 594-1865

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAI'I 96813

HRD11/1953F

April 19, 2011

James Niermann, Senior Planner
R.M. Towill Corporation
2024 North King Street
Honolulu, Hawai'i 96819-3494

Re: Draft Environmental Assessment
Storage Tank Addition
Sand Island Wastewater Treatment Plant, Island of O'ahu

Aloha e James Niermann,

The Office of Hawaiian Affairs (OHA) is in receipt of your March 22, 2011 letter requesting comments on a draft environmental assessment (DEA) to support the construction of an additional storage tank (project) at the Sand Island Wastewater Treatment Plant (SWTP) proposed by the City and County of Honolulu-Department of Design and Construction (DDC).

Primary expansion work at the SWTP is subject to a 2001 final environmental assessment (FEA) with a "finding of no significant impact" determination. Subsequent to the acceptance of this 2001 FEA, it has been determined that a fifth storage tank is necessary to increase stand by capacity in the event of repair or maintenance work on the four existing storage tanks. The project will encompass an approximately 30 by 30 foot area adjacent to the existing storage tanks in the center of the SWTP. The new storage tank will not exceed 60 feet in height.

OHA has no objections to the anticipated "finding of no significant impact" determination in the DEA. Thank you for the opportunity to provide comments. Should you have any questions or concerns, please contact Keola Lindsey at 594-0244 or keolal@oha.org.

'O wau iho nō me ka 'oia'i'o,

Clyde W. Nāmu'o
Chief Executive Officer

2024 N. King Street
Suite 200
Honolulu HI 96819-3494
Tel 808 842-1133
Fax 808 842-1937
rmtowill@rmtowill.com

R. M. TOWILL CORPORATION
SINCE 1930

Planning
Engineering
Environmental Services
Photogrammetry
Surveying
Construction Management

May 9, 2011

Mr. Clyde Nāmuʻo
Chief Executive Officer
Office of Hawaiian Affairs
State of Hawaiʻi
711 Kapiʻolani Boulevard, Suite 500
Honolulu, Hawaiʻi 96813

Response to Comments on the proposed Wet Sludge Storage Tank Addition
Sand Island Wastewater Treatment Plant Modifications and Expansion
Honolulu, Oʻahu, Hawaiʻi

Dear Mr. Nāmuʻo:

On behalf of the City and County of Honolulu, Department of Design and Construction, we thank you for your letter dated April 19, 2011 and received on May 6, 2011.

We acknowledge that the Office of Hawaiian Affairs "has no objections to the anticipated finding of no significant impact" determination in the Draft Environmental Assessment.

Should you have any questions or require additional information, please contact the undersigned at (808) 842-1133.

Very truly yours,

James Niermann, AICP, LEED AP
Senior Planner

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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

KENNETH TORU HAMAYASU, P.E.
DEPUTY DIRECTOR

TP3/11-409686R

April 19, 2011

Mr. James Niermann, AICP, LEED AP
Senior Planner
R. M. Towill Corporation
2024 North King Street, Suite 200
Honolulu, Hawaii 96819-3494

Dear Mr. Niermann:

Subject: Draft Environmental Assessment (DEA) Wet Sludge Storage Tank Addition, Sand Island Wastewater Treatment Plant Modifications and Expansion; Honolulu, Oahu, Hawaii

This responds to your letter of March 22, 2011, requesting our comments concerning this proposed project.

We have the following comments:

- The DEA should contain a Traffic Impact Assessment Report (TIAR) for the area. The TIAR should discuss traffic and parking impacts of the project on regional and local roadways and proposed mitigative measures.

- The short-term traffic impacts and possible mitigation measures during construction should also be discussed. Should any proposed construction activities require the temporary closure of a traffic lane, parking, etc., on a local street, a street usage permit from the Department of Transportation Services will be required.

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

2024 N. King Street
Suite 200
Honolulu HI 96819-3494
Tel 808 842-1133
Fax 808 842-1937
rmtowill@rmtowill.com

R. M. TOWILL CORPORATION
SINCE 1930

Planning
Engineering
Environmental Services
Photogrammetry
Surveying
Construction Management

May 9, 2011

Wayne Y. Yoshioka, Director
Department of Transportation Services
City and County of Honolulu
650 S. King Street, 3rd Floor
Honolulu, Hawai'i 96813

Response to Comments on the proposed Wet Sludge Storage Tank Addition
Sand Island Wastewater Treatment Plant Modifications and Expansion
Honolulu, O'ahu, Hawai'i

Dear Mr. Yoshioka:

On behalf of the City and County of Honolulu, Department of Design and Construction, we thank you for your letter dated April 19, 2011.

The Department of Transportation Services commented that "The DEA should contain a Traffic Impact Assessment Report (TIAR) for the area. The TIAR should discuss traffic and parking impacts of the project on regional and local roadways and proposed mitigative measures." However, based on phone conversations between the undersigned and Mr. Michael Murphy from your office April 26, 2011, and Mr. Jack Patterson from your office on April 27, 2011, we understand that DTS does not anticipate an increase in traffic from the project and does not require the preparation of a TIAR.

We also acknowledge your comment stating "short-term traffic impacts and possible mitigation during construction" should be discussed in the Final Environmental Assessment (FEA). To that end, we will add this statement in the FEA, Section 3.3.1, Traffic and Transportation Systems, Impacts and Mitigation Measures: "Should any proposed construction activities require the temporary closure of a traffic lane, parking, etc., on a local street, a street usage permit from the Department of Transportation Services will be obtained by the Department of Design and Construction."

Should you have any questions or require additional information, please contact the undersigned at (808) 842-1133.

Very truly yours,

James Niermann, AICP, LEED AP
Senior Planner

K:\plan\19933-80P SIWWTP Wet Sludge Tank\FEA\DEA Comment Letters PDF\08 CCH-DTS_FEA RESPONSE.doc

DEPARTMENT OF FACILITY MAINTENANCE

CITY AND COUNTY OF HONOLULU

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

PETER B. CARLISLE
MAYOR

WESTLEY K.C. CHUN, Ph.D., P.E., BCEE
ACTING DIRECTOR & CHIEF ENGINEER

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

IN REPLY REFER TO:
DRM 11-299

April 20, 2011

Mr. James Niermann, AICP, LEED AP
R.M. Towill Corporation
2024 North King Street, Suite 200
Honolulu, Hawaii 96819-3494

Dear Mr. Niermann:

Subject: Draft Environmental Assessment (DEA) for the Proposed Wet Sludge Storage Tank Addition Sand Island Wastewater Treatment Plant Modification and Expansion, Honolulu, Oahu, Hawaii

Thank you for the opportunity to review and comment on the DEA dated March 2011 for the proposed new fifth wet sludge storage tank at the Sand Island Wastewater Treatment Plant (WWTP).

We have no comments to offer. The new tank will be constructed within the WWTP which is under the jurisdiction of the Department of Environmental Services and will have negligible impact on our maintenance operations.

Should you have any questions, please call Charles Pignataro of the Division of Road Maintenance, at 768-3697.

Sincerely,

Westley K.C. Chun, Ph.D., P.E., BCEE
Acting Director & Chief Engineer

2024 N. King Street
Suite 200
Honolulu HI 96819-3494
Tel 808 842-1133
Fax 808 842-1937
rmtowill@rmtowill.com

R. M. TOWILL CORPORATION
SINCE 1930

Planning
Engineering
Environmental Services
Photogrammetry
Surveying
Construction Management

May 9, 2011

Westley K.C. Chun, Ph.D., P.E., BCEE
Acting Director and Chief Engineer
Department of Facility Maintenance
City and County of Honolulu
1000 Uluohia Street, Room 215
Kapolei, Hawai'i 96707

Response to Comments on the proposed Wet Sludge Storage Tank Addition
Sand Island Wastewater Treatment Plant Modifications and Expansion
Honolulu, O'ahu, Hawai'i

Dear Dr. Chun:

On behalf of the City and County of Honolulu, Department of Design and Construction, we thank you for your letter dated April 20, 2011.

We acknowledge that you have no comments to offer. We concur that following construction, maintenance of the proposed additional Wet Sludge Storage Tank will be the responsibility of the City and County of Honolulu, Department of Environmental Services.

Should you have any questions or require additional information, please contact the undersigned at (808) 842-1133.

James Niermann, AICP, LEED AP
Senior Planner

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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

April 20, 2011

RM Towill Corporation
2024 N. King Street Suite 200
Honolulu, Hawaii 96819-3494

Attention: Mr. Jim Niermann

Ladies and Gentlemen:

Subject: Draft Environmental Assessment for Proposed Wet Sludge Storage Tank Addition

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

Other than the comments from Division of State Parks, Engineering Division, Division of Aquatic Resources, Land Division-Oahu District, the Department of Land and Natural Resources has no other comments to offer on the subject matter. Historic Preservation will be submitting comments through a separate letter. Should you have any questions, please feel free to call our office at 587-0414. Thank you.

Sincerely,

Russell Y. Tsuji
Administrator

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

March 28, 2011

MEMORANDUM

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

FROM: Charlene Unoki, Assistant Administrator

SUBJECT: Draft Environmental Assessment for Proposed Wet Sludge Storage Tank Addition

LOCATION: Island of Oahu

APPLICANT: RM Towill Corporation on behalf of Department of Design & Construction

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by April 20, 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 my office at 587-0433. Thank you.

Attachments

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

Signed: T. Ohee
Date: 3/30/2011

BL

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

LD

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

AMK
JK

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

March 28, 2011

DAR 3739

MEMORANDUM

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

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2011 APR 15 P 2:58
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

FROM: Charlene Unoki, Assistant Administrator Charlene
SUBJECT: Draft Environmental Assessment for Proposed Wet Sludge Storage Tank Addition
LOCATION: Island of Oahu
APPLICANT: RM Towill Corporation on behalf of Department of Design & Construction

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by April 20, 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 my office at 587-0433. Thank you.

Attachments

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

Signed: _____
Date: 12 APR 2011

Suspense Date: 4/20/11

State of Hawaii
Department of Land and Natural Resources
DIVISION OF AQUATIC RESOURCES

Date: 4/7/11

MEMORANDUM

TO: Bob Nishimoto, Program Manager
FROM: Jo-Anne Kushima, Aquatic Biologist
SUBJECT: Comments on Environmental Assessment

Comment	Date	Request	Receipt	Referral
		3/28/11	3/29/11	4/3/11

Requested by: Charlene Unoki
Department of Land and Natural Resources, Land Division

Summary of Proposed Project

Title: Draft Environmental Assessment for Proposed Wet Sludge Storage Tank Addition

Project by: Department of Design & Construction
City & County of Honolulu

Location: Sand Island, Oahu

Brief Description: The Land Division of the Department of Land & Natural Resources is requesting comments on the City & County of Honolulu's Department of Design & Construction's proposal to construct an additional, new fifth wet sludge storage tank. The new tank is required to add redundant capacity to accommodate the existing WWTP design flows.

The four existing tanks were built in the 1970's, are old and require major structural rehabilitation with mechanical equipment replacement. However since all four tanks are needed for daily operations, the rehabilitation of the tanks is not possible until a new, redundant tank is constructed. The new tank will allow the plant operators to shut down each of the old tanks, one at a time and to perform the necessary maintenance or repairs that they require. The new, additional tank is part of the programmed Sand Island WWTP Primary Expansion work.

The basis for the environmental assessment is that the proposed project involves use of state lands and additionally is located within the Special Management Area (SMA).

Comments: A review of the Draft Environmental Assessment for the project indicates that there will be minimal impacts of project activities. Access to beaches, recreation areas and natural reserves will not be affected by project activities or operation of the WSST after construction. (They do not discuss and impacts that may result DURING the construction period). The proposed project does not include dredging, filling, altering any bay, estuary, salt marsh, river mouth, slough or lagoon, does not propose reducing the size of any beach or other area useable for public recreation, would not reduce or restrict public access to tidal and submerged lands, beach, portions of rivers and streams. The topography and soils in the proposed project location are at grade and has a building footprint of less than 900 sq ft. Construction activities require minimal excavation and ground disturbing activities. There are no standing water bodies, streams, or other surface water features in the immediate vicinity of the project site. Rainwater and stormwater run off from the project site will be directed to the existing Sand Island WWTF's storm drain system which consists of catch basins and underground piping; discharges into a man-made drainage ditch at the north side of the facility discharging finally into Honoolulu Harbor near the cargo container yard north of the WWTF.

Construction of the additional tank will occur on existing developed land, and the project activities do not involve work in coastal waters or alterations to stream channels or other water bodies or water sources.

A review of the Draft Environmental Assesment for the Proposed Wet Sludge Storage Tank Addition indicates that there will be minimal impacts to the aquatic environment and aquatic resources resulting from the project activities as discussed and described in the above document.

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

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STATE PARKS DIV
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DEPT OF LAND &
NATURAL RESOURCES

March 28, 2011

MEMORANDUM

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

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2011 APR -5 P 3:01
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

FROM: Charlene Unoki, Assistant Administrator
SUBJECT: Draft Environmental Assessment for Proposed Wet Sludge Storage Tank Addition
LOCATION: Island of Oahu
APPLICANT: RM Towill Corporation on behalf of Department of Design & Construction

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by April 20, 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 my office at 587-0433. Thank you.

Attachments

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

Signed: _____
Date: 4/4/11

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

March 28, 2011

MEMORANDUM

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

FROM: Charlene Unoki, Assistant Administrator Charlene
SUBJECT: Draft Environmental Assessment for Proposed Wet Sludge Storage Tank Addition
LOCATION: Island of Oahu
APPLICANT: RM Towill Corporation on behalf of Department of Design & Construction

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by April 20, 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 my office at 587-0433. Thank you.

Attachments

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

Signed:
Date: 4/12/11

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/ Charlene Unoki
REF: DEA for Proposed Wet Sludge Storage Tank Addition, Sand Island WWTP
Oahu.007

COMMENTS

(X) **We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone X. The National Flood Insurance Program (NFIP) does not regulate developments within Zone X.**

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

( ) 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. Mario Siu Li at (808) 523-4247 of the City and County of Honolulu, Department of Planning and Permitting.
- ( ) Mr. Carter Romero at (808) 961-8943 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 project water demands and infrastructure required to meet water demands. Please note that the implementation of any State-sponsored projects requiring water service from the Honolulu Board of Water Supply system must first obtain water allocation credits from the Engineering Division before it can receive a building permit and/or water meter.

( ) 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 Mr. Dennis Imada of the Planning Branch at 587-0257.

Signed: _____
CARTY S. CHANG, CHIEF ENGINEER

Date: 4/12/11

2024 N. King Street
Suite 200
Honolulu HI 96819-3494
Tel 808 842-1133
Fax 808 842-1937
rmtowill@rmtowill.com

R. M. TOWILL CORPORATION
SINCE 1930

Planning
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Environmental Services
Photogrammetry
Surveying
Construction Management

May 9, 2011

William J. Aila Jr., Chairperson
Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawai'i 96809

Response to Comments on the proposed Wet Sludge Storage Tank Addition
Sand Island Wastewater Treatment Plant Modifications and Expansion
Honolulu, O'ahu, Hawai'i

Dear Mr. Aila:

On behalf of the City and County of Honolulu, Department of Design and Construction, we thank you for your letter dated April 20, 2011.

We acknowledge that the Land Division, O'ahu District and the Division of State Parks had no comments.

We acknowledge the comments of the Division of Aquatic Resources which state that "A review of the Draft Environmental Assessment [DEA] for the Proposed Wet Sludge Storage Tank Addition indicates that there will be minimal impacts to the aquatic environment and aquatic resources resulting from project activities as described in the above document [DEA]."

We acknowledge the comments of the Engineering Division which note that, according to the Flood Rate Insurance Rate Map (FIRM), the project is located in Zone X, areas where development is not regulated by the National Flood Insurance Program (NFIP).

With regard to consultation with DLNR's State Historic Preservation Division (SHPD), we have enclosed a March 5, 2001, letter from SHPD to the Department of Design and Construction (also provided in the DEA, Appendix A). The letter concerns the findings of SHPD's Chapter 6E-8 Historic Preservation Review for a larger project, Sand Island Wastewater Treatment Plant Modifications and Expansion, which includes the proposed Wet Sludge Storage Tank. In their assessment, SHPD concludes that "Since modifications are proposed for the existing Sand Island WWTP, and the plant is built upon fill soils, we believe that this project will have 'no effect' on historic sites."

Should you have any questions or require additional information, please contact the undersigned at (808) 842-1133.

Very truly yours,

James Niermann, AICP, LEED AP
Senior Planner

attachment

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DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, HONOLULU DISTRICT
FORT SHAFTER, HAWAII 96858-5440

REPLY TO
ATTENTION OF:

April 22, 2011

Regulatory Branch

File No. POH-2011-00086

James Niermann, AICP, LEED AP
R.M. Towill Corporation.
2024 N. King Street, Suite 200
Honolulu, Hawai'i 96819

Dear Mr. Niermann:

This is in response to your March 22, 2011 letter acting as agent for the Department of Design & Construction, City & County of Honolulu and requesting a Department of the Army (DA) permit review and comments for the proposed addition of a new Wet Sludge Storage Tank at the Sand Island Wastewater Treatment Plant (WWTP) located at Kalihi, Oahu Island (TMK 115041005).

The proposed project was reviewed pursuant to Section 10 of the Rivers and Harbors Act of 1899 (Section 10) and Section 404 of the Clean Water Act (Section 404). Section 10 requires that a DA permit be obtained for certain structures or work in or affecting navigable waters of the United States (U.S.), prior to conducting the work (33 U.S.C. 403). Navigable waters of the U.S. are those waters subject to the ebb and flow of the tide shoreward to the mean high water mark, and/or other waters identified as navigable by the Honolulu District. In addition, a Section 10 permit is required for structures or work outside this limit if they affect the course, location, or condition of the waterbody as to its navigable capacity.

Section 404 requires that a DA permit be obtained for the placement or discharge of dredged and/or fill material into waters of the U.S., including wetlands, prior to conducting the work (33 U.S.C. 1344). For regulatory purposes, the U.S. Army Corps of Engineers (Corps) defines wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. The area of Corps jurisdiction under Section 404 extends to the Mean Higher High Tide Line (MHHTL) or to the Ordinary High Water Mark (OHWM) for navigable waters other than the Pacific Ocean, and to the upland boundary of any adjacent wetlands.

Based on our review of the information you furnished by Mr. Farley Watanabe of my staff, we have determined that the proposed location of the new Wet Sludge Storage Tank (900 sf) and associated construction area (10,000sf) are on UPLAND locations. The Project as described and located, therefore, **IS NOT** subject to the Corp's regulatory jurisdiction and a DA permit shall NOT be required, pursuant to Section 10 and Section 404, for any activities that would involve either the temporary or permanent placement of fill and/or dredged material. An approved JD is provided (Attachment).

This letter contains an approved JD for the Sand Island WWTP Wet Sludge Storage Tank Project. If you object to this determination, you may request an Administrative Appeal under Corps regulations at 33 Code of Federal Regulations (CFR) Part 331. We have enclosed a Notification of Appeal Process and Request For Appeal (NAP/RFA) form for the Kaonoulu Substation & Corridor Project. If you request to appeal the jurisdictional determination you must submit a completed NAP/RFA form to the Corps' Pacific Ocean Division office at the following address:

Thom Lichte, Appeals Review Officer
U.S. Army Corps of Engineers
Pacific Ocean Division, ATTN: CEPOD-PDC
Building 525
Fort Shafter, HI 96858-5440

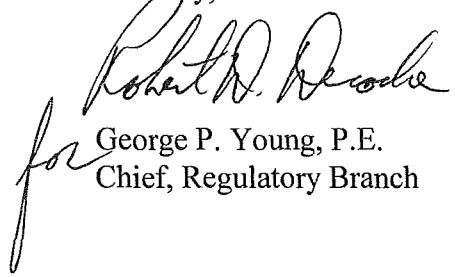
In order for an NAP/RFA to be accepted by the Corps, the Corps must determine that the RFA is complete, that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division office within 60 days of the date of the NAP/RFA sheet. If you decide to submit an NAP/RFA form, it must be received at the above address by June 21, 2011. It is not necessary to submit an NAP/RFA form to the Division office if you do not object to the determination in this letter. You may contact Mr. Lichte at (808) 438-0397.

This jurisdictional determination is valid for a period of five (5) years from the date of this letter unless new information warrants revision of the delineation before the expiration date.

Thank you for giving us the opportunity to review this draft Environmental Assessment and for your cooperation with our regulatory program. Please be advised you can provide comments on your experience with the Honolulu District Regulatory Branch by accessing our web-based customer survey form at http://per2.nwp.usace.army.mil/survey.html.

Should you have any questions, please contact Mr. Farley Watanabe of this office at the above address, by telephone 808-438-7701 (FAX: 808-438-4060), or by E-Mail at Farley.K.Watanabe@usace.army.mil. Please refer to File No. POH-2011-00086 in all future communications with this office regarding this or other projects at this location.

Sincerely,



for George P. Young, P.E.
Chief, Regulatory Branch

Attachments
Proposed Project Location
Jurisdictional Determination
Flowchart
NAP/RFA

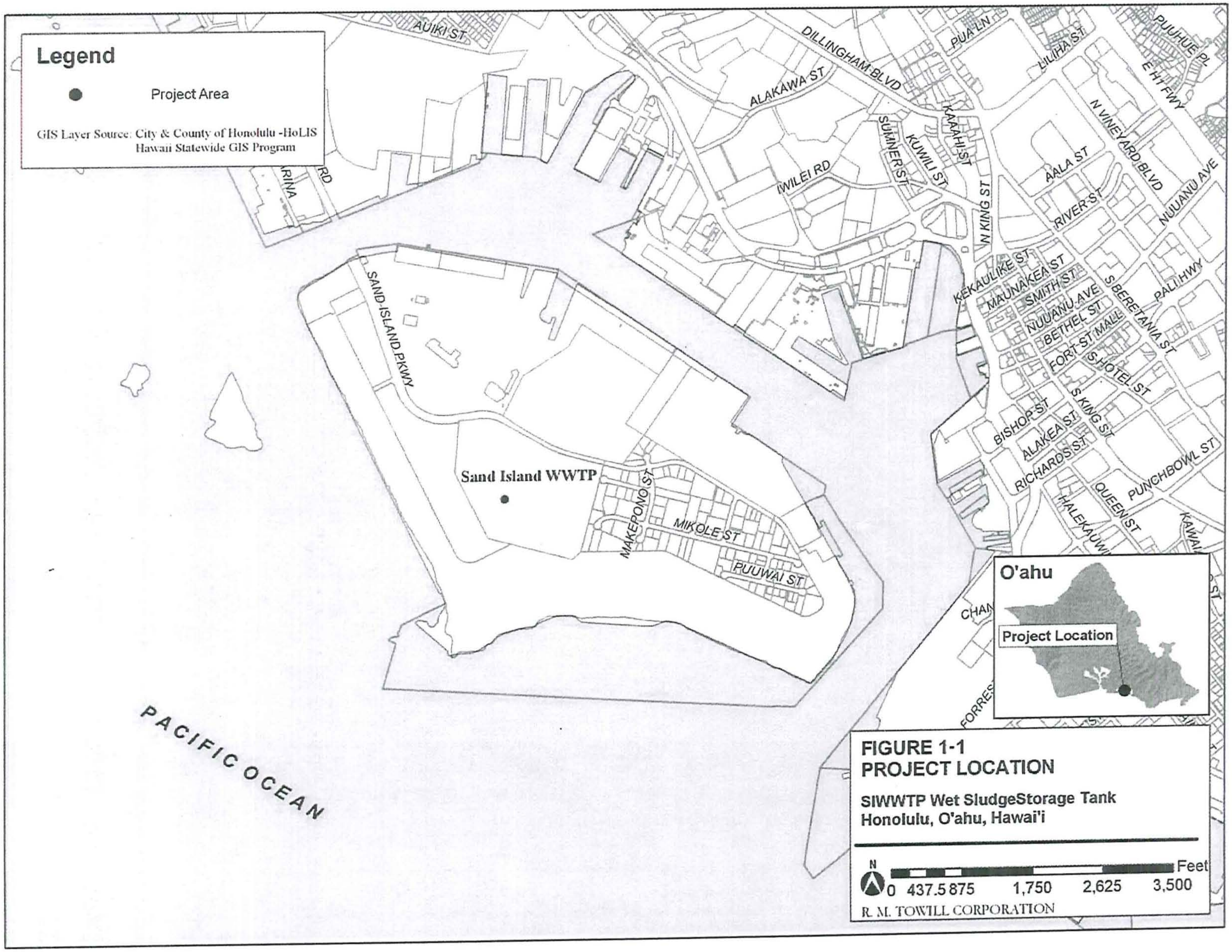


FIGURE 1-1
PROJECT LOCATION
SIWWTP Wet SludgeStorage Tank
Honolulu, O'ahu, Hawai'i

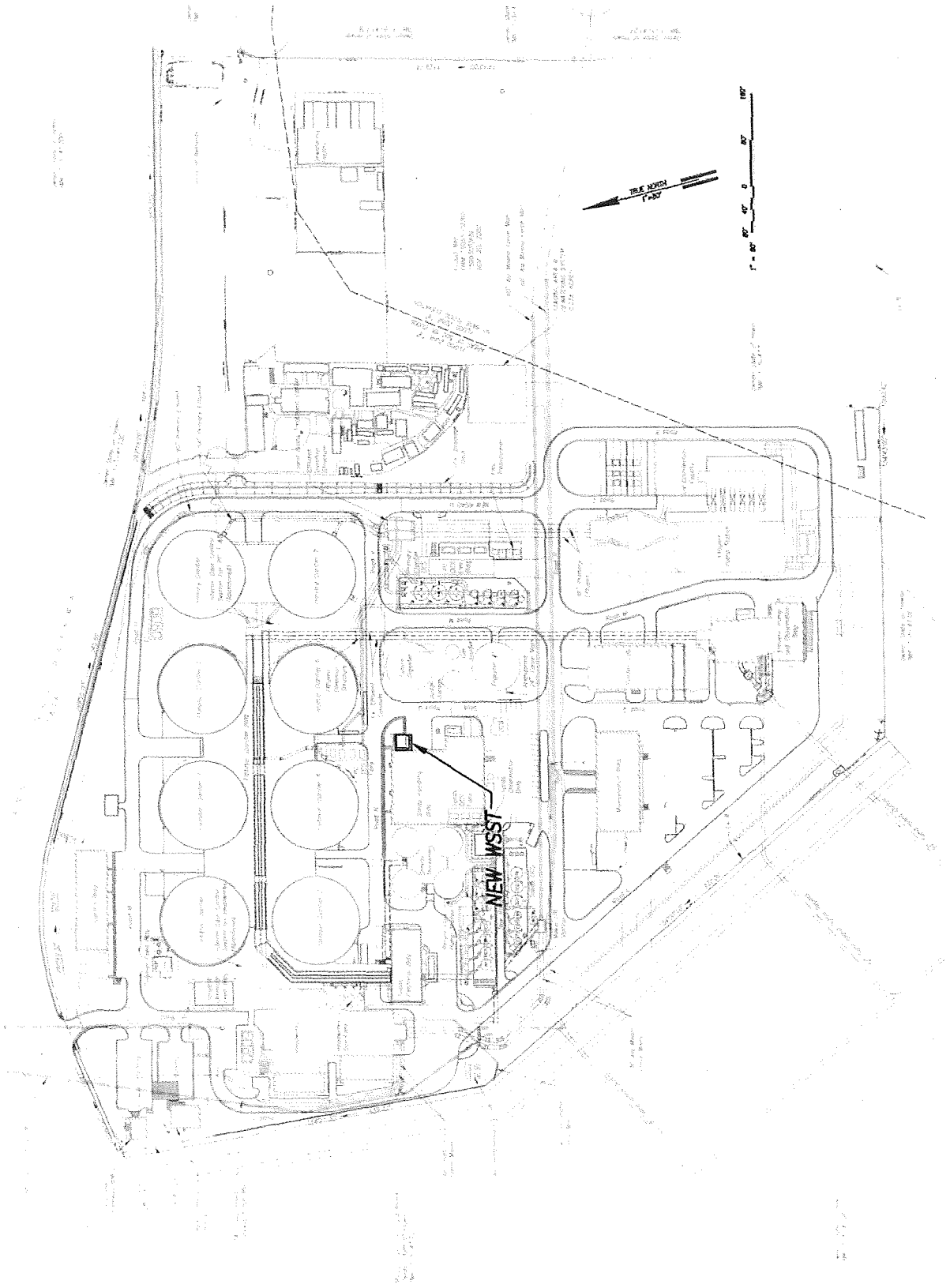


Figure 2-1. Sand Island WWTP Site Plan

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 22 April 2011

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:Construct NewWastewater Sludge Storage Tank Project, POH-2011-00086, Kalihi, Oahu

C. PROJECT LOCATION AND BACKGROUND INFORMATION:
State:HI County/parish/borough: Honolulu City: Kalihi
Center coordinates of site (lat/long in degree decimal format): Lat. 21.30604° N, Long. -157.8817° W.
Universal Transverse Mercator:
Name of nearest waterbody: Pacific Ocean
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Pacific Ocean
Name of watershed or Hydrologic Unit Code (HUC): COWRM
☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☒ Office (Desk) Determination. Date: 22 April 2011
☐ Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are no** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
      ☐ Non-RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      ☐ Impoundments of jurisdictional waters
      ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: 0.0 linear feet: 0.0width (ft) and/or 0.0 acres.
      Wetlands: 0.0 acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Not established at this time.**
      Elevation of established OHWM (if known): .

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: .

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. **TNW**
   Identify TNW: .

   Summarize rationale supporting determination: .

2. **Wetland adjacent to TNW**
   Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. **Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.**

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. **Characteristics of non-TNWs that flow directly or indirectly into TNW**

   (i) General Area Conditions:
   Watershed size: **square miles**
   Drainage area: **square miles**
   Average annual rainfall: inches
   Average annual snowfall: inches

   (ii) Physical Characteristics:
   (a) Relationship with TNW:
   ☐ Tributary flows directly into TNW.
   ☐ Tributary flows through **2** tributaries before entering TNW.

   Project waters are **Pick List** river miles from TNW.
   Project waters are **Pick List** river miles from RPW.
   Project waters are **Pick List** aerial (straight) miles from TNW.
   Project waters are **Pick List** aerial (straight) miles from RPW.
   Project waters cross or serve as state boundaries. Explain: .

   Identify flow route to TNW[5]: .
   Tributary stream order, if known: 2.

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☐ Natural
☐ Artificial (man-made). Explain:
☐ Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):
Average width: feet
Average depth: feet
Average side slopes: **4:1 (or greater).**

Primary tributary substrate composition (check all that apply):

☐ Silts	☐ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation. Type/% cover:	
☐ Other. Explain:		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:
Presence of run/riffle/pool complexes. Explain: at lower perennial reaches.
Tributary geometry: **Pick List**
Tributary gradient (approximate average slope): 10 %

(c) Flow:

Tributary provides for: **Pick List**
Estimate average number of flow events in review area/year: **2-5**
Describe flow regime: flashy.
Other information on duration and volume:

Surface flow is: **Pick List.** Characteristics:

Subsurface flow: **Pick List**. Explain findings:
☐ Dye (or other) test performed:

Tributary has (check all that apply):
☐ Bed and banks
☐ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list):	

☐ Discontinuous OHWM.[7] Explain:

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: tannin-clear.
Identify specific pollutants, if known:

---

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

- ☐ Riparian corridor. Characteristics (type, average width): .
- ☐ Wetland fringe. Characteristics: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is: **Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

- ☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☐ Directly abutting
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain: .
  - ☐ Ecological connection. Explain: .
  - ☐ Separated by berm/barrier. Explain: reservoir is artificial wetland.

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List.**

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):

- ☐ Riparian buffer. Characteristics (type, average width): .
- ☐ Vegetation type/percent cover. Explain: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **2**

Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed: water and sediment retention.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:NON-RPW has capacity to carry pollutants(ag pesticides/herbicides) and suspended nutrients and organic carbon in flood waters to TNW (Pacific Ocean) or to reduce same to TNW; .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: artificial impoundment has potential to release excess waters to RPW tributaries.

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☐ Tributary waters: **40** linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

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[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] **Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.***

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: 15+acres. List type of aquatic resource: none.
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

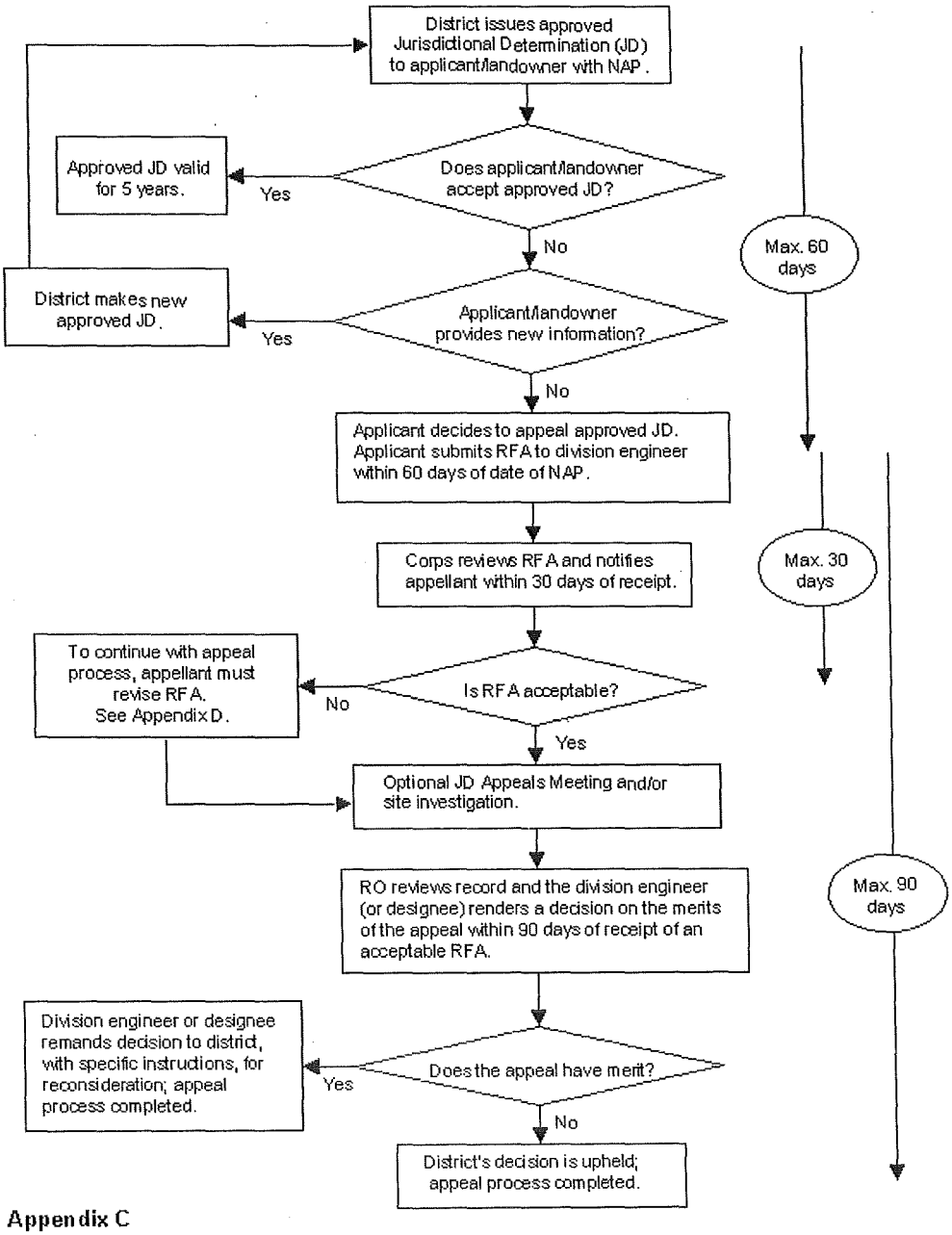
A. **SUPPORTING DATA. Data reviewed for JD (check all that apply** - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☐ U.S. Geological Survey Hydrologic Atlas: .
☐ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
☐ U.S. Geological Survey map(s). Cite scale & quad name:1:24000.
☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
☐ National wetlands inventory map(s). Cite name: .
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☐ Photographs: ☐ Aerial (Name & Date): .
or ☐ Other (Name & Date): .
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☒ Other information (please specify):DAR & COWRM, DLNR dBases.

B. **ADDITIONAL COMMENTS TO SUPPORT JD:** .

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, HONOLULU DISTRICT
FORT SHAFTER, HAWAII 96858-5440

REPLY TO
ATTENTION OF:

Administrative Appeal Process for Approved Jurisdictional Determinations



Appendix C

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Dept. Design & Construction, City & County of Honolulu.	File Number: POH-2011-00086	Date: 22 Apr 2011

Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
XX	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/CECW/Pages/reg_materials.aspx or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:	If you only have questions regarding the appeal process you may also contact:
Farley.K.Watanabe@usace.army.mil/808-438-7701	Thom Lichte (808) 438-0397

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

	Date:	Telephone number:
_____ Signature of appellant or agent.		

2024 N. King Street
Suite 200
Honolulu HI 96819-3494
Tel 808 842-1133
Fax 808 842-1937
rmtowill@rmtowill.com

R. M. TOWILL CORPORATION
SINCE 1930

Planning
Engineering
Environmental Services
Photogrammetry
Surveying
Construction Management

May 9, 2011

George Young, PE
Chief, Regulatory Branch (CEPOH-EC-R)
Department of the Army
U.S. Army Corps of Engineers (USACE)
Building 230
Fort Shafter, HI 96858-5440

Response to Comments on the proposed Wet Sludge Storage Tank Addition
Sand Island Wastewater Treatment Plant Modifications and Expansion
Honolulu, O'ahu, Hawai'i

Dear Mr. Young:

On behalf of the City and County of Honolulu, Department of Design and Construction, we thank you for your letter dated April 22, 2011.

We acknowledge receipt of the USACE Jurisdictional Determination that the proposed project is not subject to the U.S. Army Corps of Engineers' regulatory jurisdiction and a Department of the Army permit shall not be required, pursuant to Section 10, Rivers and Harbors Act, and Section 404, Clean Water Act.

Should you have any questions or require additional information, please contact the undersigned at (808) 842-1133.

Very truly yours,

James Niermann, AICP, LEED AP
Senior Planner

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DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
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PETER B. CARLISLE
MAYOR

DAVID K. TANOUE
DIRECTOR

JIRO A. SUMADA
DEPUTY DIRECTOR

2011/ELOG-926(AA)

May 19, 2011

Mr. James Niermann
R. M. Towill Corporation
2024 North King Street, Suite 200
Honolulu, Hawaii 96819-3494

Dear Mr. Niermann:

Subject: Draft Environmental Assessment (EA)
Wet Sludge Storage Tank (WSST) Addition
Sand Island Wastewater Treatment Plant Modifications and Expansion
1240 Sand Island Parkway - Honolulu
Tax Map Key 1-5-41: 5

The Department of Planning and Permitting (DPP) has reviewed the Draft EA for the above-referenced project, received on April 25, 2011, and offers the following comments:

1. Section 3.1.6, Natural Hazards, page 3-6. Please be aware that the Federal Insurance Rate Map (Number 15001, Panel 361, Suffix G) encompassing the project site was revised as recently as January 19, 2011. Nevertheless, the flood zone designation of the project site remains Flood Zone X.

2. Section 3.2.4, Scenic and Visual Resources, page 3-12. The Draft EA mentions that the new WSST will be consistent in appearance with the industrial character of the existing facilities. Is the new WSST proposed to be the same color as surrounding industrial equipment?

3. Section 4.5, Primary Urban Center (PUC) Development Plan, page 4-5. Inasmuch as the project site is located near Sand Island State Recreation Area, the Final EA should include a discussion of the project's consistency with Section 3.4.2.4, "Military, Airport, Harbor, and Industrial Areas Policy" of the PUC Development Plan: "Promote compatibility with the surrounding urban and natural environment. Where industrial uses are mixed with or adjacent to residential communities or natural areas, mitigate visual, noise, and other environmental impacts by adopting performance standards."

If you have any questions pertaining to Item Nos. 1 and 2, please contact Ann Asaumi of our staff at 768-8020. You may direct any questions you have concerning Item No. 3 to Robert Stanfield of our staff at 768-8051.

Very truly yours,

David K. Tanoue, Director
Department of Planning and Permitting

DKT:cs

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Construction Management

May 23, 2011

David Tanoue, Director
Department of Planning and Permitting
City and County of Honolulu
650 S. King Street, 7th Floor
Honolulu, Hawai'i 96813

Response to Comments on the proposed Wet Sludge Storage Tank Addition
Sand Island Wastewater Treatment Plant Modifications and Expansion
Honolulu, O'ahu, Hawai'i

Dear Mr. Tanoue:

On behalf of the City and County of Honolulu, Department of Design and Construction, we thank you for your letter dated May 19, 2011.

The Department of Planning and Permitting commented, "1. Section 3.1.6, Natural Hazards, page 3-6 [in the Draft EA]. Please be aware that the Federal Insurance Rate Map (Number 15001, Panel 361, Suffix G) encompassing the project was revised as recently as January 19, 2011. Nevertheless, the flood zone designation of the project site remains Flood Zone X." We acknowledge the revision of the FIRM (Number 15003 rather than 15001) in January 2011 and have replaced Figure 3-2 in the Final EA accordingly. We concur that the flood zone designation for the project remains the same as shown in the Draft EA.

DPP commented, "2. Scenic and Visual Resources, page 3-12. The Draft EA mentions that the new WSST will be consistent in appearance with the industrial character of the existing facilities. Is the new WSST proposed to be the same color as the surrounding industrial equipment?" Yes, the new, additional WSST will be enclosed in a building painted a light tan color comparable to that of the adjacent Solids Handling Building at Sand Island WWTP.

DPP commented, "3. Section 4.5, Primary Urban Center (PUC) Development Plan, page 4-5. Inasmuch as the project site is located near Sand Island State Recreation Area, the Final EA should include a discussion of the project's consistency with Section 3.4.2.4, "Military, Airport, Harbor, and Industrial Areas Policy" of the PUC Development Plan: 'Promote compatibility with the surrounding urban and natural environment. Where industrial areas are mixed with or adjacent ot residential communities or natural areas, mitigate visual, noise, and other environmental impacts by adopting performance standards.'" Section 4.5 of the final EA will include a discussion in of consistency with the PUC Development Plan, Section 3.4.2.4, "Military, Airport, Harbor, and Industrial Areas Policy".

The WSST will have no visual impact on recreational resources or natural areas. The new facility will not be visible from the Sand Island State Recreation Area as it will be screened by other buildings within the Sand Island Wastewater Treatment Plant.

Noise in the vicinity of the project site will be generated during construction by heavy equipment, internal combustion vehicles, and power tools used during construction. Mitigation measures are described in Section 3.1.5 of the Final EA. Due to the distance between the project site and the Sand Island State Recreation Area, and the intervening industrial structures, construction-generated noise is not expected to adversely affect public enjoyment of the recreation area. Construction noise will cease at project completion. Operation of the constructed WSST, primarily a passive storage facility, will not result in noticeable changes in sound levels compared to existing operations.

Should you have any questions or require additional information, please contact the undersigned at (808) 842-1133.

Very truly yours,

James Niermann, AICP, LEED AP
Senior Planner

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cc: Jann Dacanay, Department of Design and Construction