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DIRECTOR

EUGENE C. LEE, P.E.
DEPUTY DIRECTOR

WW.P 05-0370

December 13, 2005

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Dear Ms. Salmonson:

Subject: Final Environmental Assessment (FEA) and Finding of No Significant Impact (FONSI) for Mililani Wastewater Preliminary Treatment Facility (WWPTF) Modifications TMK 9-4-05:19, Mililani, Oahu, Hawaii

The Department of Design and Construction, City and County of Honolulu, has reviewed the comments received on the draft environmental assessment for Mililani WWPTF project during the 30-day public comment period which began on May 23, 2005. The City has determined that this project will not have significant environmental effects and has issued a Finding of No Significant Impact (FONSI) determination. Please publish this notice in the next available Environmental Notice.

We have enclosed a completed OEQC Publication Form, four copies of the draft EA, and the project summary and photo on disk. Please call Roy Abe of Hawaii Pacific Engineers, Inc. at 522-7425 if you have any questions.

Very truly yours,

for Wayne M. Hashiro, P.E.
Director

Enclosures

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2005-12-23-OA-FEA MILILANI WASTEWATER PRELIMINARY TREATMENT FACILITY MODIFICATIONS

Final Environmental Assessment and Finding of No Significant Impact

Mililani Wastewater Preliminary Treatment Facility Modifications

Mililani, Hawaii

Prepared For:

Department of Design and Construction
City and County of Honolulu

Prepared by:

Hawaii Pacific Engineers, Inc.

HPE Project No. 9828
December 13, 2005

Final Environmental Assessment and Finding of No Significant Impact

for

MILILANI WASTEWATER PRELIMINARY TREATMENT FACILITY MODIFICATIONS

Mililani, Oahu, Hawaii
TMK: 9-4-05:19

December 13, 2005

THIS ENVIRONMENTAL DOCUMENT HAS BEEN PREPARED PURSUANT TO CHAPTER 343, HAWAII REVISED STATUTES

Responsible Official: Eugene C. Lee Date: 12/12/05
for Wayne M. Hashiro, P.E., Director

PROPOSING AGENCY: Department of Design and Construction
City and County of Honolulu
650 South King Street, 11th Floor
Honolulu, Hawaii 96813

PREPARED BY: Hawaii Pacific Engineers, Inc.
1132 Bishop Street, Suite 1003
Honolulu, Hawaii 96813-2830

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EXECUTIVE SUMMARY

The City and County of Honolulu proposes to construct modifications at its Mililani Wastewater Preliminary Treatment Facility (WWPTF) on the southern boundary of Mililani Town. The modifications are required to improve the performance of the preliminary treatment facilities and accommodate projected increases in future wastewater flow.

Proposed modifications to the existing headworks facilities include installation of two new grinder units, renovation of the existing aerated grit removal chamber, and installation of new smaller grit chamber aeration blowers. In addition to increasing capacity, the headworks upgrade will improve the performance of the headworks to minimize maintenance requirements and potential clogging problems at two downstream inverted siphons (depressed sewer pipes) crossing Waikele Gulch.

Construction of a new 1.7 million gallon flow equalization basin consisting of a lined open earthen basin is also proposed. The proposed basin is approximately 260 feet long by 160 feet wide by 12 feet deep. During major storm events, the flow equalization basin will be used to temporarily store and dampen the high wet-weather wastewater flows caused by infiltration and inflow of rainwater into the sewer system.

The construction will be confined to the existing Mililani WWPTF site that has been previously graded and was formerly used for agriculture. There will be some short-term construction impacts such as an increase in the number of vehicles accessing the site, construction equipment noise, and dust. Long-term increases in noise and odors associated with the operation of the upgraded headworks facilities and flow equalization basin will be negligible.

The construction cost for this project is estimated to be approximately $3.9 million. The construction work is expected to last 18 to 24 months. Construction is not expected to begin until 2006 or 2007.

PROJECT INFORMATION SUMMARY

1.	Proposing and Approving Agency:	City and County of Honolulu Department of Design and Construction 650 South King Street Honolulu, Hawaii 96813
2.	Prepared By:	Hawaii Pacific Engineers, Inc. 1132 Bishop Street, Suite 1003 Honolulu, Hawaii 96813-2830 Roy K. Abe, Project Manager, Ph. 808-524-3771

PROJECT INFORMATION SUMMARY (CONTINUED)

3.	Project Name:	Mililani Wastewater Preliminary Treatment Facility Modifications
4.	Project Location:	94- 417 Makapipipi Street Mililani, Hawaii 96789
5.	Tax Map Key:	9-4-05:19
6.	Land Area:	11.2 acres (approximately)
7.	Property Owner:	City and County of Honolulu
8.	State Land Use:	Agriculture
9.	County Zoning:	AG-1, Restricted Agriculture
10.	Special Designations:	None (no SMA and shoreline setback requirements; not listed as a historic site on state or federal register)
11.	Determination:	FONSI (Finding of No Significant Impact)

SECTION 1
PROJECT DESCRIPTION

A. INTRODUCTION AND GENERAL BACKGROUND

The Mililani Wastewater Preliminary Treatment Facility (WWPTF), owned and operated by the City and County of Honolulu (City), is located on an 11-acre site at 94-417 Makapipipi Street in Mililani. The site is located west of Kamehameha Highway on the southern boundary of Mililani Town. A location map is shown on Figure 1-1.

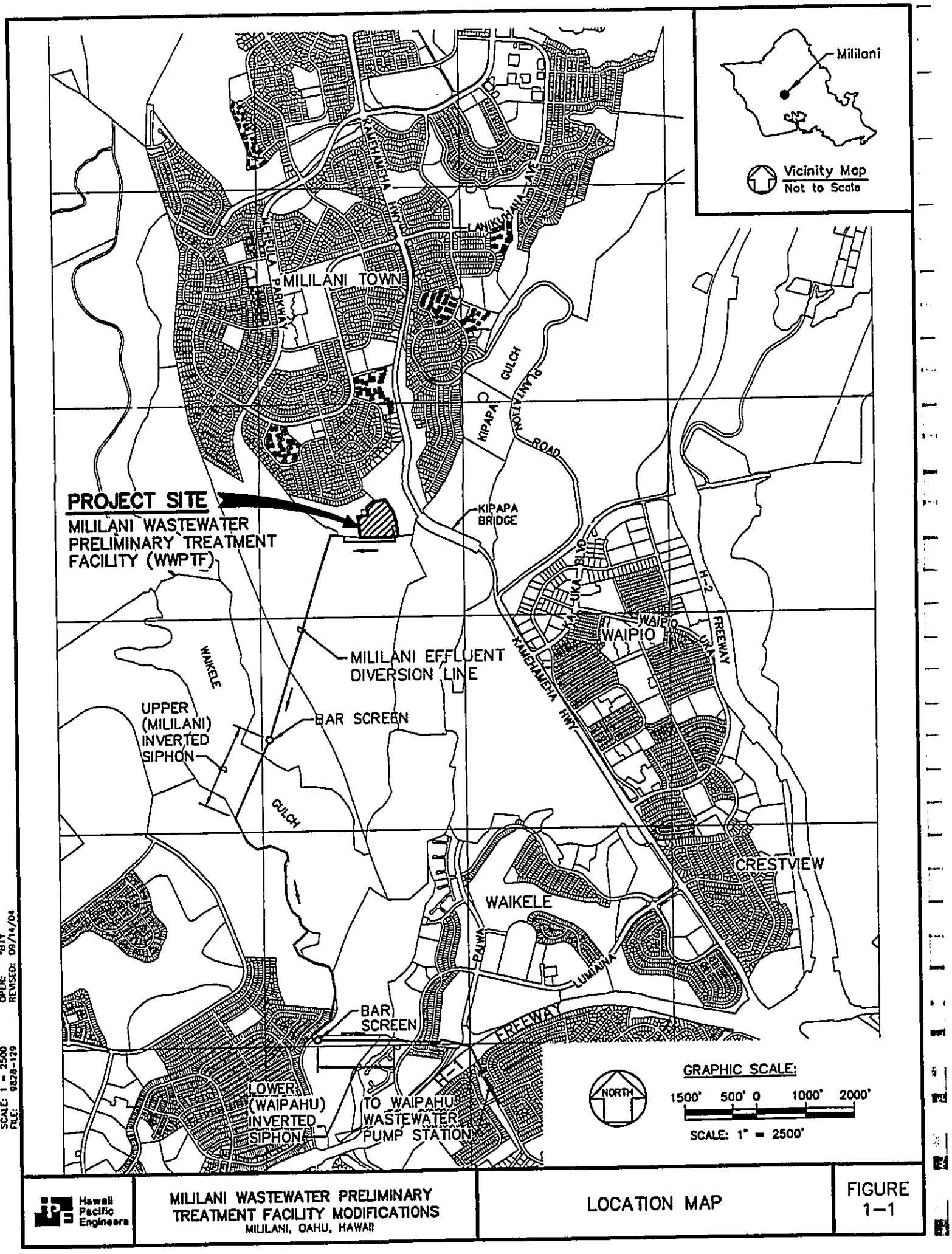
The Mililani WWPTF, previously known as the Mililani Wastewater Treatment Plant, was constructed in several phases during the late 1960's and 1970's to provide full treatment of wastewater for discharge of effluent to Kipapa Stream. In 1990, the wastewater flow was diverted via the new Mililani effluent diversion line to the Waipahu Wastewater Pump Station for transmission to the Honouliuli Wastewater Treatment Plant. The discharge to the stream was eliminated and most of the treatment units were taken out of service.

Only the headworks (preliminary treatment) portion of the plant currently remains in operation to provide grinding and grit removal prior to discharge of the wastewater into the effluent diversion line. The purpose of the preliminary treatment is to reduce the potential for large and heavy solids in the wastewater to clog downstream sewer lines and pumping facilities. The performance of the headworks facilities has been marginal due to capacity limitations of the existing grinding equipment.

The headworks portion of the Mililani WWPTF was originally designed to treat an average flow of 3.6 million gallons per day (mgd) but has been accommodating average flows that are substantially higher. The current average flow at the Mililani WWPTF is estimated to be approximately 4.0 mgd. The average flow is anticipated to increase to approximately 5.7 mgd by the year 2020 due to ongoing development in the region.

Wastewater flows increase significantly during wet weather due to entry of rainwater into sewer pipes through pipe and manhole defects and illicit connections such as roof gutters and outdoor drains. The projected 2020 design peak wet-weather flow for the Mililani WWPTF is 19.3 mgd. The headworks facilities were originally designed for a peak wet weather flow of 11.2 mgd. During high wet-weather flows, the water level in the headworks area of the Mililani WWPTF can rise to within inches of overtopping the channel walls.

In addition to capacity limitations of the Mililani WWPTF, there is also a need to address the capacity of downstream facilities that convey the wastewater to the Honouliuli Wastewater Treatment Plant. Due to the increasing service population, future peak wet-weather flows are



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MILILANI WASTEWATER PRELIMINARY TREATMENT FACILITY MODIFICATIONS
MILILANI, OAHU, HAWAII

LOCATION MAP

FIGURE 1–1

projected to exceed the capacities of the downstream Waipahu Wastewater Pump Station and some of the sewer lines. Attenuation of peak flows by providing temporary wet-weather flow storage upstream of the capacity-limited downstream facilities is one method addressing these capacity limitations.

B. DESCRIPTION OF THE PROPOSED PROJECT

1. Project Needs and Objectives

The City proposes to upgrade and construct new facilities at the Mililani WWPTF to improve the performance of the preliminary treatment facilities and accommodate projected increases in wastewater flow. Specific objectives and requirements of the project are as follows:

- Upgrade of the headworks facilities is proposed to improve preliminary treatment performance. Improving the performance of the headworks facilities will help minimize maintenance requirements and potential clogging problems at two existing downstream inverted siphons (depressed sewer pipes) on the Mililani effluent diversion line that crosses Waikele Gulch. Due to the limited capacity of the existing grinder, a substantial amount of flow needs to be bypassed around the grinder unit. This results in the need for manual removal of debris from coarse screens located in the bypass channel at the headworks and the screens located upstream of the inverted siphons (see Figure 1-1).

- Upgrade of the headworks facilities is also required to increase the hydraulic (flow handling) capacity to accommodate future increases in wastewater flow. If the capacity is not increased, the higher projected peak flows in the future could result in wastewater spilling out of manholes and overtopping the tanks or channel walls.

- Due to capacity limitations of downstream wastewater conveyance facilities, the construction of a flow equalization basin is proposed to temporarily store and thereby dampen peak wastewater flows generated during heavy rainfall. The existing Waipahu Wastewater Pump Station and collection system located downstream of the Mililani WWPTF does not have sufficient capacity to accommodate the projected future peak wet-weather flow. The City has concluded that reduction of peak wet-weather flow through the construction of flow equalization facilities is more cost-effective than increasing the capacity of the downstream pump station and sewer lines. Reduction of the peak wet-weather flows will also help improve the performance of the Honouliuli Wastewater Treatment Plant.

2. General Project Description

A general site plan showing the proposed modifications at the Mililani WWPTF is shown on Figure 1-2. The following discussions describe the proposed modifications.

The details and basis of the proposed actions are presented in two preliminary engineering reports that were prepared for the City. The reports are "Mililani Wastewater Preliminary Treatment Facility Headworks Upgrade Engineering Report," (Hawaii Pacific Engineers, 2002) and "Design Alternatives Report for Mililani Diversion Relief Sewer," (ParEn Inc., 2002). The latter report focuses on the proposed flow equalization basin and the capacity of conveyance facilities located upstream and downstream of the Mililani WWPTF. The concept of the flow equalization basin was originally developed in the general regional planning report entitled "West Mamala Bay Facilities Plan," (Wilson Okamoto & Associates, 2001).

Headworks Modifications

The headworks modifications will include installing new grinders, refurbishing the existing grit removal facilities, and installing new air blowers. The existing headworks facilities are shown on Figure 1-3 and in Photo No. 1-1 and No. 1-2. The proposed upgrade work on the headworks facilities are shown on Figure 1-4. The proposed new air blowers in the existing Sludge Pump Building are shown on Figure 1-5. The following are brief descriptions of the headworks modifications.

Two new grinders, each capable of handling the future peak design flow of 19.3 mgd, are proposed to be installed in new reinforced concrete channels. One grinder would normally be operated and the other grinder would serve as a standby backup unit. The existing grinder and bypass bar screen will be removed and new manually cleaned bar screens will be installed. Wastewater flow will overflow to the manually cleaned bar screens in the event of grinder malfunctions.

The existing aerated grit chamber will be refurbished with new aeration piping, aeration diffusers, and effluent weir. The existing unused airlift pump and grit classifier will be removed. To increase the performance of the grit removal operations, the frequency of periodic grit removal is proposed to be increased from semi-annually to quarterly. To increase operating flexibility, piping modifications are proposed to allow flow to bypass the aerated grit chamber.

The current practice of periodically pumping the accumulated grit with a vacuum tanker truck and disposing the dewatered grit at a landfill will be continued. The grit, as well as any screenings from the manual bar screen, will be dewatered onsite either on an upgraded existing sludge drying bed or in a custom fabricated steel drainage bin. If an existing sludge drying bed is to be utilized for dewatering, an impermeable liner will be installed on the floor of the bed to prevent filtrate from leaching into the underlying soil.

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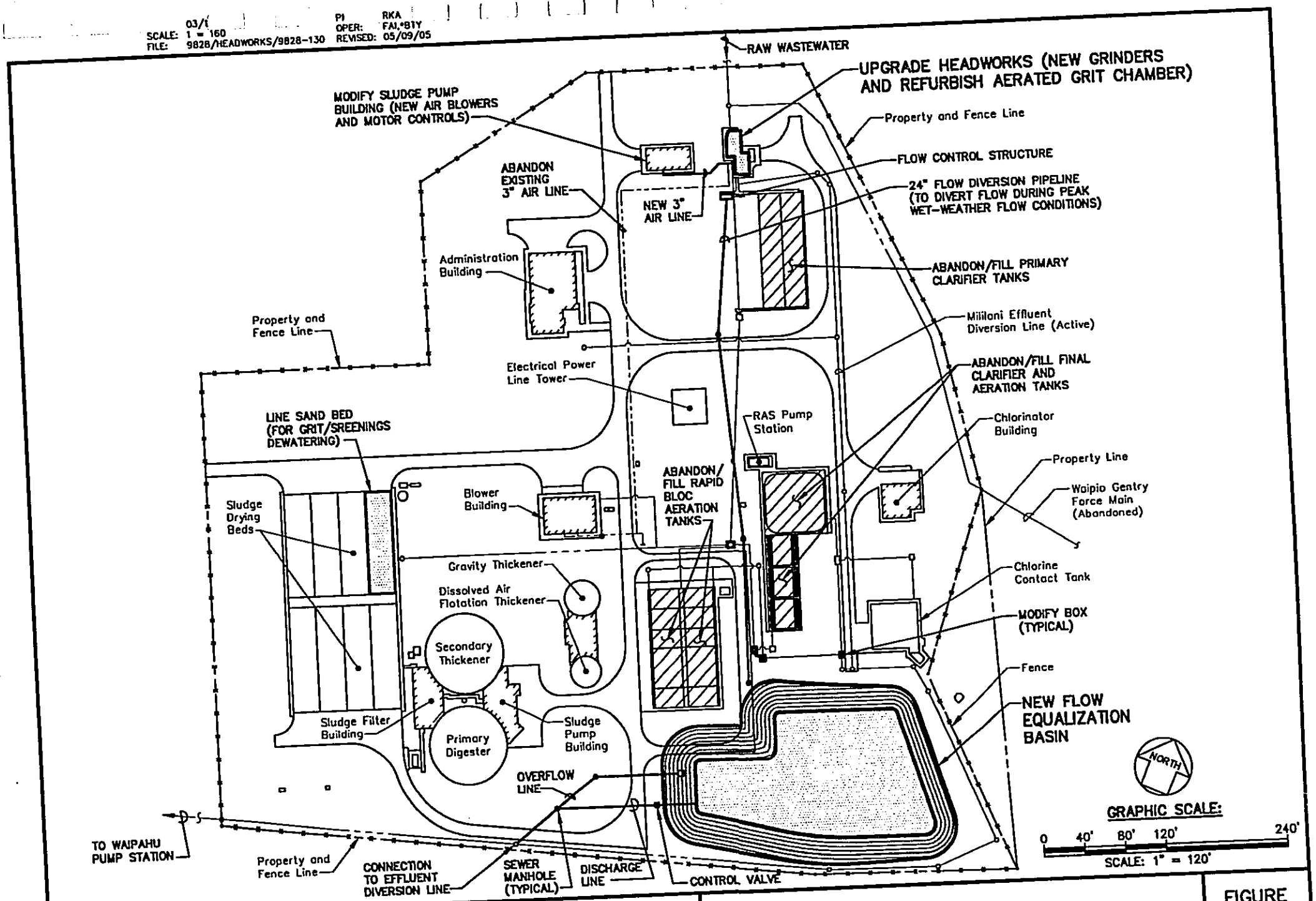

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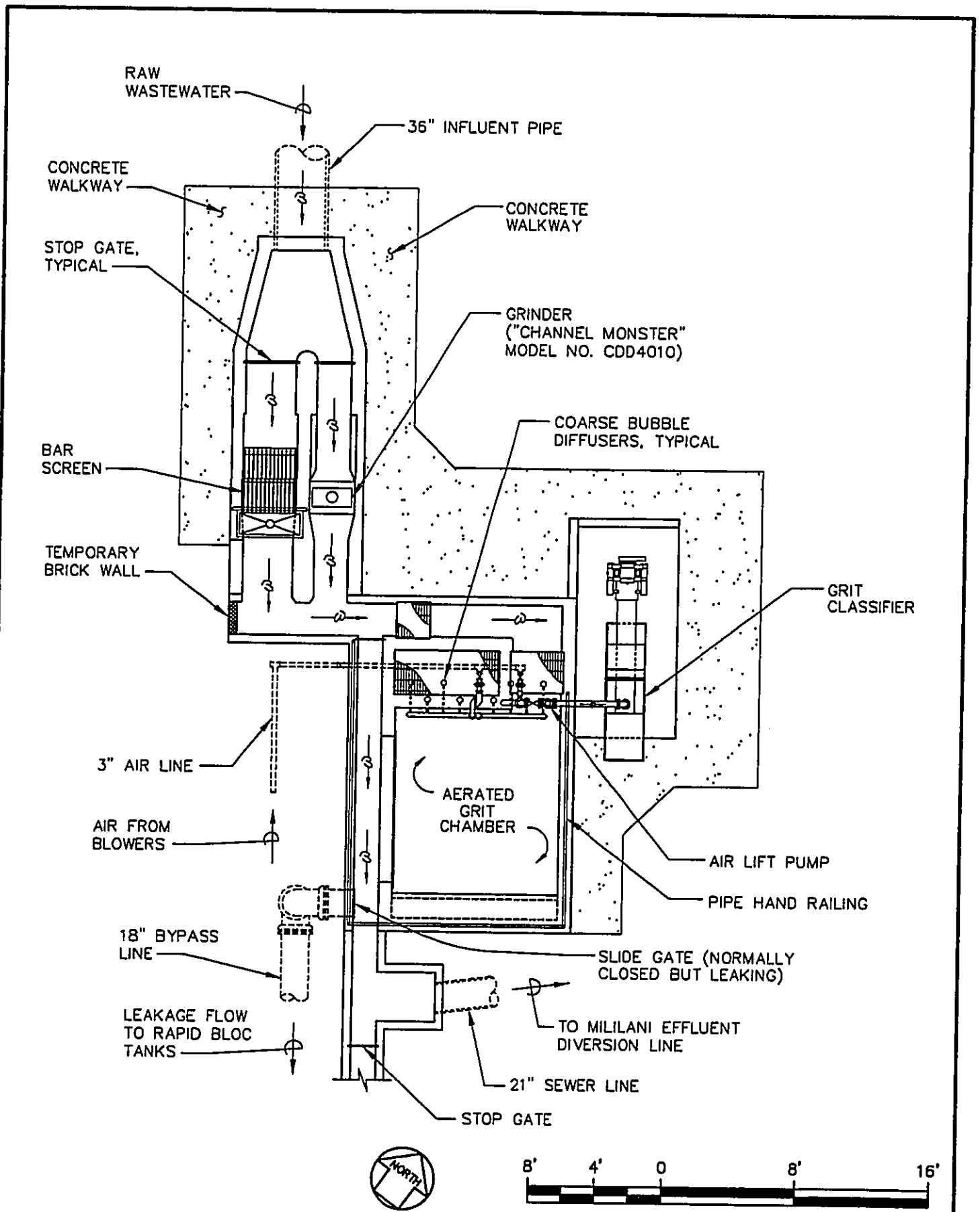
MILILANI WASTEWATER PRELIMINARY TREATMENT FACILITY MODIFICATIONS
MILILANI, OAHU, HAWAII

PROPOSED SITE PLAN

FIGURE 1-2



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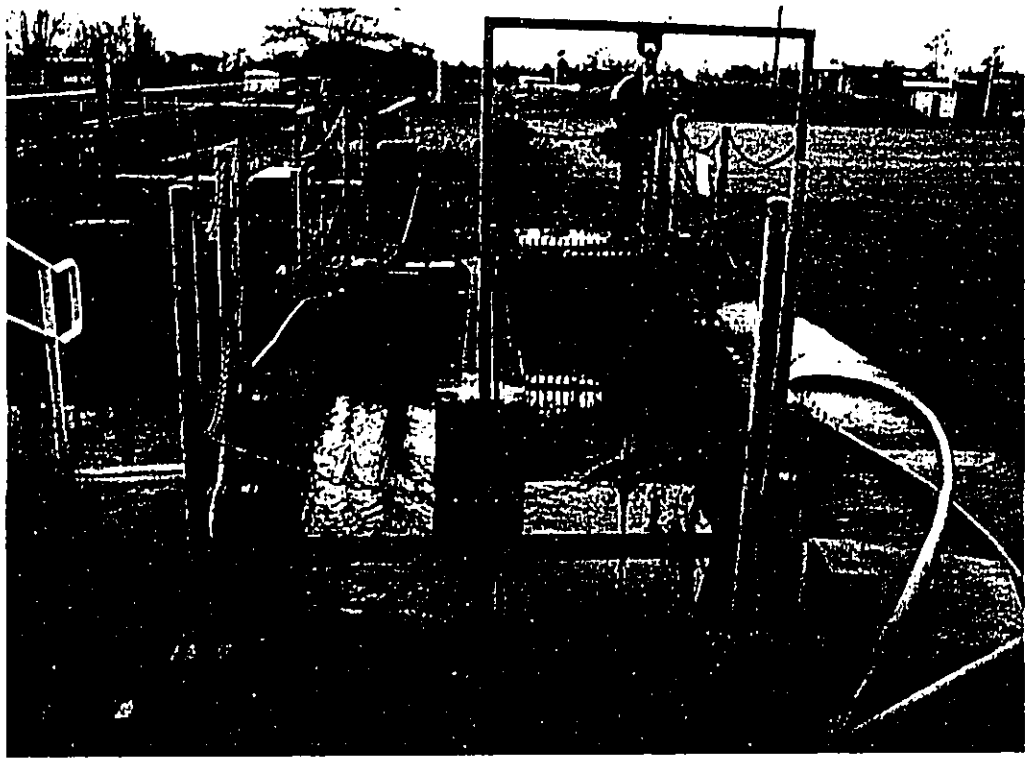
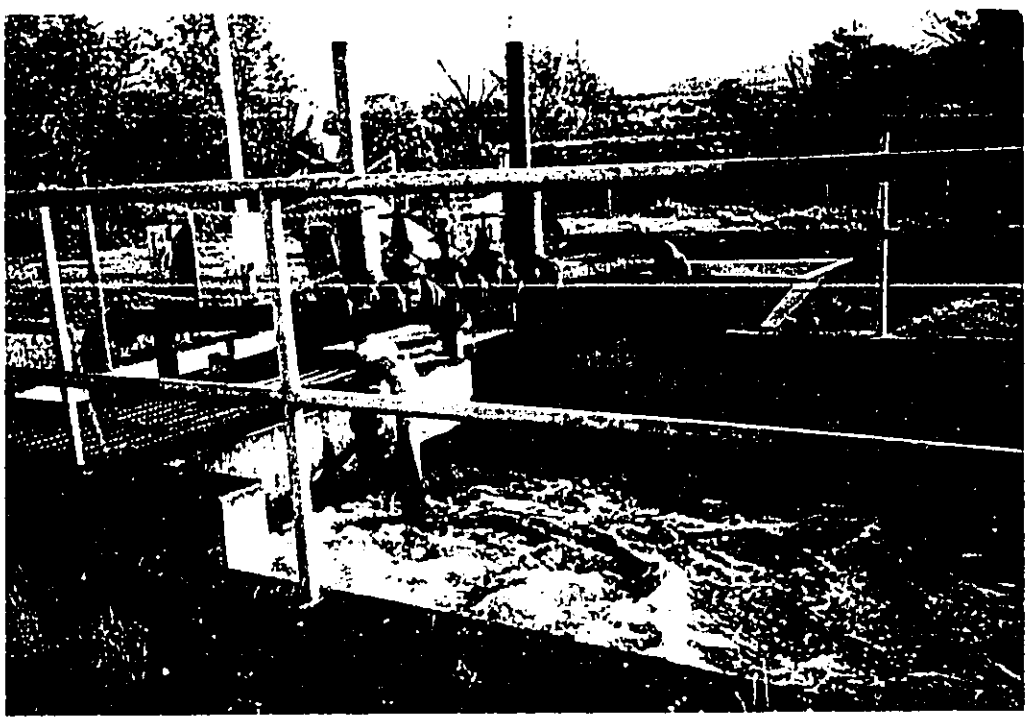
MILILANI WASTEWATER PRELIMINARY TREATMENT FACILITY MODIFICATIONS
MILILANI, OAHU, HAWAII

EXISTING HEADWORKS PLAN

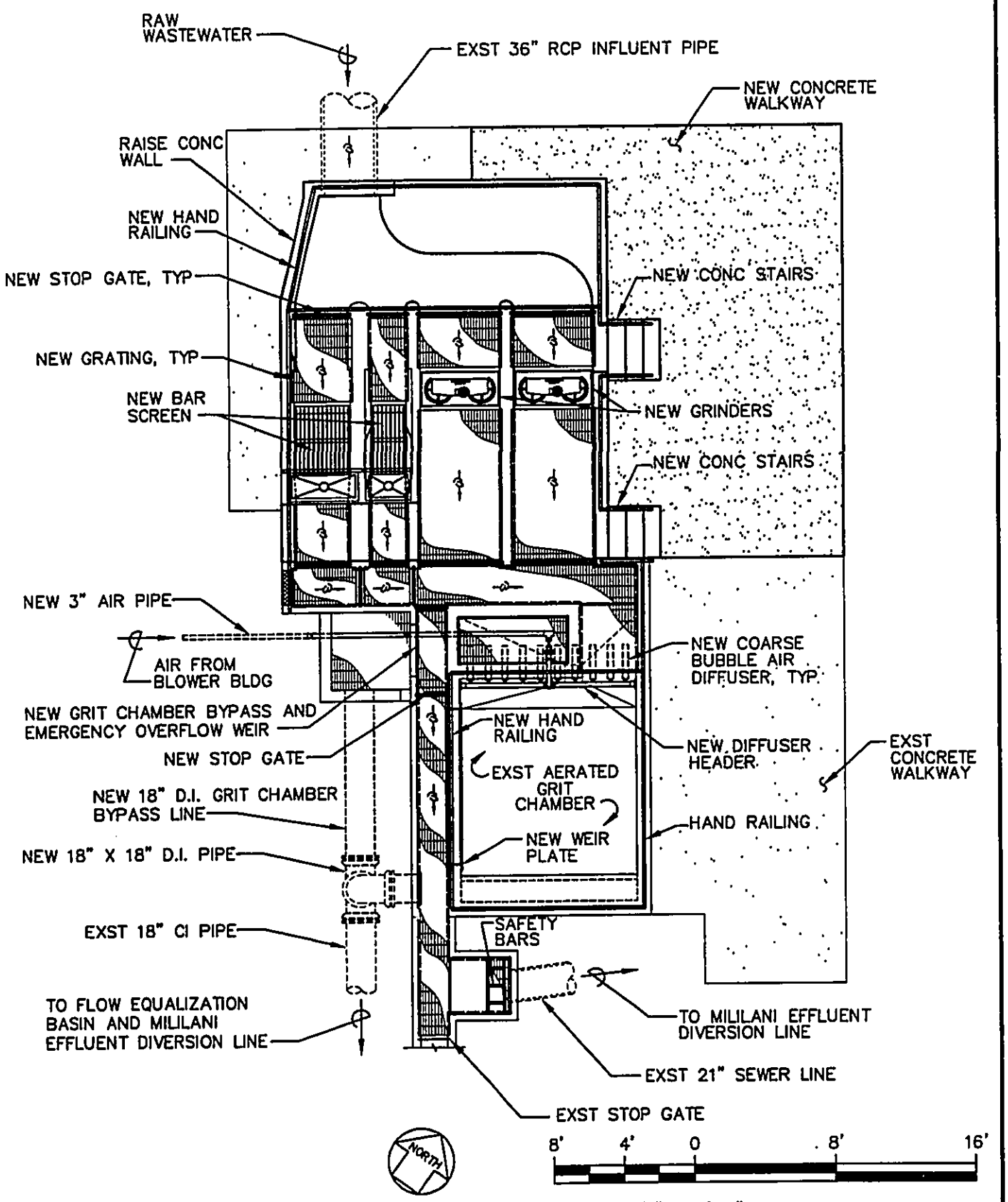
FIGURE 1-3



Photograph No. 1-1 Headworks grinder (left) and bar screen (right)



Photograph No. 1-2 Aerated grit chamber.



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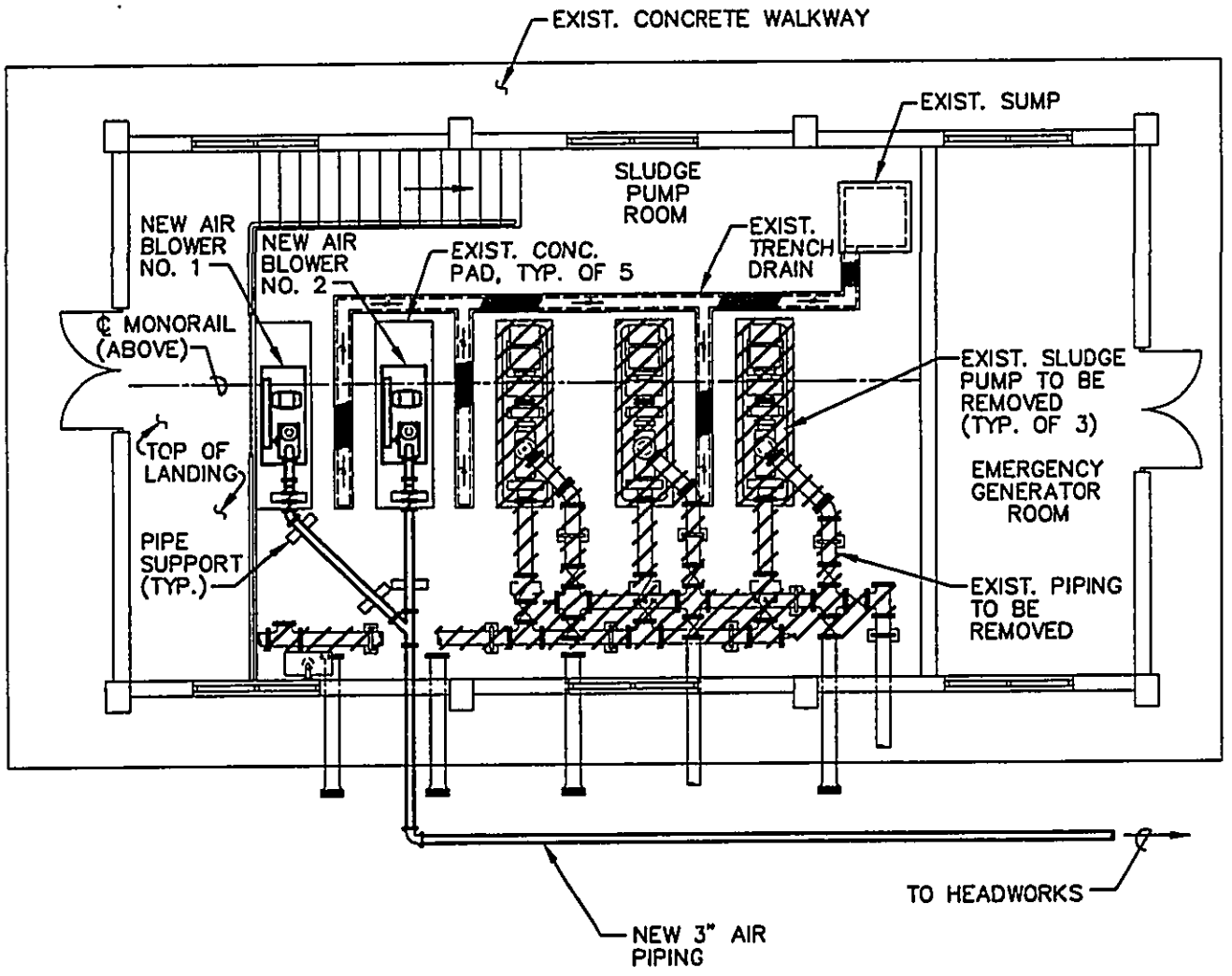
Hawaii Pacific Engineers	MILILANI WASTEWATER PRELIMINARY TREATMENT FACILITY MODIFICATIONS MILILANI, OAHU, HAWAII	PROPOSED HEADWORKS MODIFICATIONS	FIGURE 1-4



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NORTH

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Hawaii Pacific Engineers	MILILANI WASTEWATER PRELIMINARY TREATMENT FACILITY MODIFICATIONS MILILANI, OAHU, HAWAII	PROPOSED NEW AIR BLOWERS	FIGURE 1–5

Two new 10-horsepower air blowers will be installed in the Sludge Pump Building to supply air to the aerated grit chamber. One air blower would normally be operated and the other air blower would serve as a standby backup unit. The existing 75-horsepower air blowers in the existing blower building will be taken out of service. The new blowers will result in energy savings since they will replace the much larger blowers currently in use. The larger blowers were originally sized to provide process air for the entire Mililani Wastewater Treatment Plant.

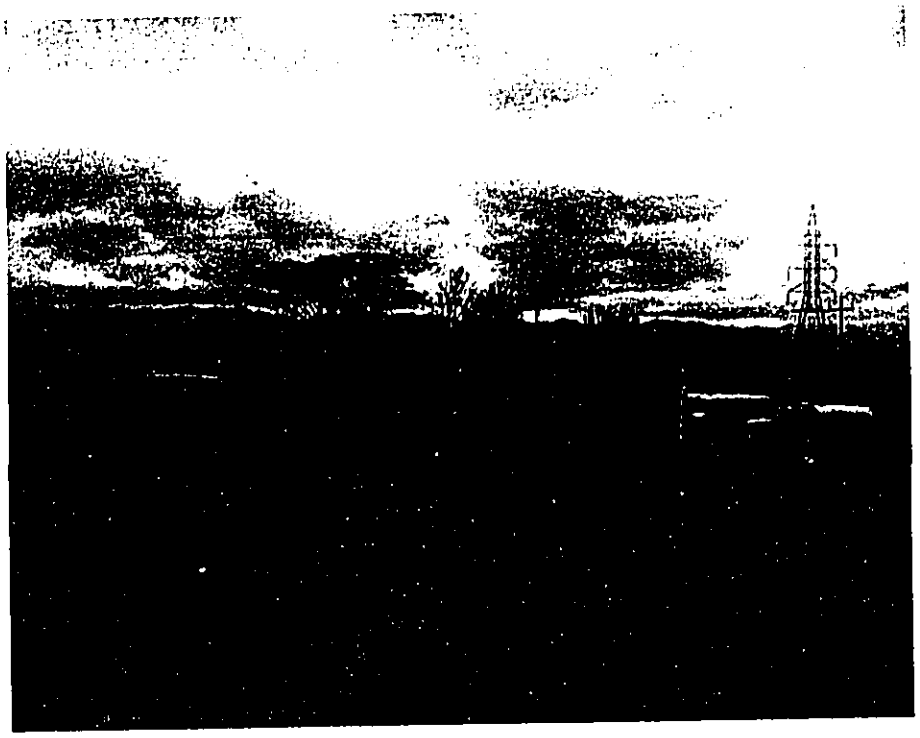
New electrical and instrumentation systems will be installed to support the new process equipment. New electrical feeders are proposed to be constructed between the existing incoming electrical service at the Blower Building and the new motor controls at the Sludge Pump Building. The estimated electrical load for the upgraded headworks facilities is 21 KVA. An existing emergency generator located in the Sludge Pump Building will provide backup power for the new grinders. Remote monitoring capability will be provided for power failure, high water level in the grinder channel, grinder and blower malfunctions, and security intrusion alarms.

Flow Equalization Basin

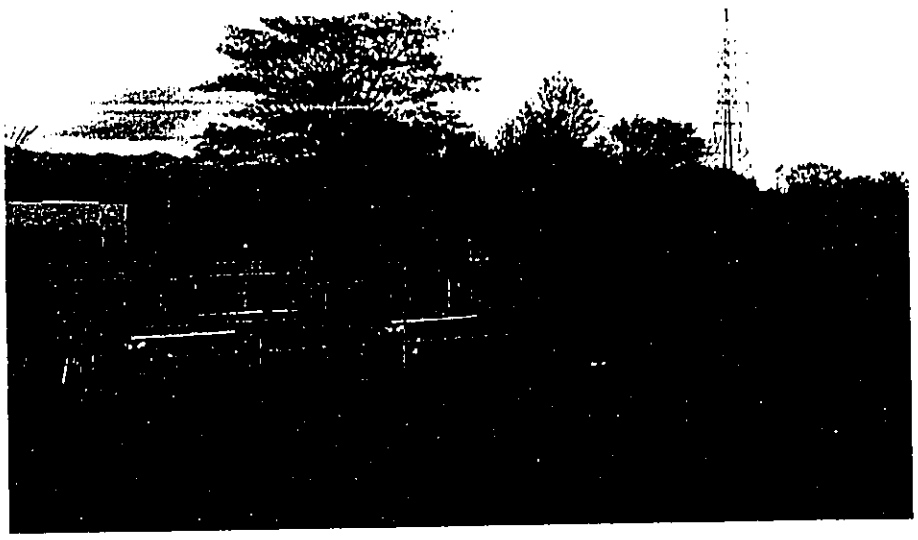
A flow equalization basin with a capacity of approximately 1.7 million gallons is proposed to be constructed on the unused southeast corner of the site (see Photo No. 1-3 and No. 1-4). During high wet-weather flows, a portion of the wastewater would be diverted to the basin to reduce the magnitude of the downstream peak flow. The basin is expected to have the capability to reduce the 2020 peak wet-weather flow of 19.3 mgd by at least 8 mgd. The detained flow would be immediately discharged back into the sewer line following the peak flow event at a controlled rate. The flow equalization facility would be utilized only during large storm events and therefore is expected to be utilized not more than several times per year. The stored flow would normally be returned back into the sewer system within a 24-hour period.

The proposed flow equalization basin is approximately 260 feet long by 160 feet wide by 12 feet deep. The proposed design maximum water depth is 10 feet to allow for a minimum freeboard of 2 feet. As shown on Figure 1-2, the basin will be irregularly shaped to take advantage of the available area at the site. The existing structures are to be left intact due to the possibility of reactivating the plant in the future for production of reclaimed water. A new 24-inch diameter line will be constructed to convey flow from the headworks area to the flow equalization basin.

The flow equalization basin will be lined with an impermeable reinforced polypropylene liner to contain the wastewater. A motorized valve on the basin discharge line will be used to control the outflow to the sewer. An unrestricted overflow line would be provided to prevent overflow of the basin. Standpipes will be provided to facilitate washdown of the basin following each use.



Photograph No. 1-3 Site for proposed flow equalization basin (looking east).



Photograph No. 1-4 Photo showing flow equalization basin site in background and abandoned "Rapid Bloc" aeration tank (with overgrown vegetation) in foreground.

Other Facility Modifications

As part of the project, various unused tanks at the Mililani WWPTF may be drained and may be backfilled with crushed rock and soil to eliminate ongoing maintenance of the tanks, accumulation of rainwater, and mosquito problems. These unused tanks include the existing primary clarifier tanks, aeration tanks and final clarifier tank. Pipes to the tanks will be plugged/modified to eliminate leakage of wastewater flow into the tanks. Drainage holes will be drilled in the tank floor slabs to drain rainwater. The Honolulu Board of Water Supply (BWS) will be evaluating the feasibility of using the abandoned primary and final clarifier tanks as part of future transmission facilities for reclaimed water in Central Oahu. The tanks would not be backfilled if they are to be used in the future by BWS.

Other piping modifications will be made to divert minor flows, such as those from the underdrains of the sludge drying beds and restrooms from the blower building, to the Mililani effluent diversion line. One of the eight existing onsite sludge beds will be reconstructed with an impermeable liner if the City decides to dewater grit and screenings using the sludge drying bed. The liner will prevent filtrate from leaching into the soil.

3. Project Funding

The preliminary construction cost estimate for the project is $3.9 million. The project will be funded by the City and County of Honolulu under its Capital Improvement Program budget. A low interest loan from the State Revolving Fund (SRF) administered by the State Department of Health may potentially be used. There will be no direct assessments fees levied on the residents served by the project.

4. Project Schedule

Construction of the project is scheduled to begin in 2006 or 2007 at the earliest. Construction of the proposed improvements is anticipated to occur within a 12 to 18 month period.

5. Permits and Approvals Required

State Permits/Approvals

Construction plans approvals	Department of Health
Community noise permit (if required during construction)	Department of Health
NPDES permit for storm water runoff from a construction site	Department of Health

State Permits/Approvals (continued)

Construction plans approval	Disability Communication Access Board

City and County of Honolulu Permits/Approvals

Construction plans approvals	Department of Planning & Permitting
Grubbing, grading and stockpiling permit	Department of Planning & Permitting
Building permit for building, electrical, plumbing, and demolition work	Department of Planning & Permitting
Public Infrastructure Map revision	Department of Planning & Permitting
Special Use Permit	Department of Planning & Permitting

A Special Use Permit (SUP) is anticipated to be required since the Mililani WWPTF is located in the State Land Use Agricultural District where treatment plants are not a permitted use. If an SUP was obtained for the original treatment facility or subsequent modifications to the facility, an SUP may not be required. State Land Use Commission and City Department of Planning and Permitting records, however, do not indicate that an SUP was issued for the previously constructed treatment facilities. The reason that an SUP was not required or obtained for past projects at the site is unknown.

A Conditional Use Permit is not required since the parcel is designated for public use. The Army Corps of Engineers, based on its review of the project, has indicated that a Department of Army permit will not be required. Section 404 of the Clean Water Act should not be applicable since no disposal of material into Kipapa or Waikele streams will be allowed.

SECTION 2
ENVIRONMENTAL SETTING

A. INTRODUCTION

This section provides an overview of the environmental setting of the project site, including physical and biological aspects of the natural environment and the socio-economic characteristics of the surrounding community. The environmental setting of a project can significantly affect the type and extent of impacts.

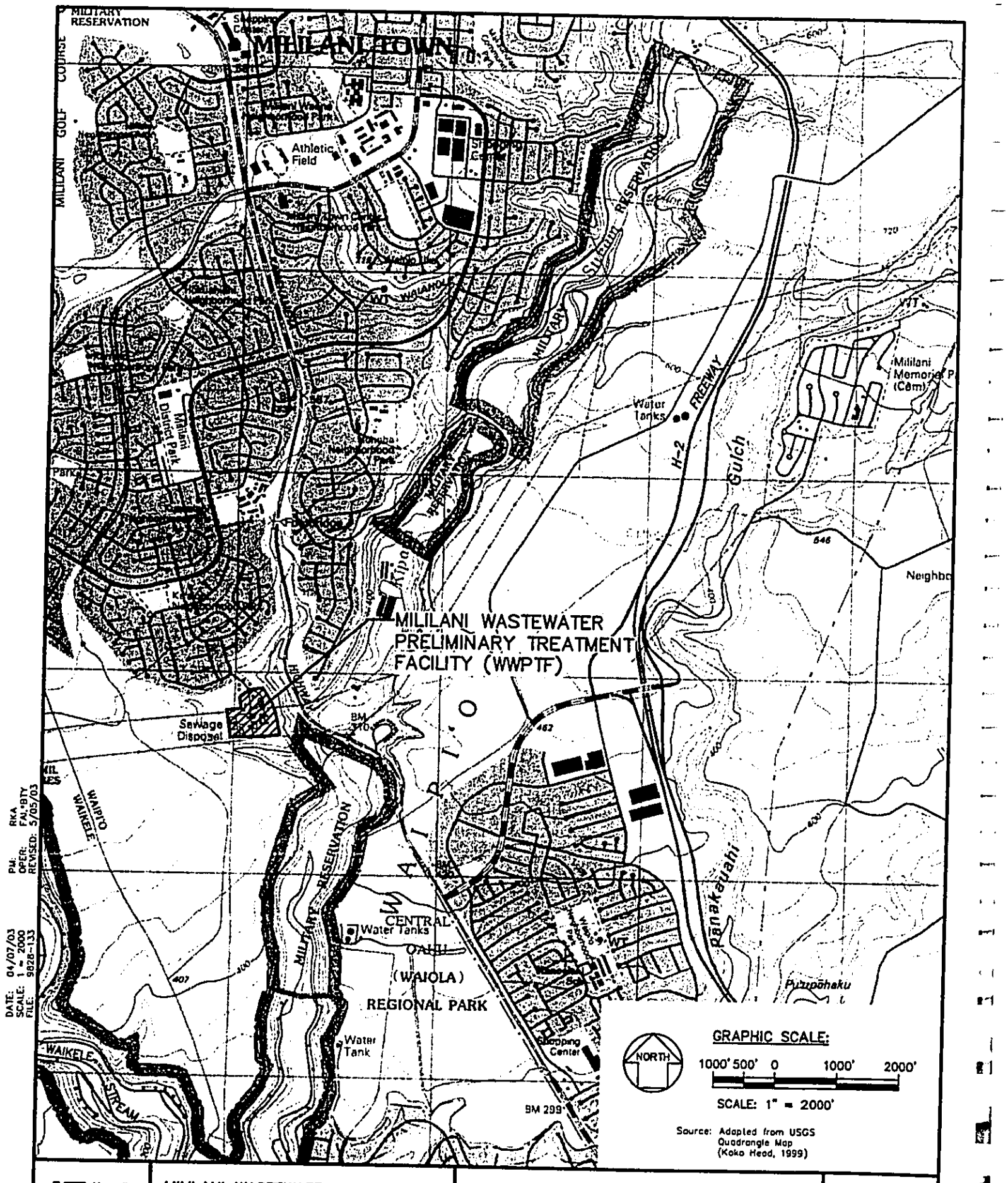
B. CHARACTERISTICS OF THE PHYSICAL AND BIOLOGICAL ENVIRONMENT

1. Location, Land Use and Topography

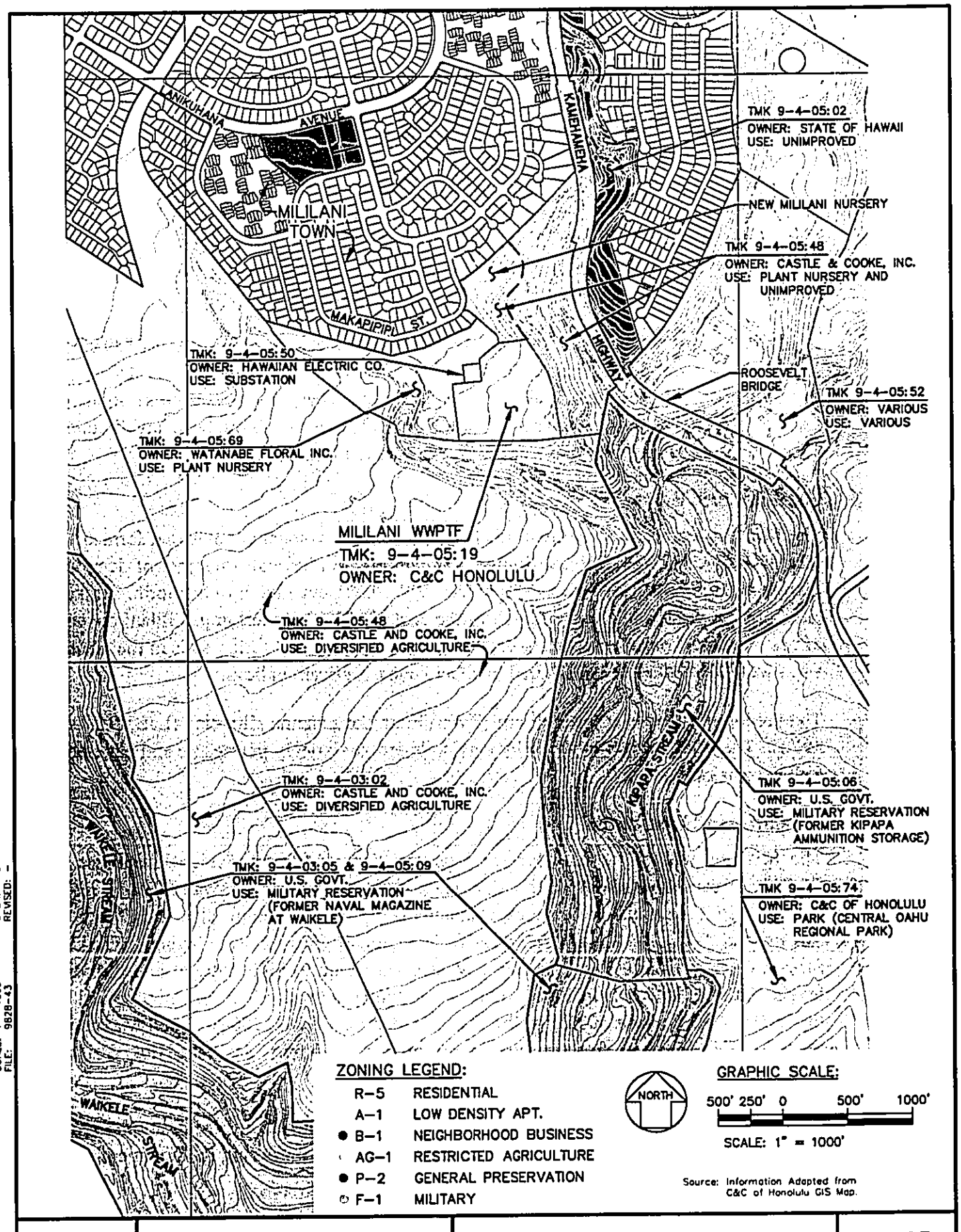
The location of the Mililani Wastewater Preliminary Treatment Facility (WWPTF) is shown on an USGS topographic map of the region on Figure 2-1. The treatment facility is located at 94-417 Makapipipi Street on an 11.191 acre parcel (TMK 9-4-05:19) on the southern boundary of Mililani Town. The Mililani WWPTF site is located on a knoll that is bordered to the south and east by two ravines draining to Kipapa Gulch. Kamehameha Highway is located approximately 400 feet from the eastern border of the plant site.

A general parcel map showing the neighboring properties, land uses and topographic contours is presented on Figure 2-2. Two ornamental plant nurseries are located along the western and northern borders of the Mililani WWPTF. The Mililani Town residential area through which the plant site is accessed is located just north of the plant nurseries. The large tract of land south of the site owned by Castle and Cooke, Inc. is currently utilized for diversified agriculture. The abandoned Kipapa Ammunition Storage Site that was formerly used by the Army is located southeast of the Mililani WWPTF in the Kipapa Stream valley. The former Naval Magazine at Waikele, which is slated for future redevelopment, is located south and southwest of the project site in the largely undeveloped gulch areas where the Kipapa and Waikele streams converge.

The Mililani WWPTF site exhibits gently sloping terrain with slopes typically between three and five percent. The elevation of the treatment facility site ranges between approximately 470 and 490 feet above mean sea level (MSL). Very steep slopes of the bordering ravines are located just beyond the southern and eastern boundaries of the plant site. In the area where Kipapa Stream passes under the Roosevelt Bridge, the ground elevation drops to approximately 230 feet above MSL.



Hawaii Pacific Engineers	MILILANI WASTEWATER PRELIMINARY TREATMENT FACILITY MODIFICATIONS MILILANI, OAHU, HAWAII	USGS TOPOGRAPHIC MAP	FIGURE 2–1



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MILILANI WASTEWATER PRELIMINARY TREATMENT FACILITY MODIFICATIONS
MILILANI, OAHU, HAWAII

GENERAL PARCEL AND TOPOGRAPHIC CONTOUR MAP

FIGURE 2-2

2. Climate

The Mililani region has a climate that is typical of central Oahu. The temperatures are typically mild and uniform, generally ranging from 66 to 82 degrees F in the summer and 60 to 75 degrees F in the winter. Average annual rainfall in the Mililani area ranges from about 40 to 50 inches per year near the H-2 freeway to as much as 75 inches per year at the mauka boundary of the development. At the Mililani WWPTF on the southern end of the development, the average annual rainfall is approximately 32 inches per year (State DLNR, 1986).

A general wind rose indicating wind direction and speeds for the island of Oahu is shown on Figure 2-3. Prevailing winds are northeasterly trade winds that occur approximately 70 percent of the time. Trade wind frequency ranges from about 45 percent in January to more than 90 percent in July. Winds may blow from any direction. High winds are most likely to occur during the winter months.

3. Geology and Soils

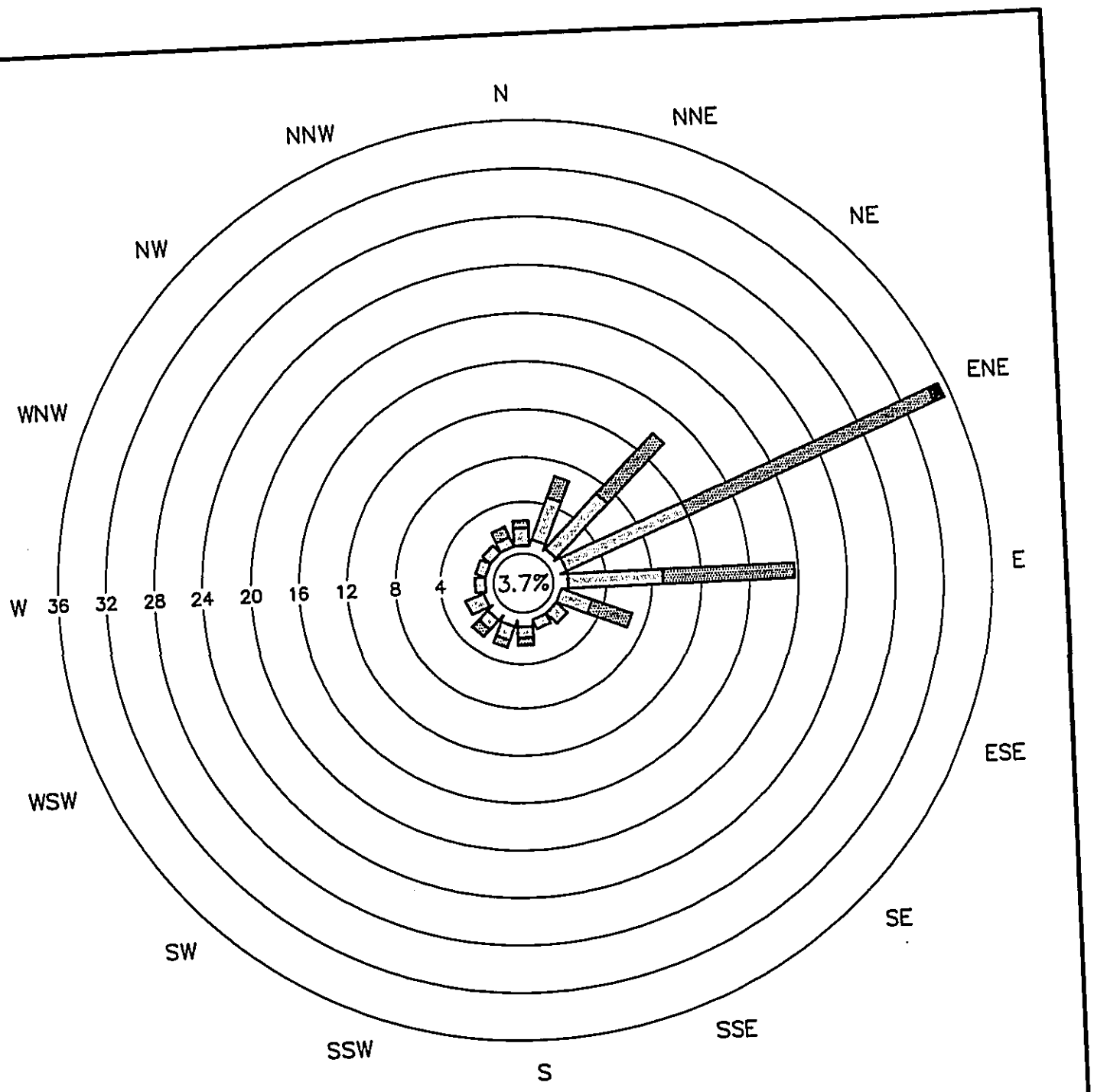
The Mililani region rests on the eroded remains of two volcanic domes that formed the Koolau Range and the Waianae Range. Stream erosion has cut a number of deep and narrow valleys. Mililani Town is bounded by Waikakalaua Gulch to the north, Waikele Gulch to the west, and Kipapa Gulch to the east. Bedrock underlying Mililani consists of basaltic lava from the Koolau volcano. Relatively deep and fertile soils in the plateau areas were formed by the weathered lava between the stream valleys.

The predominant soils at the Mililani WWPTF are the Lahaina silty clay (LaB) (USDA, 1972). The dark reddish-brown silty clay soils are moderately permeable and have only a slight erosion hazard.

4. Streams and Wetlands

The Mililani WWPTF site is located near the Kipapa Stream, which discharges to Waikele Stream downstream of the plant site. Under the State of Hawaii Department of Health (DOH) Administrative Rules, Chapter 11-54, "Water Quality Standards," Kipapa Stream and Waimalu Stream are classified as Inland Class 2 waterbodies. Waikele Stream discharges into Pearl Harbor's West Loch. Due to high nutrient and turbidity levels, Waikele Stream is included in the list of "impaired waters" in Hawaii prepared by the DOH under Section 303(d) of the Clean Water Act (DOH, 2004). Total Maximum Daily Loads (TMDLs) are currently in the process of being established for Waikele Stream.

Kipapa Stream flows are intermittent and largely influenced by precipitation events, while Waikele Stream flows year round. The two ravines bordering the treatment plant site that drain to Kipapa Stream are normally dry.



Adapted from "Atlas of Hawaii," Second Edition, 1983.
Department of Geography University of Hawaii.

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Hawaii Pacific Engineers	MILILANI WASTEWATER PRELIMINARY TREATMENT FACILITY MODIFICATIONS MILILANI, OAHU, HAWAII	WIND ROSE FOR OAHU

FIGURE 2–3

There are no wetlands at the Mililani WWPTF site. Past surveys of the Waikele Stream and Kipapa Stream indicate that there are no wetlands near the project site other than the streams (Earth Tech, 2001).

5. Hydrology and Water Resources

The Mililani WWPTF is located over the Pearl Harbor aquifer, which is a major source of potable water. The groundwater supply is recharged by subsurface leakage from dike-impounded water in the Koolau Range as well as by infiltration of rainfall on the plateau area. The groundwater is impounded behind caprock located along the coastline. The location of major wells downgradient of the Mililani WWPTF are shown on Figure 2-4. The plant site is located inland of the Honolulu Board of Water Supply's "no-pass" line and the DOH Underground Injection Control (UIC) line.

6. Flood Hazard

Based on the Federal Emergency Management Agency (FEMA) Federal Insurance Rate Map (FIRM), the project site is located in Zone D, which are areas of undetermined but possible flood hazards. Significant flooding at the site is highly unlikely due to the sloping topography of the site and location of the site well above Kipapa Stream.

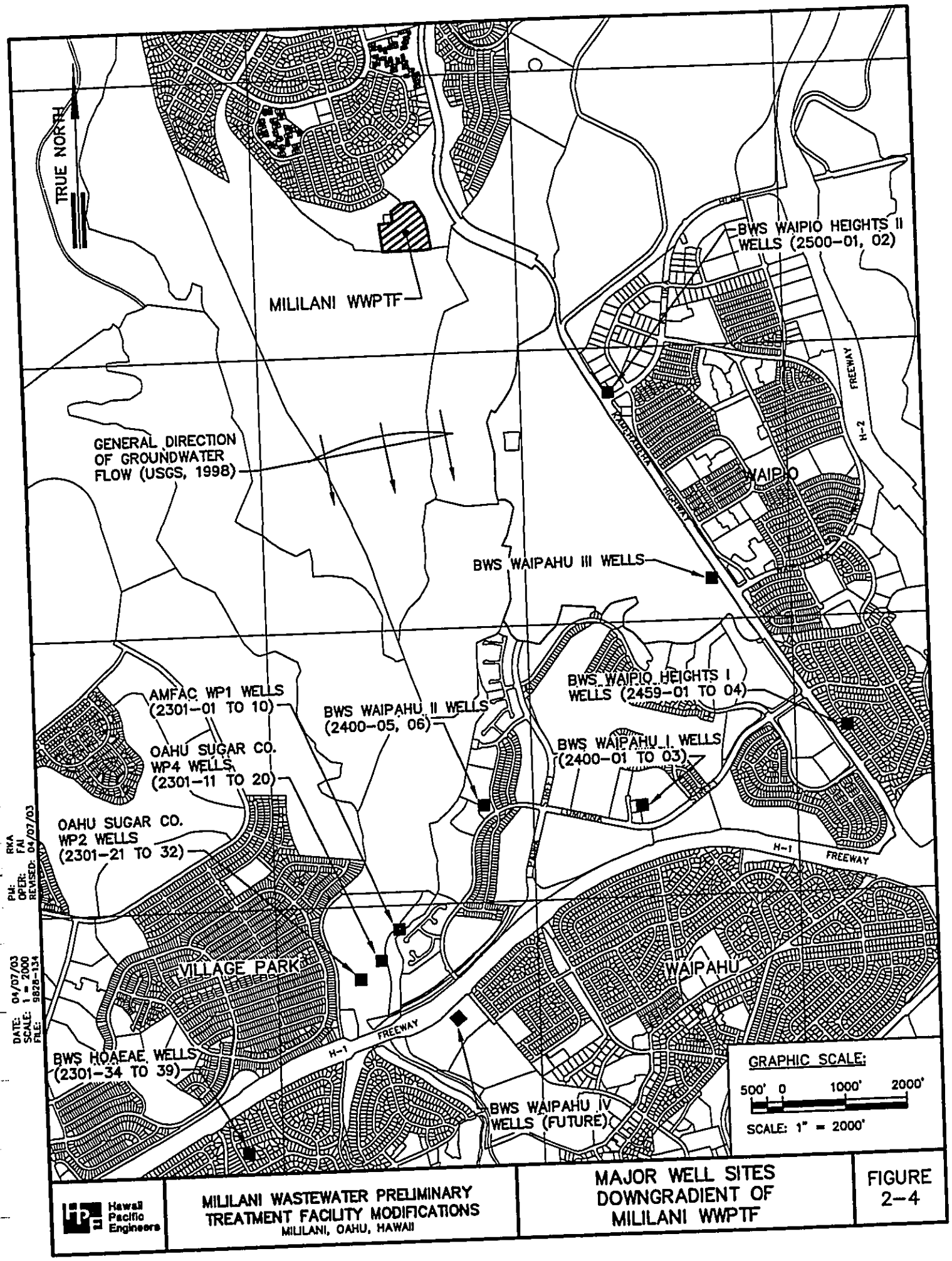
7. Flora and Fauna

Mililani WWPTF Site

Aerial photographs taken prior to the construction the Mililani WWPTF indicate that the site was previously cleared and used for agriculture. The southeast corner of the site for the proposed new equalization basin, however, has become heavily overgrown. To ensure that no threatened or endangered species or other species of concern have since inhabited the project site, a biological resources assessment study consisting of a flora and fauna survey of the site was conducted by Char & Associates. The biological resources assessment report is presented in its entirety in Appendix A. The area examined in the study was generally limited to those portions of the site that would be affected by the proposed project. A summary of the findings is presented below.

The vegetation around the existing treatment tanks and structures to be modified is dominated by introduced, mostly weedy species such as koa haole, pitted beardgrass, Guinea grass, *Sid ciliaris*, coatbuttons, etc. Two native species observed on the project site were ʻuhaloa and one small shrub of ʻaʻaliʻi (*Dodonaea viscosa*). Near the southeast corner of the site, a 50-foot tall albizia tree and 20 to 25 feet tall silk oak and kiawe trees were observed. Ground cover in this area consisted primarily of dense clumps of 4 to 7 feet tall Guinea grass. None of the plants observed at the site is a threatened and endangered species or a species of concern.

Eleven bird species were recorded on and around the project site. All are alien species with the exception of the plover, which is an annual visitor to the islands. Mammals


TRUE NORTH
MILILANI WWPTF
GENERAL DIRECTION OF GROUNDWATER FLOW (USGS, 1998)
BWS WAIPIO HEIGHTS II WELLS (2500-01, 02)
KAMEHAMEHA HIGHWAY
H-2 FREEWAY
WAIPIO
BWS WAIPAHU III WELLS
BWS WAIPIO HEIGHTS I WELLS (2459-01 TO 04)
BWS WAIPAHU II WELLS (2400-05, 06)
BWS WAIPAHU I WELLS (2400-01 TO 03)
AMFAC WP1 WELLS (2301-01 TO 10)
OAHU SUGAR CO. WP4 WELLS (2301-11 TO 20)
OAHU SUGAR CO. WP2 WELLS (2301-21 TO 32)
H-1 FREEWAY
VILLAGE PARK
WAIPAHU
BWS HOAEAE WELLS (2301-34 TO 39)
BWS WAIPAHU IV WELLS (FUTURE)
GRAPHIC SCALE:
500' 0 1000' 2000'
SCALE: 1" = 2000'
PM: RKA
OPER: FAI
REVISED: 04/07/03
DATE: 04/07/03
SCALE: 1 = 2000
FILE: 9828-134
Hawaii Pacific Engineers
MILILANI WASTEWATER PRELIMINARY TREATMENT FACILITY MODIFICATIONS
MILILANI, OAHU, HAWAII
MAJOR WELL SITES DOWNGRADIENT OF MILILANI WWPTF
FIGURE 2-4

such as rats, mice and mongoose are expected to occur at the site but not observed during the survey. None of the animals recorded during the survey is a threatened and endangered species or species of concern.

Nearby Kipapa and Waikele Stream and Gulch Areas

A number of past biological resource studies have been conducted on the Kipapa and Waikele stream and gulch areas that are located downgradient of the treatment facility site. These areas could potentially be impacted by stormwater runoff from the project site. The following is a brief summary of findings from the more recent studies.

A bioassessment survey conducted for the Waikele Stream watershed by the DOH (DOH, 2003) assessed conditions at a lower Kipapa Stream site located approximately 1.4 miles south of the Mililani WWPTF. The assessment was based on an average of ratings for four equal length quadrants of a stream segment that was the longer of 20 times the mean stream width, or 100 meters. The Kipapa Stream site was rated overall as "medium" for habitat quality using the Hawaii Stream Visual Assessment Protocol (HSVAP). The HSVAP rating is based on evaluation of ten habitat metrics. Plant growth scored primarily in the high range, which typically indicates relatively clear water with no significant algal scum or microalgae. The lower Kipapa Stream site was rated as "partially supporting" for habitat (degree of attainment for aquatic life use) and "impaired" for aquatic life under the Hawaii Stream Bioassessment Protocol (HSBP). The HSBP is based on evaluation of 20 habitat and biological metrics. The site had suboptimal scores for habitat availability and organic matter, and low riparian vegetation width due to intentional clearing. Sampling conducted at the site recovered only alien aquatic fauna. These included mosquito fish (*Gambusia affinis*), guppies (*Poecilia reticulata*), mollies (*Poecilia* spp.), green swordtails (*Xiphophorus helleri*), bristlenose catfish (*Ancistrus cf. temminckii*), crayfish (*Procambarus clarkii*), Tahitian prawn (*Macrobrachium lar*), and introduced grass shrimp (*Neocaridina denticulata sinensis*).

A site investigation report for the Waikele Naval Magazine site (Earth Tech, 2001) did not identify any threatened or endangered or special status species. A comprehensive supporting biological resources survey by Aecos, Inc. within the limits of the military reservation was conducted as part of the site investigations. The survey indicated the presence of 146 species of plants, of which only 12 species were considered to be plants either native to the Hawaiian islands (indigenous or endemic) or introduced early in the Polynesian history of the islands. Observed indigenous species included the 'ilima (*Sida fallax*) and 'a'ali'i (*Dodonaea viscosa*). Non-native, introduced species which dominated the area included koa haole (*Leucaena leucocephala*), guinea grass (*Panicum maximum* Jacq.), buffelgrass (*Cenchrus ciliaris* L.), and elephant grass (*Pennisetum polystachion* (L.) Schult.). Alien mammalian species observed during the Aecos survey included the domestic dog (*Canis f. familiaris*), Indian mongoose (*Herpestes a. auropunctatus*), and cat (*Felis catus*). Although not observed, Aecos indicated that roof

CORRECTION

THE PRECEDING DOCUMENT(S) HAS BEEN REPHOTOGRAPHED TO ASSURE LEGIBILITY
SEE FRAME(S)
IMMEDIATELY FOLLOWING

rats (*Rattus rattus*), Norway rats (*Rattus norvegicus*), and house mice (*Mus domesticus*) are likely to be present at the site. A total of 19 avian species were observed. Two non-alien species observed were the black-crowned night heron (*Nycticorax n. hoactli*) and Pacific golden plover (*Pluvialis fulva*). Observed alien avifauna included the Japanese white-eye (*Zosterops japonicus japonicus*), common waxbill (*Estrilda a. astrild*), northern cardinal (*Cardinalis cardinalis*), red-crested cardinal (*Paroaria coronata*), common mynah (*Acridotheres tristis*), rock dove (*Columba livia*), spotted dove (*Streptopelia chinesis*), and the zebra dove (*Geopelia striata*). Due to high turbidity in the streams during the survey, the only aquatic organism observed was the mosquito fish.

A more recent Total Maximum Daily Load (TMDL) stream assessment study (Aecos, 2002) noted that open forests dominated by Guinea grass and koa haole are typical of the gulch areas within the former Waikele Naval Magazine site.

8. Historic and Archaeological Sites

There are no known sites listed on the National Register of Historic Places within the Mililani WWPTF site. The area of potential effect with respect to historic and archaeological resources is limited to the boundaries of the treatment plant site. The site was previously used for sugar and pineapple cultivation and currently only structures associated with the wastewater treatment facilities exist on the site. Additional discussions on cultural resources in the region are presented below.

9. Cultural Resources and Practices

No cultural resources, practices or beliefs associated with the Mililani WWPTF site or the immediate surrounding area have been identified to date. Attempts were made to identify potential cultural impacts by reviewing available information from past historical documentation and archaeological investigations. In addition, input was solicited from government agencies, private organizations and community members to identify knowledgeable individuals who could provide pertinent information on the history, previous land use, and traditional practices of the project area. The organizations consulted included the State Historic Preservation Division, Office of Hawaiian Affairs, Oahu Island Burial Council, Alu Like, Hui Malama I Na Kupuna o Hawaii Nei, Mililani-Waipio Neighborhood Board No. 25 and Wahiawa Hawaiian Civic Club.

Past studies for the Mililani Town development and nearby military reservations have indicated that Kipapa Gulch does have some historical significance dating back to the pre-contact days (Belt Collins, 1978; HUD, 1983; Hammatt, 1989; Tomonari-Tuggle, 1994). Kipapa Gulch was the site of a battle between the invading chiefs and their army from Hawaii and Oahu's defending army led by Mailikukahi, the chief of Oahu. The invaders were defeated at Kipapa. Kipapa, which translates to a "plain of corpses" in

Hawaiian, was the name given to the gulch in which the battle occurred (Belt Collins, 1978).

Two heiau sites, Moaula Heiau and Heiau o Umi, that have long been destroyed were located by past studies in Kipapa Gulch approximately 1.1 miles upstream of the Roosevelt Bridge (Riford, 1986). Artifacts that have been recovered from the sites have not been sufficiently significant to warrant the designation of a historical or archaeological site (Belt Collins, 1978).

An early Oahu Sugar Company map dated 1928 indicates that the area surrounding the Mililani WWPTF and probably the treatment plant site itself was previously used for sugar cane cultivation (Hammatt, 1989). Aerial photographs taken between 1962 and 1965 (USDA, 1972) prior to the construction of the Mililani WWPTF in the late 1960s clearly indicate that the site was cultivated. Prior to the treatment plant construction, the site was used for pineapple cultivation. The topographic survey information on the construction drawings for Phase I of the Mililani Town Sewage Treatment Plant show the layout of the fields and dirt plantation access roads within the treatment plant site.

10. Air Quality

Air quality monitoring data compiled by the DOH (DOH, 2002) indicates that the established air quality standards for all monitored parameters are consistently met on the island of Oahu. Although air quality monitoring is not performed in the Mililani area, the air quality at the Mililani WWPTF would be expected to be very good due to favorable topography, the dominance of the tradewinds and the absence of heavy industry. The nearest air quality monitoring station is located in Pearl City. The former sugar cane operations in the area that contributed to suspended particulates during cane burning and plowing operations has been replaced by smaller diversified agricultural operations that have less adverse impacts on air quality. Air pollution from motor vehicles is not significant at the project site. Kamehameha Highway, located approximately 400 feet from the site's east boundary, is the only major thoroughfare in the area.

As with any wastewater treatment facility, the generation of odors is likely to be a significant concern among nearby residents. Hydrogen sulfide gas, a product of septic wastewater conditions, is typically the most troublesome due to its detectability at low concentrations. In the DOH Administrative Rules, Chapter 59, "Ambient Air Quality Standards," the ambient air quality standard for average hydrogen sulfide concentration is 25 parts per billion (ppb) in any one hour period. Hydrogen sulfide is detectable at concentrations as low as 0.5 ppb.

A survey of 19 residents living near the Mililani WWTP was conducted as part of an earlier study (Hawaii Pacific Engineers, 2000) to assess the extent of current and past odor problems. The results of the survey are presented in Appendix B.

Virtually all the residents who lived in the area prior to 1990 during which the plant was fully operational commented that the odors from the facility were significant. During this earlier period, the wastewater was treated to secondary levels for discharge of the effluent to Kipapa Stream. Sludge removed from the wastewater was anaerobically digested, thickened, and dewatered at the plant site. Solids dewatering involved drying sludge on open drying beds. The interviewed residents indicated that the earlier odor problems were not constant and were largely dependent on the direction and strength of the wind. One resident commented that the developer provided a substantial discount on the homes in the area due to the odor problem.

All the residents indicated that odor from the Mililani WWTP is currently not a problem. One worker at the New Mililani Nursery adjacent to the plant indicated that odors from the facility may be detected about six times a year but that it is not a problem. Another worker at the Watanabe Floral nursery also periodically notices odor from the plant.

In general, the Mililani wastewater and the current operations at the Mililani WWPTF are not highly odorous because:

- The relatively small size of the wastewater collection system servicing the region results in a fairly short wastewater detention time in the sewer line and the wastewater therefore does not exhibit a high degree of septicity.

- The wastewater collection system is comprised primarily of gravity sewers operating under an open channel flow regime, which permits some aeration of the wastewater and minimizes septicity.

- The Mililani wastewater collection does not experience saline groundwater intrusion into the sewer system and therefore the concentration of sulfate in the wastewater is considered to be fairly low. This tends to further minimize the generation of odorous hydrogen sulfide gases.

- Unlike many other preliminary treatment facilities, solids are not screened and removed at the Mililani WWPTF. There are also no sludge removal and processing operations that are typical of "full treatment" wastewater plants.

11. Noise

For the homes located near the Mililani WWPTF, sources of noise in the area include:

- Existing air blowers (blower building) and air conditioning equipment (administration building) at the treatment plant,

- Electrical substation and cellular transmission antenna equipment located near the northwest corner of the treatment plant site,

- Vehicular traffic (local and Kamehameha Highway traffic), and
- Others such as aircraft, birds, wind and people engaged in routine activities.

Several sound level measurements were obtained on August 23, 2002 at the Mililani WWPTF by Y. Ebisu & Associates for the City and County of Honolulu as part of another study. These measurements indicated that the noise levels at the Mililani WWPTF boundaries are well within the 70 dBA daytime and nighttime sound level limits for agricultural zoned land specified by the DOH Administrative Rules Chapter 46, "Community Noise Control." The highest sound levels recorded along the treatment boundaries were 59 dBA near the front gate (with the emergency generator in the sludge pump building operating) and 60 dBA near the electrical substation (which included noise from a cellular transmission antenna).

The 19 residents living near the Mililani WWTP who were surveyed in an earlier study (Hawaii Pacific Engineers, 2000) regarding odors were also asked about noise problems (see survey results in Appendix B). The residents participating in the survey indicated that noise from the treatment plant site is not a problem.

12. Hazardous Substances

High concentrations of hazardous substances that would impact the project are not anticipated to be encountered at the site. This conclusion is based on the past use of the project site for agriculture and wastewater treatment, and the lack of hazardous waste problems on other projects on former agricultural land in the region. Various herbicides, pesticides, insecticides, nematicides, fungicides and growth regulators were likely used at the site in the past. The presence of excessive levels of these agricultural chemicals in the soil should not be a significant concern if the chemicals were used in accordance with label instructions. The site has not been used for agriculture for over 35 years.

During preparation of this environmental assessment, six abandoned/surplus vehicles, two emergency generators and miscellaneous sewer maintenance equipment were observed to be stored on the southeast portion of the project site. Although at least some of the vehicles and equipment were observed to still contain diesel fuel, oil and coolant, there were no observed signs of leakage of fluids from the vehicles or significant corrosion of tanks and fluid reservoirs that would result in leakage. The vehicles and equipment were temporarily being stored at the treatment plant site prior to being transferred for resale and disposal.

C. SOCIO-ECONOMIC SETTING

1. General

The Mililani WWPTF services various master-planned developments located largely on former agricultural lands in Central Oahu. These developments include Mililani Town,

Mililani Mauka, Waipio Acres, Melemanu and Mililani Technology Park. The developments are predominantly residential in character with parks, shopping centers, schools and other public facilities interspersed among single and multi-family homes. The Mililani Technology Park is designed to accommodate high technology firms and businesses. The developments serviced by the Mililani WWPTF are located within the Central Oahu Development Plan area and are represented by Neighborhood Board No. 25 and No. 35.

2. Population

The resident population of the area encompassing Neighborhood Board No. 25 (Mililani/Waipio/Melemanu) is 34,592 based on the City and County of Honolulu Planning Department's analysis of the U.S. Census figures (DBET, 2001; C&C of Honolulu, January 2002). Based on 11,038 households in the area, the average household size is 3.13. In comparison, the average household size for Neighborhood Board No. 35 (Mililani Mauka-Launani Valley) is 2.76 based on 10,622 residents and 3,852 households. The total number of residents, total number of households, and average household size for the entire Mililani region in (Neighborhood Board No. 25 and 35) is 45,214, 13,695 and 3.30, respectively. In comparison, the average household size for Oahu is 2.95.

The population of the Mililani WWPTF service area is expected to continue to increase in the future due to ongoing construction of new homes. The estimated 2020 residential population currently used by the City to project future wastewater flows is 58,000 (Fukunaga & Associates, 1999).

3. Socio-Economic Background

The Mililani Town community in which the Mililani WWPTF is located is a middle to upper middle-class residential community. The development includes a typical mix of residents ranging from younger working families with children to "empty nest" retirees.

The Mililani Neighborhood Board No. 25 has 47 percent of households with individuals below 18 years of age and only 17 percent of the households with individuals above age 65 (C&C of Honolulu, 2002). The median age is 35.4. In comparison, 38 percent of the households on Oahu have individuals below 18 years and 28 percent of households have individuals above age 65. The median age on Oahu is 35.7.

Based on the 2000 census, the Hawaii Business Research Library (HBRL, 2002) has compiled workforce and economic statistics for the Mililani region (based on 96789 zip code area). Approximately 94 percent of the residents older than 25 have a high school education or better. The median household income of approximately $70,000 is substantially higher than the median household income of $44,000 for Oahu. The

unemployment rate is 3.2 percent and the percentage of the families below the poverty level is 2.9 percent.

Due to the location of the Mililani WWPTF at the southern fringe of the Mililani Town near agricultural activities and undeveloped land, the socio-economic setting in the immediate vicinity of the treatment plant is not entirely urban/residential in nature. The two plant nurseries along the northern and western boundaries of the Mililani WWPTF are relatively large agricultural/commercial operations that act as a buffer and transition zone between the residential area and the treatment plant. The nurseries as well as other diversified agricultural operations south of the residential area are centers of employment for laborers and other workers.

4. Land Ownership, Land Use, and Land Use Designations

The Mililani WWPTF site is owned by the City and County of Honolulu (TMK 9-4-05:19). The treatment plant site is classified as "Agriculture" by the State Land Use Commission. The site is zoned as AG-1, Restricted Agriculture, by the City and County of Honolulu.

Since the Mililani WWPTF only provides limited preliminary treatment of wastewater, it is not designated as a wastewater treatment plant site in the "Central Oahu Sustainable Communities Plan (C&C of Honolulu, Dec. 2002). The plan, however, does mention the possibility of reactivating and upgrading the facility in the future to provide tertiary treated effluent for irrigation purposes.

The treatment plant site, along with the neighboring plant nurseries and residential homes, is located on former agricultural land. Current ownership, zoning and land use information for the neighboring properties were shown earlier on Figure 2-2.

The Mililani Town area north of the Mililani WWPTF has been fully developed by Castle and Cooke, Inc. The land uses for the properties in the vicinity of the treatment plant site, with the exception of the adjacent 17.6 acre property owned by Watanabe Floral Inc., are not expected to change.

The Watanabe Floral Inc. property, which is located between the treatment plant and the Mililani residential area, may be rezoned and developed for housing in the near future (Pharis, 2003, 2004 and 2005; Poirier, 2004). The proposed conceptual development plan for this property, which initially involved over 50 new homes, was opposed by many residents in the area when the plans were introduced in 2001. The conceptual plan for the development is being reassessed to reduce the number of homes. It is anticipated that the number of homes may ultimately be reduced to less than 30. Rezoning of the property from agriculture to residential will be required. The owners are also assessing the site for other possible uses such as a church facility. As discussed in the next

section, the development of the adjacent Watanabe Floral Inc. property will potentially impact the need for odor and noise control at the Mililani WWPTF site.

SECTION 3
POTENTIAL IMPACTS AND PROPOSED MITIGATION MEASURES

A. INTRODUCTION

This chapter presents an assessment of the potential environmental impacts and describes the proposed mitigation measures for the Mililani Wastewater Preliminary Treatment Facility (WWPTF) Modifications project.

There are no anticipated significant negative long-term impacts associated with the Mililani WWPTF project. Environmental impacts will be limited primarily to short-term disruptions associated with construction activities. The project will have the beneficial effect of providing the necessary capacity to accommodate projected increases in future wastewater flows.

B. LAND ALTERATION AND AESTHETICS

Short-term impacts associated with land alteration and aesthetics will result from the construction activities. The work will include excavation, stockpiling of materials and general visual/aesthetic deterioration. These impacts will cease upon completion of construction and the affected areas will be restored to their original condition to the extent possible. Construction inspection and monitoring services will help ensure that the contractor performing the work adheres to all environmental regulations applicable to construction activities.

Visual impacts due to construction are expected to be minimal since the treatment plant site is not readily visible from Makapipipi Street. The two neighboring plant nurseries provide good visual screening and serve as a buffer zone between the treatment plant and the residential homes. The site is also not readily visible from the Central Oahu Regional Park across Kipapa Gulch, or from Kamehameha Highway.

Construction activities may increase the potential for erosion at the site. Temporary and permanent erosion control measures will be implemented during the construction to minimize the impacts of erosion. The contractor will be required to comply with the Best Management Practices for erosion control in the construction drawings and the Erosion Control Plan that will be prepared for the project. As part of the building permit approval process, the erosion control documents will be reviewed by the City and County of Honolulu Department of Planning and Permitting for conformance to applicable regulations and guidelines.

There will be no significant long-term adverse aesthetic impacts associated with the project. The aesthetics of the plant site will be improved to some degree due to removal of abandoned corroded equipment at the existing treatment tanks. The headworks facility, which will be widened, should exhibit a "cleaner" look due to removal of unused grit classifier equipment and some existing piping. The flow equalization basin, which will be largely below grade with low berms around the perimeter of the basin to prevent runoff from entering the basin, will be located in the southeast corner of the site. Railing or a low fence along the perimeter berm may be installed to prevent accidental falls by operations personnel into the basin.

Visual impacts associated with the Mililani WWPTF would be of greatest concern to occupants of the new homes that may be constructed on the adjacent Watanabe Floral Inc. property. Regardless of whether the treatment plant upgrade project was implemented, the proposed housing project would need to mitigate the visual impacts of the "industrial look" of the Mililani WWPTF by providing screening or other measures.

C. FLOOD HAZARD

As previously noted in Section 2, the Federal Insurance Rate Map (FIRM) indicates that the project site is located in Zone D, which are areas of undetermined but possible flood hazards. Significant flooding at the site is highly unlikely due to the sloping topography of the site and location of the site well above Kipapa Stream. The site will be graded and drainage swales will be provided as required to ensure that there will be no significant flooding problems.

D. FLORA AND FAUNA

No significant adverse impacts to flora and fauna at the project site or in the general area are anticipated to result from the proposed project. Introduced/alien species are the dominant components of the vegetation and animal communities on and near the site. No endangered flora or fauna were observed at the project site during the biological resources assessment field survey (see Appendix A). No endangered flora or fauna were also observed in previous surveys of the Kipapa and Waikele stream gulches that are located to the south of the site. The findings of the biological assessment surveys conducted at and near the project site were previously discussed in Section 2.

The project will only require clearing of previously cultivated land that has become overgrown. Construction work will be performed only within the boundaries of the treatment plant site. Temporary and permanent erosion control measures will be implemented at the project site to minimize sediments in stormwater runoff and potential impacts to downgradient riparian habitats.

E. SURFACE WATER QUALITY

The proposed project will not significantly increase the volume of peak stormwater runoff or contribution of contaminants to stormwater runoff. There will be a net decrease in the volume of stormwater running off the site due to capture of rainfall falling on the open flow

equalization basin. Rainfall captured by the flow equalization basin will more than offset any increase in runoff due to backfilling of the existing abandoned treatment tanks.

The increase in wastewater flow handling capacity and the improved preliminary treatment performance will have some beneficial impacts on stream water quality by decreasing the risk of sewage spills. The upgraded headworks facilities will provide improved grinding and removal of the larger and heavier solids that can clog downstream sewers (particularly the inverted siphons) and sewage pumps. The new flow equalization basin will reduce the peak wet-weather flow in the downstream sewer system, which will reduce the risk of spills due to hydraulic overloading and improve the performance of the Honouliuli Wastewater Treatment Plant.

F. GROUNDWATER QUALITY

The flow equalization basin will be lined with an UV-resistant flexible reinforced heavy-duty polypropylene liner designed for use with wastewater ponds. Public health risks associated with contamination of the potable groundwater from leakage of stored wastewater are negligible. There should be very minimal or no leakage problems due to the robustness of the liner and precautions that would be taken to minimize punctures and other damage to the liner. The liner will be hosed down and inspected after each use of the flow equalization basin. The basin would be used only several times per year during large storm events and the stored wastewater would normally be returned back to the sewer system within a 24-hour period.

Any major leaks such as from tears in the liner would be readily detected and repaired. Smaller leaks, even if undetected, should not have adverse public health impacts due to the low volume of wastewater that would be released during the short period when the basin is in use, and removal of contaminants as the water travels through the underlying soil. Unlike leachates from landfills, domestic wastewater would not contain significant amounts of hazardous substances.

In the event that some leakage from the flow equalization basin occurs without being detected, the volume of wastewater released over the potable water aquifer would be small compared to that from other wastewater sources. These other sources include onsite wastewater disposal systems and leaks in sewer lines. Onsite wastewater disposal systems such as cesspools and septic tank systems, which are still used in limited numbers in inland areas such as Wahiawa and Tantalus, leach wastewater into the ground on a daily basis. For a typical family of four, approximately 300 to 400 gallons per day would be discharged into the ground. In comparison, a relatively large leak in the liner discharging 0.5 gallons per minute would leak approximately 700 gallons per day, but the leakage would occur only for a day or so during use of the flow equalization basin. Leakage from sewer lines can occur due to cracks and separated pipe joints caused by ground settlement. The nationwide problem of groundwater infiltrating into the sewers is clear evidence that sewer lines are not watertight.

Contamination of the potable water supply due to wastewater leachates containing pathogenic microorganisms has not been a problem in Central Oahu (Wong, 2004). Potable groundwater contamination from sewage has not been detected in the Pearl Harbor aquifer despite the past and present sewage leachates from cesspools, septic tanks leach fields, and spills/leakage from sewer lines in inland areas. This is likely due to effective removal and die-off of microbiological contaminants within the soil, generally low level of chemical contaminants in domestic sewage, and relatively low quantities of wastewater leachates compared to groundwater use in the region. The Honolulu Board of Water Supply is currently conducting a comprehensive study to verify that groundwater quality will not be adversely impacted by widespread reclaimed water (treated sewage) irrigation use in Central Oahu.

Geotechnical investigations, including soil borings, will be performed during the design phase of the project to evaluate soil conditions under the proposed flow equalization basin. If necessary due the presence of fractured basalt or other highly permeable substratum conditions, compacted cohesive soil of appropriate thickness could be placed under the basin liner. The low permeability soil stratum would provide further assurance that microbiological contaminants from any leakage would not adversely impact the potable water supply.

G. WASTEWATER ODORS AND AIR QUALITY

The proposed Mililani WWPTF modifications project is not anticipated to increase the amount of odors generated or result in odor complaints from existing residents living nearby. As previously noted in Section 2, a survey of residents living near the treatment facility indicated that odors are currently not a problem with the existing facility. There is no evidence that air quality parameters are exceeding established standards at the plant site.

The extent of odors generated by domestic wastewater at wastewater treatment facilities is partly a function of the extent that the wastewater has undergone putrefaction while being conveyed in the sewer lines. Future increases in flows will increase velocity in the sewer lines to help reduce detention time, degree of septicity and odor generation. The benefits of the higher flow may be partially offset by the longer travel time for wastewater from the new homes in Mililani Mauka that are at the far end of the sewer system.

The proposed upgrade of the headworks facilities is expected to decrease rather than increase the level of odor generation. The installation of new grinder units will macerate fecal material and other solids without removing the solids from the wastewater. Due to the higher capacity of the new grinder units, there will be less fecal material and other odorous debris trapped on the bypass (excess flow) bar screen where the material could decompose and generate odors. A major reason grinder units are used at the Mililani WWPTF in lieu of conventional mechanically-cleaned screening units is the low level of odors generated by the grinding process. A previously installed mechanically-cleaned screening unit at the Mililani

WWPTF was replaced in 1998 with a grinder due to capture of excessive amounts of fecal material and the resulting generation of odor.

The proposed refurbishing of the aerated grit removal chamber at the plant headwork is not expected to increase or decrease odor generation since the process will continue to operate in a manner similar to existing conditions. Increasing the grit removal frequency from two to four times per year will have a negligible impact on odors. Dewatering of grit from the aerated grit chamber on the sludge drying beds or steel drainage bins at the plant site should not result in odor problems since grit dewatering on the sludge drying beds has been practiced in the past without complaints from nearby residents and nursery workers.

Odors from the flow equalization basin are also not anticipated to be significant. The basin is expected to be used only several times per year during heavy storms and the "weak" wastewater resulting from dilution with rainwater should have low potential for generating odors. Following storm events, the stored wastewater will be immediately discharged back into the sewer system before any odorous septic conditions can develop. The equalization basin will be sited at the far corner of the site away from residences.

The flow equalization basin will be utilized only during periods of high rainfall when the entry of rainwater into the sewer system causes high flows to occur at the Mililani WWPTF. The potential for odors from the wastewater during the high flow periods would be reduced due to both the increase in velocity in the sewers (resulting in lower pipeline detention time and septicity) and the lower wastewater concentration (due to dilution with rainwater). The extent of dilution by rainwater is significant. The projected future average dry-weather wastewater flow is 5.7 mgd whereas the projected peak wet-weather flow is 19.3 mgd. Based on a diurnal maximum day factor of two, nearly 7.9 mgd (41 percent) of the 19.3 mgd would be rainwater.[1]

Odors could be a potential issue with the development of homes on the adjacent Watanabe Floral Inc. property. There is currently one home on the property near the entrance of the Mililani WWPTF. With as many as 30 new homes planned for the property, the potential for odor complaints will increase due to larger number of residents living closer to the treatment plant boundaries. Although hydrogen sulfide levels are expected to be well below the 25 parts per billion (ppb) regulatory limit, there may still be odor complaints since hydrogen sulfide is detectable at concentrations as low as 0.5 ppb. If a significant number of odor complaints are received, the installation of odor control equipment may be required at the headworks facilities. The installation of odor control equipment is undesirable due to the additional capital and operating cost, increased energy consumption, and equipment noise emissions. It is anticipated that the odor issue will be addressed as part of the rezoning process for the Watanabe Floral property.

[1]The wet-weather peak flow includes a diurnal dry-weather peaking factor. Assuming a dry-weather diurnal factor of 2, the peak dry-weather peak flow is 2 x 5.7 mgd = 11.4 mgd. The rainwater component is therefore 19.3 mgd – 11.4 mgd = 7.9 mgd).

The use of construction equipment at the project site during construction will create dust and exhaust emissions. The contractor will be required to comply with the provisions of the State Department of Health (DOH) Administrative Rules, Chapter 11-60.1, "Air Pollution Control," which includes the requirements of Section 1-33 on fugitive dust. The air quality impacts during construction will be temporary in nature and will cease upon completion of the construction.

The contractor will be required to control the generation of dust by adequately watering down the construction site and soil stockpiles, keeping the construction site reasonably free of dust-causing materials, covering trucks hauling materials, and implementing other appropriate dust control practices. The contractor will be required to control exhaust emissions by maintaining construction equipment (including emission control devices) in proper working order and minimizing unnecessary idling of engines. The construction equipment emissions should not significantly change the quality of air in the project area due to prevailing winds in the area.

H. NOISE

The proposed Mililani WWPTF modifications project is not anticipated to significantly increase noise levels. The project will be required to meet the requirements of the DOH Administrative Rules, Chapter 11-46, "Community Noise Control." As previously noted in Section 2, past sound level measurements indicated compliance with community noise standards for agricultural zoned land and a survey of residents living near the treatment facility indicated that noise is currently not a problem.

The new 10-horsepower air blowers will be substantially smaller than the existing 75-horsepower air blowers currently in use. The Sludge Pump Building in which the new air blowers will be located will be provided with acoustical treatment so that the increase in noise levels will be insignificant at boundaries of the treatment plant.

Noise is likely to be an important issue if the proposed plan to develop homes on the adjacent Watanabe Floral Inc. property is implemented. A major factor will be the rezoning of the parcel from restricted agricultural to residential. For residential areas, the DOH Chapter 46 noise regulations specify maximum permissible sound level levels of 55 dBA and 45 dBA for daytime (7 a.m. to 10 p.m.) and nighttime (10 p.m. to 7 a.m.), respectively. These limits are substantially lower than the 70 dBA noise limit (daytime and nighttime) applicable to agricultural zoned land. As noted in the discussions presented in Section 2, sound levels as high as 60 dBA have been measured near the electrical substation. A sound level of 59 dBA was measured at the north fence line with the emergency generator operating.

Meeting the more stringent residential noise limits is likely to be both difficult and costly. Noise would be an important issue in the rezoning of the Watanabe Floral property. The more stringent noise limits will impact the City and County of Honolulu (air blowers, air

conditioning equipment and emergency generator), Hawaiian Electric Company (electrical substation) and Sprint (cellular transmission antenna).

The noise level will increase during the construction period due to use of construction equipment such as excavators, trucks and compactors. Homes and business near the active construction area will be impacted by construction equipment that are anticipated to typically generate noise levels ranging from 80 to 90 dBA at a distance of 50 feet. The noise impact of construction equipment will be minimized by requiring properly functioning mufflers on machinery and restricting construction activity to normal working hours to the extent possible. The noise impacts from construction will be temporary in nature.

Project activities will be required to comply with the applicable Chapter 11-46 noise regulations. The contractor will be required to obtain a noise permit from DOH to allow the daytime noise level limits to be exceeded during the working hours of 7:00 a.m. to 6 p.m., Monday through Friday, and 9:00 a.m. to 6:00 p.m. on Saturday.

I. ARCHAEOLOGICAL AND HISTORIC SITES

No impacts to archaeological and historic sites are anticipated. The proposed construction will take place within the limits of the existing treatment facility where no historic sites are known to exist. The site has been significantly altered due to past intensive cultivation of the land, and grubbing and grading work. The State of Hawaii Historic Preservation Division (SHPD) concurs with this assessment. In pre-assessment consultations, SHPD responded by stating, "we believe that no historic properties will be affected by this undertaking" (see correspondence in Appendix C).

As a precautionary measure, the contractor will also be made aware of potential encounters with artifacts or remains such as shells, bones or charcoal deposits. If such items are encountered during construction, the work will be halted in the immediate vicinity of the find and the find will be protected from further disturbances. The contractor will be required to immediately contact the SHPD to assess the significance of the find and recommend an appropriate mitigation measure if necessary.

J. CULTURAL RESOURCES AND IMPACTS

The proposed project has no identifiable adverse impacts on Hawaiian culture and traditional and customary rights. Due to the location and nature of the proposed facilities, the project does not lend itself to significant or direct promotion or protection of cultural beliefs, practices and resources of native Hawaiians or any other ethnic group. The project is not anticipated to have adverse impacts on any riparian resources, stream water quality, or other aspects of the environment that may be related to cultural activities.

The existing Mililani WWPTF, which is located near the Kipapa and Waikele stream gulches, does not hinder access to the stream or gulch areas for gathering or other cultural

activities. The steep banks of the ravines that border the project site are difficult to traverse and there are no trails or other means of ready access between the plant site and the floor of the gulches. Access would typically be through the various existing roads and trails from Mililani and Waipahu that lead to the lower gulch areas.

K. HAZARDOUS SUBSTANCES

Based on the past use of the project site for agriculture and wastewater treatment, remediation work for hazardous materials is not anticipated to be required at the project site. During the design phase of the project, tests on soils samples obtained from exploratory soil borings will be performed to verify the absence of excessive levels of hydrocarbons, pesticides and other hazardous substances. During construction, the contractor will be required to perform hazardous materials testing on soil hauled offsite for disposal.

L. TRAFFIC

The proposed project will have minimal short-term impacts and virtually no long-term impacts on traffic. All construction activities will take place within the boundaries of the plant site. During the construction phase, there will be some increase in traffic associated with the ingress and egress of construction vehicles and equipment, and construction crew private vehicles through the Mililani residential neighborhood. There will be no significant increase in long-term traffic since the project will not significantly increase the number of personnel or effort required to operate and maintain the facility.

M. USE OF ENERGY

The headworks facilities will utilize some electrical power to operate the grinders, blowers and appurtenant equipment. Under normal operating conditions, one grinder (5 horsepower) and one air blower (10 horsepower) will be operated continuously. The flow equalization basin will utilize a small amount of power for motorized valve and/or gate operators (fractional horsepower motors) and electrical controls/instrumentation. The proposed project will result in a net decrease in energy consumption since the use of the existing 75 horsepower aeration blower will no longer be required.

N. USE OF POTABLE WATER

Potable water will continue to be used for periodic washdowns of the headworks area. Potable water will also be used to wash down the flow equalization basin following each use of the basin. Based on the use of two hoses for one hour at 15 gallons per minute per hose, the amount of water used per wash down of the basin is 1,800 gallons. The basin is expected to be used no more than several times per year during large storm events. There is currently no source of reclaimed water at the Mililani WWPTF and therefore potable water must be used.

As indicated in the discussion of alternatives in Section 4, the use of grinders and providing minimal grit removal at the Mililani WWPTF will result in significantly lower potable water use compared to screening and full grit removal/washing facilities. Performing full preliminary treatment (screening and grit removal) at the Honouliuli Wastewater Treatment Plant (WWTP) rather than at the Mililani WWPTF conserves potable water since reclaimed water is available and used at the Honouliuli WWTP headworks facilities.

The proposed project does not preclude future reactivation and upgrade of the facilities for production of tertiary treated effluent for irrigation or other non-potable purposes to conserve potable water resources.

O. SUSTAINABLE DESIGN

The proposed project will employ sustainable design features and concepts where possible and practicable. The proposed new facilities will promote efficient use of water, energy and construction materials. The project will also help to protect pubic health and preserve the environment by reducing the potential for sewage spills and promoting efficient wastewater transmission, treatment and disposal.

As noted in previous discussions and in the discussion of alternatives in Section 4, the upgraded facilities will reduce power consumption and minimize the use of potable water. By continuing to rely on the Honouliuli WWTP to provide full preliminary treatment, the use of fossil fuels to haul screenings and grit removed from the wastewater will also be minimized due to economy of scale factors and shorter haul distances to the landfill for disposal. Energy and raw materials associated the construction of the equalization basin will be substantially less than constructing miles of new sewer lines and upgrading downstream pumping and treatment facilities. Premium efficiency motors will be considered for the grinder and air blower equipment that are required to operate continuously.

Other anticipated sustainable design features of the project include reuse of topsoil, reuse of excavated material to fill abandoned treatment tanks, and salvaging of equipment and recycling of metals from demolition work. Durable high-performance low VOC (Volatile Organic Compound) emitting protective coatings will be used to minimize air pollutants and maximize the life of the new facilities. If the project budget allows for landscaping and revegetation of the site, the use of native plants and trees will be considered to help promote a native landscape and to create an environment that is more beneficial to native avian species. Exposed soil will be replanted as soon as possible and consideration will be given to use of cut vegetation for mulch.

P. SOCIO-ECONOMIC AND LAND USE IMPACTS

The estimated cost of the Mililani WWPTF modifications project is $3.9 million. The project will provide employment for contractors and their employees, material suppliers and

others associated with the construction industry. The project will provide continued long-term employment opportunities for wastewater operation and maintenance personnel.

The project will provide the necessary wastewater preliminary treatment and conveyance capacity to allow continued development of homes in the Mililani region. The additional wastewater handling capacity provided by the project will minimize the risk of sewage spills and the associated public health hazards and adverse impacts to the environment.

The continued use of the Mililani WWPTF for preliminary treatment of wastewater at its present site will preclude use of the land for agriculture. The treatment facility will likely pose some challenges for rezoning and development of the adjacent Watanabe Floral Inc. for residential use due to concerns related to odors and noise.

Q. RELATIONSHIP TO LAND USE POLICIES AND CONTROLS

1. State Land Use District

The State Land Use Law, Chapter 205, Hawaii Revised Statutes (HRS), is intended to preserve, protect and encourage the development of lands in the State for uses which are best suited to the public health and welfare for Hawaii's people. The Mililani WWPTF is classified as "Agriculture" by the State Land Use Commission. Since the proposed wastewater facility upgrade work is not a permitted use on agricultural land, a Special Use Permit (SUP) will be required. The 11.2 acre project site is less than 15 acres and therefore the City Planning Commission will be the final authority for approval or denial of the permit.

2. Hawaii State Plan

The Hawaii State Plan, HRS Chapter 226 adopted in 1978, outlines broad goals, policies and objectives to serve as guidelines for the future growth and development of the State. The proposed project is consistent with the objective of "maintenance and pursuit of improved quality in Hawaii's land, air, and water resources" (§226-13[a][2]). It is also consistent with the policy of the State to "promote the proper management of Hawaii's land and water resources," (§226-13 [b][2]) and "promote effective measures to achieve desired quality in Hawaii's surface, ground, and coastal waters" (§226-13 [b][3]). The project will decrease the risk of sewage spills and thereby improve stream and coastal water quality. The project will meet the needs of the Mililani community and does not conflict with the State Plan with respect to the well being of the residents and protection of the environmental and cultural resources.

3. City and County of Honolulu General Plan

The General plan of the City and County of Honolulu sets forth broad statements of social, economic, environmental, and design objectives and policies which are desired over the long-term. The proposed project is consistent with the following policies and objectives:

III. Natural Environment

Objective A To protect and preserve the natural environment

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

V. Transportation and Utilities

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

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

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 3 Plan for the timely and orderly expansion of utility systems

VII Physical Development and Urban Design

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

Policy 2 Coordinate the location and timing of new development with the availability of adequate water supply, sewage treatment, drainage, transportation, and public safety facilities.

The project will result in a cost-effective and timely capacity upgrade of the Mililani WWPTF and wastewater conveyance facilities to decrease the risk of sewage spills and water pollution, and to allow for continued planned development in the Mililani region.

4. Central Oahu Sustainable Communities Plan

The Central Oahu Sustainable Communities Plan (CO SCP) helps to implement the objectives and policies of the General Plan by providing relatively detailed development schemes for Central Oahu. The proposed project is consistent with the following sections of the CO SCP:

- The vision statement in Section 2.1 of the CO SCP projects a vision for the area to experience moderate growth as existing areas zoned for residential development

are built out with concomitant growth in jobs. The proposed project will facilitate the projected growth and is supportive of the CO SCP.

- The Mililani WWPTF is located outside the Urban Community Boundary described in Section 2.2.1 of the CO SCP. The facility is located on land that is zoned AG-1 Restricted Agriculture and is in the State Agricultural District. Major utility installations are allowed in agricultural zoning districts with a State Special Use Permit (SUP) and City Conditional Use Permit (CUP). The project's location would be consistent with the CO SCP if an approved SUP were obtained. The City Department of Planning and Permitting (Mark, 2004) has indicated that a CUP would not be required since the parcel is classified for public use.

- Discussions addressing development priorities in Section 2.2.10 indicates a need for adequate facilities to ensure that development does not outpace infrastructure development. The proposed Mililani WWPTF project will provide the required wastewater transmission infrastructure capacity to meet future development needs.

- Section 4.2.1 supports the use of non-potable water for irrigation and other suitable uses. Section 4.3 notes that the City is considering the possibility of reactivating and upgrading the currently abandoned wastewater facilities at the Mililani WWPTF site to provide tertiary treated effluent for irrigation purposes at Royal Kunia, Waiola and Waiawa. The proposed project will not preclude the possible retrofit of the abandoned wastewater treatment facilities with modern technology to produce reclaimed water when this option becomes economically feasible and groundwater contamination concerns are resolved. The Honolulu Board of Water Supply (BWS) is currently conducting a study to investigate potential long-term impact of widespread reclaimed water use on Central Oahu groundwater aquifers. The BWS also plans to evaluate the use of the existing primary and final clarifier tanks as part of future transmission facilities for reclaimed water in Central Oahu.

- Section 4.3.1 states that wastewater treatment plants should generally be located in areas shown as planned for industrial use and away from residential areas. The existing Mililani WWPTF is not located in an industrial area and is situated adjacent to the southern edge of the Mililani residential community. The location of the facility is not in conflict with the CO SCP, however, since the modified existing facility will only provide preliminary treatment (grinding and limited grit removal similar to current conditions) and infrequent wet-weather flow storage. The facility provides only minimal wastewater treatment, and is not a full-fledged sewage treatment plant that encompasses biological treatment of the sewage or processing of odorous sewage solids (sludge).

In a pre-assessment consultation letter dated May 29, 2003 (see Appendix C), the City's Department of Planning and Permitting concluded that "the project is appropriate in scale, location and purpose with regards to the CO SCP."

5. Central Oahu Public Infrastructure Map

The proposed project is not shown on the Public Facilities Map in Appendix A of the CO SCP. The Appendix A map, however, is only illustrative of the text, and the fact that a project is not shown on the map does not mean that it cannot be found consistent with the CO SCP or that the Plan Maps need to be amended to show the project site. The proposed project, however, will require a revision to the Central Oahu Public Infrastructure Map (PIM) prior to the appropriation of construction funds in FY 2006 based on criteria established under the City's PIM ordinance. The applicable criteria include a capital improvement cost greater than $3 million, qualification as a type of public improvement project (sewage treatment plant/modification), and modification of a facility that permits significant new development.

SECTION 4
ALTERNATIVES CONSIDERED

A. INTRODUCTION

This chapter discusses various alternatives that were considered for the proposed Mililani Wastewater Preliminary Treatment Facility (WWPTF) modifications project. The alternatives considered and basis for selecting the best alternative are discussed for the following areas of evaluation:

- Alternative for headworks facility upgrades.
- Alternatives for increasing downstream flow handling capacity

The "no action" alternative was not considered to be a viable option due to inadequate performance of existing preliminary treatment facilities and the need to accommodate future increases in wastewater flow. The need for the proposed improvements was previously discussed in Section 1.

B. ALTERNATIVE FOR HEADWORKS FACILITY UPGRADES

The alternatives for upgrade of the headworks facilities were investigated in detail in the engineering report, "Mililani Wastewater Preliminary Treatment Facility Headworks Upgrade Engineering Report," (Hawaii Pacific Engineers, 2002). The study investigated alternatives for: 1) grinding and screening, and 2) grit removal.

1. Grinding and Screening

The following grinding and screening alternatives were evaluated:

- Alternative 1 – Grinder
- Alternative 2 – Mechanically cleaned screen
- Alternative 3 - Grinder and mechanically cleaned screen

The three grinding and screening alternatives were evaluated based on the following considerations:

- Capital, Operation and Maintenance (O&M), and life cycle costs.
- Hydraulic capacity and headloss through the unit.

- Ability to reduce labor for cleaning the downstream manual screens at the inverted siphons and general downstream solids problems (i.e., remove material from the flow stream or macerate materials to reduce clogging, pump wear, sedimentation in sewers/wetwells, and solids handling effort at the Honouliuli Wastewater Treatment Plant).

- Ability to breakup and minimize fecal material in screenings and effectiveness in minimizing problems with odors and flies.

- Ability to compact and dewater screenings to facilitate disposal.

- Ruggedness and reliability, particularly with respect to frequency of breakdowns and jamming.

- Ease of inspection, maintenance and repair, including amount of submerged components, ease of access to components (such as ability to service unit without channel dewatering), and availability of parts and services.

- Corrosion resistance and suitability for outdoor application.

- Potential to utilize non-proprietary equipment and obtain competitive pricing.

A comparative summary of the three alternatives is presented in Table 4-1. Based on cost and other factors, Alternative 1 was selected as the recommended alternative. This alternative involves installation of two new grinder units in new channels constructed next to the existing channels. This alternative was selected on the basis of its lower cost, lack of odor concerns, and ease of operation and maintenance. Maintenance is significantly simplified since this alternative does not require the handling and disposal of screenings.

Alternative 2, involving only the installation of a mechanically cleaned cylindrical-type screen, was not recommended due to higher cost and potential concerns with odor problems. In this alternative, elimination of excessive fecal material from the screenings is not assured. There would be substantial effort required to dispose of the screenings regardless of whether the screenings were well washed and compacted. This alternative also requires a substantial amount of potable water to be utilized for the spray washing system.

The installation of a combination grinder and mechanically cleaned screen in Alternative 3 would provide the best performance of the three alternatives with respect to removal of material from the wastewater. The additional cost of the screening equipment and handling the screenings, however, is difficult to justify based on the expected benefits. There would not be significant reductions in inverted siphon screen clogging, pump wear, solids sedimentation in sewers and wetwells, and solids loading at

TABLE 4-1
COMPARISON OF GRINDING AND SCREENING ALTERNATIVES

Cost	Performance	Reliability	Ease of Operation and Maintenance	Other
<u>Alternative 1 – Grinder</u>				
Capital Cost: $777,000 Operation and Maintenance Cost: $26,000/year Present Worth Cost: $0.04/kgal treated	Does not remove material from flowstream. Ground material may recombine downstream. Two grinder units required; one unit can accommodate peak flow and the other serves as full standby. Approximately 12 inches of headloss.	Process relatively reliable provided quality equipment selected. Technology well proven in long term installations.	Some maintenance of mechanical equipment required. No need to handle screenings on daily basis.	Minimal odor generation problems since material not taken out of flow stream. Equipment not proprietary. Stainless steel construction is recommended.
<u>Alternative 2 – Mechanically Cleaned Screen</u>				
Capital Cost: $940,000 Operation and Maintenance Cost: $90,000/year Present Worth Cost: $0.08/kgal treated	Removes screenable material from flow stream. Three screening units required to accommodate peak flow; no full standby redundancy at peak flow. Performs fine screening, conveying, spray washing, dewatering, and compaction all in a single compact unit. Approximately 10 inches of headloss.	Fairly reliable and fairly simple mechanical equipment. Large debris may hang up on screw conveyor.	Some maintenance of mechanical equipment required. Requires regular disposal of screenings. Unit can be tilted out of headworks channel for maintenance. Where a mechanical agitator system is provided, additional power and maintenance required for agitator unit.	Spray wash system designed to break up fecal matter, however, its effectiveness not assured. Odor problems may arise. Requires approximately 43,000 gpd of potable water for spray wash system. Equipment not proprietary.

TABLE 4-1
COMPARISON OF GRINDING AND SCREENING ALTERNATIVES

Cost	Performance	Reliability	Ease of Operation and Maintenance	Other
<u>Alternative 3 – Grinder and Mechanically Cleaned Screen</u>				
Capital Cost: $1,155,000 Operation and Maintenance Cost: $77,000/year Present Worth Cost: $0.09/kgal treated	Performs grinding, screening, conveying, spray washing, and dewatering in a single compact unit. Two grinder/screening units required; one unit can accommodate peak flow and the other serves as full standby. Approximately 18 inches of headloss. Highest headloss of all the alternatives. Walls of influent channel may need to be raised to increase freeboard. The higher headloss may create surcharged conditions upstream of the influent channel.	Fairly reliable and fairly simple mechanical equipment.	Some maintenance of mechanical equipment required. Requires regular disposal of screenings. Screw cannot be tilted out of headworks channel for maintenance.	Equipment is proprietary. Spray wash system helps achieve cleaner solids and reduces odors. Less water required for spray wash system since grinder used to break up fecal matter. Still requires approximately 21,600 gpd of potable water for spray wash system. Auger portion can be removed from grinder and unit can be used for grinding only. Stainless steel construction is recommended.

Note: Present worth cost based on 6% discount rate, 20-year period with no salvage value, and average flow of 5.7 million gallons per day.

the Honouliuli Wastewater Treatment Plant. This alternative also requires the use of potable water for a spray washing system.

2. Grit Removal

The following grit removal alternatives were evaluated:

- Alternative 1 – Refurbish existing aerated grit removal
- Alternative 2 – Utilize existing aerated grit chamber with new vortex grit removal
- Alternative 3 – Expand existing aerated grit chamber
- Alternative 4 – Construct a new in-line vortex grit removal system

The grit removal alternatives were evaluated based on the following:

- Capital, O&M, and life cycle costs.
- Headloss through the unit.
- Grit removal efficiencies and ability to accommodate variable flow rates.
- Cleanliness of the grit removed and potential for odor problems.
- Ruggedness and reliability, particularly with respect to frequency of breakdowns and jamming.
- Ease of inspection, maintenance and repair, including amount of submerged components, ease of access to components, and availability of parts and services.
- Corrosion resistance and suitability for outdoor application.
- Potential to utilize non-proprietary equipment and obtain competitive pricing

A comparative summary of the four alternatives is presented in Table 4-2. Based on cost and other factors, Alternative 1 was the recommended alternative. This alternative utilizes the existing aerated grit chamber with minimal upgrade work. This alternative was selected on the basis of its lowest cost, lack of odor concerns, ease of operation and maintenance, low power consumption, and minimal potable water consumption. The primary disadvantage of this alternative is the marginal grit removal performance. Since grit accumulation in the downstream inverted siphon has not been a significant problem in the past and not anticipated to be one in the future, the substantially higher costs associated with providing improved grit removal performance could not be readily justified.

TABLE 4-2
COMPARISON OF GRIT REMOVAL ALTERNATIVES

Cost	Performance	Reliability	Ease of Operation and Maintenance	Other
<u>Alternative 1 – Refurbish Existing Aerated Grit Chamber</u>				
Capital Cost: $301,000 Operation and Maintenance Cost: $22,000/year Present Worth Cost: $0.02/kgal treated	Aerated grit chambers can typically remove 95 percent of 210-micron grit. Grit removal efficiency, however, is expected to be lower due to the limitations in the existing grit chamber size and geometry. Low headloss.	Minimal mechanical equipment required.	Pumping of accumulated grit from grit chamber sump required. Grit is currently removed two times per year. Frequency may be increased to accommodate higher future flows and to improve performance. Mechanical equipment includes a 10 HP blower.	Utilizes existing grit chamber with minimal new construction. Modest power consumption (52,000 KWH/year) due to small size of grit chamber. Aeration of wastewater helps alleviate septic conditions. No use of potable water for grit washing.
<u>Alternative 2 – Utilize Existing Aerated Grit Chamber with New Vortex Grit Removal (Slurrycup and Grit Snail)</u>				
Capital Cost: $1,054,000 Operation and Maintenance Cost: $76,000/year Present Worth Cost: $0.08/kgal treated	Conversion to a detritus tank type operation with low aeration and continuous grit removal could improve grit removal efficiency. Removal efficiency, however, is still limited by the existing grit chamber size and geometry. Slurrycup and Grit Snail provides good separation of grit and organic matter and produces clean grit with less than 20 percent attached organics. Slurrycup can remove 95 percent of 50-micron and larger grit. Low headloss.	Although grinding may be acceptable, screening is highly recommended prior to the Slurrycup equipment. Large debris may cause clogging of Slurrycup. Additional mechanical equipment (Grit Snail and grit pump) required.	Slurrycup is an all-hydraulic, non-mechanical design with no moving parts. Requires regular disposal of grit. Additional labor required for mechanical equipment (grit pump and Grit Snail) in addition to a 10 HP blower.	Equipment is proprietary. Requires 47,500 gpd of continuous potable water flow for equipment washdown and an additional 5,600 gpd for hydraulic valve backwashing. Highest power consumption (83,000 KWH/year) due to continuous operation of blower and grit pump. Easily incorporated into existing system and compact design results in small footprint.

TABLE 4-2
COMPARISON OF GRIT REMOVAL ALTERNATIVES

Cost	Performance	Reliability	Ease of Operation and Maintenance	Other
<u>Alternative 3 – Expand Existing Aerated Grit Chamber</u>				
Capital Cost: $917,000 Operation and Maintenance Cost: $35,000/year Present Worth Cost: $0.06/kgal treated	95 percent removal of 250-micron grit. Minimal headloss. Good grit removal efficiency over a wide flow range.	Additional mechanical equipment (grit cyclone and classifier) required.	Requires regular disposal of grit. Additional labor required for mechanical equipment (grit classifier) in addition to a 20 HP blower.	Utilizes existing grit chamber structure. Aeration of wastewater helps alleviate septic conditions. Grit classifier requires 3,600 gpd of potable water. Higher power consumption (76,000 KWH/year) due to continuous operation of larger blower.
<u>Alternative 4 – Construct New In-Line Vortex Grit Removal System</u>				
Capital Cost: $742,000 Operation and Maintenance Cost: $34,000/year Present Worth Cost: $0.05/kgal treated	95 percent removal of 300-micron grit. 85 percent removal of 210-micron grit. 65 percent removal of 150-micron grit. Minimal headloss. Removes high percentage of fine grit.	No submerged bearings or parts that require maintenance. Paddles may collect rags, particularly without screening prior to grit removal.	Requires regular disposal of grit. Additional labor required for mechanical equipment (grit pump, paddle motor, grit cyclone and grit classifier).	Existing grit removal facilities not incorporated into new facilities. Approximately 10,800 gpd of potable water required to help fluidize accumulated grit in grit tank. Grit classifier requires 3,600 gpd of potable water. Good energy efficiency (16,500 KWH/year). Clogging of grit sump due to compacted solids may require supplemental agitation with high-pressure water or air.

Note: Present worth cost based on 6% discount rate, 20-year period with no salvage value, and average flow of 5.7 million gallons per day.

Since Alternative 2 utilizes the existing grit chamber with only upgraded grit handling and separation facilities, it provides only limited improvement in overall grit removal performance over Alternative 1 at a substantially higher cost. Alternative 2 also utilizes a significant amount of potable water (53,000 gpd). Although Alternatives 3 and 4 both provide substantially improved grit removal, both alternatives require major new construction and are substantially higher in capital costs and annual operation and maintenance costs. Alternative 2 and 3 require substantially more power than Alternative 1.

C. ALTERNATIVES FOR INCREASING DOWNSTREAM FLOW HANDLING CAPACITY

The alternatives for increasing the downstream flow handling capacity were investigated in detail in the engineering report, "Design Alternatives Report for Mililani Diversion Relief Sewer," prepared by ParEn Inc. (2002). The study focused on evaluating the hydraulic capacity of the effluent diversion line (see Figure 1-1) that conveys flow from the Mililani WWPTF to the Waipahu Wastewater Pump Station (WWPS).

Rehabilitation of line with a cure-in-place-pipe (CIPP) liner was proposed by ParEn Inc. to increase the interior smoothness of the line (thereby increasing capacity) and to repair deteriorated sections of pipeline. Flow equalization utilizing a large storage basin was proposed as an alternative means to accommodate higher future flows by storing a portion of the high flows that occur during heavy rain due to infiltration and inflow of rainwater into the sewer system. The stored flow is discharged back to the sewer following subsidence of the high flows. The flow equalization basin essentially provides increased flow handling capacity by dampening the peak flow prior to the downstream facilities.

Specific alternatives that were evaluated and the estimated initial construction and annual operation and maintenance (O&M) costs of the alternatives were as follows:

- Alternative 1 - Rehabilitation of sewer lines to increase capacity
  (Construction cost: $6.02 million; O&M cost: negligible)
- Alternative 2 – Flow equalization with open lined basin
  at the Mililani WWPTF and rehabilitation of selected sewer lines
  (Construction cost: $2.42 million; O&M cost: $44,000)
- Alternative 3 – Flow equalization with covered reinforced concrete
  reservoir at the Mililani WWPTF and rehabilitation of selected sewer lines
  (Construction cost: $5.05 million; O&M cost: $102,000)

All three alternatives are capable of increasing the flow handling capacity to accommodate the projected future flows. Only the two flow equalization basin alternatives have the

significant added benefit of reducing peak flows at the Waipahu WWPS. The lower peak flows will reduce the need for costly capacity upgrades of the Waipahu WWPS in the future.

Based on consideration of cost, operational issues and environmental impacts, Alternative 2, involving construction of an open flow equalization basin, was selected as the recommended alternative by ParEn Inc. In comparison to the covered reservoir, the lined open basin exhibited lower construction and O&M costs as well as simpler operation and maintenance (no confined space conditions). Odor was not considered to be a significant concern with the open basin and therefore the use of the substantially more costly covered reservoir was not justified.

SECTION 5
DETERMINATION

A. DETERMINATION

This assessment for the proposed Mililani Wastewater Preliminary Treatment Facility (WWPTF) Modifications shows that no significant impact on the environment will occur and an Environmental Impact Statement is not required. In accordance with the provisions of Chapter 343, Hawaii Revised Statues, a Finding of No Significant Impact (FONSI) is therefore deemed to be in order.

B. SUPPORTING RATIONALE

Reasons supporting the above determination include:

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

There are no known significant natural or cultural resources associated with the project site. Past development of the project area has already substantially altered the site from its natural condition.

2) **The proposed action does not curtail the range of beneficial uses of the environment.**

The proposed project is consistent with land use plans, policies and controls and would not curtail beneficial uses of the environment in the area.

3) **The proposed action is in concert with the State's long-term environmental policies, goals and guidelines as expressed in Chapter 344, HRS, and any revisions and amendments thereto, court decisions and executive orders.**

No long-term adverse environmental conflicts are foreseen. The project will have the beneficial impact of reducing the risk of wastewater spills and the resulting adverse water quality impacts.

4) **The proposed action does not substantially affect the economic or social welfare of the community or State.**

There will be some positive economic impacts related to short-term construction related activities. The project will allow the planned development of new homes in the Mililani region to continue.

5) **The proposed action does not involve substantial secondary impacts, such as population changes or effects on public facilities.**

The proposed project in itself will not result in an increase of population in the area. The project provides the necessary wastewater infrastructure to support planned growth for the region as envisioned by the "Central Oahu Sustainable Communities Plan." The project will not have adverse impacts on other public facilities such as roads, electrical power and water system.

6) **The proposed action does not have significant adverse effects on public health.**

Short-term impacts associated with construction will have minimal potential for affecting public health. Construction activities will be regulated to minimize noise, dust and exhaust emissions.

The project will not result in significant increases in odors and noise. The project will have the beneficial impact of reducing the potential for wastewater spills and the associated risks to public health.

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

The existing physical aspects of the surrounding area will be preserved. The proposed new facilities will be shielded from pubic view from Makapipipi Street. The project will not result in a significant increase in adverse odor, noise or aesthetic impacts.

8) **The proposed action is individually limited and cumulatively, does not have a significant effect upon the environment or involve a commitment for larger actions.**

The Mililani WWPTF modifications project is limited in scope to the proposed headworks upgrade, flow equalization basin and other miscellaneous work.

9) **The proposed action does not substantially affect rare, threatened or endangered species or habitats.**

Based on a review of available information and the results of a site survey, no endangered flora or fauna are anticipated to be found within the project site.

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

Short-term impacts on air, water quality and noise may occur during the construction period, but will be mitigated by construction practices and will be regulated by the project's plans and specifications. The proposed new facilities are not anticipated to

result in increases in noise or odor generation. The project will have the beneficial impact of reducing the risk of wastewater spills and the resulting adverse water quality impacts.

11) **The proposed action does not affect or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary or coastal waters.**

The Mililani WWPTF is not located within a flood zone or other environmentally sensitive area.

12) **The proposed project does not substantially affect scenic vistas and viewplanes identified in County or State plans or studies.**

The project site is not a part of a unique or valuable scenic resource. The proposed modifications will be compatible in scale, mass and height with existing facilities located at the site.

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

The energy required to operate the proposed facilities is not significant. The project will result in a net decrease in energy consumption.

SECTION 6
PERSONS AND AGENCIES CONTACTED

A. PRE-ASSESSMENT CONSULTATION

Pre-assessment consultation correspondence and other relevant consultation information associated with the preparation of this environmental assessment are presented in Appendix C. Pre-assessment consultations included: 1) written correspondence to various agencies and community members soliciting input, 2) presentations at the Mililani-Waipio Neighborhood Board No. 25 (June 27, 2001 and May 28, 2003), and 3) site visit to the Mililani Wastewater Preliminary Treatment Facility (WWPTF) site on June 21, 2003.

The Mililani WWPTF site visit held on June 21, 2003 was attended by City Council Representative Nestor Garcia, Mr. Tom Lenchanko of the Hawaiian Civic Club of Wahiawa and Mr. Dan Au of Friends of Kukaniloko. Mr. Richard Poirier of the Mililani-Waipio Neighborhood Board also attended the site visit for a short period. Mr. Lenchanko and Mr. Au also attended an extended tour which included inspection of the Mililani and Waipahu inverted siphon sewer lines. Mr. Lenchanko and Mr. Au indicated that they have no major concerns on the project and do not oppose the project. None of the invited nearby landowners/residents on Makapipipi Street (see list below) attended the site visit.

Parties contacted for pre-assessment consultation input are listed below. Parties that provided written input are indicated by an "*". Parties which received written responses are indicated with a "+". Included in Appendix C are the following pre-assessment consultation documents: 1) sample copy of a typical letter requesting input on the project, 2) copies of correspondence (arranged in order of the agencies/persons listed below), and 3) excerpts of the Neighborhood Board meeting minutes.

1. Federal Government

Department of the Interior, Fish and Wildlife Service
U.S. Army Corps of Engineers Planning Branch

2. State Government

Department of Agriculture
Department of Health, Office of Environmental Quality Control*
Department of Health, Wastewater Branch*
Department of Land & Natural Resources, State Historic Preservation Division*
Office of Hawaiian Affairs
Senator Ron Menor, District 17
Representative Guy Ontai, District 37

3. County Government

Department of Planning & Permitting *+
Department of Environmental Services
Council Member Nestor R. Garcia, District IX, City and County of Honolulu

4. Others

Mr. Dick Poirier, Chair, Mililani-Waipio Neighborhood Board No. 25

Other Mililani-Waipio Neighborhood Board Members
Ms. Grace Abatayo, Ms. Michelle Kidani, Mr. Carl Medeiros,
Mr. Daniel Romero, Mr. Gary Kauwe, Mr. John Norris, Mr. Douglas Thomas,
Mr. Glenn Ah Sam, Mr. Bill Brizee, Mr. Keith Hamada, Ms. Marie Abatayo,
Mr. Noel Araki, Mr. William Bass, Ms. Barbara Fabrey, Ms. Laura Brown,
Mr. Michael Yoh, Ms. Elizabeth Andrews, Ms. Mary Anne Selander,
Mr. Jessie Weinberger, Ms. Josie Hart Kaanehe, Mr. Charles Remington

Landowners/Residents on Makapipipi Street with the following addresses:
94-393, 94-397, 94-401, 94-405, 94-406, 94-409, 94-410, 94-413, 94-415,
94-416, 94-419

Mr. Calvin Maeda, Mililani Town Association
Mr. Alan Arakawa, Castle and Cooke Hawaii
Mr. Kunani Hihipali, Hui Malama i Na Kupuna o Hawaii Nei
Ms. Mary Perzinski, Oahu Island Burial Council
Ms. Mahealani Merryman, Alu Like, Inc.
Ms. Lurline Lee, President, Hawaiian Civic Club of Wahiawa

B. CONSULTATION DURING PREPARATION OF THE FINAL ENVIRONMENTAL ASSESSMENT

Copies of the draft environmental assessment were mailed or delivered to the following agencies, organizations and other interested parties listed below. Parties consulted during the pre-assessment phase that are not included on the distribution list were notified of the availability of the environmental assessment and sent a copy if one is requested. As requested by the Mililani-Waipio Neighborhood Board, a summary of the environmental assessment was sent to all board members.

The OEQC public review period ended June 21, 2005. The deadline for comments for the Mililani-Waipio Neighborhood Board was extended to July 6, 2005 since no meeting of the neighborhood board was held in May of 2005. A total of eleven comment letters were received. Copies of the comment letters and the responses prepared by the applicant are presented in Appendix D. A presentation on the project was made at the June 22, 2005

meeting of the Mililani-Waipio Neighborhood Board meeting. Members of the neighborhood boards approved a resolution supporting the project.

In the list of parties presented below, parties that provided written comments are indicated by an "*". Copies of the comment and response letters are presented in Appendix C in the order of the list presented below. Also included in Appendix C are excerpts of the Neighborhood Board meeting minutes.

1. Federal Government Agencies

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

2. State Government Agencies

Department of Agriculture
Department of Business, Economic Development and Tourism, Office of Planning*
Department of Health, Office of Environmental Quality Control (4 copies)*
Department of Health, Environmental Health Services Division, Noise, Radiation and Air Quality Branch*
Department of Health, Environmental Management Division, Clean Water Branch*
Department of Health, Environmental Management Division, Wastewater Branch*
Department of Health, Office of Hazard Evaluation and Emergency Response
Department of Land & Natural Resources, Land Division (5 copies)*
Department of Land & Natural Resources, State Historic Preservation Division
Office of Hawaiian Affairs*
Mililani Public Library

3. County Government Agencies

Honolulu Board of Water Supply*
Department of Environmental Services
Department of Planning & Permitting (5 copies)*

4. Elected Officials

Senator Ron Menor, District 17
Representative Ryan I. Yamane, District 37
Council Member Nestor R. Garcia, District IX

5. Others

Mr. Dick Poirier, Chair, Mililani-Waipio Neighborhood Board No. 25* (resolution)
Mr. Calvin Maeda, Mililani Town Association
Mr. Alan Arakawa, Castle and Cooke Hawaii*

5. Others (continued)

Mr. Tom Lenchanko, Hawaiian Civic Club of Wahiawa
Mr. Dan Au, Friends of Kukaniloko
Mr. Brian Fujita, Watanabe Floral Inc.
Mr. Jon Pharis, Pharis & Associates (architect for Watanabe Floral property)
Hawaiian Electric Company

SECTION 7
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Appendix A

Biological Resources Assessment
Flora and Fauna Studies

BIOLOGICAL RESOURCES ASSESSMENT
FLORA AND FAUNA STUDIES
MILILANI WASTEWATER PRELIMINARY TREATMENT FACILITY MODIFICATIONS
MILILANI, 'EWA DISTRICT, O'AHU

by

Winona P. Char
CHAR & ASSOCIATES
Botanical/Environmental Consultants
Honolulu, Hawai'i

Prepared for: **HAWAII PACIFIC ENGINEERS, INC.**

April 2003

BIOLOGICAL RESOURCES ASSESSMENT
FLORA AND FAUNA STUDIES
MILILANI WASTEWATER PRELIMINARY TREATMENT FACILITY MODIFICATIONS
MILILANI, 'EWA DISTRICT, O'AHU

INTRODUCTION

The Mililani Wastewater Preliminary Treatment Facility is located at 94-417 Makapipipi Street (TMK: 9-4-05: 19) in Mililani Town, O'ahu. Modifications for the facility include upgrading the headworks (new grinders and refurbish aerated grit chamber), excavation of a new flow equalization basin, and abandoning and filling in a number of clarifier and aeration tanks.

Most of the vegetation around the existing tanks and structures to be modified is periodically, though infrequently, maintained. It consists of a varied assemblage of grasses and weedy species. The site for the new flow equalization basin supports koa haole scrub with scattered trees.

Field studies to assess the biological resources, flora (botanical) and fauna, on the project site were conducted on 16 April 2003. The primary objectives of the field studies were to prepare a general description of the vegetation and vertebrate animal communities (birds and mammals) on the project site, and to search for threatened and endangered species as well as species of concern.

A walk-through survey method was used. For the flora studies, notes were made on plant associations and distribution, substrate types, disturbances, topography, etc. For the vertebrate fauna, field observations were made with the aid of binoculars and by listening for vocalizations. No attempts were made to trap animals in order to obtain data on abundance and distribution on the project site.

FLORA RESOURCES

The plant names used in the following discussion are in accordance with Wagner et al. (1990) and Wagner and Herbst (1999). The more recent name changes are those recorded in the Hawaii Biological Survey series (Evenhuis and Eldredge, editors, 1999-2002).

Large patches of Sida ciliaris are abundant around the existing tanks and structures; this introduced Sida forms low mats, 4 to 6 inches tall. Also abundant to common are clumps of Natal redtop grass (Melinis repens), creeping indigo (Indigofera hendecaphylla), pitted beardgrass (Bothriochloa pertusa), coatbuttons (Tridax procumbens), and Guinea grass (Panicum maximum). However, barren patches of red clay soil are also frequently found on the site.

Other plants which occur here occasionally or in somewhat smaller numbers include hairy horseweed (Conyza bonariensis), red pualele (Emilia fosbergii), Cuba jute (Sida rhombifolia), 'uhaloa (Waltheria indica), swollen fingergrass (Chloris barbata), sourgrass (Digitaria insularis), slender mimosa (Desmanthus pernambucanus), buffelgrass (Cenchrus ciliaris), peppergrass (Lepidium virginicum), Bermuda grass (Cynodon dactylon), etc. Scattered here and there are a few shrubs of koa haole (Leucaena leucocephala) and comb hyptis (Hyptis pectinata).

Standing water can be observed in the bottom of some of the clarifier and aeration tanks; these support duckweed (Lemna sp.) and water hyacinth (Eichhornia crassipes). A few weedy tree species such as African tulip tree (Spathodea campanulata), Macaranga tanarius, and octopus tree (Schefflera actinophylla) occur as saplings around the tank area. Three patches of umbrella sedge (Cyperus alternifolius) also are found around the tanks.

Near the southeast corner of the project site are mounds of dirt and boulders which support dense koa haole scrub, 12 to 15 ft. tall in most places. A very large albizia tree (Falcataria moluccana), 50 ft. tall, is found on one of the dirt mounds; also nearby are smaller trees of silk oak (Grevillea robusta) and kiawe (Prosopis pallida), 20 to 25 ft. tall. Ground cover consists primarily of dense clumps of Guinea grass, 4 to 7 ft. tall.

FAUNA RESOURCES

The nomenclature for the birds (avifauna) follow Hawaii Audubon Society (1997), while the mammals are in accordance with van Riper and van Riper (1982). Field studies were conducted in the morning hours and the weather was somewhat overcast.

Eleven bird species were recorded during the field studies and are presented in Table 1. The red-vented bulbul (Pycnonotus cafer) and house finch (Carpodacus mexicanus) were the most frequently heard and observed birds on the property and adjacent lands. Japanese white-eye (Zosterops japonicus) and northern cardinal (Cardinalis cardinalis) were associated with the koa haole scrub area.

A small flock of common waxbill (Estrilda astrild) and one individual of chestnut mannikin (Lonchura malacca) were observed feeding on Guinea grass seeds. Both spotted dove (Streptopelia chinensis) and zebra dove (Geopelia striata) as well as commom myna (Acridotheres tristis) were seen flying over the project site.

Although not observed on the project site during this survey, Pacific golden plover (Pluvialis fulva) was found on the nearby Mililani 'Uka Elementary School grounds; it is expected to utilize the project site as there are large areas of grassy lawn around the nearby administration building. One individual of saffron finch (Sicalis flaveola) was observed along the access

TABLE 1

SUMMARY OF AVIFAUNA RECORDED FROM THIS STUDY

Scientific name	Common name	*Status
Pluvialis fulva	Pacific Golden Plover	V
Zosterops japonicus	Japanese White-eye	A
Streptopelia chinensis	Spotted Dove	A
Geopelia striata	Zebra Dove	A
Pycnonotus cafer	Red-vented Bulbul	A
Acridotheres tristis	Common Myna	A
Cardinalis cardinalis	Northern Cardinal	A
Carpodacus mexicanus	House Finch	A
Sicalis flaveola	Saffron Finch	A
Estrilda astrild	Common Waxbill	A
Lonchura malacca	Chestnut Mannikin	A

*Status (follows Hawaii Audubon Society 1997):

A = alien; species introduced to and established in Hawai'i by humans.

V = visitor; regular migrants that arrive in the fall to spend the winter in Hawai'i and depart in spring.

road to the project site; it is also expected to utilize the project site.

Although not observed during this day-time survey, the roof rat (Rattus rattus), Polynesian rat (Rattus exulans), and house mouse (Mus musculus) as well as the small Indian mongooses (Herpestes auropunctatus) are expected to occur on the site.

DISCUSSION

Flora Resources: The vegetation around the existing tanks and structures to be modified is dominated by introduced, mostly weedy species such as koa haole, pitted beardgrass, Guinea grass, Sida ciliaris, coatbuttons, etc. Introduced species are all those plants brought to Hawai'i by humans, intentionally or accidentally, after Western contact, that is Cook's discovery of the islands in 1778. Only two native species were observed on the project site; these were the 'uhaloa and one small shrub of 'a'ali'i (Dodonaea viscosa). Both are indigenous, that is, they are native to Hawai'i and elsewhere.

None of the plants found during the field studies is threatened and endangered species or a species of concern (U.S. Fish and Wildlife Service 1999a, 1999b; Wagner et al. 1999). This is not surprising as the site appears to have been greatly disturbed for a long time.

Given these findings, the proposed facility modifications are not expected to have a significant negative impact on the botanical resources. However, it is recommended that areas cleared of vegetation be regrassed/landscaped as soon as possible to prevent generation of dust and soil loss.

Fauna Resources: Eleven bird species were recorded on and around the project site. All are alien species with the exception of the plover, which is an annual visitor to the islands. Mammals such as rats, mice, and mongoose are expected

to occur here; none are native species.

None of the animals which were recorded during the field studies is a threatened and endangered species or a species of concern (U.S. Fish and Wildlife Service 1996, 1999). Given the limited nature of the proposed project, it is not expected to have a significant negative impact on the vertebrate animal communities.

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Appendix B

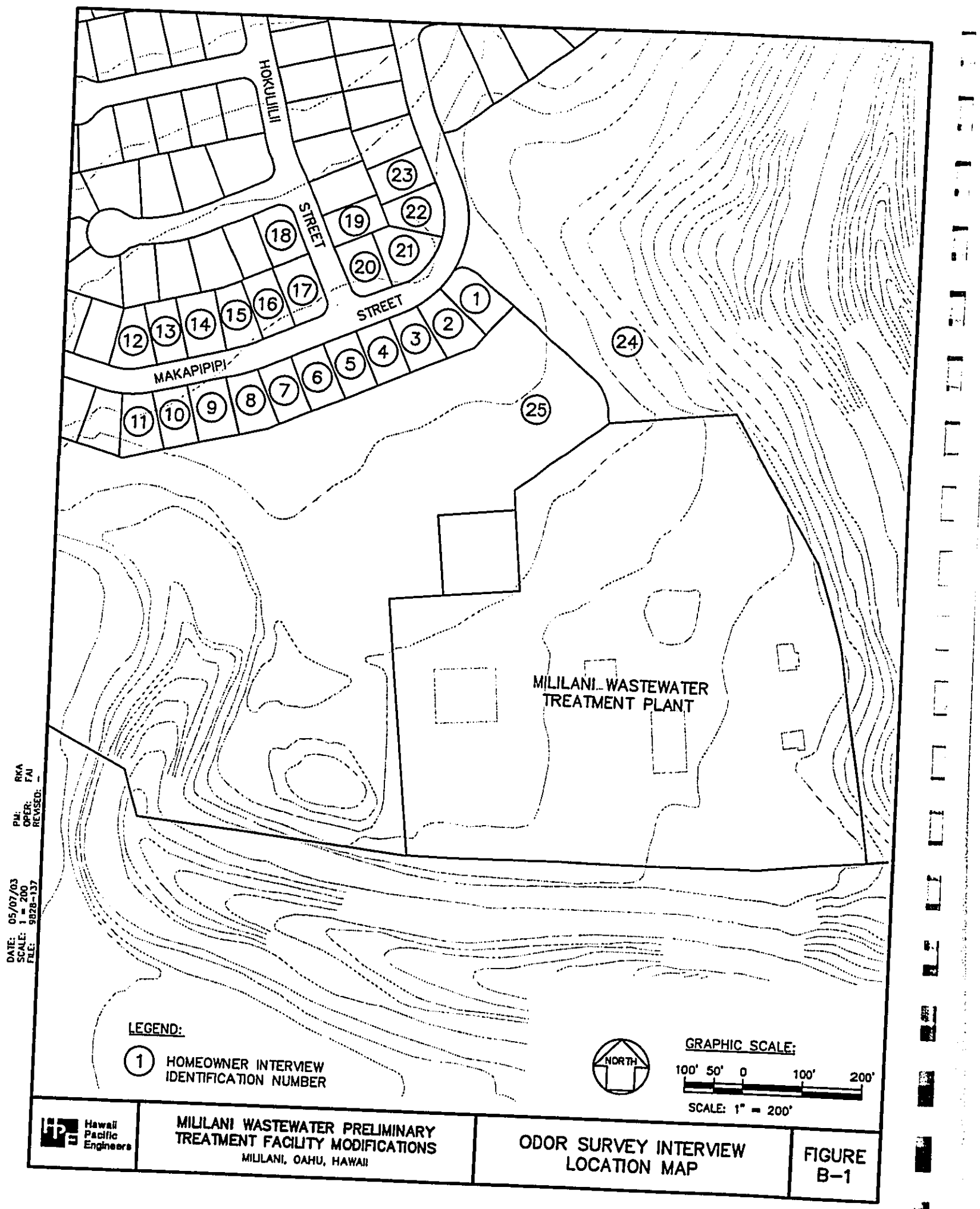
Resident Survey of Odor and Noise

TABLE B-1
ODOR AND NOISE SURVEY RESULTS
(Conducted on 7/31/99)

Survey ID Number	Is Odor Currently a Problem?	Was Odor Previously a Problem? (before 1990)	Is Noise Currently a Problem?	Was Noise Previously a Problem? (before 1990)	Comments
1	No	Yes	No	Minimal	Odor was really bad. Embarrassed to have guests over. Will put up with plant if have to. Some truck traffic.
2	n/a	n/a	n/a	n/a	Not home.
3	No	n/a	No	n/a	Would be against reactivating the plant.
4	No	Yes	No	No	Odors were really bad but not constant. Would object to reactivation of the plant.
5	No	Yes	No	No	Used to smell a little bit. Bad once in a while.
6	No	Yes	No	No	Odors really bad depending on the wind. Notice some humming sound but not a problem.
7	No	Yes	No	No	Odors were really bad.
8	No	Yes	No	No	Odors were really bad.
9	No	n/a	No	n/a	Can hear hum if go down the street.
10	n/a	n/a	n/a	n/a	No interview due to dog.
11	No	n/a	No	n/a	
12	No	Yes	No	No	Odors were bad but not all the time.
13	n/a	n/a	n/a	n/a	Not home
14	n/a	n/a	n/a	n/a	Not home
15	n/a	n/a	n/a	n/a	No interview due to dog.
16	No	n/a	No	n/a	
17	n/a	n/a	n/a	n/a	No interview due to dog.
18	n/a	n/a	n/a	n/a	No interview due to dog.
19	No	Yes	No	No	Could smell the odors.
20	No	Yes	No	Only trucks.	Odors were really bad more than half the year. Depends on wind. Developers offered a $10,000 discount to sell the homes. Nurseries use of fish emulsion which causes some odors.
21	No	n/a	No	n/a	Only hear City trucks.
22	No	Yes	No	No	Odor was really terrible. Worst when have Kona wind. Tank trucks also used to cause odors. Noise only from trucks.
23	No	Yes	No	No	Smell something now every once in a while when wind changes. Used to be very bad.
24	No	Yes	No	No	Odors used to be very bad. Workers wore masks. Now smell something about 6 times a year but not a problem.
25	No	Yes	No	No	Smell was very bad. Depends on wind direction. May have slight odors now but infrequent and not a problem.
25	No	Yes	No	No	Used to really stink. Now notice sometimes but not as bad.

See Figure B-1 for locations of homes.
n/a - not applicable (either not home, not interviewed, or did not reside there before 1990)

Source: Information adapted from "Mililani Wastewater Reclamation Facility Feasiblity Study." (Hawaii Pacific Engineers, 2000)


HOKULILILI
STREET
STREET
MAKAPIPIPI
1
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12
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25
MILILANI WASTEWATER
TREATMENT PLANT
PM: RKA
OPER: FAI
REVISED: -
DATE: 05/07/03
SCALE: 1 = 200
FILE: 9828-137
LEGEND:
1 HOMEOWNER INTERVIEW IDENTIFICATION NUMBER
NORTH
GRAPHIC SCALE:
100' 50' 0 100' 200'
SCALE: 1" = 200'
Hawaii Pacific Engineers
MILILANI WASTEWATER PRELIMINARY TREATMENT FACILITY MODIFICATIONS
MILILANI, OAHU, HAWAII
ODOR SURVEY INTERVIEW LOCATION MAP
FIGURE B-1

Appendix C

Pre-Assessment Consultation Correspondence and Documentation

SAMPLE LETTER REQUESTING INPUT

Hawaii Pacific Engineers, Inc.
1132 BISHOP STREET, SUITE 1003
HONOLULU, HAWAII 96813-2830
Phone: (808) 524-3771 Fax: (808) 538-0445
E-mail: hpeinc@hawaiipacificengineers.com

April 15, 2003

Mr. Eric Crispin, Director
City and County of Honolulu
Department of Planning & Permitting
650 South King Street, 7th Floor
Honolulu, HI 96813

SUBJECT: Mililani Wastewater Preliminary Treatment Facility (WWPTF) Modifications - Pre-assessment Consultation for Environmental Assessment
TMK: 9-4-05:19

Hawaii Pacific Engineers, Inc. (HPE), on behalf of the City and County of Honolulu, is preparing an environmental assessment for proposed modifications at its Mililani Wastewater Preliminary Treatment Facility (WWPTF). HPE is soliciting pre-assessment comments and input on this project.

Background Information and Project Objectives

The Mililani WWPTF, owned and operated by the City and County of Honolulu, is located on an 11-acre site at 94-417 Makapipipi Street in Mililani. The site is located west of Kamehameha Highway on the southern boundary of Mililani Town. A location map is shown on the attached Figure 1.

The Mililani WWPTF, previously known as the Mililani Wastewater Treatment Plant, was constructed in several phases during the late 1960's and 1970's to provide full treatment of wastewater prior to its discharge to Kipapa Stream. In 1990, the wastewater flow was diverted via the new Mililani effluent diversion line to the Waipahu Wastewater Pump Station for transmission to the Honouliuli Wastewater Treatment Plant. The discharge to the stream was eliminated and most of the treatment units were taken out of active service.

Only the headworks (preliminary treatment) portion of the plant currently remains in operation to provide grinding and grit removal prior to discharge of the wastewater into the effluent diversion line. The purpose of the preliminary treatment is to reduce the potential for large and heavy solids in the wastewater to clog downstream sewer lines and pumping facilities.

The City and County of Honolulu proposes to upgrade and construct new facilities at the Mililani WWPTF to improve the performance of the preliminary treatment facilities and provide additional wastewater capacity to meet projected increases in wastewater flow. Specific objectives and requirements of the project are as follows:

- Upgrade of the headworks facilities is proposed to improve preliminary treatment performance. Improving the performance of the headworks facilities will help minimize maintenance requirements and potential clogging problems at two existing downstream inverted siphons (depressed sewer pipes) on the Mililani effluent diversion line that crosses Waikele Gulch.

- Upgrade the headworks facilities is also required to increase the hydraulic (flow handling) capacity to accommodate future increases in wastewater flow. If the capacity is not increased, the higher projected peak flows in the future could result in wastewater spilling out of manholes and overtopping the headworks channel walls.

- Due to capacity limitations of downstream wastewater conveyance facilities, the construction of a flow equalization basin is proposed to temporarily store and thereby dampen peak wastewater flows generated during heavy rainfall. Wastewater flows increase significantly during wet weather due to entry of rainwater into sewer pipes through pipe and manhole defects and illicit connections such as roof gutters and outdoor drains. The existing Waipahu Wastewater Pump Station and collection system located downstream of the Mililani WWPTF does not have sufficient capacity to accommodate the projected future peak wet weather flow. The City has concluded that reduction of peak wet weather flow through the construction of flow equalization facilities is more cost-effective than increasing the capacity of the downstream pump station and sewer lines. Reduction of the peak wet-weather flows will also help improve the performance of the Honouliuli Wastewater Treatment Plant.

Proposed Project

A general site plan for the project is shown on Figure 2. The proposed project includes the following:

- Two new grinders will be installed in new reinforced concrete channels at the headworks. The existing grinder and bypass bar screen will be removed and a new manually-cleaned bar screen will be installed.

- The existing aerated grit chamber will be refurbished with new aeration piping and diffusers, and effluent weir. The existing airlift pump and grit classifier will be removed.

- Two new air blowers will be installed in the Sludge Pump Building. The large air blowers in the existing blower building will be taken out of service.

- The existing primary clarifier tanks, Rapid Bloc aeration tanks, and final clarifier and aeration tanks will be drained and backfilled with crushed rock and soil to eliminate ongoing maintenance of the tanks, accumulation of rainwater, and concerns associated with mosquito problems. Pipes to the tanks will be plugged/modified to eliminate

leakage of wastewater flow into the tanks. Drainage holes will be drilled in the tank floor slabs to drain rainwater.

- New electrical and instrumentation systems will be installed to support the new process equipment.

- A flow equalization basin that is approximately 260 feet long by 160 feet wide by 12 feet deep will be constructed on the southeast corner of the site. The basin will be lined with an impermeable synthetic liner to contain the wastewater.

Preliminary Project Assessment

The environmental impacts associated with the project will be evaluated in the environmental assessment currently being prepared by HPE. The following is a brief discussion addressing our preliminary assessment of the environmental impacts and issues.

The headworks upgrade and flow equalization basin project is expected to have minimal environmental impacts during both construction and subsequent operation of the facilities. The City intends to mitigate any negative impacts to the extent practicable.

There will be some short-term construction impacts such as truck traffic to and from the site, construction equipment noise, and dust. The contractor will be required to meet applicable noise standards established by the State Department of Health and to control the generation of dust by implementing appropriate dust control practices. The construction will be confined to the existing Mililani WWPTF site that has been previously graded and was formerly used for agriculture.

Increases in noise and odors associated with the operation of the upgraded headworks facilities and flow equalization basin, if any, will be negligible. The new air blowers will be substantially smaller than the existing air blowers currently in use. The Sludge Pump Building in which the new air blowers will be located will be provided with acoustical treatment so that the increase in noise levels will be insignificant at the nearest residence. Although more frequent removal of grit is proposed with the upgraded facilities (quarterly vs. semi-annually), the level of odors generated is not expected to increase. Odors generated from current grit removal operations do not appear to be significant based on field observations, discussions with City operations personnel, and the lack of odor complaints from nearby residents.

Odors from the flow equalization basin are also not anticipated to be significant. The basin is expected to be used only several times per year during heavy storms and the "weak" wastewater resulting from dilution with rainwater should have low potential for generating odors. Following storm events, the stored wastewater will be immediately discharged back into the sewer system before any odorous septic conditions can develop. The equalization basin will also be sited at the far corner of the site away from residences.

The construction cost for this project is estimated to be approximately $3.8 million. The construction schedule for the project will be dependent upon the availability of construction funds and timeframe for completion of the design phase. The construction work is estimated to require approximately 18 to 24 months following award of the construction contract.

Request for Input and Comments

We would appreciate receiving any pre-assessment input and comments that you may have at this time by May 31, 2003. We will make every effort to address your concerns in the draft environmental assessment. Please submit your comments to:

Roy Abe
Hawaii Pacific Engineers, Inc.
1132 Bishop Street, Suite 1003
Honolulu, Hawaii 96813

Facsimile: (808) 538-0445
Email: rabe@hawaiipacificengineers.com

To address potential cultural impacts in the environmental assessment, we would especially appreciate any input and information that you may have related to possible impacts on the traditional practices of any ethnic group. The names and phone numbers of individuals that could we could contact regarding the practices that may be affected would be very helpful to us.

Please feel free to call me at 522-7425 to discuss any aspect of the proposed project. Thank you for your participation in the environmental review process for this project.

Sincerely,

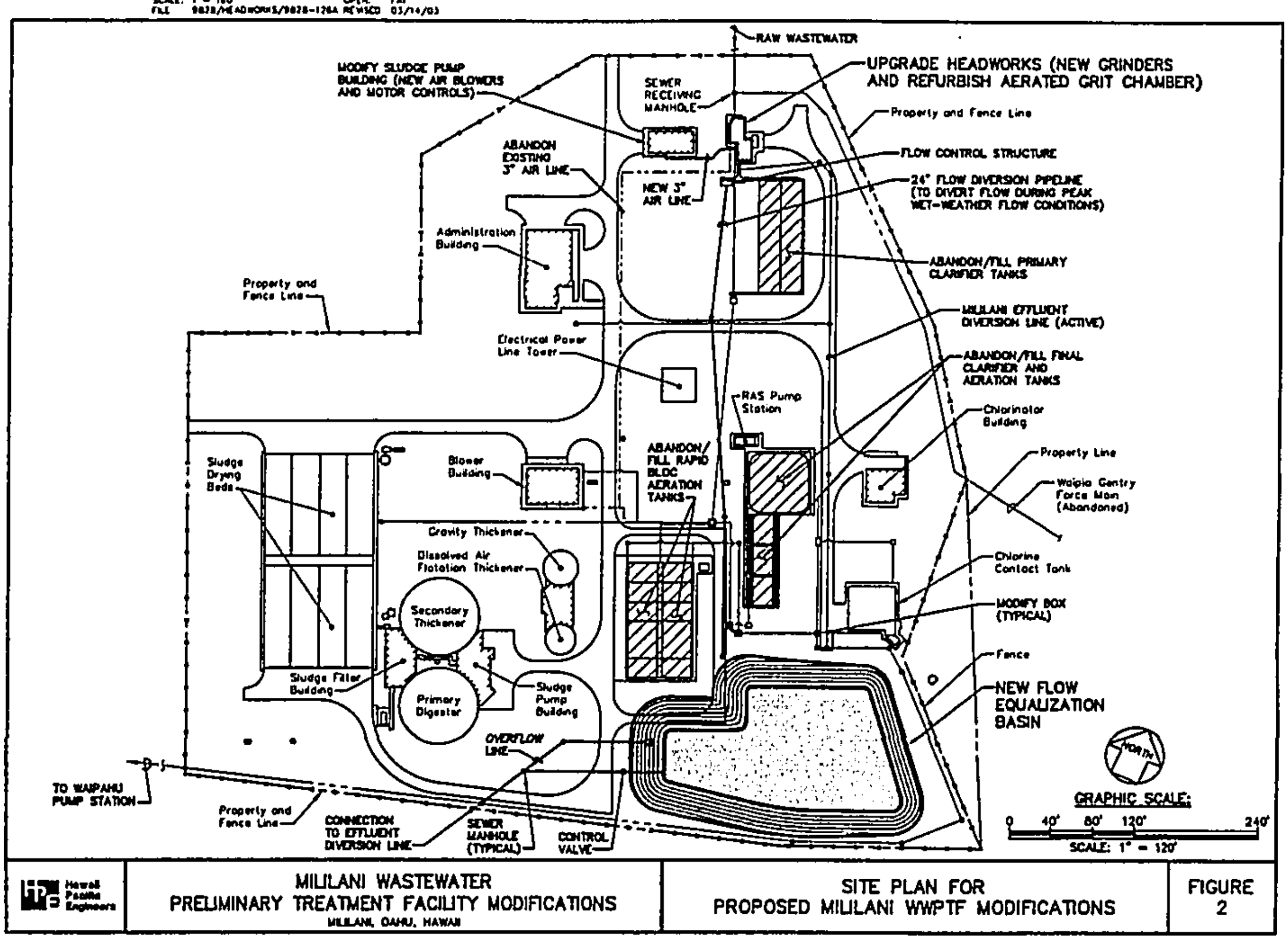
HAWAII PACIFIC ENGINEERS, INC.

Roy K. Abe
Vice President

cc: Carl Arakaki, Dept. of Design and Construction, C&C of Honolulu

Attachment (2 figures)

P:\1998\9828\Enviromental Assessment\Pre-Assessment Consultation\Preconsult letter

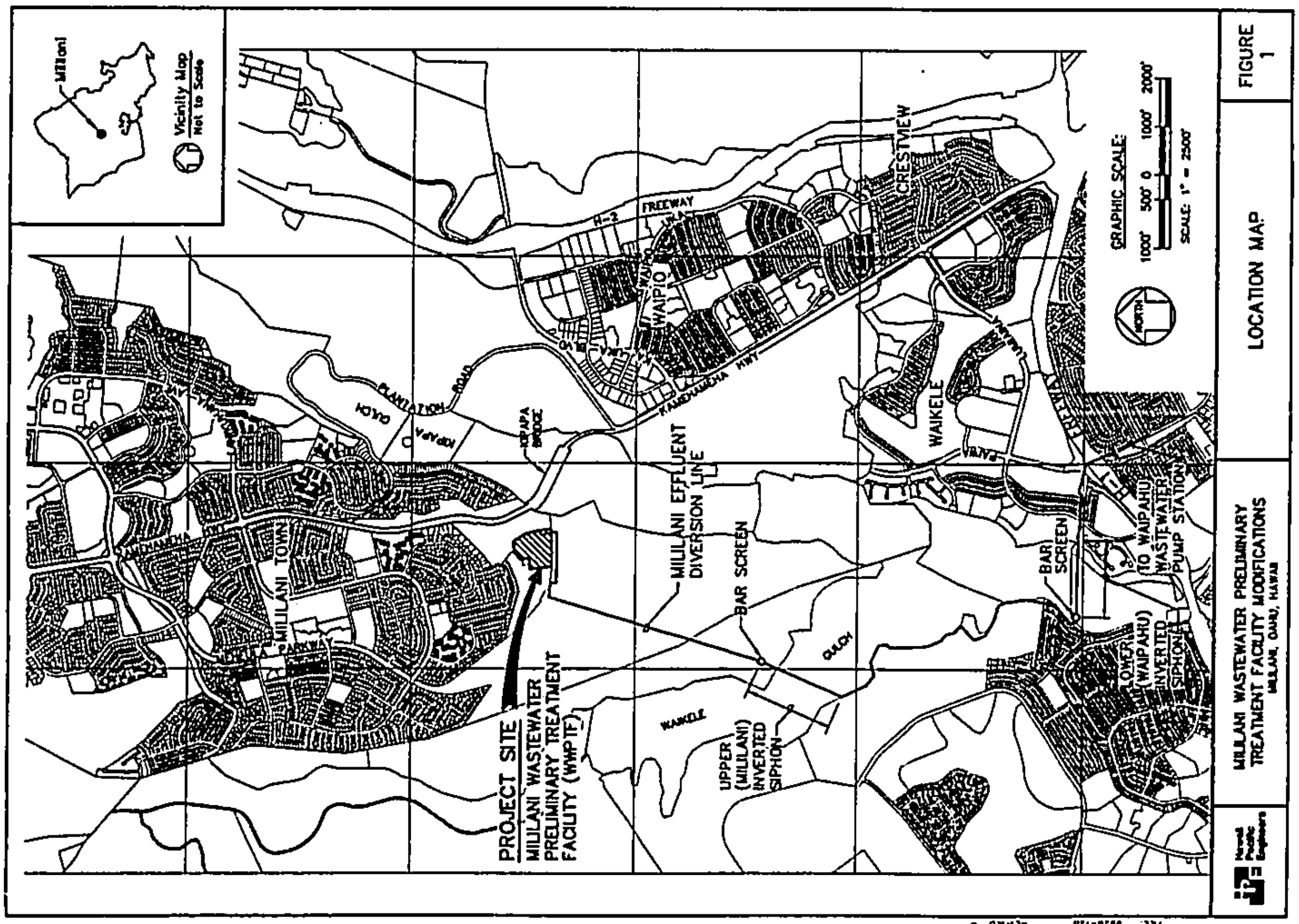

RAW WASTEWATER
UPGRADE HEADWORKS (NEW GRINDERS AND REFURBISH AERATED GRIT CHAMBER)
MODIFY SLUDGE PUMP BUILDING (NEW AIR BLOWERS AND MOTOR CONTROLS)
SEWER RECEIVING MANHOLE
Property and Fence Line
FLOW CONTROL STRUCTURE
ABANDON EXISTING 3" AIR LINE
NEW 3" AIR LINE
24" FLOW DIVERSION PIPELINE (TO DIVERT FLOW DURING PEAK WET-WEATHER FLOW CONDITIONS)
Administration Building
ABANDON/FILL PRIMARY CLARIFIER TANKS
Property and Fence Line
MILILANI EFFLUENT DIVERSION LINE (ACTIVE)
Electrical Power Line Tower
ABANDON/FILL FINAL CLARIFIER AND AERATION TANKS
RAS Pump Station
Chlorinator Building
Sludge Drying Beds
Blower Building
ABANDON/FILL RAPID BLOC AERATION TANKS
Property Line
Waipio Gentry Force Main (Abandoned)
Gravity Thickener
Dissolved Air Flotation Thickener
Chlorine Contact Tank
Secondary Thickener
MODIFY BOX (TYPICAL)
Fence
Sludge Filter Building
Primary Digester
Sludge Pump Building
NEW FLOW EQUALIZATION BASIN
OVERFLOW LINE
TO WAIPAHU PUMP STATION
Property and Fence Line
CONNECTION TO EFFLUENT DIVERSION LINE
SEWER MANHOLE (TYPICAL)
CONTROL VALVE
NORTH
GRAPHIC SCALE:
0 40' 80' 120' 240'
SCALE: 1" = 120'

Hawaii Pacific Engineers

MILILANI WASTEWATER PRELIMINARY TREATMENT FACILITY MODIFICATIONS
MILILANI, OAHU, HAWAII

SITE PLAN FOR PROPOSED MILILANI WWPTF MODIFICATIONS

FIGURE 2


Mililani
Vicinity Map Not to Scale
H-2 FREEWAY
CRESTVIEW
WAIPIO
KAMEHAMEHA HWY
PLANTATION ROAD
KIPAPA BRIDGE
WAIKELE
MILILANI TOWN
PARKWAY
MILILANI EFFLUENT DIVERSION LINE
BAR SCREEN
GULCH
PROJECT SITE MILILANI WASTEWATER PRELIMINARY TREATMENT FACILITY (WWPTF)
UPPER (MILILANI) INVERTED SIPHON
BAR SCREEN
TO WAIPAHU WASTEWATER PUMP STATION
LOWER (WAIPAHU) INVERTED SIPHON
NORTH
GRAPHIC SCALE:
1000' 500' 0 1000' 2000'
SCALE: 1" = 2500'

LOCATION MAP

FIGURE 1

MILILANI WASTEWATER PRELIMINARY TREATMENT FACILITY MODIFICATIONS
MILILANI, OAHU, HAWAII

Hawaii Pacific Engineers

LINDA LINGLE
GOVERNOR

STATE OF HAWAII
OFFICE OF ENVIRONMENT QUALITY CONTROL
235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186

GENEVIEVE SALMONSON
DIRECTOR

RECEIVED
APR 2 2 2003
HAWAII PACIFIC
ENGINEERS INC.

April 21, 2003

Mr. Roy Abe
Hawaii Pacific Engineers, Inc
1132 Bishop Street, Suite 1003
Honolulu, Hawaii 96813

Subject: Mililani Wastewater Preliminary Treatment Facility
Modifications - Pre-assessment Consultation for
Environmental Assessment

Dear Mr. Abe,

We have reviewed the information provided for the Mililani Wastewater Preliminary Treatment Facility. We have the following suggestions:

1. Contact the adjoining neighbors for comments.
2. Contact the Hawaiian Civic Club for comments on cultural impacts.

We have no other comments to offer at this time, but will reserve further comments when the documents are submitted.

Should you have any questions, please feel free to call our office at 586-4185.

Sincerely,

Genevieve Salmonson

Genevieve Salmonson
Director

LINDA LINGLE
GOVERNOR OF HAWAII

CHIYOME L. FUKINO M.D.
DIRECTOR OF HEALTH

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

In reply, please refer to
EMD / WB

April 22, 2003

RECEIVED
APR 2 8 2003
HAWAII PACIFIC
ENGINEERS INC.

Mr. Roy K. Abe
Vice President
Hawaii Pacific Engineers
1132 Bishop Street Suite 1003
Honolulu, Hawaii 96813-2830

Dear Mr. Abe:

Subject: **Mililani Wastewater Preliminary Treatment Facility (WWPTF) Modifications**
Pre-assessment Consultation for Environmental Assessment
94-417 Makapipipi Street, Mililani
Mililani, Oahu, Hawaii 96744
TMK: (1) 9 - 4- 05: 019 11 acre site

We have reviewed the subject document which proposes modifications to the Mililani Wastewater Preliminary Treatment Facility (WWPTF).

We have no objections to the proposed modification of the Mililani WWPTF and encourage such projects that update and upgrade existing wastewater treatment plants to better serve the public and environment of Hawaii. We await review of the environmental assessment.

All wastewater plans must conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems." We do reserve the right to review the detailed wastewater plans for conformance to applicable rules. Should you have any questions, please contact the Planning & Design Section of the Wastewater Branch at 586-4294.

Sincerely,

HAROLD K. YEE, P.E.
Chief, Wastewater Branch

LNK:erm

LINDA LINGLE
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING, ROOM 555
601 KAMOKILA BOULEVARD
KAPOLEI, HAWAII 96707

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

DAN DAVIDSON
DEPUTY DIRECTOR - LAND

ERNEST Y.W. LAU
DEPUTY DIRECTOR - WATER
COMMISSION ON WATER RESOURCE MANAGEMENT

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS
WATER RESOURCE MANAGEMENT

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HAWAI'I HISTORIC PRESERVATION
DIVISION REVIEW

Log #: 2003.0336
Doc #: 0304EJ26

Applicant/Agency: Roy K. Abe, Vice President
Hawaii Pacific Engineers, Inc.
Address: 1132 Bishop Street, Suite 1003
Honolulu, Hawaii 96813-2830

SUBJECT: Chapter 6E-8 Historic Preservation Review-Pre-Assessment Consultation for an Environmental Assessment for the City and County of Honolulu Mililani Wastewater Preliminary Treatment Facility (WWPTF) Modifications

Ahupua'a: Waipi'o
District, Island: 'Ewa, O'ahu
TMK: (1) 9-4-005:019

1. We believe there are no historic properties present, because:

✓ a) intensive cultivation has altered the land
___ b) residential development/urbanization has altered the land
✓ c) previous grubbing/grading has altered the land
___ d) an acceptable archaeological assessment or inventory survey found no historic properties
✓ e) other: Modifications will take place within an existing wastewater facility where historic sites are not known to exist.

2. This project has already gone through the historic preservation review process, and mitigation has been completed ___.

✓ Thus, we believe that "no historic properties will be affected" by this undertaking

Staff: Elaine Jourdane Date: 4/22/03

Title: Elaine Jourdane, Assistant Archaeologist, O'ahu Island Phone (808) 692-8027

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET • HONOLULU, HAWAII 96813
TELEPHONE (808) 523-4414 • FAX (808) 527-6743 • INTERNET www.co.honolulu.hi.us

JEREMY HARRIS
MAYOR

ERIC G. CRISPIN AIA
DIRECTOR

BARBARA KIM STANTON
DEPUTY DIRECTOR

2003/ELOG-1432 (MH)

May 29, 2003

RECEIVED
MAY 3 0 2003
HAWAII PACIFIC
ENGINEERS INC.

Mr. Roy K. Abe, Vice President
Hawaii Pacific Engineers, Inc.
1132 Bishop Street, Suite 1003
Honolulu, Hawaii 96813-2830

Dear Mr. Abe:

Mililani Wastewater Preliminary Treatment Facility (WWPTF) Modifications –
Pre-assessment Consultation for Environmental Assessment, TMK: 9-4-05: 19

In response to your request for comments of April 15, 2003, we have reviewed the subject Pre-assessment document and have the following comments to offer:

1. The Draft Environmental Assessment (DEA) should include a section on how the proposed Mililani Wastewater Preliminary Treatment Facility (WWPTF) Modifications is consistent with, the objectives and policies of the General Plan.

2. The DEA should also include a section on how the proposed project is consistent with the policies and guidelines of the Central Oahu *Sustainable* Communities Plan (CO SCP). The following Sections of the CO SCP should be disclosed/discussed in the DEA:

   A. Section 2.1 of the CO SCP projects a vision for the area to experience moderate growth, as existing areas zoned for residential development are build out with a concomitant growth in jobs. *The expansion of the plant will facilitate this growth and is supportive of the CO SCP.*

   B. Section 2.2.1 describes the Urban Community Boundary. The plant is located outside of the Urban Community Boundary on land that is zoned AG-2 General Agricultural District and is in the State Agricultural District. However, major utility installations are allowed in agricultural zoning districts with a State Special Use Permit (SUP) and City Conditional Use Permit (CUP). *As a result, if the SUP and CUP are approved, the project's location would be consistent with the CO SCP.*

C. Section 2.2.10 contains a development priority regarding adequate facilities to insure that development does not outpace infrastructure development. *The modification of the Mililani Wastewater Treatment Plant (WTP) addresses one component of the infrastructure that needs to keep up with development.*

D. Section 4.2.1 refers to the desirability of using non-potable water for irrigation and other suitable uses. Section 4.3 notes that the City is considering the possibility of "reactivating and upgrading" the Mililani WTP to provide tertiary treated effluent for irrigation purposes at Royal Kunia, Waiola, and Waiawa. *The DEA should address this alternative.*

E. Section 4.3.1 states that "wastewater treatment plants should generally be located in areas shown as planned for industrial use and away from residential areas . . .The Mililani WTP is not in such an area and is adjacent to the southern edge of the Mililani residential community. *However, because the project involves an expansion and upgrade of an existing facility rather that a new, facility, the plant's location is consistent with the CO SCP.*

F. The proposed project is not shown on the Public Facilities Map in Appendix A of the CO SCP. However, the Appendix A map is only illustrative of the text, and the fact that a project is not shown on the map does not mean that it cannot be found consistent with the Plan or that the Plan Maps need to be amended to show the project site.

However, the proposed project will need a revision to the Central Oahu Public Infrastructure Map prior to the appropriation of construction funds in FY 2006 since it meets the criteria (costs over $3 million for capital improvements) and qualifies as a type of public improvement project (sewage treatment plant/modification) under the PIM ordinance. This requirement should be discussed in the DEA.

3. In summary, the project is appropriate in scale, location and purpose with regards to the CO SCP.

Should you have any questions, please contact Matt Higashida of our staff at 527-6056.

Sincerely yours,

ERIC G. CRISPIN, AIA
Director of Planning and Permitting

EGC:js

cc: Department of Environmental Services

P:/Planning/DivFunction/Ea-eis/2003/Mililani WWPTF Modifications Pre Assessment

Hawaii Pacific Engineers, Inc.

October 26, 2004

Mr. Eric G. Crispin, AIA
City and County of Honolulu
Department of Planning and Permitting
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

SUBJECT: Mililani Wastewater Preliminary Treatment Facility (WWPTF) Modifications - Pre-assessment Consultation for Environmental Assessment
TMK: 9-4-05:19
Response to 2003/ELOG-1432(MH)

Dear Mr. Crispin:

On behalf of the Department of Design and Construction, thank you very much for your review of preliminary information on the Mililani WWPTF project and your correspondence of May 29, 2003. The project has been on an inactive status for approximately a year and we apologize for this belated response.

The Draft Environmental Assessment (DEA) currently under preparation will include discussions addressing the project's consistency with the City's General Plan and Central Oahu Sustainable Communities Plan (CO SCP) as suggested by your comments. Regarding your comment on the CO SCP Urban Community Boundary (paragraph 2.B), please note that the project site is currently zoned "AG-1, Restricted Agricultural District" rather than "AG-2, General Agricultural District." In addition, it is our understanding that a Conditional Use Permit (CUP) will not be required. Ms. Eileen Mark of your department indicated that a CUP is not required because the project is for public use.

Thank you very much for your thorough preliminary review of our project and helpful comments. A copy of your letter and this response will be included in the DEA. Please feel free to contact me at 522-7425 if there are any questions.

Sincerely,

Roy K. Abe
Vice President

c: Mr. Carl Arakaki, DDC

Mililani/Waipio/Melemanu Neighborhood Board

MINUTES OF REGULAR MEETING
WEDNESDAY, JUNE 27, 2001
MILILANI RECREATION CENTER III

CALL TO ORDER: Chair Pro-Tem Bill Bass called the meeting to order at 7:30 p.m. with 18 members present.

MEMBERS PRESENT: Grace Abatayo, Michelle Kidani, Carl Medeiros, John Norris, Dick Poirier, Douglas Thomas, Michael Yoh, Elizabeth Andrews, Maryanne Selander, Jessie Weinberger, Yetta Weinberger, Glenn Ah Sam, Keith Hamada, Kenneth Stover, Marie Abatayo, William Bass, Rodney Botelho, Barbara Fabrey, Charles Remington, Bill Brizee, Daniel Romero.

MEMBERS ABSENT: Gary Kauwe, Susan Hough.

GUESTS: Keith Uemura and Cris Takushi (Park Engineering), Carl Arakaki (Department of Design & Construction), Lisa Vargas (Representative Marilyn Lee's Office staff), Lt. Larry Shiraishi, Officer Laura Natividad and Capt. Michael Thomas (Honolulu Police Department), Capt. Mike Jewett (Honolulu Fire Department), Major Michael Ragan (U. S. Army, Schofield Barracks), Neil Yamashiro (Department of Parks and Recreation), Robert Urquhart (Castle & Cooke), Anna Chung (Chevron), Linnel Nishioka (Governor's Representative), Roy Abe (Hawaii Pacific Engineers), Debbie Snyder (Board of Water Supply), Calvin Maeda (Mililani Town Association), Sherry Bing (Councilmember Rene Mansho's Office staff), Senator Ron Menor, Margaret Yasuhara, Nick Kakaroukas (Mayor's Representative), Wayne China (Sprint PCS), Pamela Young (Neighborhood Board No. 35), Nola Frank (Neighborhood Commission Office staff).

SWEARING IN OF 2001-2003 BOARD MEMBERS: Nola Frank, the Neighborhood Assistant administered the oath of office to Board members Jessie Weinberger, Yetta Weinberger, Glenn Ah Sam, Grace Abatayo, Bill Brizee, William Bass, Keith Hamada, Michelle Kidani, John Norris, Charles Remington, Kenneth Stover, and Douglas Thomas.

Kidani arrived at 7:35 p.m. (19 members present)

INITIAL CONVENING OF THE BOARD: Election of Chair _ Remington nominated Poirier. Yetta Weinberger moved, seconded by Remington that the nominations be closed. The consensus of the board was that Poirier be elected as the chair. The motion carried unanimously 19-0-0.

Election of Other Officers _ Thomas nominated a slate of officer for the positions of: Vice-Chair: Bass, Secretary: Remington, Treasurer: Yetta Weinberger. Brizee moved, seconded by Selander that the nominations be closed. The motion passed unanimously 19-0-0

Determination of Recess Month (s) _ Thomas moved, seconded by Remington that the Board recess in the months of July and December. The motion carried unanimously 19-0-0.

Creation of Board Committees _ Chair Poirier circulated a list of committees for Board members to sign- up.

Expenditure of funds for Board Newsad/OLELO _ Deferred until later in the meeting.

APPROVAL OF REGULAR MEETING MINUTS OF MAY 23, 2001 _ The following corrections were made and should read:

Page 2, under Update on Hickam POL Restoration Project, it should read - (1) Hickam Petroleum Oils and Lubricants Pipeline. Presently, environmental restoration efforts to clean up soil and groundwater are underway at various points along the pipeline.

Department of Parks and Recreation _ Neil Yamashiro reported the following:

1. The Summer Fun program is in full swing.
2. Registration is closed with 400 children registered.
3. On Friday, June 29, the summer fun children will enjoy a day at the Hawaiian Waters Park. Summer Fun Finale Program will be held on July 13, 2001, 7:00 p.m. at Mililani District Park.
4. Track and Field meets this summer _ (a) Hershey Track & Field Meet, Saturday, July 7 at Punahou Field. (b) District Olympics, Friday, July 13 at Mililani High School.

Board of Water Supply _ Debbie Snyder reported no main breaks reported for the month of May. A general water announcement by the Board of Water Supply was made on May 24, 2001 publicly asking all island water users to monitor their water consumption and actively practice conservation measures at home and at work. Four years of abnormally low rainfall, particularly during the winter months, affected water levels at the Board's Moanalua, Punalu'u and Makaha Wells, as well as three artesian well stations at Beretania, Halawa, and Kaimuki. Three brochures were distribute regarding information on water conservation _ Water conservation at home; Yes, you can fix a leaky faucet by yourself, and Water is precious, use it wisely. For more information contact the Community Relations Office at 527-6126.

Mililani Town Association _ Calvin Maeda was available for questions. (1) Brizee inquired as to the status of the Sand Park fronting Recreation Center IV. This being the middle of summer, the park is needed for the children and will the park be completed this summer. In response, Maeda stated that to date there is only one bid for the project. A suggestion was made for the association to fill in the sand. Stover recommended a possible time frame for bids and if there is still only one bid, then they should do the job. Maeda responded that this project is low on the totem pole with the State and City. Cost wise with only one bid the price may rise up to 60% higher than anticipated. Maeda asked the Board for their input and possible suggestions for bidders. Brizee noted that he would like to be kept informed and updated on the project. (2) Chair Poirier inquired who was responsible for the up keep of the medial strip in front of the Tesoro Gas Station. The weeds are overgrown and needs to be cut. Maeda responded there were landscaping problems with the contractor and that calls should be made to the City's Office of Information and Complaint. Mayor's representative Kakaroukas informed Chair Poirier that he would check into the problem. Sherry Bing, from Councilmember Rene Mansho's office was also asked to look into the problem. Yetta Weinberger questioned if there was a penalty clause when signing the contract. Yes, but not always and other clauses added to the cost. Is it more expensive to have a penalty clause than to do the work? That depends on the scope of work to be done.

Community Concerns: Brizee had the following three concerns: (1) Eucalyptus trees at Mililani High School are dried or dead and needs to be looked into. (2) The exterior surface of the basketball courts at the high school need replacing and is becoming a safety problem. (3) Along Kamehameha Highway down into the valley, silver oak trees growing along the banks on both sides of the highway have poor root structure. High winds causing the trees to blow over onto the highway may cause problems for motorists. The trees were trimmed back to Wahiawa and Brizee would like be sure that the trimming continued on the whole stretch of Kamehameha Highway to Mililani.

Grace Abatayo arrived at 8:15 p.m. (21 members present)

PUBLIC FORUM:

Mililani Diversion Relief Sewer and Mililani Reclamation Facility Project - Carl Arakaki, Department of Design & Construction, shared two projects, which are being considered for the Mililani treatment center. The first project will be the upgrading of the head works and the second the construction of an equalization storage facility. The upgrading is necessary due inadequate sewer lines, which directs and conveys sewage to the Waipahu Wastewater Pump station. Consultants from Hawaii Pacific Engineers and Park Planning have been hired to do the planning for this project. Both consultants will provide the project scope and why they are needed.

Mililani Diversion Relief Sewer _ Roy Abe, Hawaii Pacific Engineers: (1) Located on the southern part of Mililani, west of Kamehameha Highway, the treatment plant is currently inactive except for the head
works facilities. (2) Presently, the sewage is discharged to the Honouliuli Treatment Plant in Ewa. (3) The preliminary existing facility consists of a grinder unit, whose purpose is to grind large solids preventing clogging of the pumps and sewer lines to the facility. (4) The grit removal facility grinds and removes sand and grit material that tends to clog sewers downstream. (5) The new facility is needed due to the expectation of an increase in flows. Presently, 4 million gallons of flows daily and with continued development an increase of approximately 5.7 million gallons per day is expected. (6) The City has concerns with clogging problems with the downstream sewer that goes down to the gulch, which may someday clog up causing a big backup. The solids tend to collect on the bottom with the City having to pump it out constantly. (7) The purpose for this upgrade is to channel modification to upgrade capacity. Plans are to improve the head works facilities, increase the channel sizes, increase the full capacity of the facility, and install two grinder units. (8) The facility is not expected to generate odors with passive order control units installed.

Mililani Reclamation Facility Project _ Keith Uemura, Park Engineering: (1) The reclamation facility is in its planning phase to determine and recommend the most cost effective solutions to the hydraulic inadequacy problem and disposal system. (2) In relation to the sewer plant, the Mililani off site plant sewer lines runs from Meheula Parkway and Kamehameha Highway to the treatment plant. The disposal line runs from the
treatment down to Waikele Gulch and then down to the pump station in the Waipahu Treatment Plant. (3) Regarding the need for the project, evaluation for predicted future flows for the Mililani area to the year 2020, it is estimated that approximately 23.5 million gallons per day will be flowed. The current lines can accommodate approximately only 120 million gallons per day. (4) Limitations to the Waipahu station due to much flow. (5) Plans are to have four off site locations with a capacity beyond what will be needed. (6) By relining the lines it would allow for better structural stability and a smoother surface inside the pipes. (7) The other aspect being proposal is to create a storage access for wastewater flows, over 10 million gallons per day. The wastewater would be taken offline temporarily and stored until it could be put online for processing. The envisioned storage facility should be able to hold 1.7 million gallons, which should accommodate the design for the Mililani System. (9) The wastewater stored will be will be stored for 24 hours or less.

Proposed relocation of KHON/KITV Satellite Dish to the KITV Satellite dish site in Kunia - Deferred

Proposed Chevron Station at Mililani Mauka near Rec Center V _ Bob Urquhert, of Castle & Cooke, informed the Board of plans for a gas station/convenience store and highlighted the following: (1) In coordination with Castle & Cooke, the Chevron Oil Company plans to construct a gas station and convenience store adjacent to Recreation Center V. (2) The proposed gas station/convenience store will be located off H-2 down Meheula Parkway near McDonald's, the property sales office and Recreation Center V. (3) A separate declaration lane is planned with Chevron utilizing a two-third acre parcel. (4) The gas station will consists of four (4) pumps, a convenience store and a car wash.

Questions, answers and comments: (1) The facility will be opened 24-hours with plans to sell beer and wine until midnight only. (2) In response to questions regarding the declaration lane, the entrances will be off the declaration lane, which have both been approved by the State Department of Transportation and the City Department of Transportation Services. (3) Selander questioned the traffic off the H-2 freeway and the selling of beer and wine. Selander informed Mr. Urquhert that other stations in the area are not allowed to sell liquor. Urquhert informed the Board that he was unaware of the no liquor sales, but will check on it. (4) Thomas stated that presently, parking is already limited at Recreation Center V with large activities. Mr. Urquhart was not sure if more parking would be made available. (5) There will be two entrances and one exit out to Ainamakua Street.

Proposed Sprint Antenna at Mililani Mauka near Rec Center V _ Wayne China, of Sprint PCS, presented the Board plans to install a 55 foot antenna in back of the

the most beautiful beaches in Hawaii. (2) State web portal provided government services on line. Some of the services provided on line are business & license complaints search, business name search, and
calendar announcement system, fishing licenses, vital records and many other services. Log on to www.ehawaligov.com.

Report of Area Legislators _ Representative Guy Ontai reported the following: (1) The Kaiwi land in east Oahu was purchased from the Bishop Estate for $20 million with the Department of Land and Natural Resources managing. (2) $17.4 million has been approved for construction of the second elementary school in Mililani Mauka. (3) Representative Ontai stated that he would be willing to vote for the veto override regarding the age of consent bill.

Representative Marilyn Lee _ Lisa Vargas distributed Representative Lee's report and highlighted the following: (1) Representative Lee has been selected to join nine other women State Legislators for the inaugural session of the Foreign Policy Institute for State Legislators Class of 2001. (2) The Legislative update was also reported.

COMMITTEE AND OTHER REPORTS:

Treasurer's Report _ Yetta Weinberger reported the following report for the month of May: Operating account balance to date is $295.68, with a deficit of $529.64 in the publicity account and $120.00 in the refreshment account.

Chair _ (1) Ad Hoc committee is the best on the island. Please call Chair Poirier if you are unable to attend the meeting. (2) Committee structure _ One- month executive meeting or the committees can do their own meetings. (3) This term the Chair would like to work closely with Neighborhood Board No. 35. (4) The awards committee will be reactivated. (5) The Central Sustainable Plan has been handed out.

Military Report _ Botelho reported that the June 16 and 27 Advertiser reported that the military plans to cut manpower in Hawaii. The 25th Infantry Division is down to 15,000 men and women with 3,000 to be deployed.

NEW BUSINESS:

Mililani Diversion Relief Sewer and Mililani Reclamation Facility Project _ Thomas read the resolution supporting the Proposed Mililani Diversion Relief Sewer and Mililani Reclamation Facility Projects of the City and County of Honolulu

WHEREAS, Neighborhood Board No. 25 finds that the wastewater collection systems serving the Mililani Area are hydraulically inadequate to convey future projected flows to the Waipahu Wastewater Pump Station; and

WHEREAS, the City and County of Honolulu has the Mililani Diversion Relief Sewer Project and the Mililani Reclamation Facility in the planning phase to determine and recommend the most cost effective solutions to the hydraulic inadequacy problem; and

WHEREAS, Neighborhood Board No.25 finds that the Mililani Diversion Relief Sewer Project will address rehabilitation of sewer lines in four locations and installing equalization storage facilities ay the Mililani WWPTF to store excess storm water during heavy rainfall and prevent overloading the Waipahu WWPS during these occasions; and

WHEREAS, Neighborhood Board No. 25 further finds that the Mililani Reclamation Facility project would remove or reduce coarse solids entering the treatment plant by upgrading the existing undersized head works facilities to minimize clogging and excessive wearing of downstream facilities and reduce maintenance costs; now therefore

BE IT RESOLVED that Neighborhood Board No. 25 supports and commends the City and County of Honolulu's undertaking of the Mililani Diversion Relief Sewer and Mililani Reclamation Projects to address

the hydraulic inadequacy of the Mililani wastewater collection system in the most cost effective manner; and

BE IF FURTHER RESOLVED, that copies of this resolution be transmitted to the Mayor, directors of Design & Construction and Environmental Services, and Councilmember Mansho of the City and County of Honolulu.

Bass moved, seconded by Brizee, that the Board support the resolution on the proposed Mililani Diversion Relief Sewer and Mililani Reclamation Facility Projects of the City and County of Honolulu. The motion carried unanimously.

Proposed Sprint Antenna at Mililani Mauka near Rec Center No. V _ Thomas reported that the Board supports the resolution concerning the installation of a communications antenna at Recreation Center No. V:

WHEREAS, Neighborhood Board No. 25 recognizes the need for telecommunication antennas to be installed in the Mililani area, but is concerned with the placement of these antennas within or adjacent to residential areas; and

WHEREAS, Neighborhood Board No. 25 has encouraged and continues to encourage cellular companies to co-locate antennas with other similar structures to reduce the visual impact of such structures; and

WHEREAS, Neighborhood Board No. 25 believes that the co-location of antennas will reduce the negative visual affects of natural surroundings of our community; and

WHEREAS, installation of the antenna at Recreation Center V will require that surrounding trees be trimmed initially to provide necessary signal access to and from the antenna and periodic future trimming to retain said signal access; and

WHEREAS, Neighborhood Board # 25 believes all cellular companies must be forthcoming in providing testing results of RF emissions to the public to show they are in compliance with the City & County of Honolulu Land Use Ordinance; and

WHEREAS, many residents in Mililani Mauka have expressed their belief that telecommunications antennas near their homes are causing a number of health disorders and, in the absence of any objective governmental data to the contrary, this possibility cannot be completely discounted; and

WHEREAS, one of Sprint's own antenna sites in Lanikai has a warning sign that states "CAUTION BEYOND THIS POINT." Radio frequency fields at this site may exceed FCC rules for human exposure. For your safety, obey all posted signs and safety guidelines for working in radio frequency environments; and

WHEREAS, Neighborhood Board No. 35 has opposed the installation of any antenna

BE IT RESOLVED that Neighborhood Board No. 25 does not support the installation of a telecommunications antenna at Recreation Center V; and

BE IT FURTHER RESOLVED that copies of this resolution be transmitted to the Mayor of the City and County of Honolulu, the Department of Planning and Permitting, the State Department of Health, Senator Ron Menor, representatives Marilyn Lee and Guy Ontai, Councilmember Rene Mansho, sprint Wireless, Mililani Town Association, and Neighborhood Board No. 35.

MILILANI/WAIPIO/MELEMANU NEIGHBORHOOD BOARD NO. 25

c/o NEIGHBORHOOD COMMISSION • CITY HALL, ROOM 400 • HONOLULU, HAWAII 96813

RESOLUTION SUPPORTING THE PROPOSED MILILANI DIVERSION RELIEF SEWER AND MILILANI RECLAMATION FACILITY PROJECTS OF THE CITY AND COUNTY OF HONOLULU

WHEREAS, Neighborhood Board #25 finds that the wastewater collection systems serving the Mililani Area are hydraulically inadequate to convey future projected flows to the Waipahu Wastewater Pump Station (WWPS); and

WHEREAS, the City and County of Honolulu has the Mililani Diversion Relief Sewer Project and the Mililani Reclamation Facility in the planning phase to determine and recommend the most cost effective solutions to the hydraulic inadequacy problem; and

WHEREAS, Neighborhood Board #25 finds that the Mililani Diversion Relief Sewer Project will address rehabilitation of sewer lines in four locations and installing equalization storage facilities at the Mililani Waste Water Primary Treatment Facility to store excess storm water during heavy rainfall and prevent overloading the Waipahu WWPS during these occasions; and

WHEREAS, Neighborhood Board #25 further finds that the Mililani Reclamation Facility project would remove or reduce coarse solids entering the treatment plant by upgrading the existing undersized headworks facilities to minimize clogging and excessive wearing of downstream facilities and reduce maintenance costs; now therefore

BE IT RESOLVED that Neighborhood Board #25 supports and commends the City and County of Honolulu's undertaking of the Mililani Diversion Relief Sewer and Mililani Reclamation Projects to address the hydraulic inadequacy of the Mililani wastewater collection systems in the most cost effective manner; and

BE IT FURTHER RESOLVED that copies of this resolution be transmitted to the Mayor, Directors of Design and Construction and Environmental Services, and Council Member Mansho of the City and County of Honolulu and Neighborhood Board No. 35.

ADOPTED by Neighborhood Board No. 25 at its regular meeting of June 27, 2001, by unanimous vote.

Richard G. Poirier, Chair

REGULAR MEETING AGENDA
WEDNESDAY, MAY 28, 2003
MILILANI RECREATION CENTER III

CALL TO ORDER: Chair Poirier called the meeting to order at 7:33 p.m. A quorum was present.

MEMBERS PRESENT: Michelle Kidani, Carl Medeiros, Dan Romero, Gary Kauwe, Dick Poirier, Douglas Thomas, Elizabeth Andrews, MaryAnne Selander, Jessie Weinberger, Josie Kaanehe, Bill Brizee, Keith Hamada, David Bremer, William Bass, Charles Remington, Ken Stover, Noel Araki.

MEMBERS ABSENT: Michael Yoh, Grace Abatayo, John Norris, Laura Brown and Barbara Fabrey.

GUESTS: Ann Thornock (Representative Marilyn Lee's Office), Gary Hara (Hawaii Army National Guard), Robert Burt, Lisa Madeira, Debbie Kaikala, and Lindy Franca, Chad Kaikala (Family Day Care Group), Edmund Aczon (U.S. Senator Daniel Inouye's Office), Major Mike Webb (U.S. Army, Schofield Barracks), Stanley Shiraki (State Department of Budget and Finance/Governor's Representative), Jana Kawashima, Alan Kawashima, Lt. John Matassa, Officer Paul Ledesma, and Officer Harry Holcombe (Honolulu Police Department, Wahiawa Station), Acting Captain Ricci Naone (Honolulu Fire Department, Mililani Station), Roy Abe (Hawaii Pacific Engineers), Bob Miyasato (Avalon Development & Consulting), Councilmember Nestor Garcia, Lori Kunioka (Councilmember Nestor Garcia's Office), Carl Araki (City's Department of Design & Construction), Don Robbins (Ka Nupepa), Calvin Maeda (Mililani Town Association), Pua Iuli, Kolin Chang, Nick Kakaroukas (City Managing Director's Office/Mayor's Representative), Milt Sagon (WAH), Rodney Sato (PHC), Randy Prothero (Representative Guy Ontai's Office), Nola Frank (Neighborhood Commission Office Staff)

APPROVAL OF REGULAR MEETING MINUTES OF APRIL 23, 2003 – Without objections, the minutes were accepted as circulated.

FILLING OF ONE VACANCY (SUBDISTRICT 3) – Remington moved to nominate Ken Stover seconded by Romero to fill the vacancy in subdistrict 3 for tonight's meeting only. The motion carried unanimously.

With Ken Stover accepting, the neighborhood assistant administered the oath of office.

COMMUNITY FORUM:

Honolulu Fire Department (HFD) – Acting Captain Naone reported the following:

1) Statistics for the month of April included 6 structure fires, 36 medical emergency responses, and 7 miscellaneous calls.

2) Fire Safety Tip – Set your water heater at 120 degrees Fahrenheit, or call an electrician or plumber to set it for you. Temperatures higher than 120 degrees Fahrenheit may cause scalding.

Chair Poirier presented Acting Captain Naone a certificate of recognition for the Mililani Fire Station.

Honolulu Police Department (HPD) – Lt. Matassa introduced Officers Paul Ledesma and Harry Holcombe, and reported the following:

Statistics for the month of April included burglary 21, U.E.M.V. 15 (unauthorized entry of a motor vehicle) and 32 vehicle thefts.

Questions, answers and comments:

1) Lt. Matassa did not hear the rumor that a gun was found across from the Walmart Store in a grassy area.

3) Miyasato explained that the specific rezoning applying for is a R-10, which was suggested by the Department of Planning and Permitting.

4) Selander said that she thought an R-10 zoning allows 17 houses to be built. She suggested that part of the property be rezoned and the rest left as conservation. Miyasato responded that split zoning is not permitted.

5) Brizee asked Mr. and Mrs. Silber if their intention is to build only one house. He suggested that a covenant be put on the land stating no more development.

6) Kidani asked if there was a better drawing of the location. Maeda answered that the property is located at the end of a cul-de-sac with two neighboring houses.

Relating to the Development of Medical Facilities at Koa Ridge – Rodney Sato, Chair for the Pacific Health Community, Inc., is asking the Board for a resolution in support of the Pacific Health Center's Master Plan. He presented the following:

1) Copies of the bill status for Senate Resolution 95 SD1 and Senate concurrent Resolution 143 SD1, expressing support for the Pacific Health Center Master Plan were distributed.

2) A City Plan Review permit was applied for in August 2002 and approved on January 10, 2003. Conditions stipulated were to cut back from the 210 acres to 174 acres.

3) Incorporated in the plans would be to limit building heights.

4) Four parts of the Master and Business Plan include a health care senior center; a sports center, a health and education building, and a research center totaling 210 acres.

Questions, answers and concerns:

1) In response to Bremer's concern about bike paths, Sato said that combination pedestrian/bike walkways would be built and maintained by the individual owners.

2) The Pacific Health Center is in support of putting utility lines underground.

Mililani Wastewater Preliminary Treatment Facility Modifications – Roy Abe of Hawaii Pacific Engineers, Inc. (HPE) presented the following:

1) Hawaii Pacific Engineers, Inc. (HPE) on behalf of the City and County of Honolulu is preparing an Environmental Assessment (EA) for proposed modifications at its Mililani Wastewater Preliminary Treatment Facility (WWWPTF).

2) The 11-acresite is located at 94-417 Makapipipi Street, west of Kamehameha Highway, on the southern boundary of Mililani Town.

3) Specific objectives and requirements of the project are:

   - Upgrade of headwork's' facilities to improve preliminary treatment performance to help minimize maintenance requirements and potential clogging problems at two existing downstream inverted siphons (depressed sewer pipes) on the Mililani effluent diversion line that crosses Waikele Gulch.

   - The upgrade to facilities also requires an increase to the hydraulic capacity to accommodate future increases in wastewater flow. This is to prevent higher projected peak

- flows in the future which could result in the spilling of wastewater out of manholes and overtopping the headwork's' channel walls.
- Due to capacity limitations of downstream wastewater conveyance facilities, the construction of a flow equalization basin is proposed to temporarily store and thereby dampen peak wastewater flows generated during heavy rainfall.

4) The proposed project includes:

- Two new grinders installed in new reinforced concrete channels at the headworks and a new manually-cleaned bar screen will be installed.
- The existing aerated grit chamber will be refurbished with new aeration piping and diffusers, and effluent weir.
- Two new air blowers will be installed in the Sludge Pump Building and the existing Blower Building will be taken out of service
- The existing primary clarifier tanks, rapid bloc aeration tanks, and final clarifier and aeration tanks will be drained and backfilled with crushed rock and soil to eliminate ongoing maintenance of the tanks, accumulation of rainwater, and concerns associated with mosquito problems. To eliminate leakage of wastewater flow into the tanks, pipes to the tanks will be plugged/modified. Drain holes will be drilled in the tank floor slabs to drain rainwater
- New electrical and instrumentation systems will be installed to support the new process equipment.
- A flow equalization basin, approximately 260 x 160 feet x 12 feet deep, will be constructed on the southeast corner of the site and lined with an impermeable synthetic liner to contain the wastewater.

Questions, answers and concerns:

1) Board members and guests are invited to a site visitation is scheduled for June 21, 2003 at 9:00 a.m. For more information, contact Mr. Sato at 524-3771.
2) Chair Poirier asked about the Watanabe property which is across from the plant and if noise limits restrictions change if homes are built. If the area is rezoned from agriculture to residential, noise limits change. Also, if homes are built, noise measures are a concern. Sato noted, however, that small noise diffusers would be installed.
3) Selander proposed that the City buy the land that the plant is located on.
4) The EA review will be sent to the chair.
5) Per Weinberger's request, the summary of the EA would be sent to all Board members.

REPORTS OF PUBLIC OFFICIALS:

Mayor's Report – Nick Kakaroukas gave the follow up to questions from last month's meeting:

1) The sign at the Kipapa Drive traffic signal has been corrected.

Mililani/Waipio/Melemanu Neighborhood Board

REGULAR MEETING MINUTES
WEDNESDAY, JUNE 22, 2005
MILILANI RECREATION CENTER III

CALL TO ORDER: Chair Pro Tem Karen Loomis called the meeting to order at 7:35 p.m., and led those present in the Pledge of Allegiance.

MEMBERS PRESENT: Richard Poirier, Grace Abatayo, Carole Siegel, Linnel Nishioka, Barbara "Pua" Iuli, Ann Freed, Doug Thomas, Andrew Garrett, Josie Kaanehe, MaryAnne Selander, Jessie Weinberger, David Bremer, William Brizee, Mary Bass Segura, Marie Abatayo, William "Bill" Bass, Noel Araki, Charlie Remington, Karen Loomis; Elizabeth Andrews (newly elected), Susan Hough, and Keith Hamada (newly elected).

MEMBERS ABSENT: Lulani Arquette.

GUESTS: Leslie Anne Wortman, Carl Arakaki (City Department of Design and Construction), Acting Captain Ricci Naone (Honolulu Fire Department, Mililani Station), Ann Thomack (Representative Lee's Office staff), Lt. Kurt Nakamura (Honolulu Police Department, Wahiawa Station), 2nd Lt. Adam Smith (Schofield Barracks), Don Robbins (Ka Nupepa), Councilmember Nestor Garcia Lori Kunioka (Council member Garcia's Office), Pat Park Complex Area Superintendent for Leilehua, Mililani, Waialua), Dr. John Brummel (Principal of Mililani High School), Roy Abe (Hawaii Pacific Engineers), Ron Arakaki (City Department of Design and Construction), Michelle Kidani (Mayor's Office/Neighborhood Commission Office), Nola Frank (Neighborhood Commission Office staff).

BOARD ELECTIONS:

ELECTION OF CHAIR FOR 2005-2006 (one-year term) – Remington moved, seconded by Thomas nominated the previous slate of officers – Chair Dick Poirier, Vice Chair Bill Bass, Secretary Charlie Remington and Treasurer Noel Araki. The motion carried unanimously 16-0-0.

APPROVAL OF THE REGULAR MEETING MINUTES OF MAY 25, 2005: The following corrections/additions were made:

- Page 3, Questions, answers and comments1 second sentence should read, "...Kaahene commented that currently the city police districts contract private tow

  trucks that are parked along the freeways for morning rush hours only and the citizen pays for the towing.

Bremer arrived during the above portion of the meeting (17 members present)

FILLING OF VACANCIES:

SUBDISTRICT 3 (one seat) – Keith Hamada was interested in filling the vacancy in subdistrict 3 and gave a brief background about him. No other persons present interested in filling the vacancy. **By unanimous consent, Keith Hamada was elected to fill the vacancy in Subdistrict 3.**

AT-LARGE (two seats): Elizabeth Andrews and Susan Hough were interested in filling the two at-large vacancies. No other persons present were interested in filling the vacancies. Both nominees gave backgrounds. **By a unanimous consent Elizabeth Andrews and Susan Hough were elected to fill the at-large vacancies.**

ADMINISTRATION OF OATH OF OFFICE – The neighborhood assistant administered the Oath of Office to Board members who were unable to attend the May 14, 2005 Installation Ceremonies newly elected Board members.

COMMUNITY FORUM:

Without objections, the agenda was taken out of order to Draft EIS for Mililani Wastewater Preliminary Treatment Facility.

DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR MILILANI WASTEWATER PRELIMINARY TREATMENT FACILITY (WWPTF) - Roy Abe, of Hawaii Pacific Engineers, Inc. introduced Ron Arakaki of the City Department of Design and Construction, and presented the following: Hawaii Pacific Engineers, Inc. representing the City and County of Honolulu has prepared a Draft Environmental Assessment (DEA) for proposed modifications at its Mililani Wastewater Preliminary Treatment Facility (WWPTF), which is located on an 11-acre site at 94-417 Makapipipi Street in Mililani. The proposal is to upgrade and construct new facilities at the site to improve the performance of the preliminary treatment facilities and provide additional wastewater handling capacity to meet projected increases in wastewater flow. Specific objectives and requirements of the project are: (a) upgrade of the headworks facilities to improve preliminary treatment performance, which would help to minimize maintenance requirements and potential clogging problems at two existing downstream inverted siphons (depressed sewer pipes) on the Mililani effluent diversion line that crosses Waikele Gulch. (b) to increase the hydraulic (flow handling) capacity to accommodate future increases in wastewater flow. (c) due to capacity limitations of downstream wastewater conveyance facilities, the construction of a flow equalization basin is proposed to temporarily store and thereby dampen peak wastewater flows generated during heavy rainfall. The existing Waipahu Wastewater Pump Station and collection system located downstream of the Mililani WWWPTF do not have sufficient capacity to accommodate the projected future peak wet weather flow. The proposed project includes: (a) two new grinders to be installed in new reinforced concrete channels at the headworks. The existing aerated grit chamber will be refurbished with new aeration piping and diffusers, and effluent weir. (b) The new air blowers will be installed in the Sludge Pump Building. (c) The existing primary clarifier tanks, Rapid Bloc aeration tanks, and final clarifier and aeration tanks will be drained and backfilled with crushed rock and soil to eliminate ongoing maintenance of the tanks, accumulation of rainwater, and concerns associated with mosquito problems. (d) Pipes to the tanks will be plugged/modified to eliminate leakage of wastewater flow into the tanks. (e) Drainage holes will be drilled in the tank floor slabs to drain rainwater. (f) One of eight sand drying beds will be reconstructed with an impermeable liner for possible use in dewatering grit and screenings. (g) New electrical and instrumentation systems will be installed to support the new process equipment.

Questions, answers and comments: (1) Bass tonight he will recommend that the Board support this project. (2) The Mililani WWPTF, is owned and operated by the City and County of Honolulu.

UPDATE ON AREA EDUCATION PROBLEMS, ISSUES, AND OPPORTUNITIES –of Design and Construction, and presented the following: Patricia Park, Complex Area Superintendent for Leilehua, Mililani, Waialua Complexes, addressed the Board with the following:

1) Principals are now on a twelve (12) month employment starting July 1, 2005.
2) School Community Councils will be started with parent involvement.
3) The Board continues to work on student formulas.
4) Teachers will have strategic three (3) year training annually from 2005-2008.
5) For the 2006-2007-school session, a majority of the schools will be on one calendar except multi-track schools.

Questions, answers and comments: (1) Changes have been made to the schools accommodating students on a one-track system. (2) Currently student's needs' are met at Mililani High School.

LEGACY OF LANDS ACT OF 2005 – State Representative Brian Schatz was not present at this meeting.

PROPOSED TUNNEL BETWEEN EWA AND PEARL HARBOR – This item was deferred until the next Board meeting in August.

REPORTS OF PUBLIC OFFICIALS:

MAYOR'S REPRESENTATIVE – Michelle Kidani reported the following:

MOTION/RESOLUTION REGARDING PROPOSED EWA TUNNEL PLANNING STUDY – This motion/resolution was deferred until the August meeting.

RESOLUTION REAQUESTING THE DEPARTMENT OF PLANNING AND PERMITTING TO REVISIT THE CENTRAL O'AHU SUSTAINABLE COMMUNITIES PLAN – Thomas moved, seconded by Remington that Neighborhood Board No. 25 strongly urges once again that the Department of Planning and Permitting review and modify the Central O'ahu Sustainable Communities Plan at the earliest opportunity to alleviate these concerns (attached). The motion carried 22-0-0

MOTION/RESOLUTION REGARDING DRAFT EIS FOR MILILANI WASTEWATER PRELIMINARY TREATMENT FACILITY – Bass moved, seconded by G. Abatayo that Neighborhood Board No. 25 commends Hawaii Pacific Engineers, Inc. on its preparation of this clear and concise Draft Environment Assessment (DEA) (attached). The motion carried unanimously, 22-0-0.

ANNOUNCEMENTS: (1) No Board Meeting in July. (2) Next Board meeting will be on Wednesday, August 24, 2005, at Mililani Recreation Center III, at 7:30 p.m.

ADJOURNMENT – There being no further Board business, Chair Poirier adjourned the meeting at 9:12 p.m.

Submitted by,
Nola Frank, Neighborhood Assistant

Without objections, the agenda was taken out of order to Draft EIS for Mililani Wastewater Preliminary Treatment Facility.

DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR MILILANI WASTEWATER PRELIMINARY TREATMENT FACILITY (WWPTF) - Roy Abe, of Hawaii Pacific Engineers, Inc. introduced Ron Arakaki of the City Department of Design and Construction, and presented the following: Hawaii Pacific Engineers, Inc. representing the City and County of Honolulu has prepared a Draft Environmental Assessment (DEA) for proposed modifications at its Mililani Wastewater Preliminary Treatment Facility (WWPTF), which is located on an 11-acre site at 94-417 Makapipipi Street in Mililani. The proposal is to upgrade and construct new facilities at the site to improve the performance of the preliminary treatment facilities and provide additional wastewater handling capacity to meet projected increases in wastewater flow. Specific objectives and requirements of the project are: (a) upgrade of the headworks facilities to improve preliminary treatment performance, which would help to minimize maintenance requirements and potential clogging problems at two existing downstream inverted siphons (depressed sewer pipes) on the Mililani effluent diversion line that crosses Waikele Gulch. (b) to increase the hydraulic (flow handling) capacity to accommodate future increases in wastewater flow. (c) due to capacity limitations of downstream wastewater conveyance facilities, the construction of a flow equalization basin is proposed to temporarily store and thereby dampen peak wastewater flows generated during heavy rainfall. The existing Waipahu Wastewater Pump Station and collection system located downstream of the Mililani WWWPTF do not have sufficient capacity to accommodate the projected future peak wet weather flow. The proposed project includes: (a) two new grinders to be installed in new reinforced concrete channels at the headworks. The existing aerated grit chamber will be refurbished with new aeration piping and diffusers, and effluent weir. (b) The new air blowers will be installed in the Sludge Pump Building. (c) The existing primary clarifier tanks, Rapid Bloc aeration tanks, and final clarifier and aeration tanks will be drained and backfilled with crushed rock and soil to eliminate ongoing maintenance of the tanks, accumulation of rainwater, and concerns associated with mosquito problems. (d) Pipes to the tanks will be plugged/modified to eliminate leakage of wastewater flow into the tanks. (e) Drainage holes will be drilled in the tank floor slabs to drain rainwater. (f) One of eight sand drying beds will be reconstructed with an impermeable liner for possible use in dewatering grit and screenings. (g) New electrical and instrumentation systems will be installed to support the new process equipment.

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LEGACY OF LANDS ACT OF 2005 – State Representative Brian Schatz was not present at this meeting.

PROPOSED TUNNEL BETWEEN EWA AND PEARL HARBOR – This item was deferred until the next Board meeting in August.

REPORTS OF PUBLIC OFFICIALS:

MAYOR'S REPRESENTATIVE – Michelle Kidani reported the following:

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RESOLUTION REAQUESTING THE DEPARTMENT OF PLANNING AND PERMITTING TO REVISIT THE CENTRAL O'AHU SUSTAINABLE COMMUNITIES PLAN – Thomas moved, seconded by Remington that Neighborhood Board No. 25 strongly urges once again that the Department of Planning and Permitting review and modify the Central O'ahu Sustainable Communities Plan at the earliest opportunity to alleviate these concerns (attached). The motion carried 22-0-0

MOTION/RESOLUTION REGARDING DRAFT EIS FOR MILILANI WASTEWATER PRELIMINARY TREATMENT FACILITY – Bass moved, seconded by G. Abatayo that Neighborhood Board No. 25 commends Hawaii Pacific Engineers, Inc. on its preparation of this clear and concise Draft Environment Assessment (DEA) (attached). The motion carried unanimously, 22-0-0.

ANNOUNCEMENTS: (1) No Board Meeting in July. (2) Next Board meeting will be on Wednesday, August 24, 2005, at Mililani Recreation Center III, at 7:30 p.m.

ADJOURNMENT – There being no further Board business, Chair Poirier adjourned the meeting at 9:12 p.m.

Submitted by,
Nola Frank, Neighborhood Assistant

Wednesday, August 03, 2005

MILILANI/WAIPIO/MELEMANU NEIGHBORHOOD BOARD NO. 25
c/o NEIGHBORHOOD COMMISSION • CITY HALL, ROOM 406 • HONOLULU, HAWAII 96813

RESOLUTION IN SUPPORT OF THE DRAFT ENVIRONMENTAL ASSESSMENT FOR MILILANI WASTEWATER PRELIMINARY TREATMENT FACILITY MODIFICATIONS

WHEREAS, Neighborhood Board No. 25 finds that a Draft Environmental Assessment has been prepared for modifications to the Mililani Wastewater Preliminary Treatment Facility (WWPTF) on the southern boundary of Mililani Town; and

WHEREAS, the modifications to the WWPTF are required to improve treatment of wastewater and to temporarily store an additional 8.1 million gallons per day of wastewater that cannot now be accommodated by downstream facilities at peak flows; and

WHEREAS, the long term effects of these modifications will be minimal and adequate remedies are available to reduce the short term effects including dust and increased traffic during construction; now therefore,

BE IT RESOLVED that Neighborhood Board No. 25 accepts the draft environmental assessment for modifications to the WWPTF and supports going forward with the project; and

BE IT FURTHER RESOLVED that Neighborhood Board No. 25 commends Hawaii Pacific Engineers, Inc. on its preparation of this clear and concise draft environmental assessment; and

BE IT FURTHER RESOLVED that copies of this resolution be transmitted to the Mayor of the City and County of Honolulu, all City Council members, the Director of the City and County of Honolulu Department of Design and Construction, Mr. Roy Abe, Hawaii Pacific Engineers, Inc., Ms. Genevieve Salmonson, Director, State Office of Environmental Quality Control, and Neighborhood Board No. 35.

ADOPTED by Neighborhood Board No. 25 at its regular meeting of June 22, 2005 by unanimous vote (22-0-0).

Richard G. Poirier, Chair

Appendix D

Draft Environmental Assessment Comments and Responses

DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
FT. SHAFTER, HAWAII 96858-5440

REPLY TO ATTENTION OF

May 24, 2005

Regulatory Branch

RECEIVED
MAY 26 2005
HAWAII PACIFIC ENGINEERS INC.

Mr. Wayne M. Hashiro
Director
Department of Design and Construction
City and County of Honolulu
650 South King Street, 14th Floor
Honolulu, Hawaii 96813

Dear Mr. Hashiro:

This responds to your request dated May 17, 2005, for comments regarding the draft Environmental Assessment (dEA) for the proposed modifications to the Mililani Wastewater Preliminary Treatment Facility, Mililani, Oahu Island (TMK (1)9-4-05: 19). Based on the information provided, I have determined that this location is in an upland area, and outside the limit of our jurisdiction. Therefore a Department of Army (DA) permit will not be required. In the future, and if excavation activities contemplate the disposal of fill material into the beds of Kipapa or Waikele Streams, consultation should take place with this office to determine the applicability of Section 404 of the Clean Water Act.

File Number POH-2005-325 has been assigned to this project. Please feel free to contact Mr. Farley Watanabe of my staff at 438-7701, or Farley.K.Watanabe@usace.army.mil if you have additional questions.

Sincerely,

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

Copy furnished:
Mr. Roy Abe, Hawaii Pacific Engineers, Inc., 1132 Bishop Street, #1003, Honolulu, HI 96813
Ms. Genevieve Salmonson, Director, Office of Environmental Quality Control, 235 South Beretania Street, Suite 702, Honolulu, HI 96813

Hawaii Pacific Engineers, Inc.

June 13, 2005

Mr. George P. Young, P.E., Chief
Regulatory Branch
Department of the Army
U.S. Army Engineer District, Honolulu
Fort Shafter, Hawaii 96858-5440

Dear Mr. Young:

SUBJECT: Draft Environmental Assessment for Mililani Wastewater Preliminary Treatment Facility (WWPTF) Modifications, Mililani, Oahu, Hawaii, TMK: 9-4-05:19

On behalf of the Department of Design and Construction, City and County of Honolulu, thank you very much for reviewing the subject document and for your correspondence of May 24, 2005. We acknowledge your comments indicating that a Department of Army Permit will not be required for the project. Section 404 of the Clean Water Act should not be applicable since no disposal of materials into the beds of Kipapa or Waikele Streams will be allowed.

Thank you for your interest and participation in the DEA review phase of the environmental review process. A copy of your letter and this response will be included in the final environmental assessment. Should you have any questions, please call me at 522-7425 or Mr. Carl Arakaki of the Wastewater Division at 523-4671.

Very truly yours,

R K Abe

Roy K. Abe
Vice President

c: Carl Arakaki, Dept. of Design and Construction
Ms. Genevieve Salmonson, Office of Environmental Quality Control

LINDA LINGLE
GOVERNOR
THEODORE E. LIU
DIRECTOR
MARK K. ANDERSON
DEPUTY DIRECTOR
LAURA H. THIELEN
DIRECTOR
OFFICE OF PLANNING

DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM

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

Telephone: (808) 587-2846
Fax: (808) 587-2824

Ref. No. P-10971

June 17, 2005

RECEIVED
JUN 20 2005
HAWAII PACIFIC
ENGINEERS INC.

Mr. Wayne M. Hashiro, Director
Department of Design and Construction
City and County of Honolulu
650 South King Street, 14th Floor
Honolulu, Hawaii 96813

Attention: Mr. Carl Arakaki

Dear Mr. Hashiro:

Subject: Draft Environment Assessment (DEA) for Mililani Wastewater Preliminary Treatment Facility (WWPTF) Modifications, Mililani, Oahu, Hawaii, 11.2 acres, TMK: 9-4-05: 19

We have reviewed the DEA for the Mililani WWPTF modifications and to construct a flow equalization basin for temporary storage of wastewater flows generated during heavy rainfall. We offer the following comments and recommendations for consideration for inclusion into the Final Environment Assessment and Finding of No Significant Impact.

As stated in the Draft Environment Assessment (DEA), the Mililani WWPTF project will require a Special Use Permit to continue its non-permitted use in the State Agricultural District.

The proposed upgrade of the headworks facilities such as new grinder units is expected to decrease rather than increase the level of odor generation. Odors from the flow equalization basin are also not anticipated to be significant.

We understand that the owner of the parcel northwest and adjacent to the WWPTF plans to develop the 17.56-acre property identified by TMK: 9-4-5: 69, for residential use. We note the proximity of this parcel and the larger 378-acre parcel owned by Castle and Cooke for the Mililani-Waipio community (Figure 2-2 indicates the parcel is currently used for diversified agriculture). It is very likely that pressure to develop this area for residential use will intensify. If a significant number of odor complaints are received in the future, we agree with the DEA that odor control equipment may be required at the headworks facilities.

Thank you for including us in the review process. If you have any questions, please contact Judith Henry at 587-2803.

Sincerely,

Laura H. Thielen
Director

c: ✓Roy Abe, Hawaii Pacific Engineers, Inc
Genevieve Salmonson, OEQC
Anthony Ching, LUC

Hawaii Pacific Engineers, Inc.

July 7, 2005

Ms. Laura H. Thielen, Director
Office of Planning
Department of Business, Economic Development and Tourism
P.O. Box 2359
Honolulu, Hawaii 96804

Dear Ms. Thielen:

SUBJECT: Draft Environmental Assessment for Mililani Wastewater Preliminary Treatment Facility (WWPTF) Modifications, Mililani, Oahu, Hawaii, TMK: 9-4-05:19

On behalf of the Department of Design and Construction, City and County of Honolulu, thank you very much for reviewing the subject document and for your correspondence of June 17, 2005. We acknowledge your comments indicating that the project will require a Special Use Permit and that possible odor complaints may result in a future need for odor control equipment at the headworks facilities.

Thank you for your interest and participation in the DEA review phase of the environmental review process. A copy of your letter and this response will be included in the final environmental assessment. Should you have any questions, please call me at 522-7425 or Mr. Carl Arakaki of the Wastewater Division at 523-4671.

Very truly yours,

Roy K. Abe
Vice President

c: Carl Arakaki, Dept. of Design and Construction
Ms. Genevieve Salmonson, Office of Environmental Quality Control

LINDA LINGLE
GOVERNOR OF HAWAII

GENEVIEVE K. Y. SALMONSON
DIRECTOR OF OEQC

RECEIVED
JUN 24 2005
HAWAII PACIFIC ENGINEERS INC.

STATE OF HAWAI'I
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
DEPARTMENT OF HEALTH
LEIOPAPA A KAMEHAMEHA
235 SOUTH BERETANIA STREET, SUITE 702
HONOLULU, HAWAI'I 96813
TELEPHONE (808) 586-4185

June 23, 2005

Mr. Carl Arakaki
Department of Design & Construction
650 South King Street, 11th Floor
Honolulu, Hawaii 96813

Mr. Roy K. Abe
Hawai'i Pacific Engineers, Inc.
1132 Bishop Street, Suite 1003
Honolulu, Hawai'i 96813

Dear Messrs. Arakaki and Abe:

The Office of Environmental Quality Control has reviewed your draft environmental assessment for the Mililani Wastewater Preliminary Treatment Facility Modifications, Tax Map Key No. 1st 9-4-5: 19, situated at Mililani, in the judicial district of 'Ewa, and offers the following comments for your consideration and response.

1. ***April 21, 2003, letter:*** In our April 21, 2003, letter, reproduced in DEA, please clarify if you did contact adjoining neighbors and the Hawaiian Civic Club for comments for comments, especially in relation to cultural impacts for the latter.
2. ***Riparian Resources:*** While the document correctly notes that the Kipapa Stream is an Inland Class 2 waterbody and the Waikele Stream is included in the list of impaired waters, please discuss any riparian resources in either of those streams. Also please discuss riparian impacts from the proposed project, such as the effect of silt runoff and the project's impact to stream water quality and any biological receptors in and around those streams.
3. ***Guidance on Building and Landscaping with Native Plants:*** The proximity of the proposed project to riparian resources increases the likelihood that the proposed action may have impacts on cultural activities such as gathering. Please refer to the guidance contained in our Guidebook on the Internet (*infra*). Also, please refer to the guidance on sustainable building and native plant landscaping contained in our Guidebook on the Internet at http://www.state.hi.us/health/oeqc/index.html.

Thank you for the opportunity to comment. If there are any questions, please call Mr. Leslie Segundo, Environmental Health Specialist, at (808) 586-4185.

Sincerely,

GENEVIEVE SALMONSON
Director

Hawaii Pacific Engineers, Inc.

July 7, 2005

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Dear Ms. Salmonson

SUBJECT: Draft Environmental Assessment for Mililani Wastewater Preliminary Treatment Facility (WWPTF) Modifications, Mililani, Oahu, Hawaii, TMK: 9-4-05:19

On behalf of the Department of Design and Construction, City and County of Honolulu, thank you very much for reviewing the subject document and for your correspondence of June 23, 2005 (Ref.: 2005-05-23 Mililani WWPTF). We acknowledge your comments and offer the following responses:

1. As recommended in your April 21, 2003 letter, we did contact adjoining neighbors and the Hawaiian Civic Club of Wahiawa for comments and input on cultural impacts. Input on the project was solicited from Mr. Alan Arakawa, a land management representative for the adjoining Castle and Cooke agricultural land. The owners of Watanabe Floral and their architectural planning consultant, Mr. Jon Pharis of Jon Pharis and Associates, were contacted to solicit input on the project and discuss future development plans for the adjoining Watanabe Floral property. Letters soliciting input were sent to the addresses of other adjoining and nearby properties listed Section 6.A.4 of the environmental assessment document.

   Mr. Tom Lenchanko of the Hawaiian Civic Club of Wahiawa and Mr. Dan Au of Friends of Kukaniloko toured the treatment plant site and nearby gulch areas in June 2003. They did not indicate any concerns over potential impacts to historic properties or cultural practices. We have written to Hui Malama i Na Kupuna o Hawaii Nei, Oahu Island Burial Council and Alu Like, Inc. to solicit input on potential cultural impacts but have received no replies to date.

2. Discussions on riparian resources associated with Kipapa and Waikele Streams, and potential impacts to those resources, will be included in the Final Environmental Assessment as suggested. Past surveys conducted in the area indicate no significant riparian resources near the project site and the project is not expected to result in adverse offsite impacts, such as silt runoff.

3. Discussions on potential impacts to cultural activities such as gathering, and the possible use of sustainable building concepts and native plant landscaping, will be included in the Final Environmental Assessment. The project is not expected to have adverse impacts on gathering and other cultural activities. The proposed project, which includes energy and potable water conserving features, is consistent with sustainable design concepts.

Thank you for your interest and participation in the DEA review phase of the environmental review process. A copy of your letter and this response will be included in the final environmental assessment. Should you have any questions, please call me at 522-7425 or Mr. Carl Arakaki of the Wastewater Division at 523-4671.

Very truly yours,

Roy K. Abe
Vice President

c: Carl Arakaki, Dept. of Design and Construction

LINDA LINGLE
GOVERNOR OF HAWAII

CHIYOME L. FUKINO, M.D.
DIRECTOR OF HEALTH

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

In reply, please refer to
File

RECEIVED
MAY 26 2005
HAWAII PACIFIC
ENGINEERS INC.

May 24, 2005

MEMORANDUM

TO: Wayne M. Hashiro, Director
City and County of Honolulu
Department of Design and Construction

Attention: Mr. Carl Arakaki

FROM: Russell S. Takata, Program Manager
Noise, Radiation & IAQ Branch

SUBJECT: Comments to the Draft Environmental Assessment for Mililani Wastewater Preliminary Treatment Facility (WWPTF) Modifications, Mililani, Oahu, Hawaii, TMK: 9-4-05:19

Our comments should be printed as follows:

"Project activities shall comply with the Administrative Rules of the Department of Health:

- Chapter 11-46 Community Noise Control

If you have any questions, please contact me at 586-4701.

c: ✓Mr. Roy Abe, Vice President/Hawaii Pacific Engineers, Inc.
Ms. Genevieve Salmonson, Director/Office of Environmental Quality Control

Hawaii Pacific Engineers, Inc.

June 13, 2005

Mr. Russell S. Takata
Program Manager
State of Hawaii
Department of Health
Noise, Radiation and Air Quality Branch
P.O. Box 3378
Honolulu, Hawaii 96801-3378

Dear Mr. Takata:

SUBJECT: Draft Environmental Assessment for Mililani Wastewater Preliminary Treatment Facility (WWPTF) Modifications, Mililani, Oahu, Hawaii, TMK: 9-4-05:19

On behalf of the Department of Design and Construction, City and County of Honolulu, thank you very much for reviewing the subject document and for your correspondence of May 24, 2005. We acknowledge your comments indicating that the project activities will be required to comply with Chapter 11-46, Community Noise Control. Appropriate revisions will be made to the discussions pertaining to noise.

Thank you for your interest and participation in the DEA review phase of the environmental review process. A copy of your letter and this response will be included in the final environmental assessment. Should you have any questions, please call me at 522-7425 or Mr. Carl Arakaki of the Wastewater Division at 523-4671.

Very truly yours,

Roy K. Abe
Vice President

c: Carl Arakaki, Dept. of Design and Construction
Ms. Genevieve Salmonson, Office of Environmental Quality Control

LINDA LINGLE
GOVERNOR OF HAWAII

CHIYOME L. FUKINO, M.D.
DIRECTOR OF HEALTH

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

RECEIVED
MAY 27 2005
HAWAII PACIFIC ENGINEERS INC.

In reply, please refer to:
CWB

05102PKP.05

May 25, 2005

Mr. Wayne M. Hashiro
Director
Department of Design and Construction
City and County of Honolulu
650 South King Street, 14th Floor
Honolulu, Hawaii 96813

Attention: Mr. Carl Arakaki

Dear Mr. Hashiro:

Subject: Draft Environmental Assessment for Mililani Wastewater Preliminary Treatment Facility Modifications, Mililani, Oahu, Hawaii

The Department of Health (DOH), Clean Water Branch (CWB), has reviewed the subject application and offers the following comments:

1. The Army Corps of Engineers should be contacted at 438-9258 to identify whether a Federal license or permit (including a Department of Army permit) is required for this project. Pursuant to Section 401(a)(1) of the Federal Water Pollution Control Act (commonly known as the "Clean Water Act"), a Section 401 Water Quality Certification is required for "[a]ny applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters..."

2. A National Pollutant Discharge Elimination System (NPDES) general permit coverage is required for the following activities:

   a. Storm water associated with industrial activities, as defined in Title 40, Code of Federal Regulations, Sections 122.26(b)(14)(i) through 122.26(b)(14)(ix) and 122.26(b)(14)(xi).

   b. Construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. **An NPDES permit is required before the commencement of the construction activities.**

   c. Discharges of treated effluent from leaking underground storage tank remedial activities.

   d. Discharges of once through cooling water less than one (1) million gallons per day.

   e. Discharges of hydrotesting water.

   f. Discharges of construction dewatering effluent.

   g. Discharges of treated effluent from petroleum bulk stations and terminals.

   h. Discharges of treated effluent from well drilling activities.

   i. Discharges of treated effluent from recycled water distribution systems.

   j. Discharges of storm water from a small municipal separate storm sewer system.

   k. Discharges of circulation water from decorative ponds or tanks.

   The CWB requires that a Notice of Intent (NOI) to be covered by an NPDES general permit for any of the above activities be submitted at least 30 days before the commencement of the respective activities. The NOI forms may be picked up at our office or downloaded from our website at:
   http://www.hawaii.gov/health/environmental/water/cleanwater/index.html

3. The applicant may be required to apply for an individual NPDES permit if there is any type of activity in which wastewater is discharged from the project into State waters and/or coverage of the discharge(s) under the NPDES general permit(s) is not permissible (i.e. NPDES general permits do not cover discharges into Class 1 or Class AA State waters). An application for the NPDES permit is to be submitted at least 180 days before the commencement of the respective activities. The NPDES application forms may also be picked up at our office or downloaded from our website at:
   http://www.hawaii.gov/health/environmental/water/cleanwater/index.html

4. Hawaii Administrative Rules, Section 11-55-38, also requires the applicant to either submit a copy of the new NOI or NPDES permit application to the State Department of Land and Natural Resources, State Historic Preservation Division (SHPD), or demonstrate to the satisfaction of the DOH that the project, activity, or site covered by the NOI or application has been or is being reviewed by SHPD. Please submit a copy of the request for review by SHPD or SHPD's determination letter for the project.

If you have any questions, please contact Ms. Kris Poentis of the Engineering Section, CWB, at 586-4309.

Sincerely,

DENIS R. LAU, P.E., CHIEF
Clean Water Branch

KP:np
c: Mr. Roy Abe, Hawaii Pacific Engineers, Inc.
Ms. Genevieve Salmonson, OEQC

Hawaii Pacific Engineers, Inc.

June 13, 2005

Mr. Denis R. Lau, P.E., Chief
State of Hawaii
Department of Health
Clean Water Branch
P.O. Box 3378
Honolulu, Hawaii 96801-3378

Dear Mr. Lau:

SUBJECT: Draft Environmental Assessment for Mililani Wastewater Preliminary Treatment Facility (WWPTF) Modifications, Mililani, Oahu, Hawaii, TMK: 9-4-05:19

On behalf of the Department of Design and Construction, City and County of Honolulu, thank you very much for reviewing the subject document and for your correspondence of May 25, 2005 (Ref.: EMD/CWB 05102PKP.05). We acknowledge your comments and offer the following responses:

1. The Army Corps of Engineers has been contacted and no Federal licenses or permits are anticipated to be required.

2. An NOI for NPDES general permit coverage (for construction activities) will be submitted for the project. The determination letter received from the State Historic Preservation Division (SHPD) during the environmental review process will be submitted to DOH as required by HAR Section 11-55-38.

Thank you for your interest and participation in the DEA review phase of the environmental review process. A copy of your letter and this response will be included in the final environmental assessment. Should you have any questions, please call me at 522-7425 or Mr. Carl Arakaki of the Wastewater Division at 523-4671.

Very truly yours,

Roy K. Abe
Vice President

c: Carl Arakaki, Dept. of Design and Construction
Ms. Genevieve Salmonson, Office of Environmental Quality Control

LINDA LINGLE
GOVERNOR OF HAWAII

RECEIVED
JUN 6 - 2005
HAWAII PACIFIC ENGINEERS INC.

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

CHIYOME LEIMANA FUKINO, M.D.
DIRECTOR OF HEALTH

In reply, please refer to
EMD / WB

June 1, 2005

09 4 005 019.wpd
W12 wb050401

Mr. Roy K. Abe
Hawaii Pacific Engineers, Inc.
1132 Bishop Street Suite 1003
Honolulu, Hawaii 96813-2830

Dear Mr. Abe:

Subject: Draft Environmental Assessment for the Mililani Wastewater Preliminary Treatment Facility (WWPTF) Modifications
Mililani, Oahu, Hawaii
TMK: (1) 9-4-005: 019

Thank you for allowing us the opportunity to review the subject project which proposes renovations to existing preliminary treatment facilities and construction of a flow equalization basin. The Department has no objections to the proposed plans.

All wastewater plans must conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems." We do reserve the right to review the detailed wastewater plans for conformance to applicable rules.

Should you have any questions, please contact the Planning & Design Section of the Wastewater Branch at 586-4294.

Sincerely,

HAROLD K. YEE, P.E.
Chief, Wastewater Branch

LNKM:erm

Hawaii Pacific Engineers, Inc.

June 13, 2005

Mr. Harold K. Yee, Chief
Department of Health
Wastewater Branch
P.O. Box 3378
Honolulu, Hawaii 96801

Dear Mr. Yee:

SUBJECT: Draft Environmental Assessment for Mililani Wastewater Preliminary Treatment Facility (WWPTF) Modifications, Mililani, Oahu, Hawaii, TMK: 9-4-05:19

On behalf of the Department of Design and Construction, City and County of Honolulu, thank you very much for reviewing the subject document and for your correspondence of June 1, 2005 (Ref.: 09 4 005 019.wpd, W12 wb050401). We acknowledge your comments indicating that DOH has no objections to the proposed project, and that the project and construction plans are subject to the requirements of Chapter 11-62 and further review by your department.

Thank you for your interest and participation in the DEA review phase of the environmental review process. A copy of your letter and this response will be included in the final environmental assessment. Should you have any questions, please call me at 522-7425 or Mr. Carl Arakaki of the Wastewater Division at 523-4671.

Very truly yours,

Roy K. Abe
Vice President

c: Carl Arakaki, Dept. of Design and Construction
Ms. Genevieve Salmonson, Office of Environmental Quality Control

LINDA LINGLE
GOVERNOR OF HAWAII

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
DEPUTY DIRECTOR - LAND

DEAN NAKANO
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

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

June 7, 2005

UHWESROAHUEISPN.RCM

LD-NAV

Hawaii Pacific Engineers, Inc.
Roy K. Abe, Vice President
1132 Bishop Street, Suite 1003
Honolulu, Hawaii 96813-2830

RECEIVED
JUN - 9 2005
HAWAII PACIFIC
ENGINEERS INC.

Dear Mr. Abe:

SUBJECT: Draft Environmental Assessment for the Mililani Wastewater Preliminary Treatment Facility Modification, Mililani, Island of Oahu, Hawaii

Thank you for the opportunity to review and comment on the subject matter.

A copy of the document pertaining to the subject project was transmitted or made available to the following Department of Land and Natural Resources' Divisions for their review and comment:

- Engineering Division
- Division of Aquatic Resources
- Commission on Water Resource Management
- Office of Conservation and Coastal Lands
- Land-Oahu District Land Office

Enclosed please find a copy of the Engineering Division's comment.

Based on the attached responses, the Department of Land and Natural Resources has no other comment to offer on the subject matter.

Should you have any questions, please contact Nicholas A. Vaccaro of the Land Division Support Services Branch at 587-0384.

Very truly yours,

HARRY M. YADA
Acting Administrator

C: ODLO

LINDA LINGLE
GOVERNOR OF HAWAII

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

2005 MAY 25 P 3:31

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

May 19, 2005

LD/NAV
MILILANIWWPTFDEA.CMT

Suspense Date: 5/30/05

MEMORANDUM:

TO:
XXX Division of Aquatic Resources
XXX Engineering Division
XXX Commission on Water Resource Management
XXX Office of Conservation and Coastal Lands
XXX Land-Oahu District Land Office

RECEIVED
MAY 25 2005
AQUATIC RESOURCES

FROM: for Harry M. Yada, Acting Administrator
Land Division

SUBJECT: Draft Environmental Assessment for Mililani Wastewater Preliminary Treatment Facility Modifications, Mililani, Island of Oahu, Hawaii - TNK: (1) 9-4-005: 019

Please review the attached DEA pertaining to the subject matter and submit your comment (if any) on Division letterhead signed and dated by the suspense date.

Should you need more time to review the subject matter, please contact Nicholas A. Vaccaro at 587-0384.

If this office does not receive your comments by the suspense date, we will assume there are no comments.

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

Signed: [signature] Date: 5/31/05

Name: Francis Oishi Division: Aquatic Resources

LINDA LINGLE
GOVERNOR OF HAWAII

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

2005 MAY 25 A 8:11

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

May 19, 2005

LD/NAV
MILILANIWWPTFDEA.CMT

Suspense Date: 5/30/05

MEMORANDUM:

TO:
XXX Division of Aquatic Resources
XXX Engineering Division
XXX Commission on Water Resource Management
XXX Office of Conservation and Coastal Lands
XXX Land-Oahu District Land Office

FROM: for Harry M. Yada, Acting Administrator
Land Division

SUBJECT: Draft Environmental Assessment for Mililani Wastewater Preliminary Treatment Facility Modifications, Mililani, Island of Oahu, Hawaii - TNK: (1) 9-4-005: 019

Please review the attached DEA pertaining to the subject matter and submit your comment (if any) on Division letterhead signed and dated by the suspense date.

Should you need more time to review the subject matter, please contact Nicholas A. Vaccaro at 587-0384.

If this office does not receive your comments by the suspense date, we will assume there are no comments.

(X) We have no comments. ( ) Comments attached,

Signed: Cecil Santos Date: 5/24/05

Name: Cecil SANTOS Division: Oahu LAND DISTRICT

LINDA LINGLE
GOVERNOR OF HAWAII

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

2005 MAY 25 A 8:0

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

May 19, 2005

LD/NAV
MILILANIWWPTFDEA.CMT

Suspense Date: 5/30/05

2005 MAY 23 P 03:20 ENGINEERING

MEMORANDUM:

TO: XXX Division of Aquatic Resources
V XXX Engineering Division
XXX Commission on Water Resource Management
XXX Office of Conservation and Coastal Lands
XXX Land-Oahu District Land Office

FROM: Harry M. Yada, Acting Administrator
Land Division

SUBJECT: Draft Environmental Assessment for Mililani Wastewater Preliminary Treatment Facility Modifications, Mililani, Island of Oahu, Hawaii - TNK: (1) 9-4-005: 019

Please review the attached DEA pertaining to the subject matter and submit your comment (if any) on Division letterhead signed and dated by the suspense date.

Should you need more time to review the subject matter, please contact Nicholas A. Vaccaro at 587-0384.

If this office does not receive your comments by the suspense date, we will assume there are no comments.

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

Signed: Eric T. Hirano Date: 5/25/05

Name: ERIC T. HIRANO, CHIEF ENGINEER Division: Engineering

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LA/NAV

Ref.: MILILANIWWPTFDEA
Oahu.490

COMMENTS

(X) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone X. The Flood Insurance Program does not have any regulations for development 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. Robert Sumimoto at (808) 523-4254 or Mr. Mario Siu Li at (808) 523-4247 of the City and County of Honolulu, Department of Planning and Permitting.
( ) Mr. Kelly Gomes at (808) 961-8327 (Hilo) or Mr. Kiran Emler at (808) 327-3530 (Kona) of the County of Hawaii, Department of Public Works.
( ) Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.
( ) Mr. Mario Antonio at (808) 241-6620 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. Andrew Monden of the Planning Branch at 587-0229.

Signed: Eric T. Hirano
ERIC T. HIRANO, CHIEF ENGINEER

Date: 5/25/05

Hawaii Pacific Engineers, Inc.

June 13, 2005

Mr. Harry M. Yada
Acting Administrator
Dept. of Land & Natural Resources
Land Division
P.O. Box 621
Honolulu, Hawaii 96809

Dear Mr. Yada:

SUBJECT: Draft Environmental Assessment for Mililani Wastewater Preliminary Treatment Facility (WWPTF) Modifications, Mililani, Oahu, Hawaii, TMK: 9-4-05:19

On behalf of the Department of Design and Construction, City and County of Honolulu, thank you very much for reviewing the subject document and for your correspondence of June 7, 2005. We acknowledge your comment indicating that the project site is located in Zone X according to the Flood Insurance Rate Map (FIRM).

Thank you for your interest and participation in the DEA review phase of the environmental review process. A copy of your letter and this response will be included in the final environmental assessment. Should you have any questions, please call me at 522-7425 or Mr. Carl Arakaki of the Wastewater Division at 523-4671.

Very truly yours,

Roy K. Abe
Vice President

c: Carl Arakaki, Dept. of Design and Construction
Ms. Genevieve Salmonson, Office of Environmental Quality Control

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

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

HRD05/943B

June 1, 2005

Roy Abe
Hawaii Pacific Engineers, Inc.
1132 Bishop Street
Honolulu, HI 96813-2830

RE: Draft Environmental Assessment for Mililani Wastewater Preliminary Treatment Facility (WWPTF) Modifications, Mililani, O'ahu, Hawai'i, TMK: 9-4-05:19

Dear Mr. Abe,

The Office of Hawaiian Affairs (OHA) is in receipt of your May 17, 2005 request for comment on the above listed Draft Environmental Assessment, TMK: 9-4-05:19. OHA offers the following comments:

Although the parcel in question has been modified for commercial agriculture and contains no surface sites, there is a possibility that sub-surface historic properties do exist within the bounds of proposed development. Kipapa Gulch is said to have been the location of a substantial pre-contact battle and the former location of two traditional Hawaiian temples (Heiau). It is recommended by OHA that an Archaeological Monitoring Plan be drafted in support of this project. An archaeological consultant, after observing preliminary excavations, can determine whether "on-site" or "on-call" monitoring is needed for this project. It is also recommended that some form of community consultation take place in the form of a community meeting or individual interviews. This would be completed to better understand the history of the area in question and to obtain information specific to the project area.

OHA also recommends that if any landscaping or re-vegetation is planned as part of this project, native flora will be incorporated. The area surrounding the Wastewater Treatment Facility is primarily vegetated with exotic flora. The reintroduction of native plants and trees would be a step towards promoting a native landscape. It would also create and environment that is more beneficial to native animals, namely avian species.

OHA further requests your assurances that if the project goes forward, should iwi or Native Hawaiian cultural or traditional deposits be found during ground disturbance, work will cease, and the appropriate agencies will be contacted pursuant to applicable law.

Thank you for the opportunity to comment. If you have further questions or concerns, please contact Jesse Yorck at 594-0239 or jessey@oha.org.

'O wau iho nō,

Clyde W. Nāmu'o
Administrator

CC: Mr. Wayne M. Hashiro, Director
Department of Design and Construction
City and County of Honolulu
650 South King Street, 14th Floor
Honolulu, HI 96813

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, HI 96813

Hawaii Pacific Engineers, Inc.

June 13, 2005

Mr. Clyde W. Namuo, Administrator
Office of Hawaiian Affairs
711 Kapiolani Blvd, Suite 500
Honolulu, Hawaii 96813

Dear Mr. Namuo:

SUBJECT: Draft Environmental Assessment for Mililani Wastewater Preliminary Treatment Facility (WWPTF) Modifications, Mililani, Oahu, Hawaii, TMK: 9-4-05:19

On behalf of the Department of Design and Construction, City and County of Honolulu, thank you very much for reviewing the subject document and for your correspondence of June 1, 2005 (Ref.: HRD05/943B). We acknowledge your comments and offer the following responses:

1. We acknowledge that subsurface historic properties may exist within the bounds of project site. An Archeological Monitoring Plan will be prepared and an archaeological consultant will be retained if recommended by the State Historic Preservation Division (SHPD). As a minimum, the construction contractor will be made aware of potential encounters with artifacts and remains and will be required to report any encounters immediately to the SHPD.

   Mr. Tom Lenchanko of the Hawaiian Civic Club of Wahiawa and Mr. Dan Au of Friends of Kukaniloko toured the treatment plant site and nearby gulch areas in June 2003. They did not indicate any concerns over potential impacts to historic properties or cultural practices. We have written to Hui Malama i Na Kupuna o Hawaii Nei, Oahu Island Burial Council and Alu Like, Inc. to solicit input but have received no replies to date. We have attended two past Mililani-Waipio Neighborhood Board meetings and will be at this month's meeting on June 22.

2. If the project budget allows for landscaping and revegetation of the site, we will have the landscape architect consider the incorporation of native plants and trees as recommended.

Thank you for your interest and participation in the DEA review phase of the environmental review process. A copy of your letter and this response will be included in the final environmental assessment. Should you have any questions, please call me at 522-7425 or Mr. Carl Arakaki of the Wastewater Division at 523-4671.

Very truly yours,

Roy K. Abe
Vice President

c: Carl Arakaki, Dept. of Design and Construction
Ms. Genevieve Salmonson, Office of Environmental Quality Control

BOARD OF WATER SUPPLY

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

RECEIVED
JUN 23 2005
HAWAII PACIFIC
ENGINEERS INC.

June 21, 2005

TO: WAYNE M. HASHIRO, DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

ATTENTION: CARL ARAKAKI

FROM: for CLIFFORD S. JAMILE, MANAGER AND CHIEF ENGINEER
BOARD OF WATER SUPPLY

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT FOR MILILANI WASTEWATER PRELIMINARY TREATMENT FACILITY(WWPTF) MODIFICATIONS, MILILANI, OAHU, HAWAII, TMK:9-4-5:19

The Board of Water Supply is interested in evaluating the use of the following facilities, for a future joint project with the City, involving the transmission of recycled water from the Wahiawa Wastewater Treatment Plant to Central Oahu:

1. Primary clarifier tanks
2. Final clarifier tanks
3. Waipio Gentry force main

If you have any questions, please contact Scot Muraoka at 748-5942.

cc: Roy Abe, Hawaii Pacific Engineers, Inc
Ms. Genevieve Salmonson, Office of Environmental Quality Control
Scot Muraoka

Water for Life . . . Ka Wai Ola

Hawaii Pacific Engineers, Inc.

July 7, 2005

Mr. Clifford S. Jamile
Manager and Chief Engineer
Board of Water Supply
630 South Beretania Street
Honolulu, Hawaii 96843

Dear Mr. Jamile:

SUBJECT: Draft Environmental Assessment for Mililani Wastewater Preliminary Treatment Facility (WWPTF) Modifications, Mililani, Oahu, Hawaii, TMK: 9-4-05:19

On behalf of the Department of Design and Construction, City and County of Honolulu, thank you very much for reviewing the subject document and for your correspondence of June 21, 2005. We acknowledge your comments indicating that the Board of Waster Supply (BWS) is interested in evaluating the use of the primary and final clarifier tanks and the Waipio Gentry force main for transmission of recycled water to Central Oahu. The tanks will not be backfilled by our project if the BWS determines that it would be feasible to use the tanks.

Thank you for your interest and participation in the DEA review phase of the environmental review process. A copy of your letter and this response will be included in the final environmental assessment. Should you have any questions, please call me at 522-7425 or Mr. Carl Arakaki of the Wastewater Division at 523-4671.

Very truly yours,

Roy K. Abe
Vice President

c: Carl Arakaki, Dept. of Design and Construction
Ms. Genevieve Salmonson, Office of Environmental Quality Control

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 523-4432 • FAX: (808) 527-6743
DEPT. WEB SITE: www.honoluludpp.org • CITY WEB SITE: www.honolulu.gov

MUFI HANNEMANN
MAYOR

HENRY ENG, FAICP
DIRECTOR

DAVID K. TANOUE
DEPUTY DIRECTOR

RECEIVED
JUN 27 2005
HAWAII PACIFIC
ENGINEERS INC.

0SWWB081 (SG)
2005/ELOG-1104

June 9, 2005

MEMORANDUM

TO: WAYNE M. HASHIRO, P.E., DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

ATTN: CARL ARAKAKI
WASTEWATER DIVISION

FROM: Dennis M. Nakimura for HENRY ENG, FAICP, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (DEA)
MILILANI WASTEWATER PRELIMINARY
TREATMENT FACILITY (WWPTF) MODIFICATIONS
TMK: 9-4-005: 019

This is in response to Mr. Roy K. Abe's letter dated May 17, 2005 requesting comments for the proposed modifications to the Mililani WWPTF. We have reviewed the DEA and have the following comments:

1. Section 3-P: RELATIONSHIP TO LAND USE POLICIES AND CONTROLS should include a separate heading entitled Central Oahu Public Infrastructure Map (PIM).

2. The text of the 6th bullet regarding the PIM requirements on page 3-11 of item 4, Central Oahu Sustainable Communities Plan, should be included in the new Central Oahu PIM section. The proposed project meets another criteria for placement on the PIM, which is that the facility would permit significant new development.

If you have any questions, please contact Mr. Scott Gushi of the Wastewater Branch at 523-4886.

HE:dl
(376000)

cc: Ms. Genevieve Salmonson, Office of Environmental Quality Control
Mr. Roy Abe, Hawaii Pacific Engineers, Inc.

Hawaii Pacific Engineers, Inc.

July 7, 2005

Mr. Henry Eng, Director
City and County of Honolulu
Department of Planning & Permitting
650 South King Street, 7th Floor
Honolulu, HI 96813

Dear Mr. Eng:

SUBJECT: Draft Environmental Assessment for Mililani Wastewater Preliminary Treatment Facility (WWPTF) Modifications, Mililani, Oahu, Hawaii, TMK: 9-4-05:19

On behalf of the Department of Design and Construction, City and County of Honolulu, thank you very much for reviewing the subject document and for your correspondence of June 9, 2005. We acknowledge your comments and will include a separate section discussing the Central Oahu Public Information Map (PIM) as suggested. We will point out that another criteria the project meets for placement on the PIM is that the facility would permit significant new development.

Thank you for your interest and participation in the DEA review phase of the environmental review process. A copy of your letter and this response will be included in the final environmental assessment. Should you have any questions, please call me at 522-7425 or Mr. Carl Arakaki of the Wastewater Division at 523-4671.

Very truly yours,

Roy K. Abe
Vice President

c: Carl Arakaki, Dept. of Design and Construction
Ms. Genevieve Salmonson, Office of Environmental Quality Control

Castle & Cooke
Homes Hawaii, Inc.

P.O. Box 89XXX, Mililani, Hawaii 96789-89XX

June 17, 2005

Mr. Wayne M. Hashiro, Director
Department of Design and Construction
City and County of Honolulu
Attn: Mr. Carl Arakaki
650 South King Street, 14th Floor
Honolulu, HI 96813

RECEIVED
JUN 22 2005
HAWAII PACIFIC ENGINEERS INC.

Dear Mr. Arakaki:

Subject: Draft Environmental Assessment for Mililani Wastewater Preliminary Treatment Facility (WWPTF) Modifications, Mililani, Oahu, Hawaii, TMK: 9-4-05:19

Thank you for the opportunity to review and comment on the Draft Environmental Assessment relating to the Mililani Wastewater Preliminary Treatment Facility Modifications.

We have no comment at this time and request that we are kept apprised of any progress regarding this project.

If you have any questions, please call Garret Matsunami at 626-3623.

Very truly yours,

CASTLE AND COOKE HOMES HAWAII, INC.

Alan K. Arakawa
Senior Vice President

AKA:gm

cc: Mr. Roy Abe
Ms. Genevieve Salmonson

100 Kahelu Avenue 2nd Floor, Mililani, Hawaii 96789 Telephone: (808) 548-4811 FAX: (808) 548-xx71

Hawaii Pacific Engineers, Inc.

July 7, 2005

Mr. Alan K. Arakawa
Senior Vice President
Castle and Cooke Hawaii
P.O. Box 898900
Mililani, Hawaii 96789-8900

Dear Mr. Arakawa:

SUBJECT: Draft Environmental Assessment for Mililani Wastewater Preliminary Treatment Facility (WWPTF) Modifications, Mililani, Oahu, Hawaii, TMK: 9-4-05:19

On behalf of the Department of Design and Construction, City and County of Honolulu, thank you very much for reviewing the subject document and for your correspondence of June 17, 2005. We acknowledge that you have no your comments at this time and would like to be kept appraised of progress on the project.

Thank you for your interest and participation in the DEA review phase of the environmental review process. A copy of your letter and this response will be included in the final environmental assessment. Should you have any questions, please call me at 522-7425 or Mr. Carl Arakaki of the Wastewater Division at 523-4671.

Very truly yours,

Roy K. Abe
Vice President

c: Carl Arakaki, Dept. of Design and Construction
Ms. Genevieve Salmonson, Office of Environmental Quality Control