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STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
ENGINEERING BRANCH
P.O. BOX 373
HONOLULU, HAWAII 96809

JAN 11 1999

TO: Gary Gill, Director
Office of Environmental Quality Control

FROM: Michael D. Wilson, Chairperson *Michael D. Wilson*

SUBJECT: Finding of No Significant Impact (FONSI) for Keehi Small Boat Harbor
Boating Pump-Out Facility, TMK 1-2-25 and 1-5-41, Honolulu, Oahu,
Hawaii

The State Department of Land and Natural Resources has reviewed the comments received during the 30-day public comment period, which began on October 8, 1998. The agency has determined that that this project will not have significant environmental effects and has issued a FONSI. Please publish this notice in the February OEQC Environmental Notice.

We have enclosed a complete OEQC Publication Form and four copies of the final EA. Please call Mr. Hiram Young at 587-0260 if you have any questions.

3
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JAN 23 1999

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NOTICE OF DETERMINATION
NEGATIVE DECLARATION FOR THE PROPOSED
~~KEEHI SMALL BOAT HARBOR~~
~~BOATING PUMP-OUT FACILITY~~

OFFICE OF
QUALITY MANAGEMENT

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A. Proposing Agency:

State of Hawaii, Department of Land and Natural Resources

B. Accepting Authority:

Not applicable to a negative declaration.

C. Description of the Proposed Action

The purpose of this proposed project is to replace the existing wastewater collection and disposal system with a Wastewater Pump Station, Force Main, and Wastewater Collection System at Keehi Small Boat Harbor. The existing system consists of two cesspools, a cavittette tank, and a leaching field. It remains ineffective and inoperable due to the clogged leaching field and a high groundwater table.

The recommended alternative is to install a pump station that will collect wastewater from the existing and proposed facilities via gravity sewer system. A 4-inch diameter force main will be constructed from the Pump Station, under the Kalihi Channel via horizontal directional drilling, to an existing State-owned gravity sewer system near the Marine Education and Training Center. Directional drilling under Kalihi Channel is recommended to avoid the environmental impacts associated with open trench construction or dredging across Kalihi Channel.

D. Findings and Reasons Supporting the Determination

The proposed project would not have a significant effect on the environment and therefore preparation of an environmental impact statement is not required. The "Significance Criteria," Section 12 of the Hawaii Administrative Rules Title 11, Chapter 200, "Environmental Impact Statement Rules," were reviewed and analyzed. Based on the analysis, the following were concluded:

1. **No irrevocable commitment to loss or destruction of any natural or cultural resource would result.** There are no significant natural resources, which will be affected by the proposed project. There are no known historic or cultural resources on the site.
2. **The proposed action would not curtail the range of beneficial uses of the environment.** The proposed action will increase the potential beneficial uses of the environment by reducing the potential for wastewater spills.
3. **The proposed action does not conflict with the State's long-term environmental policies, goals, or guidelines.** The proposed action, including the proposed mitigation measures, will have no significant negative environmental impacts. Temporary impacts associated with construction will also be adequately

guidelines in the areas of public health, pollution control, and protection of the natural and developed environments.

4. ***The economic or social welfare of the community or State would not be substantially affected.*** The proposed project will provide short-term economic benefits in the form of engineering and construction jobs, and long-term benefits to nearby residents in terms of public health, pollution control, and protection of the natural and developed environments.
5. ***The proposed action does not substantially affect public health.*** The proposed action will benefit public health by reducing the potential for untreated wastewater discharges.
6. ***No substantial secondary effects, such as population changes or infrastructure demands, are anticipated.*** The proposed action will not affect population growth or distribution, but will simply service residential areas already existing or planned.
7. ***No substantial degradation of environmental quality is anticipated.*** The proposed action is expected to result in a long-term improvement in environmental quality as a consequence of reducing wastewater spills. There will be minor short-term increases in noise, emissions of air pollutants from mobile sources, and traffic congestion in the immediate area of construction.
8. ***The proposed action does not involve a commitment to larger actions, nor will cumulative impacts result in considerable effects on the environment.*** The proposed action is itself part of a larger facilities plan which is intended to reduce the discharge of untreated wastewater into the environment.
9. ***No rare, threatened, or endangered species or their habitats will be affected.*** The work will be done in fully developed areas. No protected species or important habitats will be affected.
10. ***Air quality, water quality, or ambient noise levels will not be detrimentally affected.*** Each of these environmental characteristics will be affected by the proposed action, but to insignificant degrees. Operation of heavy equipment and other vehicles associated with the action will temporarily elevate ambient noise and concentrations of exhaust emissions in the immediate vicinity of the site during construction. Mitigation measures will be implemented to ensure compliance with applicable regulations.
11. ***The project will not affect environmentally sensitive areas, such as a flood plains, tsunami zones, erosion-prone areas, geologically hazardous lands, estuaries, freshwater areas, or coastal waters.*** No environmentally sensitive areas would be significantly affected.
12. ***Scenic vistas and view planes identified in county or state plans or studies will not be substantially affected.*** Due to the existing facilities near the proposed project site, the pump station will not be seen from the adjacent roadway. In addition, the force main installation will be completely underground, therefore it will not be visible.
13. ***The proposed project will not require substantial energy consumption.*** Construction and maintenance of the proposed project will not require substantial energy consumption relative to other similar projects.

E. Supplementary Information

The Environmental Assessment for the proposed action and the results of the coordination undertaken with affected agencies and parties are attached to support the determination of a Negative Declaration.

F. Name, Address, and Phone Number of Contact Person

State of Hawaii
Department of Land and Natural Resources, Land Division
P.O. Box 373
Honolulu, Hawaii 96809
Mr. Hiram Young, (808) 587-0260

RESPONSIBLE OFFICIAL:

Michael D. Wilson, Chairperson
Department of Land and Natural Resources

Date

FINAL ENVIRONMENTAL ASSESSMENT

for

**KEEHI SMALL BOAT HARBOR
BOATING PUMP-OUT FACILITY**

Honolulu, Oahu, Hawaii
Tax Map Key: 1-2-25 & 1-5-41

Proposing Agency:

**STATE OF HAWAII
Department of Land and Natural Resources
Division of Boating and Ocean Recreation
333 Queen Street, Suite 300
Honolulu, Hawaii 96813**

December 1998

This Document is prepared pursuant to Chapter 343, H.R.S.

Responsible Official: _____ Date: _____

Michael D. Wilson, Chairperson
Department of Land and Natural Resources

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APPENDIX B: Comments from Consulted Parties and Responses

ABBREVIATIONS

AQS	Air Quality Standards
DBOR	Division of Boating and Ocean Recreation
CFS	Cubic Feet per Second
CZM	Coastal Zone Management
dBA	Decibels measured on the A scale slow response
DLNR	Department of Land and Natural Resources
DOH	Department of Health
DOT	Department of Transportation
DPP	Department of Planning and Permitting
EA	Environmental Assessment
F	Fahrenheit
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
GPD	Gallons Per Day
GPM	Gallons Per Minute
HDPE	High Density Polyethylene
HRS	Hawaii Revised Statutes
MLLW	Mean Low Low Water
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
OEQC	Office of Environmental Quality Control
PBLF	Public Boat Launching Facility
SBH	Small Boat Harbor
SISRA	Sand Island State Recreation Area
SMA	Special Management Area
SMH	Sewer Manhole
UHMETC	University of Hawaii Marine and Training Center
WQC	Water Quality Certification
WWCS	Wastewater Collection System
WWPS	Wastewater Pump Station
WWTP	Wastewater Treatment Plant
VCP	Vitrified Clay Pipe

EXECUTIVE SUMMARY

Purpose of Document

The State of Hawaii, Department of Land and Natural Resources (DLNR), Division of Boating and Ocean Recreation (DBOR), is proposing a new Wastewater Pump Station (WWPS) at the Keehi Small Boat Harbor (SBH) and force main beneath Kalihi Channel. The proposed improvement constitutes an agency action which is subject to Section 11-200-9 of the Environmental Impact Statement Rules, Title 11, Chapter 200, Department of Health, State of Hawaii, pursuant to Chapter 343, Hawaii Revised Statutes (HRS). Accordingly, this environmental assessment complies with the requirements of HRS Chapter 343. A Finding of No Significant Impact (FONSI) is anticipated.

Purpose of Project

The purpose of this project is to replace the existing wastewater collection and disposal system with a new WWPS, force main, and Wastewater Collection System (WWCS). The existing system consists of two cesspools, a cavitette tank, and a leaching field. This system remains ineffective and inoperable due to the clogged leaching field and a high groundwater table. The cavitette tank collects wastewater generated by the Harbor Agent's Office and adjacent comfort station. Two above-ground polyethylene holding tanks, located on the pier, receive wastewater generated onboard from boaters. The wastewater from the cavitette and polyethylene tanks is pumped every other week into trucks and transported off-site for treatment and disposal.

Proposed Action

The proposed action is to install a WWPS in the southeast portion of the site. It will collect the design peak flow of 55,000 gallons per day (GPD) from the existing Comfort Station, Harbor Agent's Office, Boating Pump-out Facility, proposed Comfort Station, and Harbors Division Baseyard via gravity wastewater system. A 4-inch diameter High Density Polyethylene (HDPE) force main will be constructed from the WWPS, under the Kalihi Channel via directional drilling, to an existing State-owned 12-inch diameter gravity wastewater system near the newly constructed University of Hawaii Marine Education and Training Center (UHMETC) and Public Boat Launch Facility (PBLF)(see Figure 2).

Anticipated Impacts and Mitigation Measures

Directional drilling under Kalihi Channel is recommended in order to avoid the environmental impacts associated with open trench construction or dredging across Kalihi Channel.

Alternatives Investigated

Alternative 1:

A new Septic Tank/Treatment Unit System, which provides the least initial cost, is not recommended. The system would require high maintenance and could fail from clogged leaching fields caused by poor soil absorption and a high groundwater. The State of Hawaii, Department of Health (DOH), will not allow this alternative due to the possible negative environmental impacts of subsurface effluent discharge to harbor waters (see Figure 6).

Alternative 2:

Realignment of the force main along the existing Bascule Bridge is not recommended because this bridge may be replaced by an underground tunnel or a higher bridge in the future (see Figure 6).

Alternative 3:

Connection to an existing City-owned WWCS along Sand Island Access Road between Auiki and Kalawa Street is not recommended because the existing pipeline can not accommodate the additional flows. The City and County of Honolulu, Department of Planning and Permitting (DPP), Wastewater Branch has denied permission to connect to this WWCS (see Figure 6).

Alternative 4:

Connection to an existing Army-owned WWCS is not recommended due to the poor condition and age of the existing force main. The Army has denied permission to connect to this WWCS (see Figure 6).

CHAPTER I: DESCRIPTION OF THE PROPOSED PROJECT

A. Purpose

The purpose of this project is to replace the existing wastewater collection and disposal system with a permanent method to dispose of wastewater generated at the Keehi SBH.

B. General Description

1. Existing Conditions

Wastewater generated by occupants and users of the Keehi SBH is collected and treated by two separate WWCS's. The main system collects wastewater originating from several buildings, the Harbor Agent's Office, and a comfort station. This WWCS consists of two cesspools, a cavitette tank, and a leaching field. The system is currently ineffective and inoperable due to the clogged leaching field and a high groundwater table. Instead, the wastewater must be pumped out and trucked off-site for treatment and disposal. The clogged leaching field may cause a potential source of subsurface discharge of untreated wastewater into Keehi SBH.

The other WWCS consists of two above-ground polyethylene holding tanks, located on the pier, which receive wastewater generated onboard from the boats that dock at the harbor. The wastewater must be pumped out and trucked off-site for treatment and disposal. Currently, the Keehi SBH consists of approximately 400 boat slips and 180 mooring sites.

2. Proposed Improvements

It is proposed that all the wastewater flows generated within Keehi SBH and Harbors Division Baseyard be directed via a gravity WWCS to a new WWPS to be located in the southeast corner of the property. A new force main will be constructed from the new WWPS to an existing, State-owned, 12-inch diameter, gravity wastewater system near the newly constructed UHMETC and PBLF (see Figure 2). This force main will be routed under the Kalihi Channel via directional drilling.

C. Technical Characteristics

The WWPS will collect wastewater flows from the proposed comfort station, existing comfort station, Harbor Agent's office, boat pump-out facility, and Harbors Division Baseyard at the loading dock via a gravity collection system. The total estimated peak flow from the facilities is approximately 55,000 GPD or 38 gallons per minute (GPM).

A wet well measuring approximately 5 feet in diameter by 20 feet deep will provide enough storage for the peak design flow. Submersible pumps housed in the wet well will discharge the wastewater via a force main. In addition, an emergency back-up generator will be required for the pumping system in case of power failure.

The proposed force main alignment is to go perpendicular to and under Kalihi Channel at least 45 feet below Mean Low Water (MLLW). A 4-inch diameter force main would be installed by directional drilling under the channel. The 825-foot long force main will tie into an existing State-owned sewer manhole (SMH) (see Figure 2). The SMH is connected to a State-owned, 12-inch diameter, vitrified clay pipe (VCP), gravity wastewater system which continues southeasterly along Sand Island Access Road to the City-owned Sand Island Parkway WWPS. The wastewater system will conform to applicable provisions of the DOH, Hawaii Administrative Rules, Chapter 11-62, "Wastewater Systems."

Analysis of the existing gravity wastewater system makai of the UHMETC indicates that it has adequate capacity to accommodate the additional flow. The total existing flow through the system is approximately 0.40 cubic feet per second (CFS). The total capacity is 2.23 CFS, leaving approximately 1.8 CFS available capacity. Preliminary approval was also given by the City and County, DPP, Wastewater Branch, for the additional flow. The Sewer Connection Application concurs that there is adequate capacity at the Sand Island Parkway WWPS.

Horizontal directional drilling is a type of "trenchless" construction that minimizes environmental impact and offer other social benefits. Trenchless construction methods can be used with minimal disturbance at the ground surface. The demolition of existing features and impact on traffic flow is greatly reduced, thereby minimizing the impact on the environment.

Horizontal directional drilling is ideal for force mains and other utilities where slopes and invert elevations are not crucial. Horizontal directional drilling is commonly used to install pipes beneath existing utilities and other obstacles. The pipeline is installed by boring a hole from one end of the proposed route

and pulling the pipe through the hole. The drilled hole is approximately 1.5 times the diameter of the installed pipe. A bentonite slurry is injected into the hole through the drill head to provide lubrication and to prevent the hole from collapsing.

Staging areas for drilling and receiving stations are required where the pipe enters or exits the ground. Typically the staging areas are approximately 12 feet wide by 60 feet long to include adequate space for boring and hydraulic equipment. The Keehi SBH and the UHMETC has the required space for the drilling and receiving stations.

Aside from reducing surface disturbances, environmental impact, and public risk, trenchless construction also has other advantages. One advantage is that pipe settlement is insignificant because installation is done upon in-place soils and not bedding material. Another benefit is that less soil is excavated and stored, reducing costs.

D. Economic Characteristics

Estimated cost of construction is \$481,000. This will be paid by the State of Hawaii, DLNR, DBOR. This project is funded for fiscal year 1999. The duration of construction activities will be less than four (4) months.

E. Social Characteristics

Construction of the WWPS and force main will not affect the social characteristics of the Keehi SBH, UHMETC, PBLF, or the surrounding environment. Use of the Keehi SBH is not expected to increase.

F. Environmental Characteristics

This project will stop the subsurface discharge of untreated wastewater into the environment. Instead, the wastewater flows will be collected and conveyed to the Sand Island Wastewater Treatment Plant (WWTP) for treatment and disposal.

CHAPTER II: DESCRIPTION OF EXISTING SITE AND LAND USE

A. Description of Existing Project Site

Keehi Lagoon was dramatically altered from a shallow bay with reefs, mud flats and fishponds along the shore to an embayment with deep channels. Nearly all the land surrounding the lagoon and Sand Island, including the project site, is fill land from dredging operations in the coastal area (see Figure 1).

The ocean access for vessels via Kalihi Channel was once used as an entrance to Honolulu Harbor. Kalihi Channel was dredged by the Corps of Engineers to a depth of approximately 35 to 40 feet below MLLW. The Sand Island Bascule Bridge, which could be raised in the past to allow large vessel passage, is no longer in service. It is permanently fixed in the closed position limiting the channel usage to small boats traveling between Honolulu Harbor and outer Mamala Bay. A second fixed bridge was constructed adjacent to the Bascule Bridge in 1989.

The limits of the project site include Keehi SBH, UHMETC, and the PBLF. The UHMETC and the PBLF are located across Kalihi Channel from the Keehi SBH on the western portion of Sand Island Recreational Area (SISRA).

Existing land uses around the project site include the State of Hawaii, DLNR, Keehi SBH (Industrial/Commercial Waterfront Zone) and SISRA (Urban Zone). There are no residential land use areas located near the proposed project site. However, 35 berths within the project site are used as principal habitation of their owners.

The major land based recreational activities in the project site occur at the moorings, boat launching ramp, and the washdown facility. The offshore areas, including Kalihi Channel and Keehi Lagoon, are used for water skiing, jet skiing, sailing, boating, fishing, and canoeing. These activities will not be significantly impacted by the proposed project.

B. Climate

The climate at the proposed site is characterized as having abundant sunshine, relatively constant temperatures, moderate humidities, and prevailing northeast tradewinds. During winter months, southerly winds, locally known as "kona winds," occasionally prevail over the usual northeast tradewinds.

Rainfall is relatively low, averaging 23 inches a year, with considerable monthly rainfall variations. During the cooler winter season, when occasional major storms provide much of the rain, monthly rainfalls are more variable than in the

summer season. Rain during the summer season primarily occurs from showers forming from moist tradewinds passing over the Koolau Mountains. The tradewind rainfall occurs more frequently at night; daytime showers are usually light. On the average, about 50 percent of the total annual rainfall occurs during the three wettest months, November through January (Hawaii Data Book, 1996).

Constant temperatures are maintained by the steady sunshine and the tempering effect of the ocean. The average monthly temperatures range from 81.2 degrees Fahrenheit (F) during the warmest months (August through September) to 73.0 degrees F during the coolest months (January through February).

The tradewinds have a mean velocity of 10 to 15 miles per hour with an average frequency of more than 90 percent during the summer and 50 percent during January.

C. Geology and Soil

The project site is located on the coastal plain of Oahu's south central coast, geographically referred to as the "Honolulu Plain". This plain, and much of the rest of the southern coast of Oahu, is underlain by a broad elevated coral reef, covered by alluvium originating from the upland areas of the region. The coral reef was deposited during prehistoric time when the sea level was higher.

In general, the soils on the surface of the project site are classified by the U.S. Department of Agriculture, Soil Conservation Service as "Fill Land, Mixed (FL)". They are the result of past dredging operations from nearby areas and consist of silty sand and coral gravel which characteristically have high porosity and permeability. This land type is used for urban development including airports, housing areas, and industrial facilities. There is no agricultural capability classification for this type of soil.

The topography of the site is relatively level with elevations ranging between zero (0) and five (5) feet above mean sea level. The groundwater table is at the same elevation as the mean sea level (see Figure 4).

D. Natural Hazards

The major natural hazard to the project site is flooding generated by severe rainstorms and hurricane-wave-induced coastal inundation. Because Keehi Lagoon is well protected by the coastal reef extending seaward from the outer lagoon area, flooding from tsunami inundation is not a potential hazard for the project site. According to Flood Insurance Rate Maps (FIRM) prepared by the Federal Emergency Management Agency, the project site is located within Flood

Zone AE (see Figure 3). The 100-year base flood elevation is five (5) feet. The UHMETC and PBLF are located within Flood Zone X, which is outside of the 500-year flood plain. The proposed facility will be required to comply with the Flood Fringe district standards of Section 7.10 of the Land Use ordinance.

The alternative of crossing under the channel generally would not be impacted by any flood hazard condition.

E. Land Use Designations

1. Federal Land Use Policies

The proposed project involves work beneath the waters of Kalihi Channel, makai of the Bascule Bridge. This water course is classified as navigable. This project should qualify for coverage under General Permit GP95-002, *"Utility Lines In, Under, or Above Waters of the United States, Including Navigable Waters, In the State of Hawaii,"* from the U.S. Army Corps of Engineers.

Other federal agencies involved in the review process include the U.S. Fish and Wildlife Service and the U.S. Coast Guard.

2. State of Hawaii Land Use Policies

The proposed WWPS site (Keehi SBH) is located within the State's Industrial Waterfront Zone. It is owned by the State of Hawaii, DLNR, and operated by the DBO. The land portion located on Sand Island is within the State's Urban Zone and owned by the State of Hawaii. The SISRA is operated by the DLNR, State Parks Division. The PBLF is operated by the DLNR, DBOR. The UHMETC is operated by the University of Hawaii. The submerged lands of Kalihi Channel are within the State's Preservation Zone.

The Corps of Engineers received a blanket Coastal Zone Management (CZM) Program consistency determination for all projects covered under GP95-002. Applicants for General Permit GP95-002 do not need to apply for individual CZM or Water Quality Certification (WQC) consistency determinations.

The State DLNR is presently preparing a recreational master plan for Keehi SBH. The State Department of Transportation (DOT), Harbors Division prepared the Oahu Commercial Harbors 2020 Master Plan, which includes access to the commercial harbor facilities on Sand Island via a tunnel under Kalihi Channel or via a higher bridge. The tunnel

proposal is being investigated for its feasibility. The proposed WWPS and force main are being coordinated with the State DLNR and DOT.

3. City and County of Honolulu Land Use Policies

Keehi SBH and SISRA lies in a City and County of Honolulu's Special Management Area (SMA). A major SMA permit will be required because the construction cost is more than \$125,000. A Shoreline Setback Variance will not be required since the WWPS will be located more than 40 feet away from the shoreline.

CHAPTER III: SUMMARY DESCRIPTION OF THE AFFECTED ENVIRONMENT, IMPACTS, AND MITIGATION MEASURES

A. Air Quality

1. Description

The present air quality at the project area is estimated to be generally good. The northeast tradewinds that are predominant throughout the year, carry emissions and other air pollutants from inland areas out to sea. Keehi SBH is situated between the Honolulu International Airport and the light industrial area in Kalihi Kai.

Air Quality Standards (AQS) applicable to the Keehi SBH area are set by the DOH and the U.S. Environmental Protection Agency. AQS are generally set at a more stringent level than national standards. Established stations to monitor compliance with AQS are located in a number of areas across Oahu. The long-term sampling station closest to Keehi Lagoon is located approximately one (1) mile away at Kalihi Kai Fire Station.

AQS for particulate matter, carbon monoxide and ozone have been exceeded in the Honolulu Area in recent years. Occasionally, it is susceptible to periods of lower air quality when tradewinds give way to southerly "kona" winds. Localized problems of poor air quality generally occur along the heavily traveled roadway corridors, such as Sand Island Access Road, and nearby concentrations of industrial activities.

2. Impacts and Mitigation

No effect on ambient air quality is expected except during construction, particularly from dust emissions during grading and excavation operations. These impacts are expected to be small.

In keeping with State DOH and City and County rules (Hawaii Administrative Rules, Chapter 11-58, "*Solid Waste Management Control*"), dust control measures will be employed during construction to control airborne particulate matter. The use of approved erosion control plans and mitigative methods such as water sprinkling will reduce adverse air quality impacts. Wet cutting or dry cutting with other dust control measures will be used for asphaltic concrete pavements. Construction scheduling during tradewind conditions will be used to blow airborne pollutants and particulate matter in a southwesterly direction

from Keehi SBH to the ocean and away from populated areas of Honolulu.

Emissions from construction equipment may also degrade ambient air quality. Engine exhaust emissions from construction equipment will be minimized by properly maintaining all equipment and minimizing idle time. Indirectly, slow-moving construction vehicles on roadways adjacent to the project can obstruct the normal free flow of traffic to such extent that overall vehicle emissions are increased. This impact can be mitigated by transporting slow-moving construction equipment during periods of low traffic volume on the affected roadways.

The material removed from beneath the channel during directional drilling may pose a potential problem to park activities and surrounding businesses. The removed soil must be monitored and removed promptly or treated to prevent the release of excess gas and odors in the surrounding area (see Chapter III, E, 2 for mitigative measures).

B. Noise

1. Description

The project site is located approximately two miles from Honolulu International Airport. During tradewind conditions, aircraft depart from Runway 8R over the project site. During "kona" wind conditions (about 10 percent of the time), aircraft approach Runway 26R, 22L, and 22R to the west. Aircraft noise at the ground level of the project site reaches levels near 75 decibels measured on the A scale slow response (dBA).

The SISRA is located in a urban zone district (Class B), where the maximum permissible daytime sound level is 60 dBA (7 a.m. to 10 p.m.) and 50 dBA at nighttime (10 p.m. to 7 a.m.). Keehi SBH is designated as a industrial zone (Class C), where the maximum permissible sound level is 70 dBA, day and nighttime (Hawaii Administrative Rules, Chapter 11-46, "Community Noise Control").

2. Impacts and Mitigation

The proposed project area is surrounded by urban and industrial areas. The WWPS and construction-related noise will not impact residential areas. The noise is not expected to have any long-term impacts in the project area.

Construction activities in the site will temporarily increase the ambient noise levels. Sources include heavy construction vehicles and power equipment operating on the site. Mitigation measures to control sound levels will include the use of mufflers on motor equipment/vehicles and limit construction to daylight hours. In addition, all construction related vehicles traveling on the roadways must meet the vehicle noise level requirements set by the DOH (Hawaii Administrative Rules 11-42 "Vehicular Noise Control for Oahu").

C. Traffic

1. Description

Sand Island Access Road provides the only access to Keehi SBH and SISRA. It is congested during peak travel periods (morning and afternoon weekdays).

2. Impacts and Mitigation

Standard specifications for traffic control will be used during construction. Appropriate signs and barriers will be required, and generally at least one lane will remain open within the project site during working hours (8:30 AM to 3:30 PM). After working hours trenches will be covered with a non-skid bridging material and all lanes will be open. The traffic impacts will be restricted within the project site and will require no closure of lanes on Nimitz Highway or Sand Island Access Road during construction. It is not anticipated that an off-duty police will be required for traffic control. Provisions will be made for pedestrian traffic.

In summary, the proposed project will not contribute to the existing and future traffic in the area. There will not be a need to improve existing road networks or construction new rights-of-way to accommodate the pipeline replacement.

D. Surface Water Drainage

1. Description

The project sites are relatively level and drainage tends to be directed to an unlined ditch (Keehi SBH) and several catch basins (SISRA). The shallow unlined drainage ditch along the makai boundary of Sand Island Access Road conveys surface runoff from the washdown facility into Kalihi Channel.

2. Impacts and Mitigation

Construction of the proposed project may create a potential for erosion and sedimentation. Trenching will be required to install the pipeline through the asphaltic concrete pavement areas. The surface will be restored when construction is completed. The work will be done in conformance to the City and County of Honolulu's Grading, Erosion, and Sediment Control ordinances and Hawaii Administrative Rules, Chapter 11-58, "Solid Waste Management Control". The contractor will be required to prepare an erosion control plan prior to receiving a grading permit. Measures will be taken to prevent runoff from the construction area from reaching the channel and lagoon. The existing drainage patterns will be maintained. The undeveloped areas of the project site along Keehi SBH shoreline have no vegetation and are already exposed to the weathering process.

3. Spill Prevention

The spill prevention measures are summarized in Table 1 and will be incorporated into the design of the WWPS.

The above-ground fuel storage tank will be a steel unit with containment and double-walled piping. All applicable requirements of the U.S. Environmental Protection Agency, State DOH, National Fire Protection Association, Honolulu Fire Department, and Underwriter Laboratories will be followed.

Routine hydrostatic force main inspections will be employed to prevent wastewater leaks. If leaks are detected, a repair liner could be inserted through the force main, or a replacement force main constructed.

Table 1: Spill Prevention Measures

EMERGENCY CONDITION	SPILL PREVENTION MEASURES
Loss of Electrical Power	Engine generator and fuel storage tank provided as a backup power source.
Failure of Sewage Pump	Standby pump will be provided.
Total Failure at Pump Station	A portable pump can be connected to the wet well to pump to a tanker truck.

E. Nearshore and Marine Environment

1. Description

The proposed WWPS site is located near the Kalihi Channel between Sand Island and Keehi SBH. This channel connects Kapalama Basin and Mamala Bay.

At the pipeline crossing, Kalihi Channel is approximately 650 feet wide and 40 feet deep. Water levels vary between -1 and 3 feet at MLLW, depending on the tide conditions. The seawater moves slowly through the channel and is more influenced from the tide, rather than the flows from Kapalama Stream. On normal days, the water quality is more influenced by the seawater from the lagoon than by Kapalama Stream.

The water quality at Keehi Lagoon is considered as Class A by the State DOH. Under Class A standards, no new wastewater nor industrial discharges are permitted into the lagoon except certain levels of non-contact thermal and floating dry dock marine railway discharges from the Keehi Lagoon Marina. Other discharges are not permitted unless they receive the best degree of control compatible with the criteria established for this class. These water standards are intended to allow both recreational use and aesthetic enjoyment of the lagoon (see Figure 5).

2. Impacts and Mitigation

The directional drilling installation of the force main across the channel will not impact the water course. There will be no dredging nor disturbance of the channel bottom, which may affect the water course. The force main will be installed below the controlling depth of the Kalihi Channel (45 feet below MLLW).

The ground water aquifer in the area is not threatened by the force main installation. The subsurface conditions under Kalihi Channel consist of coral sediments, which are highly permeable. This would allow salt water intrusion into these depths and not threaten fresh water sources.

The solid waste produced from directional drilling will compose of sediments deposited from upstream sources and bentonite slurry (lubricant during directional drilling). As the soil is removed, it will be placed on an impermeable layer within the project site. The soil will be tested for contamination then allowed to evaporate until it has reached acceptable moisture content levels for disposal at an off-site landfill. No contamination is expected to be found in the soil, however if

contaminants are found, specific methods of remediation shall be developed (i.e. bio-remediation or thermo-remediation).

The adjacent marine areas within Keehi Lagoon and Sand Island will not be affected since the force main installation will not involve open trench excavation or dredging.

Due to the high water table at the project site, construction of the WWPS will require dewatering. The contractor will be required to apply for coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for the discharge of the dewatered effluent and hydrotesting water.

The dewatered effluent may be treated by pumping to a sedimentation tank where the liquid may then be discharged off-site. Other means of treatment on-site or off-site may be investigated by the contractor.

During construction, measures will be taken to prevent the possibility of wastewater spillage and discharge into waterways. In the event that a wastewater spill occurs, the contractor shall notify the State DOH and take appropriate remedial action.

F. Flora

1. Description

Vegetation on the project site consists of species typically associated with offshore and filled lands. No Federal- or State-listed, candidate threatened, or endangered species are known to exist in the area.

Vegetation is sparse (mostly grass and weeds) in Keehi SBH and SISRA since these areas have been developed. Vegetation along the offshore area of Kalihi Channel consists of plants hardy and drought resistant, highly salt tolerant and adapted to disturbed dry areas. The predominant vegetation is kiawe (*Prosopis pallida*).

2. Impacts and Mitigation

The existing bare ground will require no vegetation to be removed during the installation of the WWPS, force main, and WWCS. Due to the well-developed areas surrounding the project, construction of this project will have no impact on flora.

G. Fauna

1. Description

The benthic environment of the nearshore portion of Keehi SBH and SISRA next to Kalihi Channel resembles that of reef flats in the more protected parts of Pearl Harbor and Kaneohe Bay. It is generally poorly populated by micro-algae, invertebrates, and fishes. Fish life in this area are highly mobile.

Terrestrial wildlife in the project area is limited to insects, mammals, and birds that have adapted to the urban environment. Mongooses, rats, mice, and cats are common. A variety of low land urban birds which feed on the insects frequent the project area. Annual migratory shorebirds also use the mudflats along Kalihi Channel. These bird species are highly mobile and could stay a distance from the construction activity and return once the construction is completed. No Federal- or State-listed, candidate threatened, or endangered species are known to inhabit the property.

2. Impacts and Mitigation

Due to the well-developed areas surrounding the project, installation of the WWPS, force main, and WWCS will not disturb the marine life and fauna population.

H. Archaeological, Cultural, and Historical Sites

1. Description

The project site is located in an area where dredging and filling took place. It is highly unlikely that there are sites of archaeological significance. More than 90 percent of the onshore project area has been significantly altered by grading and landscaping.

2. Impacts and Mitigation

In the event that unanticipated archaeological sites are uncovered during construction, the contractor will halt work in the area and contact the Historic Preservation Division of the State DLNR. Work will not resume until clearance is obtained from the State agency.

I. Social and Economic Environment

1. Description

Keehi SBH and SISRA lie makai of downtown Honolulu, surrounded by commercial and industrial areas. The Kalihi-Palama and Airport neighborhoods are the major residential areas around or near Keehi SBH. The area surrounding the project site has been transformed from residential to light industrial.

The surrounding resident population of Keehi SBH and SISRA consists of Census Tract 59 and 57. Census Tract 59 comprises of land makai of Dillingham Boulevard and Nimitz Highway and between Middle Street and Kalihi Stream. The resident population of tract 59 was 3,570 based on the 1990 census. Census Tract 57 comprises land makai of North King Street and between Waiakamilo Road and Nuuanau Stream. The resident population of tract 57 (downtown Honolulu) was 1,867. The resident population of tract 57.99 (Sand Island), a subtract of 57, was 298.

2. Impacts and Mitigation

During the short-term construction period, recreational users may be inconvenienced from the construction equipment in the area. However in the long-term, there will be no impacts to the social environment of the harbors. During construction at Keehi SBH, the drilling station will be located where it will not disturb the normal operations of the harbor. Safety barriers will be placed along the construction area and access to the shoreline will not be obstructed. At the PBLF, the receiving pit will be located on the mauka portion of the site and will not effect with normal activities of the facility. Several parking stalls will be used as a storage area for construction equipment. Access to any of the facilities will not be blocked during construction.

The proposed project would provide short-term economic benefits in the form of engineering and construction jobs, and long-term benefits to facility users in terms of public health and water quality. Expenses associated with pumping of holding tanks would cease, however, the State and facility users would be assessed sewer and service fees for the treatment and disposal of the Keehi SBH wastewater.

J. Scenic Views

1. Description

The project site is surrounded by commercial and industrial areas. The major road nearest to the project site is Sand Island Access Road. Several large fuel storage tanks are located between Sand Island Access Road and the project site. The nearest public facility that can be seen from the project site is across Kalihi Channel at the PBLF.

2. Impacts and Mitigation

The proposed project would not adversely impact the scenic views of the area. Scenic views from Sand Island Access Road is limited to the fuel storage tanks, since it blocks the view of the proposed WWPS and the ocean. The coastal views from PBLF will not be significantly effected since the size of the proposed WWPS is relatively small compared to the fuel storage tanks. In addition, the force main installation will be completely underground, therefore it will not be visible.

K. Utilities

1. Description

a. Water Supply Systems (Board of Water Supply)

The water system to the area is provided by the City & County of Honolulu, Board of Water Supply. Keehi SBH is supplied by the water main on Sand Island Access Road and SISRA is supplied by the water main that crosses Kalihi Channel.

b. Wastewater Disposal System (City and County, Department of Environmental Services)

The Keehi Lagoon area is serviced by the Sand Island WWTP which is located at the southern point of Sand Island providing advanced primary wastewater treatment. The effluent is discharged through an ocean outfall approximately two (2) miles offshore.

- c. Solid Waste Disposal (City and County, Department of Environmental Services)

Solid waste collection is provided by the City and County Department of Environmental Services, Refuse Collection and Disposal Division. The wastes are transported to Campbell Industrial Park, H-Power energy recovery incinerator.

- d. Fuel Lines

There are three fuel lines that cross the Kalihi Channel near the project site. Hawaii Fuel Facility Corporation owns two fuel lines, one 12- and one 18-inch diameter. Tesoro Hawaii, Inc. owns the other 12-inch diameter fuel line which is currently inactive.

2. Impacts and Mitigation

Both above and underground utility installations will be affected by the proposed work. Preliminary coordination with all affected utilities (electrical, water, wastewater, telephone, cable TV, gas, and fuel) will be included in the engineering design.

The contractor will be required to verify utility locations and coordinate any temporary or permanent displacement so as to insure no interruption of service.

There may be uncharted submarine cables and pipelines in the construction area. Provisions will be taken to prevent the release of any pollutants if these pipes are disturbed.

At the completion of the project, the contractor will submit the location of the force main to the United States Coast Guard for use on applicable navigation charts.

CHAPTER IV: ALTERNATIVES CONSIDERED

A. No Action

The no-action alternative would retain the existing WWCS in its current state and continue handling the wastewater by pumping out the holding tanks every other week and trucking the wastewater for disposal off-site. This is not a recommended alternative because it does not meet State DOH requirements.

The no-action alternative would avoid permit approvals and costs for design and construction. The environmental impact of the WWPS and force main construction to the area would be avoided, but the existing wastewater disposal system would still present a potential source of contamination to the surrounding area.

B. Delayed Action

The delayed action alternative would incur costs associated with wastewater pumping. Keehi SBH is charged \$85 per 1,500-gallon truck load. Each visit requires approximately four loads to pump out the storage tanks. This translates to an estimated cost of \$9,000 per year. Further delay may lead to an environmental degradation of Keehi SBH. Construction costs are not anticipated to decline in the future, so there is no benefit to delaying action.

C. Alternate Designs/Routes

1. Construct New Septic Tank and Leaching Field

Constructing a new Septic Tank/Treatment Unit System, which provides the lowest initial cost, is not recommended. The system would require high maintenance and could fail from clogged leaching fields and poor soil absorption due to the high groundwater. Therefore, replacing the existing system with a similar system would not be a long-term solution. In addition, the State, DOH does not recommend this alternative due to the possible negative environmental impacts it could cause to the water quality in the harbor.

2. Force Main Along Bascule Bridge

The second alternative is to route the force main along the existing Bascule Bridge to connect to the State-owned 12-inch diameter gravity wastewater system (see Figure 6). The proposed force main will be secured to the existing bridge. This alternative is not recommended since it is not consistent with the State DOT plans. The State DOT plans

to replace the existing Bascule Bridge with a tunnel under Kalihi Channel or with a higher bridge, possibly in another location (see Figure 6).

3. Force Main to City-Owned Wastewater System at Sand Island Access Road

The third alternative for the force main alignment is to route the pipeline out of Keehi SBH and northwesterly along Sand Island Access Road. The new force main would connect to an existing 16-inch diameter City-owned wastewater system located on Sand Island Access Road between Auiki and Kalawa Street. However, application to connect to the existing system was denied by DPP, Wastewater Branch. The existing system is inadequate to accommodate the additional flow from the Keehi SBH and there are no immediate plans to upgrade this system, the earliest to take place in 6 years. Therefore, this option is not a valid alternative (see Figure 6).

4. Force Main to Army-Owned Wastewater Force Main

The fourth alternative is to connect the new force main to a 24-inch diameter Army-owned force main located on Sand Island Access Road. Connection to the existing force main was denied due to the age and condition of the existing pipeline. Plans to upgrade the force main were mentioned, but no timetable has been set. Therefore, connection to the existing force main is not a valid alternative at this time (see Figure 6).

CHAPTER V: PRELIMINARY DETERMINATION AND JUSTIFICATION

The proposed project would not have a significant effect on the environment and a FONSI is anticipated. The "Significance Criteria," Section 12 of Hawaii Administrative Rules, Title 11, Chapter 200, "Environmental Impact Statement Rules," were reviewed and analyzed. Based on the analysis, the following were concluded:

- A. **No irrevocable commitment to loss or destruction of any natural or cultural resource would result.** There are no significant natural resources which will be affected by the proposed project. There are no known historic or cultural resources on the site.
- B. **The proposed action would not curtail the range of beneficial uses of the environment.** The proposed action will increase the potential beneficial uses of the environment by reducing the potential for wastewater spills.
- C. **The proposed action does not conflict with the State's long-term environmental policies, goals, or guidelines.** The proposed action, including the proposed mitigation measures, will have no significant negative environmental impacts. Temporary impacts associated with construction will also be adequately mitigated. The proposed action will be supportive of other State goals and guidelines in the areas of public health, pollution control, and protection of the natural and developed environments.
- D. **The economic or social welfare of the community or State would not be substantially affected.** The proposed project will provide short-term economic benefits in the form of engineering and construction jobs, and long-term benefits to nearby residents in terms of public health, pollution control, and protection of the natural and developed environments.
- E. **The proposed action does not substantially affect public health.** The proposed action will benefit public health by reducing the potential for untreated wastewater discharges.
- F. **No substantial secondary effects, such as population changes or infrastructure demands, are anticipated.** The proposed action will not affect population growth or distribution, but will simply service residential areas already existing or planned.
- G. **No substantial degradation of environmental quality is anticipated.** The proposed action is expected to result in a long-term improvement in environmental quality as a consequence of reducing wastewater spills. There will be minor short-term increases in noise, emissions of air pollutants from mobile sources, and traffic congestion in the immediate area of construction.

- H. ***The proposed action does not involve a commitment to larger actions, nor will cumulative impacts result in considerable effects on the environment.*** The proposed action is itself part of a larger facilities plan which is intended to reduce the discharge of untreated wastewater into the environment.
- I. ***No rare, threatened, or endangered species or their habitats will be affected.*** The work will be done in fully developed areas. No protected species or important habitats will be affected.
- J. ***Air quality, water quality, or ambient noise levels will not be detrimentally affected.*** Each of these environmental characteristics will be affected by the proposed action, but to insignificant degrees. Operation of heavy equipment and other vehicles associated with the action will temporarily elevate ambient noise and concentrations of exhaust emissions in the immediate vicinity of the site during construction. Mitigation measures will be implemented to ensure compliance with applicable regulations.
- K. ***The project will not affect environmentally sensitive areas, such as a flood plains, tsunami zones, erosion-prone areas, geologically hazardous lands, estuaries, freshwater areas, or coastal waters.*** No environmentally sensitive areas would be significantly affected.
- L. ***Scenic vistas and view planes identified in county or state plans or studies will not be substantially affected.*** Due to the existing facilities near the proposed project site, the pump station will not be seen from the adjacent roadway. In addition, the force main installation will be completely underground, therefore it will not be visible.
- M. ***The proposed project will not require substantial energy consumption.*** Construction and maintenance of the proposed project will not require substantial energy consumption relative to other similar projects

CHAPTER VI: LIST OF PERMITS REQUIRED

The proposed project will require permits and approvals from Federal and State agencies before the project can proceed. The following is a list of the required major permits and approvals.

A. Federal Permits

1. U.S. Army Corps of Engineers: General Permit GP95-002 (File No. 980000307), *"Utility Lines In, Under, or Above Waters of the United States, Including Navigable Waters, In the State of Hawaii"*

B. State of Hawaii

1. Department of Land and Natural Resources: Conservation District Use Application
2. Department of Health: NPDES General Permit for Discharge of Hydrotesting Waters (Notice of Intent (NOI) Form F) and Discharge of Construction Dewatering (NOI Form G).

C. City and County of Honolulu

1. Department of Planning and Permitting: Special Management Area Major Permit
2. Department of Planning and Permitting: Conditional Use Permit, Type I.

CHAPTER VII: LIST OF CONSULTED PARTIES

A. Pre-Assessment Consultation

All owners of record of parcels adjoining the proposed WWPS, force main, and WWCS were consulted by letter. In addition, the following agencies, organizations and utilities were consulted. Substantive responses are indicated below with an asterisk (*).

1. Federal Agencies

- a. * U.S. Army Corps of Engineers, Pacific Ocean Division
- b. * U.S. Coast Guard, Shore Maintenance Detachment
- c. * U.S. Department of the Interior, Fish and Wildlife Service, Ecological Services

2. State Agencies

- a. * Office of Environmental Quality Control
- b. * Office of Hawaiian Affairs
- c. * Department of Accounting and General Services
- d. * Department of Business, Economic Development, & Tourism, Planning Office
- e. Department of Business, Economic Development, & Tourism, Research and Economic Analysis Division
- f. * Department of Health, Environmental Planning Office
- g. * Department of Land and Natural Resources, Land Division
- h. * Department of Transportation, Harbors Division

3. County Agencies

- a. * Department of Facility Maintenance
- b. * Department of Planning and Permitting
- c. * Department of Environmental Services
- d. * Department of Transportation Services
- e. Neighborhood Board No. 16 (Kalihi-Palama)
- f. * Planning Department

4. Utilities

- a. Tesoro Hawaii, Inc.
- b. Chevron U.S.A., Inc.
- c. * Airport Group International

5. Private

- a. * The Nature Conservancy

B. Draft Environmental Assessment (EA) Review

Copies of the Draft EA were provided to the same agencies, organizations, and individuals included above on the master list provided by Office of Environmental Quality Control (OEQC) for the pre-assessment consultation. The list will be supplemented to include parties who, during the pre-assessment consultation process, request to receive copies of the Draft EA for their review and comment. These additional parties were as follows:

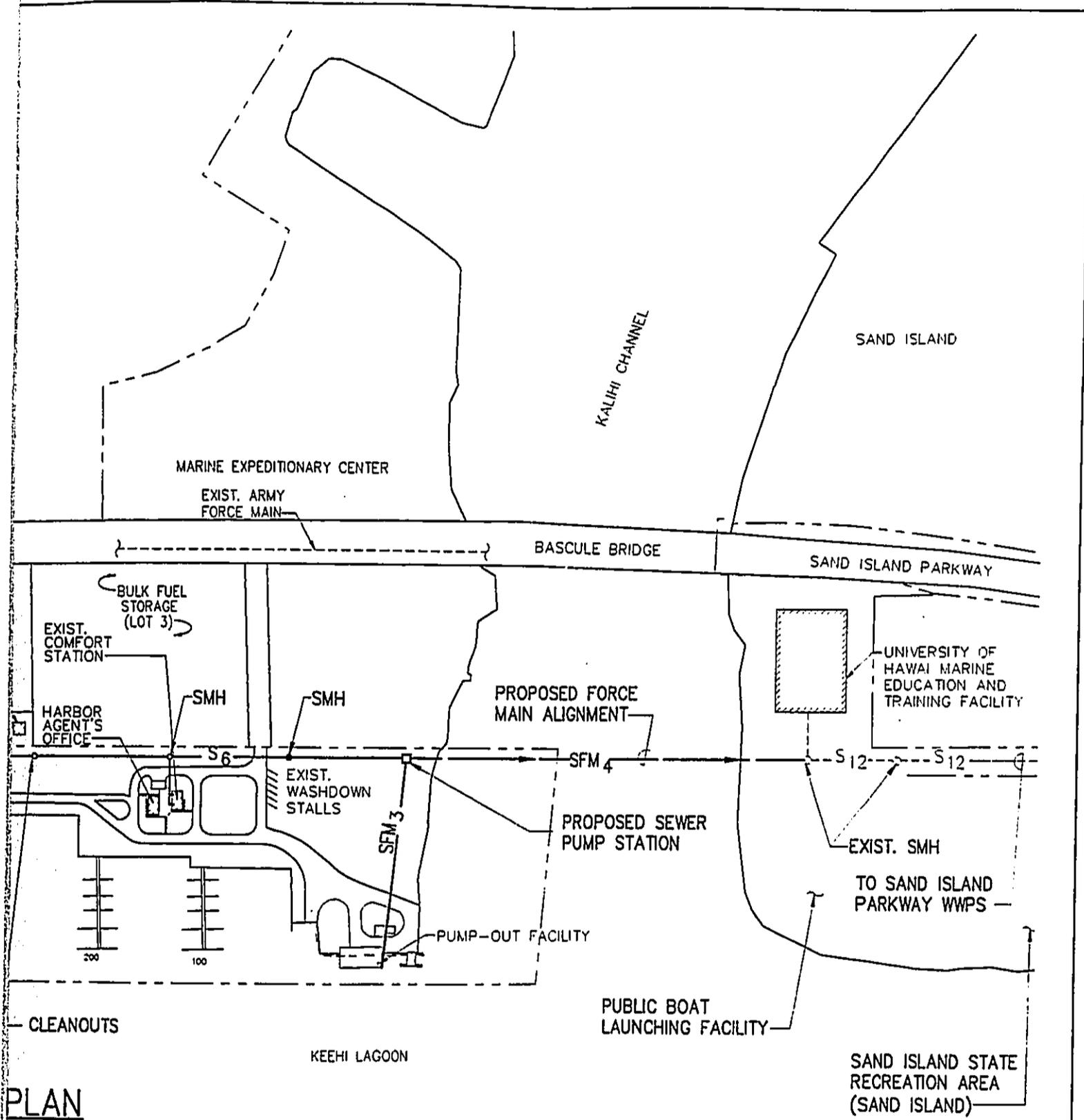
- University of Hawaii, Environmental Center
- University of Hawaii, Marine Programs
- University of Hawaii, Water Resources Research Center

Letters containing substantive comments on the Draft EA, and responses to those comments, will be reproduced in the appendix.

CHAPTER VIII: LIST OF REFERENCES

- State of Hawaii, Department of Health. *Vehicular Noise Control for Oahu*. Chapter 11-42, Hawaii Administrative Rules.
- State of Hawaii, Department of Health. *Community Noise Control*. Chapter 11-46, Hawaii Administrative Rules.
- State of Hawaii, Department of Health. *Solid Waste Management Control*. Chapter 11-58, Hawaii Administrative Rules.
- State of Hawaii, Department of Health. *Air Pollution Control*. Chapter 11-60.1, Hawaii Administrative Rules.
- State of Hawaii, Department of Health. *Wastewater Systems*. Chapter 11-62.1, Hawaii Administrative Rules.
- State of Hawaii, Department of Health. *Environmental Impact Statement Rules*. Chapter 11-200, Hawaii Administrative Rules.
- State of Hawaii, Department of Business, Economic Development and Tourism. Research and Economic Analysis Division. 1996. *Hawaii Data Book, 1996*.
- State of Hawaii, Department of Transportation, Harbors Division. 1997. *Oahu Commercial Harbors 2020 Master Plan*.
- United States Department of Agriculture Soil Conservation Service. August 1972. *Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii*.
- City and County of Honolulu, Department of Land Utilization. August 1997. *Land Use Ordinance*.
- United States, Federal Emergency Management Agency. September 1995. *Flood Insurance Rate Map for City and County of Honolulu, Hawaii*.
- State of Hawaii, Department of Health. October 1987. *Water Quality Standards Map of the Island of Oahu*.
- United States Department of Interior, Geological Survey. 1983. *Honolulu and Pearl Harbor, Hawaii*.

APPENDIX A
FIGURES



PLAN

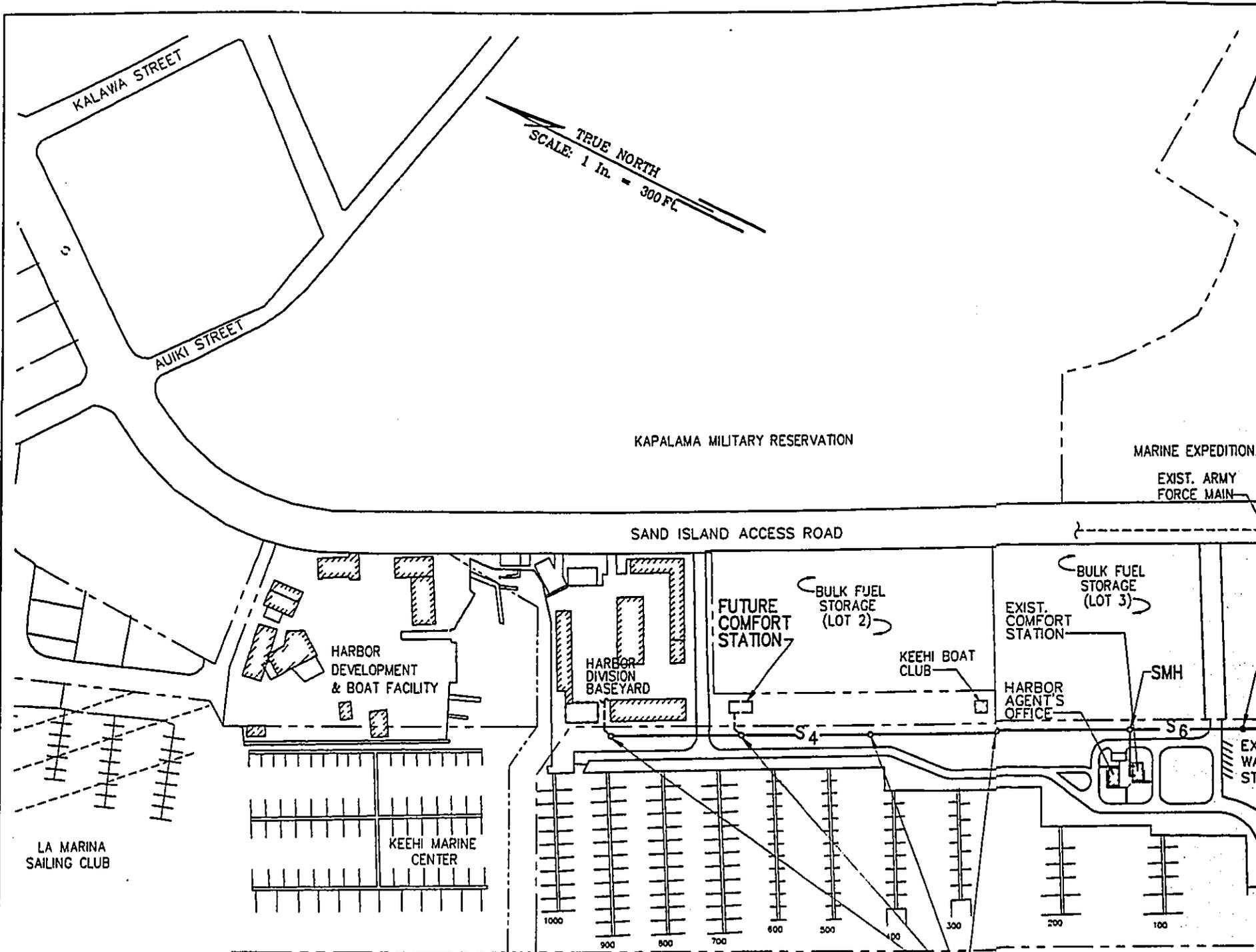
600'

SEEM
 CONSULTING ENGINEERS
 501 Sumner Street, Suite 502
 Honolulu, Hawaii 96817

KEEHI SMALL BOAT HARBOR BOATING PUMP-OUT FACILITY
 ENVIRONMENTAL ASSESSMENT
 SITE PLAN

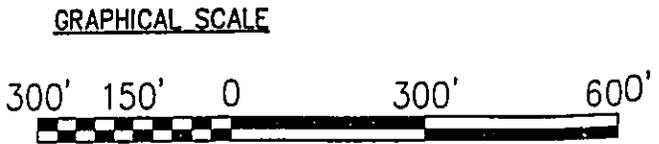
FIGURE
 2

SCALE: 1" = 300' DATE: DECEMBER 1998



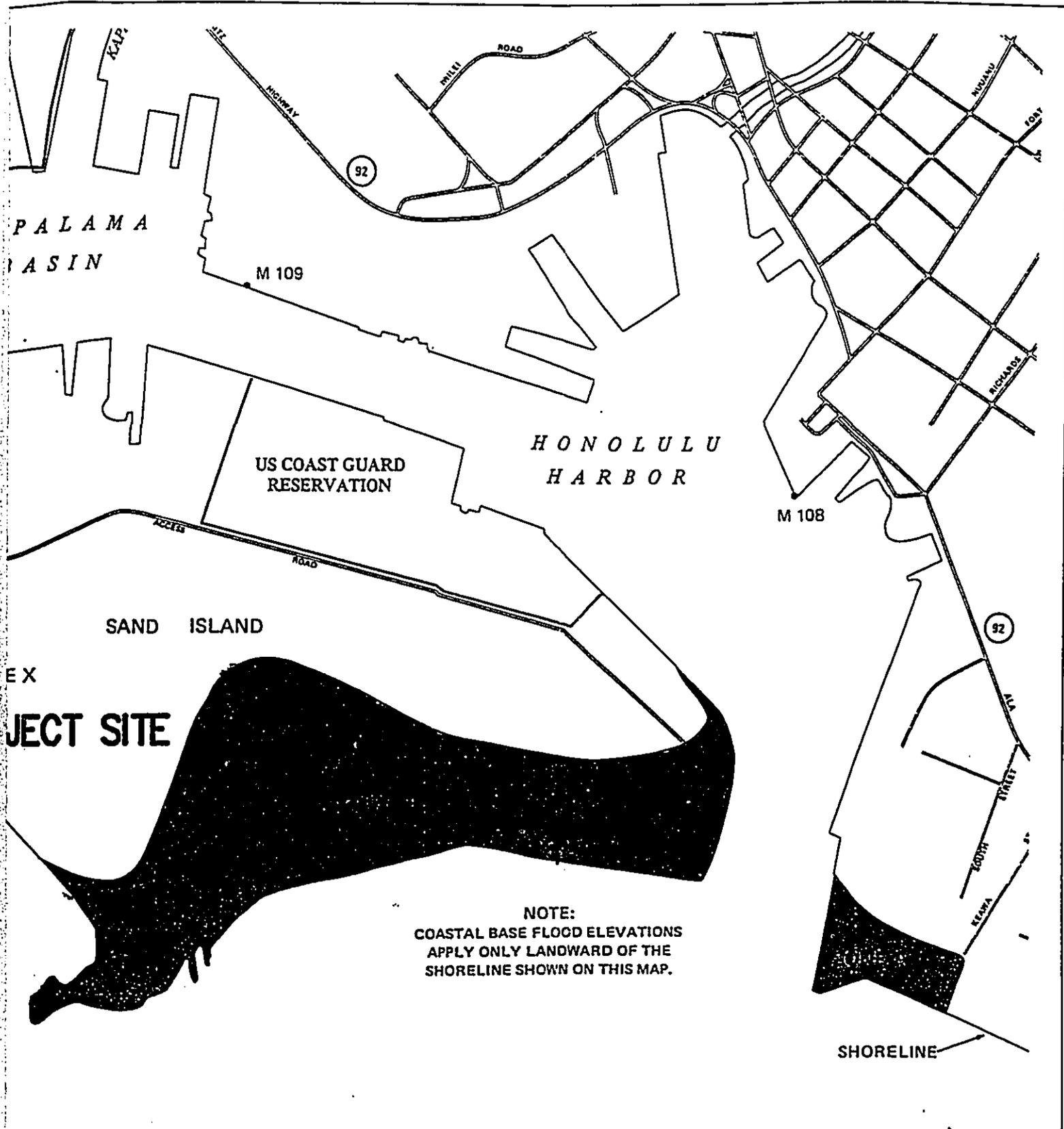
- LEGEND**
- PROPOSED FORCE MAIN ALIGNMENT
 - PROPOSED WWCS FOR EXISTING FLOWS
 - - - PROPOSED WWCS FOR FUTURE FLOWS
 - SEWER MANHOLE (SMH)

SITE PLAN



E:\1997\19750301\DWG\FIGURES\FIGURE2.DWG 12/11/98 14:30 JM





INSURANCE RATE MAP

2000'

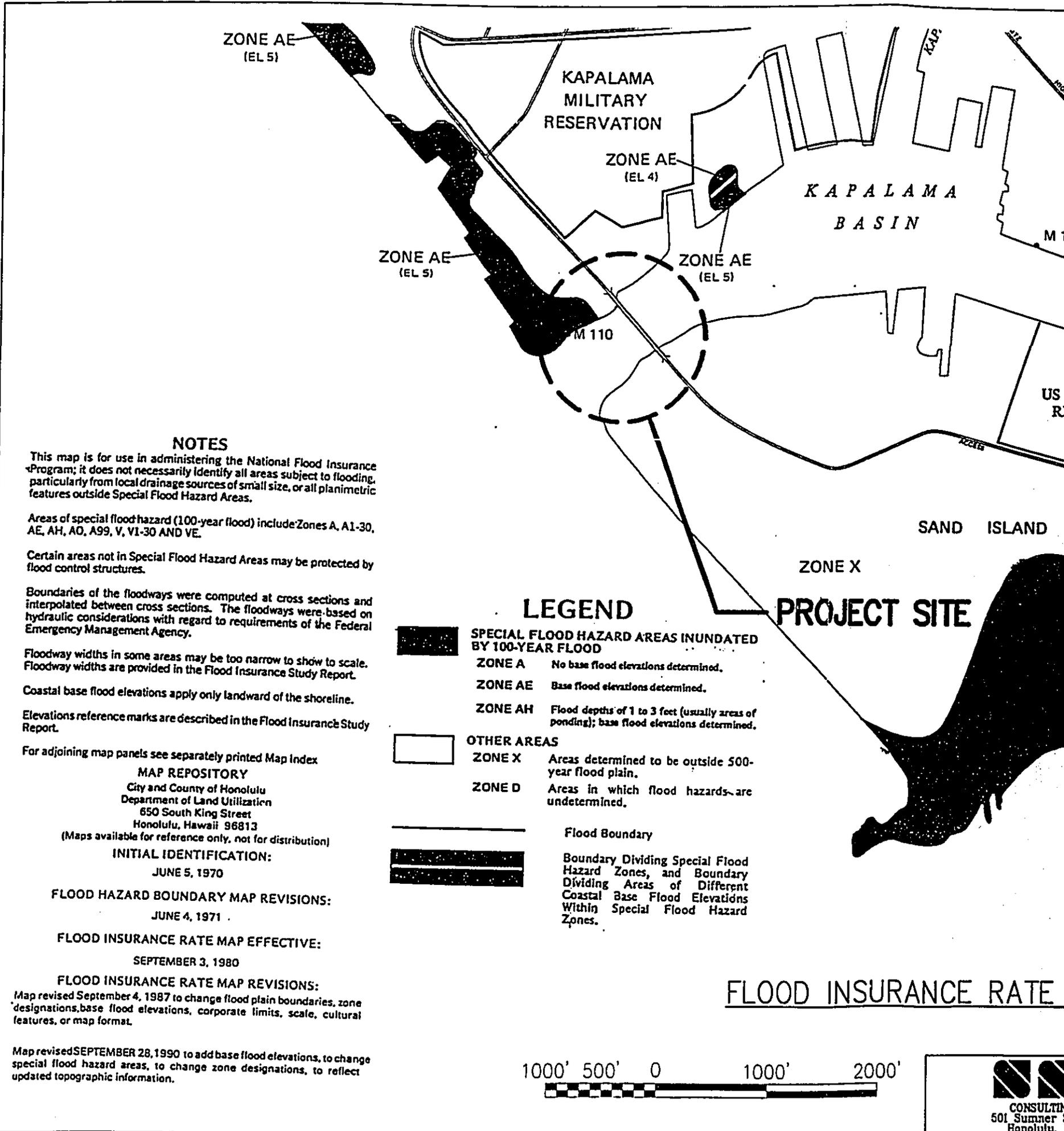
NSFM
CONSULTING ENGINEERS
501 Summer Street, Suite 502
Honolulu, Hawaii 96817

KEEHI SMALL BOAT HARBOR BOATING PUMP-OUT FACILITY
ENVIRONMENTAL ASSESSMENT
FLOOD INSURANCE RATE MAP

SCALE: 1" = 1000' DATE: DECEMBER 1998

FIGURE
3

I:\1997\9750301\DWGS\FIGURES\FIGURE03.DWG 04/22/98 15:40 CHM



NOTES

This map is for use in administering the National Flood Insurance Program; it does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size, or all planimetric features outside Special Flood Hazard Areas.

Areas of special flood hazard (100-year flood) include Zones A, A1-30, AE, AH, AO, A99, V, V1-30 AND VE.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the Federal Emergency Management Agency.

Floodway widths in some areas may be too narrow to show to scale. Floodway widths are provided in the Flood Insurance Study Report.

Coastal base flood elevations apply only landward of the shoreline.

Elevations reference marks are described in the Flood Insurance Study Report.

For adjoining map panels see separately printed Map Index

MAP REPOSITORY

City and County of Honolulu
Department of Land Utilization
650 South King Street
Honolulu, Hawaii 96813

(Maps available for reference only, not for distribution)

INITIAL IDENTIFICATION:

JUNE 5, 1970

FLOOD HAZARD BOUNDARY MAP REVISIONS:

JUNE 4, 1971

FLOOD INSURANCE RATE MAP EFFECTIVE:

SEPTEMBER 3, 1980

FLOOD INSURANCE RATE MAP REVISIONS:

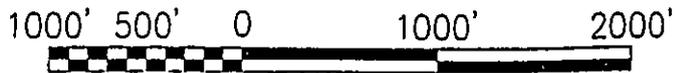
Map revised September 4, 1987 to change flood plain boundaries, zone designations, base flood elevations, corporate limits, scale, cultural features, or map format.

Map revised SEPTEMBER 28, 1990 to add base flood elevations, to change special flood hazard areas, to change zone designations, to reflect updated topographic information.

LEGEND

-  SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD
- ZONE A** No base flood elevations determined.
- ZONE AE** Base flood elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.
-  OTHER AREAS
- ZONE X** Areas determined to be outside 500-year flood plain.
- ZONE D** Areas in which flood hazards are undetermined.
-  Flood Boundary
-  Boundary Dividing Special Flood Hazard Zones, and Boundary Dividing Areas of Different Coastal Base Flood Elevations Within Special Flood Hazard Zones.

FLOOD INSURANCE RATE





7.5 MINUTE MAP

4000'



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Honolulu, Hawaii 96817

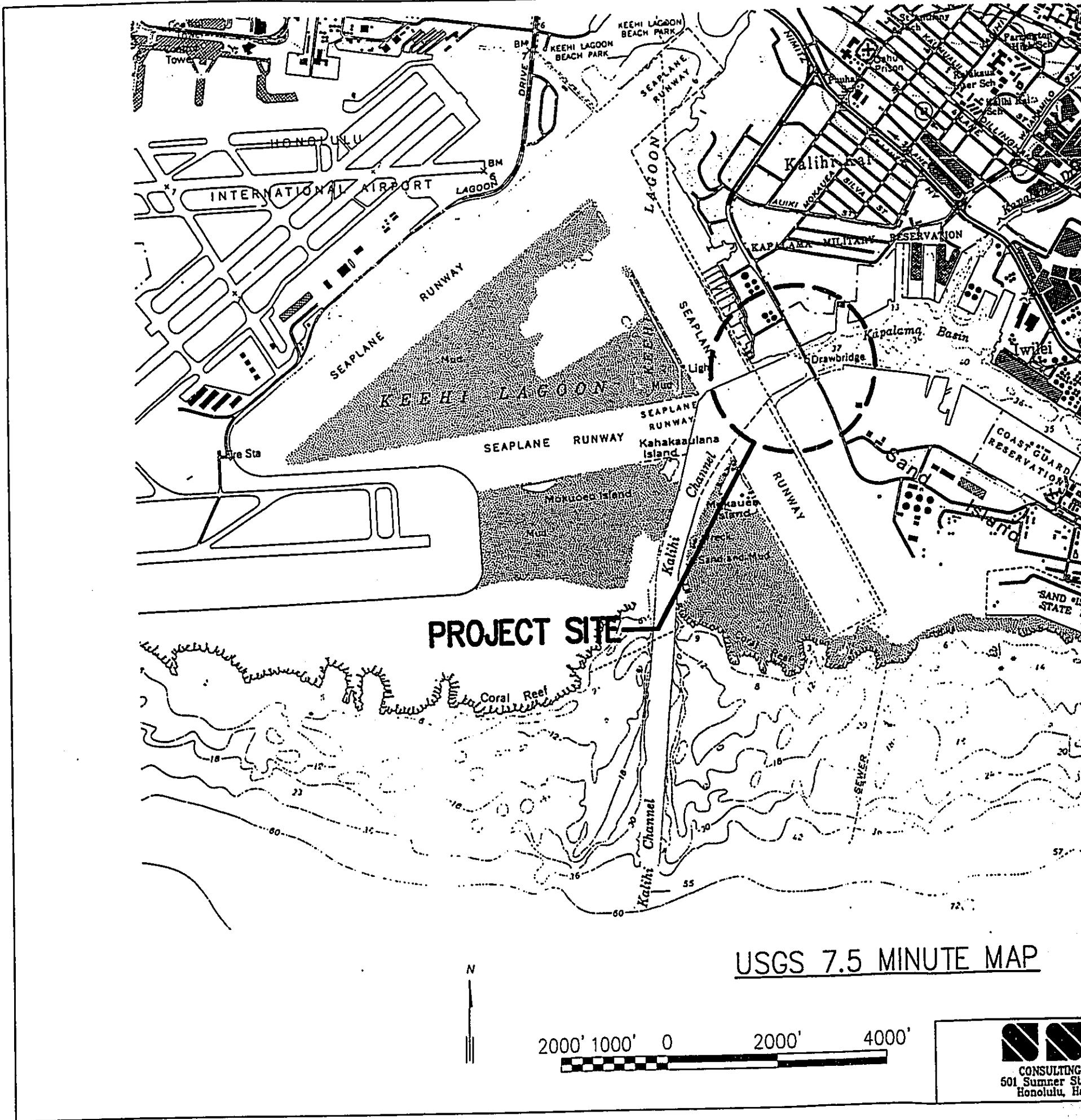
KEEHI SMALL BOAT HARBOR BOATING PUMP-OUT FACILITY
ENVIRONMENTAL ASSESSMENT
USGS 7.5 MINUTE MAP

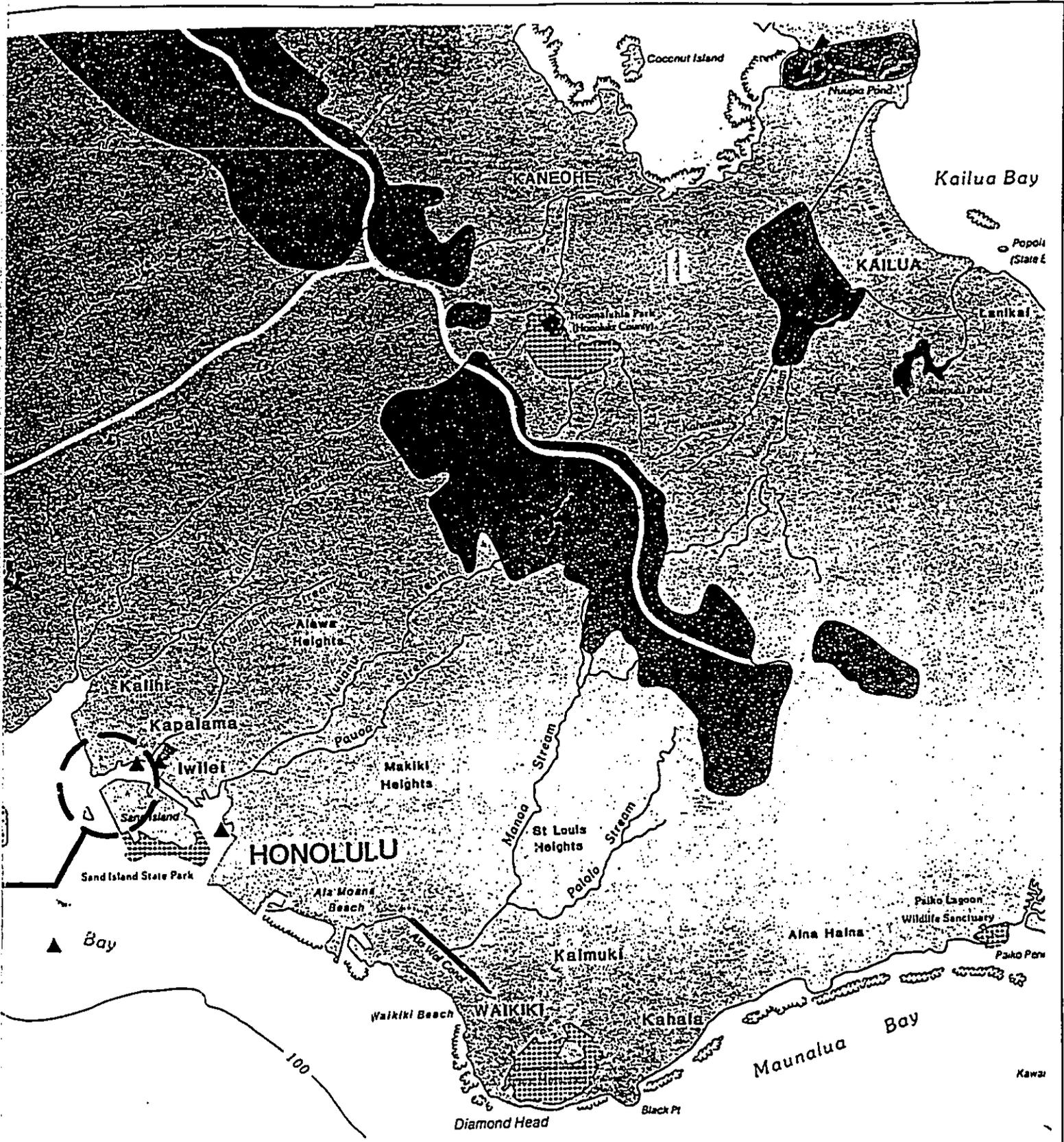
FIGURE

4

SCALE: 1" = 2000' DATE: DECEMBER 1998

i:\1997\9750301\DWGS\FIGURES\FIGURE04.DWG 04/22/98 15:41 CHM





QUALITY STANDARDS MAP

16,000'

SEEM
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 501 Sumner Street, Suite 502
 Honolulu, Hawaii 96817

KEEHI SMALL BOAT HARBOR BOATING PUMP-OUT FACILITY
 ENVIRONMENTAL ASSESSMENT
 WATER QUALITY STANDARDS MAP

FIGURE
 5

SCALE: 1" = 8000' DATE: DECEMBER 1998

I:\1997\9750301\DWGS\FIGURES\FIGURE05.DWG 04/22/98 15:41 CHM

EXPLANATION:

WATER QUALITY STANDARDS CLASSIFICATION

INLAND CLASSIFICATION



Class 1

Class 2

Pearl Harbor Estuary

MARINE CLASSIFICATION



Class A (bounded by 100-fathom contour)

Class AA (bounded by 100-fathom contour)

Reserve, Preserve, Wildlife Refuge, Sanctuary, or National or State Park

Marine Conservation Area



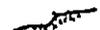
Zone of Mixing



100-fathom contour or 600-foot depth contour



Reef



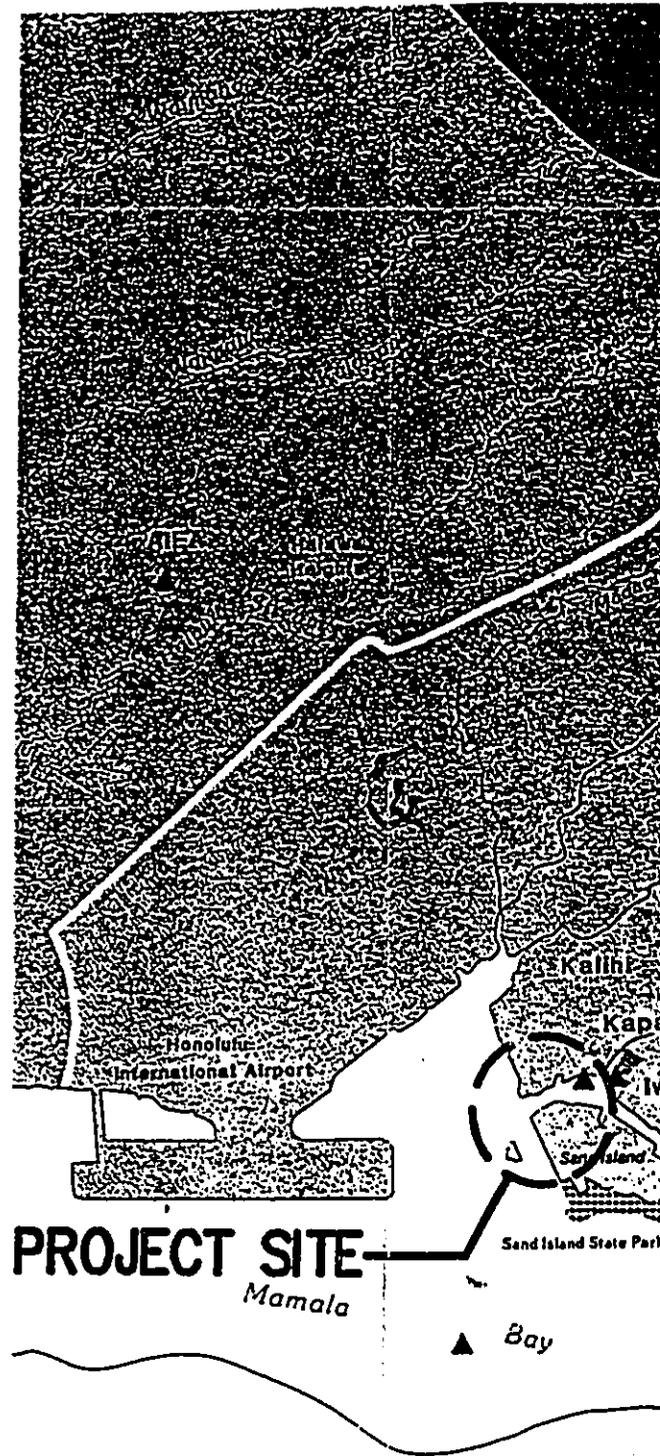
Beach



Marsh or Swamp

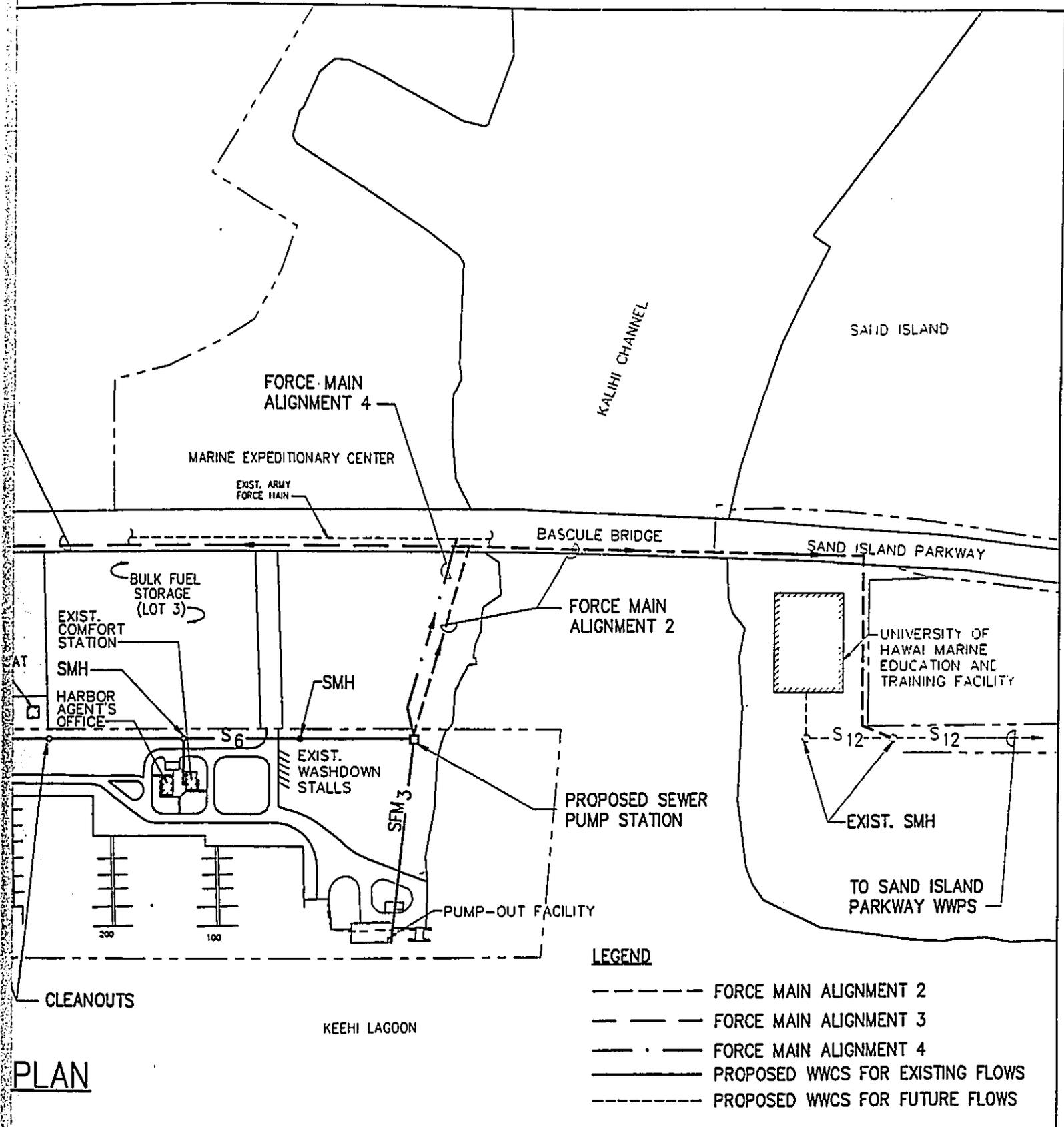


Stream, Intermittent Stream, or Gulch



WATER QUALITY ST





PLAN

600'

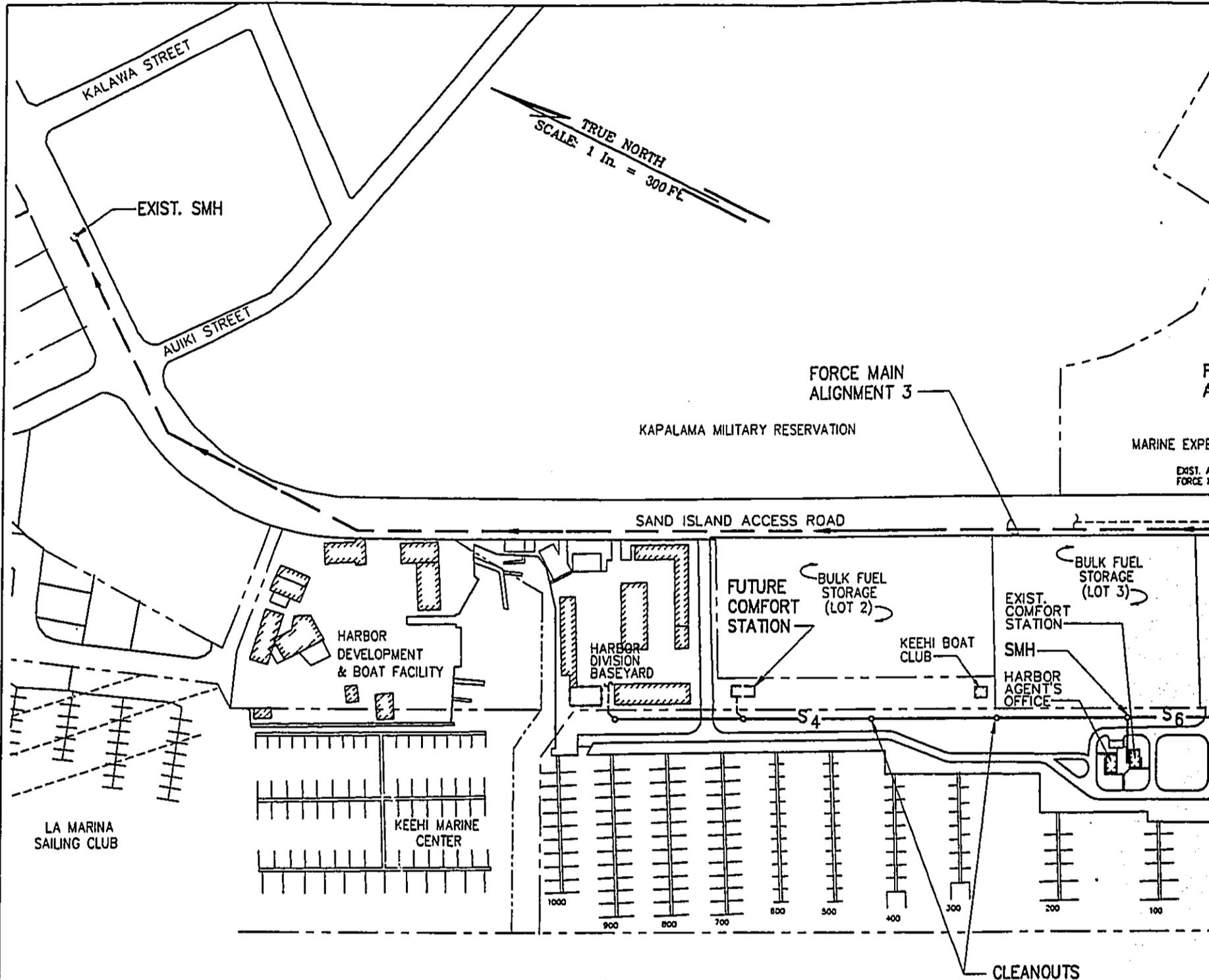
SSFM
 CONSULTING ENGINEERS
 501 Sumner Street, Suite 502
 Honolulu, Hawaii 96817

KEEHI SMALL BOAT HARBOR BOATING PUMP-OUT FACILITY
 ENVIRONMENTAL ASSESSMENT
 ALTERNATE FORCE MAIN ALIGNMENTS

SCALE: 1" = 300' DATE: DECEMBER 1998

FIGURE
6

I:\1997\9750301\DWGS\FIGURES\FIGURE06.DWG 12/11/98 14:55 JM



SITE PLAN



APPENDIX B
COMMENTS FROM CONSULTED PARTIES
AND RESPONSES



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

MAIL TO
ATTENTION OF

September 17, 1998

Civil Works Branch

Mr. Cey Murakami
SSFM Engineers, Incorporated
501 Sumner Street, Suite 502
Honolulu, Hawaii 96817

Dear Mr. Murakami:

Thank you for the opportunity to review and comment on the Draft Environmental Assessment (DEA) for the Keehi Small Boat Harbor Boating Pump-Out Facility, Honolulu, Oahu (TMS 1-2-23 and 1-5-41). The following comments are provided in accordance with Corps of Engineers authorities to provide flood hazard information and to issue Department of the Army (DA) permits.

a. As stated on pages 9 and 24 of the DEA, GP95-002 will be required for this project. For further information, please contact Mr. William Lennan of our Regulatory Section at 438-9253 (extension 13) and refer to file number 980000307.

b. The flood hazard information provided on page 8 of the DEA is correct.

Sincerely,

Paul Mizue, P.E.
Chief, Civil Works Branch

Copy Furnished:

Mr. Hiram Young
State of Hawaii
Department of Land and Natural Resources
Engineering Branch, Land Division
P.O. Box 373
Honolulu, Hawaii 96809



REGULATORY DIVISION
ENGINEER

MICHAEL D. WALSON
Deputy Director
BUREAU OF LAND AND NATURAL RESOURCES

DEPUTY DIRECTOR
GILBERT S. COLOM-AGUIAR

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF BOATING AND OCEAN RECREATION
333 QUEEN STREET, SUITE 300
HONOLULU, HAWAII 96813

December 4, 1998

BOR 0489.99

Mr. Paul Mizue, Chief
Department of the Army
U.S. Army Engineer District, Honolulu
Ft. Shafter, Hawaii 96858-5440

Dear Mr. Shizue:

SUBJECT: Draft Environmental Assessment (DEA) for Keehi Small Boat Harbor Boating Pump-Out Facility
Honolulu, Oahu, Hawaii

Thank you for your letter of September 17, 1998, regarding the above DEA. We appreciate your confirmation of the information in Chapter II.E.1., Chapter II.E.2., and Chapter IV.A.1, regarding the required permit GP95-002 and flood hazard information for the project site.

Very truly yours,

Howard B. Gehring
Acting Administrator

C: SSFM



Commander
Fourteenth Coast Guard District
Prince Kūnikūole Federal Building

300 Ala Moana Blvd., 9th Floor
Honolulu, HI 96850-4982
Staff Symbol: dcl
Phone: (808) 541-2126
FAX: (808) 541-3103

RECEIVED
SEP 18 1998



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF BOATING AND OCEAN RECREATION
333 QUEEN STREET, SUITE 300
HONOLULU, HAWAII 96813

MICHAEL D. WILSON
Commissioner
BUREAU OF LAND AND NATURAL RESOURCES

DEPUTY DIRECTOR
GILBERT S. COLEMAN

SSFM Engineers, INC.
501 Summer Street, Suite 502
Honolulu, Hawaii 96817

16600

SEP 18 1998

Dear Sir:

This is in response to your Draft Environmental Assessment (DEA) for Keeki Small Boat mooring Boating Pump-Out Facility Honolulu, Oahu, Hawaii (TMK: 1-2-23 & 1-5-41).

The Coast Guard has reviewed your DEA and has no objection to the proposed project so long as the pipeline is installed below the controlling depth of the Kaihi Channel (45 feet below MLLW). There may also be uncharted submarine cables and pipelines in the construction area for the proposed pipeline. Some of these may be abandoned. The pipeline project's design and construction should accommodate these cables and pipelines. The existing utility services to Sand Island should be maintained and pollutants prevented from being released into the environment if these existing cables and pipelines are disturbed during construction.

Please provide the Coast Guard information concerning the exact position and depth of the pipeline once it has been constructed. This information will be included on applicable navigational charts of the Honolulu Harbor.

A copy of this letter will be provided to Mr. Young of the State of Hawaii Department of Land and Natural Resources per your request.

Sincerely,

G. T. Goodwin

G. T. GOODWIN
Captain, U. S. Coast Guard
Chief of Staff

Copy: State of Hawaii Department of Land and Natural Resources, ATTN Mr. Hiram Young

BOR 0488.99

December 4, 1998

Mr. G. T. Goodwin, Captain
U.S. Department of Transportation
United States Coast Guard
300 Ala Moana Blvd., 9th Floor
Honolulu, Hawaii 96850-4982

Dear Mr. Goodwin:

SUBJECT: Draft Environmental Assessment (DEA) for Keeki Small Boat Harbor
Boating Pump-Out Facility
Honolulu, Oahu, Hawaii

Thank you for your letter of September 18, 1998, regarding the above DEA. We appreciate your recommendation to install the pipeline below the controlling depth of the Kaihi Channel. The Final Environmental Assessment will be amended to include the controlling depth of the channel and the information regarding the existing utilities within the channel.

We will require the contractor to submit the location of the force main to your agency for applicable navigation charts.

Very truly yours,

Howard B. Gehring
Howard B. Gehring
Acting Administrator

c: SSFM



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Ecoregion
300 Ala Moana Blvd., Rm. 3-122
Box 50088
Honolulu, HI 96850

In Reply Refer To: LTG

Mr. Cey Murakami
SSFEM Engineers, Inc.
501 Summer Street, Suite 502
Honolulu, HI 96817

Re: Draft Environmental Assessment for the Keehi Small Boat Harbor Boating Pump-Out Facility, Honolulu, Hawaii

Dear Mr. Murakami:

The U.S. Fish and Wildlife Service (Service) has reviewed the Draft Environmental Assessment (DEA) for the Keehi Small Boat Harbor Boating Pump-Out Facility. The project sponsor is the State Department of Land and Natural Resources Boating and Ocean Recreation Division. The project involves the replacement of the existing wastewater collection and disposal system at the Keehi Small Boat Harbor (K-SBH) with a new wastewater pumpstation, a force main, and a wastewater collection system. A 4-inch diameter High Density Polyethylene (HDPE) force main will be installed to connect the pump station at KSBH, under the Kaihi Channel via directional drilling, to an existing State-owned 12-inch diameter gravity sewer system near the newly constructed Marine Education and Training Center and Public Boat Launch Facility.

Based on our review of information contained in our files, including maps prepared by the Hawaii Heritage Program of The Nature Conservancy and the Service's Wetland Inventory Program there are no federally endangered, threatened, or candidate species directly within the proposed project site. However, annual migratory shorebird use of the mudflats in Keehi lagoon is high. The Service is concerned that leaks in the force main may adversely affect shorebirds and marine resources in Keehi Lagoon as well as the ground water aquifer. The Service recommends that the Final Environmental Assessment (FEA) include the location of the ground water in relation to the placement of the force main in Kaihi channel and a description of how leaks in the force main will be detected and repaired during operation of the wastewater system.

Provided that these issues are addressed in the FEA and there are no significant adverse impacts to federally protected trust resources, the Service will concur with a determination of Finding of No Significant Impact for the proposed project.

The Service appreciates the opportunity to provide comments on the proposed project. We look forward to continuing to work with you during the development of this project. If you have any questions concerning these comments, please contact Fish and Wildlife Biologist, Leila Gibson of my staff by phone at 808/541-3441 or by facsimile transmission at 808/541-3470.

Sincerely,

Robert P. Smith, Acting
Robert P. Smith



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF BOATING AND OCEAN RECREATION
331 QUEEN STREET, SUITE 300
HONOLULU, HAWAII 96813

December 4, 1998

BOR 0487

Mr. Robert P. Smith, Pacific Island Manager
U.S. Department of Interior
Fish and Wildlife Service
Pacific Island Ecoregion
300 Ala Moana Blvd., Rm. 3-122
Box 50088
Honolulu, Hawaii 96850

Dear Mr. Smith:

Subject: Draft Environmental Assessment (DEA) for Keehi Small Boat Harbor Boating Pump-Out Facility
Honolulu, Oahu, Hawaii

Thank you for your letter of September 28, 1998, regarding the above DEA. The following are responses to your comments.

- We appreciate your confirmation that the project site contains no federally endangered, threatened, or candidate species directly within the proposed project site. The Final Environmental Assessment (FEA) will be amended to include information regarding migratory shorebirds using the mudflats along Kaihi Channel. There will be no surface construction along the mudflats in the project site.
- The FEA will also include information about routine procedures to inspect the force main hydrostatically for potential leaks. If leaks are detected, a repair liner could be inserted through the force main, or a replacement force main constructed.
- The fresh water aquifer in the Sand Island area is not threatened by the installation of the proposed force main. The subsurface conditions under Kaihi

Mr. Robert P. Smith
Page 2
December 4, 1998
BOR 0487.99

Channel consist of coral sediments, which are highly permeable. This condition allows salt water intrusion into these depths, and no known fresh water sources exist.

Very truly yours

Howard B. Gehring
Howard B. Gehring
Acting Administrator

BENJAMIN J. CAYETANO
GOVERNOR

GARY GILL
DIRECTOR



STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

375 SOUTH BERTANCA STREET
SUITE 707
HONOLULU, HAWAII 96812
TELEPHONE: (808) 586-4185
FACSIMILE: (808) 586-4186

October 12, 1998

Mr. Michael Wilson, Chair
Department of Land and Natural Resources
P.O. Box 521
Honolulu, Hawaii 96809

Dear Mr. Wilson:

Subject: Comments on the Draft Environmental Assessment
Keelii Small Boat Harbor Boating Pump-Out Facility

This is in response to the request for comments on the subject project. We have the following comments.

1. Please identify other lots in this area that are not connected to the municipal sewer system. With regard to those lots, please describe the: 1) land use; 2) volume of wastewater generated; and 3) type and effectiveness of the wastewater disposal system.
2. If other ineffective wastewater disposal systems exist in this area, we recommend that a sewer improvement district be created to include these properties and rectify the problem. The Keelii Small Boat Harbor wastewater project should not be segmented from other properties confronted with similar problems. Greater environmental protection and management efficiency can be found by combining multiple properties into a single wastewater system.
3. Soil will be excavated from under the Kallhi Channel during the directional drilling process. Please disclose where the excavated material will be disposed. Will the excavated material be tested for contamination before disposal? If contamination is found, what are the disposal alternatives?
4. Please discuss the findings and reasons for supporting the FONSI determination based on all 13 significant criteria listed in §11-200-12 of the EIS rules. Please see the enclosed example.

Mr. Wilson
Page 2

Should you have any questions, please call Jeyan Thirugnanam at 586-4185.

Sincerely,

8.0 DETERMINATION, FINDINGS AND REASONS FOR SUPPORTING DETERMINATION

8.1 SIGNIFICANCE CRITERIA

According to the Department of Health Rules (11-200-12), an applicant or agency must determine whether an action may have a significant impact on the environment, including all phases of the project, its expected consequences both primary and secondary, its cumulative impact with other projects, and its short and long-term effects. In making the determination, the Rules establish "Significance Criteria" to be used as a basis for identifying whether significant environmental impact will occur. According to the Rules, an action shall be determined to have a significant impact on the environment if it meets any one of the following criteria:

- (1) Involves an irrevocable commitment to loss or destruction of any natural or cultural resources;

The proposed project will not impact scenic views of the ocean or any ridge lines in the area. The visual character of the area will change from the current agricultural land to an improved 4-lane highway which is compatible with the surrounding land use plans and programs being implemented for the region. The highway corridor is comprised of "Prime" agricultural land which is an important resource. Development of drainage systems will follow established design standards to ensure the safe conveyance and discharge of storm runoff. In addition, the subject property is located outside of the County's Special Management Area (SMA).

As previously noted, no significant archaeological or historical sites are known to exist within the corridor. Should any archaeologically significant artifacts, bones, or other indicators of previous on-site activity be uncovered during the construction phases of development, their treatment will be conducted in strict compliance with the requirements of the Department of Land and Natural Resources.

- (2) Curtails the range of beneficial uses of the environment;

Although the subject property is suitable for agricultural uses, the land area adjoining the Mokuile Highway is naturally suited for transportation purposes due to its location proximate to an existing highway system. To return the site to a natural environmental condition is not practical from both an environmental and economic perspective.

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

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

By planning now to address the future needs of the community and the State, improvement of the transportation system is consistent with the long term plans for Maui. No views will be obstructed or be visually incompatible with the surrounding area.

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

No endangered plant or animal species are located within the highway corridor.

(10) Detrimentally affects air or water quality or ambient noise levels;

Any possible impact to near-shore ecosystems resulting from surface runoff, will be mitigated by the establishment of on-site retention basins during the construction phases of development. After development, retention areas within the highway right-of-way will serve the same function to encourage recharge of the groundwater.

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

Development of the property is compatible with the above criteria since there are not environmentally sensitive areas associated with the project and the physical character of the corridor has been previously disturbed by agricultural uses. As such, the property no longer reflects a "natural environment". Shoreline, valleys, or ridges will not be impacted by the development.

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

Due to topographical characteristics of the property, views of the area to be developed are generally not significant although they are visible. The majority of the proposed project will not be visible, except from higher elevations by the general public or from persons traveling along the highway.

(13) Requires substantial energy consumption.

The location of the proposed project is between Maui's major growth areas. This relationship will reduce travel times and energy consumption after project build out through efficiencies gained by the increased capacity of the highway. Construction of the proposed project will not require substantial energy consumption relative to other similar projects.

MOKULELE HIGHWAY/UPUNENE BYPASS

PROJECT NO. 311A-02-92

Final Environmental Assessment

Page 48



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF SOILING AND OCEAN RECREATION
333 KOLEN STREET, SUITE 300
HONOLULU, HAWAII 96813

December 7, 1998

BOR 0490.99

Mr. Gary Gill, Director
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Dear Mr. Gill:

SUBJECT: Draft Environmental Assessment (DEA) for Keehi Small Boat Harbor
Boating Pump-Out Facility
Honolulu, Oahu, Hawaii

Thank you for your letter of October 12, 1998, regarding the above DEA. The following are responses to your comments. We appreciate your review of this project.

- The accommodation of the entire unsewered area is beyond the jurisdiction of the Department of Land and Natural Resources.
- Chapter III.E. of the FEA will be amended to include the following: The solid waste produced from directional drilling (DD) will be composed of sediment deposits from upstream sources and bentonite slurry (wastewater during DD). As the soils is removed, it will be placed on an impermeable liner within the project site. The soil will be tested for contamination, then allowed to dry until it has reached acceptable moisture content levels for disposal at an off-site landfill. No contamination is expected to be found in the soil; however, if contaminants are found, specific methods of remediation shall be developed (i.e., bio-remediation and thermo-remediation).

- The FEA also be amended to include the findings and reasons for supporting the FONSI determination based on all 13 significant criteria listed in Section 11-200-12 of the EIS rules.

Very truly yours,

Howard B. Gehring
Acting Administrator

c: SSFM

MICHAEL D. NELSON
COMMISSIONER
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY DIRECTOR
CLERK'S COLUMN-QUARRY

PHONE (808) 594-1888

FAX (808) 594-1855



STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
711 KAPITOLANI BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813

November 6, 1998

Mr. Cey Murakami
SSFEM Engineers, Inc.
501 Summer Street, Suite 502
Honolulu, HI 96817

EIS (98) 224

Re: Draft Environmental Assessment for Keehi Small Boat Harbor Pump-Out Facility, Honolulu, Oahu, HI (TMK 1-2-25 & 1-5-41)

Dear Mr. Murakami:

Thank you for the opportunity to comment on the Draft Environmental Assessment for Keehi Small Boat Harbor Pump-Out Facility, which describes the proposed replacement of the existing wastewater collection and disposal system.

The project site, Keehi Small Boat Harbor (TMK 1-2-25:24), and many of the adjacent parcels of land are classified as ceded land. As such, the issue of ceded lands must be addressed in your document. OHA strongly suggests that Native Hawaiians be consulted before any efforts to use, modify, or destroy ceded lands.

The Office of Hawaiian Affairs would like your document to address the possibility that native Hawaiian gathering rights may exist on the project site. A recent Hawaii Supreme Court decision makes it clear that the existence of native rights must be addressed. We suggest that the preparers seek expert opinion among the Hawaiian community about this issue.

Mr. Cey Murakami
SSFEM Engineers, Inc.
November 6, 1998
Page two

Thank you for your cooperation in this matter. Should you have any questions concerning our comments, please contact Sebastian Aloit, Land and Natural Resources Officer, or Nami Ohlomo, Acting Natural Resource Specialist at 594-1755. Please refer to the document number noted at the top of this letter in any future correspondence.

Sincerely,

C. S. Kim
C. S. Kim

EDUARD J. CAVETANO
DEPUTY DIRECTOR



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF BOATING AND OCEAN RECREATION
333 OLIVE STREET, SUITE 200
HONOLULU, HAWAII 96813

December 7, 1998

BOR 0491.99

Mr. Colin Kippen, Deputy Administrator
Office of Hawaiian Affairs
711 Kapitolani Boulevard, Suite 500
Honolulu, Hawaii 96813

Dear Mr. Kippen:

SUBJECT: Draft Environmental Assessment (DEA) for Keehi Small Boat Harbor Boating Pump-Out Facility
Honolulu, Oahu, Hawaii

Thank you for your letter of November 6, 1998, regarding the above DEA. The following are responses to your comments. We appreciate your review of this project.

- Although the lands within the project site are part of the ceded land trust, a discussion of ceded lands and land ownership is not within the scope of this DEA.
- The FEA will be amended to include that the project will not interfere with Hawaiian gathering rights. The project within the shoreline area will be completely underground and will not impact any native access rights to the area.

Very truly yours,

Edward B. Gehring
Edward B. Gehring
Acting Administrator

c: SSFM



**DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM**

OFFICE OF PLANNING

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

Ref. No. P-7699

September 17, 1998

Mr. Cey Murakami
Civil Engineer
SSFPM Engineers, Inc.
501 Sumner Street, Suite 502
Honolulu, Hawaii 96817

Dear Mr. Murakami:

Subject: Draft Environmental Assessment (DEA) for Keehi Small Boat Harbor Boating Pump-Out Facility, Honolulu, Oahu, Hawaii (TMK: 1-2-23 & 1-5-41)

We are not opposed to the proposed Keehi wastewater collection and disposal system project. However, our concern is that the DEA does not include an assessment of the project's consistency and compliance with the Coastal Zone Management (CZM) objectives and policies, Chapter 205A, Hawaii Revised Statutes. This inclusion is required by the Office of Environmental Quality Control's administrative rules.

If there are any questions, please contact Charles Carole of our CZM Program at 587-2804.

Sincerely,


Bradley J. Mossman
Director
Office of Planning

cc: Hiram Young, DLNR

BENJAMIN J. CAYetano
GOVERNOR
SHELLE HATA
DIRECTOR
BRADLEY J. MOSSMAN
DEPUTY DIRECTOR
OFFICE OF PLANNING
DIRECTOR, OFFICE OF PLANNING

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



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF BOATING AND OCEAN RECREATION
331 QUEEN STREET, SUITE 300
HONOLULU, HAWAII 96813

December 7, 1998

BOIR 0492.99

MICHAEL D. WALSON
Chairman
BOARD OF LAND AND NATURAL RESOURCES

MARK BUCKNER
CABINET'S COORDINATOR

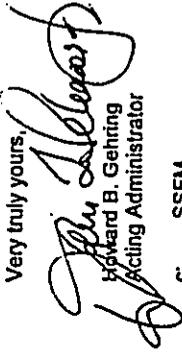
Mr. Bradley J. Mossman, Director
Department of Business, Economic
Development and Tourism
Office of Planning
235 South Beretania Street, 6th Floor
Honolulu, Hawaii 96813

Dear Mr. Mossman:

SUBJECT: Draft Environmental Assessment (DEA) for Keehi Small Boat Harbor Boating Pump-Out Facility Honolulu, Oahu, Hawaii

Thank you for your letter of September 17, 1998, regarding the above DEA. The project's consistency and compliance with the Coastal Zone Management objectives and policies are included in Chapter V of the DEA.

Very truly yours,


Howard B. Gehring
Acting Administrator

c: SSFM



STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3178
HONOLULU, HAWAII 96801

October 20, 1998

98-188/epo

LAWRENCE HARRIS
DIRECTOR

IN REPLY, PLEASE REFER TO

Mr. Cey Murakami
October 20, 1998
Page 2

98-188/epo

All wastewater plans must conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems."

Should you have any questions on this matter, please contact the Planning/Design Section of the Wastewater Branch at (808) 586-4294.

Water Pollution

1. The applicant should contact the U. S. Army Corps of Engineers (COE) to identify whether a Federal permit (including a Department of Army permit) is required for this project. Pursuant to Section 401(a)(1) of the Federal Water Pollution Act, a Section 401 Water Quality Certification (WQC) is required from the Department of Health for "Any 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..."

The applicant should confirm with the COE whether the subject project meets the requirements of General Permit GP95-002, "Utility Lines In, Under, or Above Waters of the United States, Including Navigable Waters in the State of Hawaii."

2. A National Pollutant Discharge Elimination System (NPDES) general permit coverage is required for each of the following activities which discharges into State waters:

- a. Discharge of storm water runoff associated with construction activities, including clearing, grading, and excavation that result in the disturbance of equal to or greater than five (5) acres of total land area;
- b. Discharge of hydrotesting water, and
- c. Discharge associated with construction activity dewatering.

Mr. Cey Murakami
Civil Engineer
SSFEM Engineers, Inc.
501 Summer Street, Suite 502
Honolulu, Hawaii 96817

Dear Mr. Murakami:

Subject: Draft Environmental Assessment (DEA)
Keehi Small Boat Harbor Boating Pump-Out Facility
Honolulu, Hawaii
TMK: 1-2-23 and 1-5-41

Thank you for allowing us to review and comment on the subject project. We have the following comments to offer.

Wastewater

As wastewater in the area is presently collected and disposed by means of various on-site wastewater systems, we concur with the proposed project, which will be replacing the existing wastewater collection and disposal system with a new wastewater pump station, force main and collection system.

We also have concerns with wastewater treatment and disposal from areas on the Ewa side of the proposed project site. Frequent wastewater overflows and discharges into the harbor from the La Mariana Restaurant have lead to formal enforcement action by the Department. Investigations by consultants have indicated that other businesses in the general area are also experiencing on-site wastewater system failures. Every effort should be made to sewer that area as part of this project.

Mr. Cey Murakami
October 20, 1998
Page 3

98-188/epo

3. The applicant may be required to apply for an Individual NPDES Permit if there is any type of process wastewater discharge from the project into State waters.

The application form(s) for those discharges which need to obtain a certification, coverage, and/or permit will be provided upon request.

If you have any questions, please call Ms. Joanna L. Seto, P.E., Engineering Section of the Clean Water Branch at 586-4309.

Sincerely,



BRUCE S. ANDERSON, Ph.D.
Deputy Director for
Environmental Health

c: WWB
CWB
DLNR

EDUARDO CASTAÑO
DIRECTOR



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF BOATING AND OCEAN RECREATION
333 COLLEEN STREET, SUITE 200
HONOLULU, HAWAII 96813

December 7, 1998

BOR 0494.99

MICHAEL O. NELSON
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY DIRECTOR
CALUMET'S COLOMBIA-JAMAICA

Mr. Bruce S. Anderson
Deputy Director for Environmental Health
Department of Health
P. O. Box 3378
Honolulu, Hawaii 96801

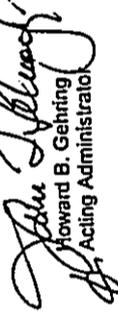
Dear Mr. Anderson:

SUBJECT: Draft Environmental Assessment (DEA) for Keehi Small Boat Harbor Boating Pump-Out Facility Honolulu, Oahu, Hawaii

Thank you for your letter of October 20, 1998, regarding the above DEA. The following are responses to your comments.

- The accommodation of the entire un-sewered area is beyond the jurisdiction of the Department of Land and Natural Resources.
- The Final Environmental Assessment (FEA) will be amended to include that wastewater plans must conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems."
- The U.S. Army Corps of Engineers have reviewed the DEA. They have verified that a General Permit GP 95-002 will be required for this project.
- We appreciate the confirmation concerning the NPDES general permit requirements in Chapter IV. A hydrotesting and construction dewatering permit will be required for the proposed project.

Very truly yours,



Howard B. Gehring
Acting Administrator

c: SSFM

MEMORANDUM
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
ENGINEERING BRANCH
801 KEEHI STREET
HONOLULU, HAWAII 96813
OCT 16 1998

MICHAEL B. WILSON, CHIEF ENGINEER
DIVISION OF LAND AND NATURAL RESOURCES
DEPARTMENT OF LAND AND NATURAL RESOURCES
GOVERNOR OF HAWAII
DEPUTY
CELEST COLOMBA-AGUIRRE
PROGRAM
AQUACULTURE DEVELOPMENT
AQUATIC RESOURCES
CONSERVATION AND
RESTORATION
CONVEYANCES ENFORCEMENT
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE OF HAWAII
WATER AND LAND DEVELOPMENT

MEMORANDUM
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 5TH FLOOR
HONOLULU, HAWAII 96813
October 23, 1998

MEMORANDUM

TO: ✓ Division of Forestry and Wildlife
Division of Historic Preservation
Division of State Park
Division of Aquatic Resources
Division of Conservation and Resource Enforcement

FROM: Andrew Monden, Chief Engineer *AM*

SUBJECT: Draft Environmental Assessment, Job No. 40-OB-A1, Keehi Small Boat
Harbor Boating Pump Out Facility, Oahu

LOG NO: 22491 ✓
DOCNO: 9810EJ27

TO: Andrew Monden, Chief Engineer
Land Division, Engineering Branch

FROM: Don Hibbard, Administrator
Historic Preservation Division *DH*

SUBJECT: Chapter 6E-8 Historic Preservation Review -- Draft Environmental
Assessment, Job No. 40-OB-A1, Keehi Small Boat Harbor Boating Pump
Out Facility
Kalihi-Kai, Kona, O'ahu
1-2-25: 1-5-41

Transmitted for your review and comments is a copy of the Draft Environmental assessment for
the subject project. May we please have your written comments by November 6, 1998. If we do
not hear from you, we will assume you have no comments or objections to this request.

If there are any questions on this matter, please have your staff contact Mr. Hiram Young of the
Design section at Extension 7-12604. *7-12604*

A review of our records shows that there are no known historic sites at the project
location. This area has been in-filled to enlarge the shoreline and it is unlikely that
historic sites will be found. Therefore, we believe that this project will have "no
effect" on historic sites.

98 OCT 16 P1:24

RECEIVED
NO COMMENTS

Date: OCT 22 1998

By: *AM*

Should you have any questions, please feel free to call Sara Collins at 587-0013 or
Elaine Jourdane at 587-0014.

E:jk

HMV:ssk

DEPARTMENT OF LAND AND NATURAL RESOURCES
Division of State Parks

MEMORANDUM

DATE: October 23, 1998
TO: Andrew Monden, Chief Engineer
Land Division
FROM: Ralston H. Nagata, Administrator
SUBJECT: Comments: Draft Environmental Assessment, Job No. 40-OB-A1,
Keehi Small Boat Harbor Boat Pump Out Facility, Oahu.

It is our understanding that this Draft EA has already been published. As such, we suggest that the final EA incorporate the following modifications for clarification, and respond to the questions noted.

Page 1. Proposed Action: The referenced figure 2 should show the location of the Public Boat Launch Facility.

Page 6. Paragraph No. 4: This paragraph implies that there are no other "major land-based recreational activities" at Sand Island State Recreation Area, other than the marine-related activities noted in the paragraph. The University of Hawaii Marine Education and Training Center and the DLNR Division of Boating and Ocean Recreation Public Boat Launching Facility occupy only a small portion of the Sand Island State Recreation Area. As such, this paragraph should provide clarification.

Page 8. Item E-2. State of Hawaii Land Use Policies: It should be noted that the Sand Island project area, under State Parks jurisdiction, is also occupied and managed by the University of Hawaii Marine Education and Training Center and the Division of Boating and Ocean Recreation public boat launching facility.

Page 9. Paragraph 2: This paragraph indicates that DLNR is presently preparing a "recreational master plan" for both Keehi SBH and SISRA. Is the plan for boating facilities only?

Page 11. Air Quality Impacts and Mitigation: It is noted that soil removed during directional drilling "must be monitored and removed promptly or treated to prevent the release of excess gas and odors in the surrounding area". Where will this soil be initially stockpiled, how will it be monitored, and if it is to be removed, where will it be placed?

Job No. 40-OB-A1
Draft EA Review
Page 2

Page 12. Traffic Description: The paragraph indicates that Nimitz Highway provides the only access to Keehi SBH and SISRA. It would be more accurate to state that Sand Island Access Road provides the only access to the Small Boat Harbor and the State Recreation Area.

Page 12. Traffic Impacts and Mitigation: The first paragraph indicates that "at least one lane will remain open during working hours". Does this refer to Sand Island Access Road or to the internal roads within the Small Boat Harbor and in the vicinity of the Marine Education and Training Center?

Page 13. Spill Prevention: The fact that the system will require fuel storage and a generator should have been described on page 4, under "Technical Characteristics".

Page 17. Social and Economic Environment: The impact to the recreational users at the Small Boat Harbor and at the Sand Island Boat Ramp has not been addressed. How large will the project area be at the SBH, and at the Marine Education and Training Center/Boat Ramp area? Will the project cause traffic congestion within these areas, or deprive the public of parking, or curtail, in any way, the existing recreational use of these areas?

SEANAMU I. CAFFREY
DIRECTOR



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF BOATING AND OCEAN RECREATION
333 OLUEH STREET, SUITE 300
HONOLULU, HAWAII 96813

MICHAEL E. NELSON
COMMISSIONER
BOARD OF LAND AND NATURAL RESOURCES
DEPUTY DIRECTOR
OLUEH'S COLONNA-GAUMU

December 8, 1998

BOR 0495.99

Mr. Andrew Monden, Chief Engineer
Department of Land and Natural Resources
Land Division
P. O. Box 373
Honolulu, Hawaii 96809

Dear Mr. Monden:

SUBJECT: Draft Environmental Assessment (DEA) for Keelhi Small Boat Harbor
Boating Pump-Out Facility
Honolulu, Oahu, Hawaii

Thank you for your review of the project. The following are responses to comments on the DEA by other Divisions within the Department.

Division of Forestry and Wildlife

- No Comment
- Division of State Parks
- Figure 2 in the Final Environmental Assessment (FEA) will be amended to show the location of the Public Boat Launching Facility.
 - The FEA will be amended to clarify that Sand Island State Recreational Area (SISRA) is also used for other recreational activities, other than the University of Hawaii Marine Education and Training Center (UHMETC) and the Division of Boating and Ocean Recreation (BOR) public boat launching facility.
 - The FEA will be amended to indicate that portions of SISRA are also occupied and managed by the UHMETC and the BOR public boat launching facility.
 - Chapter III.E. of the FEA will be amended to include the following: The solid waste produced from directional drilling (DD) will compose of sediment deposits from upstream sources and bentonite slurry (lubricant during DD.) As the soil is

Mr. Andrew Monden
Page 2
December 8, 1998

BOR 0495.99

removed, it will be placed on an impermeable liner within the project site. The soil will be tested for contamination, then allowed to dry until it has reached acceptable moisture content levels for disposal at an off-site landfill. No contamination is expected to be found in the soil; however, if contaminants are found, specific methods of remediation shall be developed (i.e., bio-remediation and thermo-remediation).

- The FEA will be amended to state that Sand Island Access Road provides the only access to Keelhi SBH and SISRA.
- The FEA will be amended to state that traffic impacts will be localized within the project site and will require no closure of lanes on Nimitz Highway or Sand Island Access Road during construction.
- The "Technical Characteristics" in the FEA will be amended to include information pertaining to the pump station, generator, and fuel storage.
- The "Social and Economic Environment" will be amended to include the impacts of short-term construction in the Keelhi SBH and Public Boat Launching Facility. The staging areas for drilling and receiving stations are approximately 12 feet wide by 60 feet long. Both areas have adequate space for construction and will not block access nor create traffic congestion to the facility. Several parking stalls may be used for storage of drilling equipment.

State Historic Preservation Division

- We appreciate your confirmation that the project site will have "no effect" on historic sites.

Very truly yours,

Howard B. Gehring
Acting Administrator

c: SSFM

BENJAMIN J. CAVETANO
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS DIVISION
79 SOUTH NIMITZ HWY. HONOLULU, HAWAII 96813

September 25, 1998

KAZU HAYASHIDA
DIRECTOR
DEPUTY DIRECTORS
BRIAN K. MURRAY
GLENN H. OCHIMOTO

IN REPLY REFER TO:
HAR-EP
4696.99

TO: HIRAM YOUNG, CIVIL ENGINEER
ENGINEERING BRANCH, LAND DIVISION
DEPARTMENT OF LAND AND NATURAL RESOURCES

FROM: FREDERICK S. NUNES, P.E. *Frederick S. Nunes*
ENGINEERING PROGRAM MANAGER

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT FOR KEEHI SMALL BOAT
HARBOR BOATING PUMP-OUT FACILITY

Thank you for providing the subject document for our review. We have discussed a modification of the proposed wastewater collection system with Manuel Emiliano, Division of Boating and Ocean Recreation and propose to extend the force main to our baseyard, which is adjacent to the proposed comfort station, and share in the cost of the project. It is our understanding that the proposed force main is of sufficient size to accept the additional wastewater. We therefore request that the additional segment of the force main, from the comfort station to our baseyard, be included in the Environmental Assessment and depicted in the figures.

We also suggest that the second and third sentences of the second paragraph on Page 9 be amended to read, "The State Department of Transportation (DOT) Harbors Division prepared the Oahu Commercial Harbors 2020 Master Plan which includes access to the commercial harbor facilities on Sand Island via a tunnel under Kalihii Channel or via a higher bridge. The tunnel proposal is being investigated for its feasibility."

We further suggest that the fourth sentence in item #2, Page 21, be amended to read, "The State DOT plans to replace the existing Sand Island Bridge with a tunnel under Kalihii Channel or with a higher bridge, possibly in another location."

Please call Glenn Soma at 587-2503 if there are any questions.

BENJAMIN J. CAVETANO
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF BOATING AND OCEAN RECREATION
337 QUEEN STREET, SUITE 300
HONOLULU, HAWAII 96813

December 8, 1998

BOR 0496.99

MICHAEL D. NELSON
DEPUTY DIRECTOR
DIVISION OF LAND AND NATURAL RESOURCES

DEPUTY DIRECTOR
GILBERT S. COLMAGLIANO

Mr. Fred S. Nunes, Engineering Program Manager
Department of Transportation
Harbors Division, Planning Section
79 South Nimitz Highway
Honolulu, Hawaii 96813

Dear Mr. Nunes:

SUBJECT: Draft Environmental Assessment (DEA) for Keehi Small Boat Harbor
Boating Pump-Out Facility
Honolulu, Oahu, Hawaii

Thank you for your letter of September 25, 1998, regarding to the above DEA. The Final Environmental Assessment will be amended to extend the gravity sewer system to the Harbors Division Baseyard per agreement between Department of Land and Natural Resources and the Department of Transportation. We also appreciate your suggestions in Chapter II.E.2, and Chapter IV.C.2, regarding the existing Sand Island Bridge. The Final Environmental Assessment will be amended based on your suggestions.

Very truly yours,

Howard B. Gehring
Howard B. Gehring
Acting Administrator

c: SSFM

DEPARTMENT OF FACILITY MAINTENANCE
CITY AND COUNTY OF HONOLULU
60 SOUTH KING STREET, 11TH FLOOR • HONOLULU, HAWAII 96813
Phone: (808) 523-4341 • Fax: (808) 527-6087



JEREMY HARRIS
MAYOR

JONATHAN K. SHIMADA, PhD
DIRECTOR AND CHIEF ENGINEER
HEORIO M. SAOULJAN
DEPUTY DIRECTOR
IN REPLY REFER TO:
PRO 88-188

September 4, 1998

Mr. Cay Murakami
SSFM Engineers, Inc.
501 Sumner Street, Suite 502
Honolulu, Hawaii 96817

Dear Mr. Murakami:

Subject: Draft EA for Keehi Small Boat Harbor Boating-Out Facility

We have no comments. If you have any questions, please call Laverne Higa at 527-6246.

Very Truly Yours,

J. Shimada
Jonathan K. Shimada, PhD
Director and Chief Engineer

LH
cc: Hiram Young, DLNR



BEAUMONT J. CAVITTANO
GOVERNOR

HOWARD B. GEHRING
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY DIRECTOR
CELESTINE S. COLLIARD-JAGAN

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF BOATING AND OCEAN RECREATION
333 QUEEN STREET, SUITE 300
HONOLULU, HAWAII 96813

December 8, 1998

BOR 0497.99

Mr. Jonathan K. Shimada, Director and Chief Engineer
Department of Facility Maintenance
City and County of Honolulu
650 South King Street, 11th Floor
Honolulu, Hawaii 96813

Dear Mr. Shimada:

SUBJECT: Draft Environmental Assessment (DEA) for Keehi Small Boat Harbor
Boating Pump-Out Facility
Honolulu, Oahu, Hawaii

Thank you for your letter of September 4, 1998, regarding the above DEA. We appreciate your review of the project.

Very truly yours,

Howard B. Gehring
Howard B. Gehring
Acting Administrator

cc: SSFM

CITY AND COUNTY OF HONOLULU

DEPARTMENT OF PLANNING AND PERMITTING
810 SOUTH KING STREET, HONOLULU, HAWAII 96813
PHONE (808) 531-4414 • FAX (808) 531-6745



JEREMY HARRIS
MAIL ROOM

JAN WAOE SULLIVAN
DIRECTOR
LORETTA K. CHENE
DEPUTY DIRECTOR

98-06784 (Dr)
Comments Zone 1

October 1, 1998

Mr. Cey Murakami
SSFH Engineers, Inc.
501 Sumner Street, Suite 502
Honolulu, Hawaii 96817

Dear Mr. Murakami:

Draft Environmental Assessment (EA)
Kaehi Small Boat Harbor Pump Out Facility

We have reviewed the above EA and have the following comments:

1. As mentioned in the EA, the project site is within the Special Management Area and will require a major Special Management Area Use Permit (SMP).
2. A current certified shoreline survey for the above properties will be required at the time an SMP application is submitted. If there is a current certified survey for the site, the 40-foot shoreline setback line should be shown on the site plan to be submitted as part of the application. As there is no current certified survey submitted with the EA, we cannot determine whether the project will require a shoreline setback variance.
3. After reviewing our tax map key (tmk) books, we noticed that the tmks provided in your EA (1-2-23 and 1-5-41) does not correspond to the project site. The correct tmk (including the parcel number) should be listed in the final EA.
4. The method of solid waste disposal to be utilized after the project is completed should be included in the final EA.

Mr. Cey Murakami
Page 2
October 1, 1998

5. The distance between the proposal and the nearshore waters should be mentioned in the final EA.
6. Page 13 of the EA states that measures will be taken to prevent runoff from the construction area from reaching the channel and lagoon. The types of measures to be implemented should be discussed in the final EA.
7. Coastal views from surrounding public viewpoints and from the nearest coastal highway across the site to the ocean or to a coastal landform should be discussed in the final EA.
8. The final EA should mention the project site in relation to publicly owned or used beaches, parks and recreation areas.
9. An approved Conditional Use Permit (CUP), Type 1, for joint development of two or more adjacent zoning lots will also be required from this department. The CUP should be mentioned in Section VI, List of Permits Required.
10. The project should be coordinated with the Wastewater Branch of our department. The area bounded by the subject project, Sand Island Access Road and Nimitz Highway, is also not serviced by the municipal sewer system. Our Wastewater Branch has received complaints from the surrounding tenants regarding the sewer problem in this area. We understand the State owns properties in this area. Another alternative should be added to the "Alternatives Considered" in the EA to address the design and construction of a new pump station and force main under Kalia Channel, which will accommodate the entire unsewered area.
11. The project must comply with the flood fringe district standards of Section 7.10 of the Land Use Ordinance.
12. It appears all access points for this project will be from roadways which are under the jurisdiction of the State Department of Transportation. Therefore, our Traffic Review Branch has no objections or comments to offer at this time.

Mr. Cey Murakami
Page 3
October 1, 1998

Thank you for the opportunity to comment. If you have any questions regarding this letter, please call Ms. Dana Teramoto of our staff at 523-4648.

Very truly yours,

JAN WAOE SULLIVAN
Director of Planning
and Permitting

JNS:am

cc: Hiram Young, Department of Land
and Natural Resources

98-06784-03

SHAWN J. CATTANO
SOFISCOPE



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF BOATING AND OCEAN RECREATION
333 QUEEN STREET, SUITE 300
HONOLULU, HAWAII 96813

MICHAEL D. WILSON
Commissioner
BOARD OF LAND AND NATURAL RESOURCES

SENIOR DIRECTOR
GILBERT S. COLMAN-GILMAN

December 8, 1998

BOR 0498.99

Ms. Jan Naoe Sullivan, Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Ms. Sullivan:

SUBJECT: Draft Environmental Assessment (DEA) for Keehi Small Boat Harbor
Boating Pump-Out Facility
Honolulu, Oahu, Hawaii

Thank you for your letter of October 1, 1998, regarding the above DEA. The following are responses to your comments.

- We appreciate the confirmation of the information in the Chapter of the DEA regarding the Special Management Area Use Permit. The wastewater pump station will be sited outside the Shoreline Setback.
- The Final Environmental Assessment will be amended to include the revised Tax Map Keys 1-2-25 and 1-5-41.
- Chapter III.E. of the FEA will be amended to include the following: The solid waste produced from directional drilling (DD) will be composed of sediment deposits from upstream sources and bentonite slurry (lubricant during DD.) As the soil is removed, it will be placed on an impermeable liner within the project site. The soil will be tested for contamination, then allowed to evaporate until it has reached an acceptable moisture content level for disposal at an off-site landfill. No contamination is expected to be found in the soil; however, if contaminants are found, specific methods of remediation shall be developed (i.e., bio-remediation and thermo-remediation).
- The approximate location of the proposed wastewater pump station is shown on the Site Plan. The design phase will determine the exact location of the wastewater pump station.

Ms. Jan Naoe Sullivan
Page 2
December 8, 1998

BOR 0498.99

- The contractor will be required to comply with all provisions of the City's Grading Ordinance. In addition, the contractor will be required to prepare an erosion control plan prior to receiving a grading permit. These measures will be adequate to minimize the impacts of sediment transport into Kaihi Channel.
- Chapter II.A. will be amended to include the location of the public facilities with reference to the project site. There is only one public area located near the project site across the Kaihi Channel, Sand Island State Recreation Area. The coastal views of the site will not be significantly affected by this project. The size of the proposed project is relatively small and will not pose any problems with the scenic views. The nearest public highway to the site is Sand Island Access Road. Large existing fuel storage tanks situated between the road and proposed project presently obstruct the view of the ocean from the road.
- Your determination that a Conditional Use Permit (CUP), Type 1, will be required for the proposed project will be added to Chapter IV of the FEA.
- The accommodation of the entire un-sewered areas is beyond the jurisdiction of the Department of Land and Natural Resources.
- The project design is required to comply with the Flood Fringe district standards of Section 7.10 of the Land Use Ordinance. The FEA will be amended to include this information.

Very truly yours,

Howard B. Gehring
Acting Administrator

c: SSFM

DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY AND COUNTY OF HONOLULU
850 SOUTH KING STREET
HONOLULU HI 96813



JEREMY HARRIS
Mayor

BOHANNAN J. CAVITANO
Assistant



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF BOATING AND OCEAN RECREATION
311 OCEAN STREET, SUITE 300
HONOLULU, HAWAII 96813

MICHAEL D. WALTON
Commissioner
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY DIRECTOR
COLLETT E. COLMAN-ADAMS

September 21, 1998

December 8, 1998

BOR 0499.99

Mr. Cey Murakami
Civil Engineer
SSGM Engineers, Inc.
501 Sumner Street, Suite 502
Honolulu, Hawaii 96817

Mr. Kenneth E. Sprague, Director
Department of Environmental Services
City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, Hawaii 96813

Dear Mr. Murakami:

Subject: Draft Environmental Assessment (DEA)
Keehi Small Boat Harbor Boating Pump-Out Facility
IMK-1-2-23 & 1-5-41

We have reviewed the subject DEA and have no comments to offer at this time.

Should you have any questions, please contact Alex Ho, Environmental Engineer at 523-4150.

Sincerely,

Cheryl K. Ohjima - Segan
KENNETH E. SPRAGUE
Director

cc: DLNR (Hiram Young)

Dear Mr. Sprague:

SUBJECT: Draft Environmental Assessment (DEA) for Keehi Small Boat Harbor Boating Pump-Out Facility
Honolulu, Oahu, Hawaii

Thank you for your letter of September 21, 1998, regarding the above DEA. We appreciate your review of the project.

Very truly yours,

Howard B. Gehring
Howard B. Gehring
Acting Administrator

cc: SSFM

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPOLAHUA BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE (808) 521-3232 • FAX (808) 523-4720



October 2, 1998

TPD9/98-05334R

Mr. Cey Murakami, Civil Engineer
SSFN Engineers, Inc.
501 Sumner Street, Suite 502
Honolulu, Hawaii 96817

Dear Mr. Murakami:

Subject: Keeshi Small Boat Harbor Boating Pump-Out Facility
In response to your September 3, 1998 letter, the draft environmental assessment (EA) for the subject project was reviewed.

The traffic impacts of the project discussed on Page 12 of the draft EA appear to be restricted to those on Nimitz Highway. According to this discussion, it is anticipated that construction of the project will require the closure of lanes on Nimitz Highway. The draft EA should discuss the impact of this closure on adjacent City streets.

Should you have any questions regarding this matter, please contact Faith Miyamoto of the Transportation Planning Division at 527-6976.

Sincerely,
Chey D. Soon
CHERYL D. SOON
Director

cc: Mr. Hiram Young, Department
of Land and Natural Resources

BOATING & CATERING
DIVISION



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF BOATING AND OCEAN RECREATION
333 QUEEN STREET, SUITE 300
HONOLULU, HAWAII 96813

December 8, 1998

BOR 0500.99

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

SUBJECT: Draft Environmental Assessment (DEA) for Keeshi Small Boat Harbor Boating Pump-Out Facility
Honolulu, Oahu, Hawaii

Thank you for your letter of October 2, 1998, regarding the above DEA. The traffic impacts as stated in the DEA were unclear. The Final Environmental Assessment will be amended to state that traffic impacts will be confined to the project site and will require no closure of lanes on Nimitz Highway or Sand Island Access Road during construction.

We appreciate your review of the project.

Very truly yours,
Howard B. Gehring
Howard B. Gehring
Acting Administrator

c: SSFM

MICHAEL D. NELSON
Acting Director
BUREAU OF LAND AND NATURAL RESOURCES

DEPUTY DIRECTOR
CLEMENT S. COLOMAGANAN

PLANNING DEPARTMENT
CITY AND COUNTY OF HONOLULU

630 SOUTH KING STREET, 8TH FLOOR • HONOLULU, HAWAII 96813-2017
PHONE: (808) 527-4533 • FAX: (808) 523-1874



JOSEPH PARRIS
MAYOR

PATRICK T. ONISHI
CHIEF PLANNING OFFICER
DONAL L. MANNING
DEPUTY CHIEF PLANNING OFFICER

3W 9/98-1743

September 15, 1998

Mr. Cey Murakami, Civil Engineer
SSFEM Engineers, Inc.
501 Sumner Street, Suite 502
Honolulu, Hawaii 96817

Dear Mr. Murakami:

Draft Environmental Assessment for
Keehi Small Boat Harbor Boating Pump-Out
Facility, Honolulu, Oahu, Hawaii. TMK: 1-2-23 & 1-5-41

We have reviewed the above-referenced Draft Environmental Assessment (DEA). The proposed project will replace the harbor's existing wastewater collection and disposal system with a new Wastewater Pump Station, Wastewater Collection System, and 825-foot-long Force Main which will pass under Kaihi Channel. The estimated cost of construction is \$481,000.

The proposed project is not considered to be a major public facility. Therefore, this project is not required to be shown on the Development Plan Public Facilities Map for the Primary Urban Center.

The following comments are offered for your consideration in preparing the Final Environmental Assessment (FEA) for this project.

1. Sec. II.A. Description of Existing Project Site, 3rd paragraph, 2nd sentence, pg. 6:
The FEA should clarify that although there are no residential land use areas near the proposed project site, Section 200-9(b), HRS, provides that up to 35 of the berths at Keehi boat harbor may be occupied by vessels used for purposes of recreational boating activities which are also the principle habitation of their owners.
2. Sec. III.L.c. Solid Waste Disposal, pg. 18: The FEA should correct the agency name as follows: "Department of Environmental Services, Refuse Collection and Disposal Division."

Mr. Cey Murakami, Civil Engineer
SSFEM Engineers, Inc.
September 15, 1998
Page 2

3. Sec. IV.B. Delayed Action, pg. 20: This section notes that delay of the proposed action would continue to cost the State approximately \$9,000 per year for the bi-weekly disposal of collected wastewater. However, even allowing for periodic increases in disposal costs, the estimated construction cost of \$481,000 would equate to at least 40 years of continuing disposal costs. It may be prudent for the FEA to consider two additional possibilities:

(a) If a vehicular tunnel is constructed below Kaihi Channel, the force main could be constructed as part of that project, which could have the effect of reducing project costs due to elimination of a separate directional drilling effort. The FEA should consider delaying the project until such time a decision is made as to whether the vehicular tunnel will be provided and, if the tunnel is provided, what, if any, cost savings may be anticipated.

(b) The DEA notes the City-owned force main to the Sand Island WWTP does not have sufficient capacity to accommodate the harbor flows. The FEA should examine the possibility that efforts will be made to increase or upgrade the capacity of the City-owned system, and, if such efforts are anticipated, should consider delaying the project until such time that sufficient capacity can be made available to accommodate the harbor flows.

4. Sec. IV.C.2. Force Main Along Bascule Bridge, pg. 21: The DEA notes that routing the force main along the bascule bridge is not recommended because the State has plans to either make the bridge operable again or to remove the bridge and construct a vehicular tunnel below Kaihi Channel. However, on page 6 (Sec. II.A, 2nd paragraph, 4th sentence) the DEA notes that a second fixed bridge was constructed adjacent to the bascule bridge in 1989. The FEA should address the State's future plans for the fixed bridge and the possibility of routing the force main along the fixed bridge.

If you should have any questions or concerns regarding these comments, please do not hesitate to contact Gordon Wood of the Planning Department staff at 527-6073.

Yours very truly,

PATRICK T. ONISHI
Chief Planning Officer

PTO:lh

c: Hiram Young, DLNR

BENJAMIN J. CAYETANO
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF BOATING AND OCEAN RECREATION
333 QUEEN STREET, SUITE 300
HONOLULU, HAWAII 96813

December 8, 1998

MICHAEL D. WILSON
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY DIRECTOR
GILBERT S. COLOMA-AGARAN

BOR 0501.99

Mr. Patrick T. Onishi, Chief Planning Officer
Planning Department
City and County of Honolulu
650 South King Street, 8th Floor
Honolulu, Hawaii 96813-3017

Dear Mr. Onishi:

SUBJECT: Draft Environmental Assessment (DEA) for Keehi Small Boat Harbor
Boating Pump-Out Facility
Honolulu, Oahu, Hawaii

Thank you for your letter of September 15, 1998, regarding the above DEA. The Final Environmental Assessment (FEA) will be amended to include the residential use of the berths at Keehi Small Boat Harbor (KSBH). We also appreciate the confirmation in Chapter III.J.1.c. of the DEA regarding the correction of the agency name.

Although a delayed action to the proposed project will cost the State only \$9,000 a year, there may be more detrimental effects to the environment from the existing cesspools. The vehicular tunnel under Kalihi Channel is being studied for its feasibility by the Department of Transportation (DOT), Harbors Division. The City owned force main is currently at capacity and has plans to be upgraded along with the Hart Street Wastewater Pump Station by FY2004. However, there are no immediate plans to upgrade the City's gravity sewer system off Auiki Street, the earliest to take place in 6 years. Delaying the project until either of these options become available may result in environmental degradation of KSBH.

The FEA will be amended to refer to the DOT plans of either building a higher bridge or a vehicular tunnel under the existing channel. Either option that the DOT decides to follow will result in the demolition of the existing two bridges. The feasibility of routing the force main along the fixed bridge was considered and rejected for this reason.

Very truly yours,

A handwritten signature in black ink, appearing to read "Howard B. Gehring".

Howard B. Gehring
Acting Administrator

c: SSFM

**AIRPORT
GROUP International**

UTILIZED WITH LOCKHEED MARTIN CORPORATION'S COMMONS CAPITAL, L.P.

October 2, 1998

Mr. Cey Murakami
SSFEM Engineers, Inc.
501 Summer Street, Suite 502
Honolulu, Hawaii 96817

Subject: Draft Environmental Assessment for
Keehi Small Boat Harbor Boating Pump-Out Facility
Honolulu, Oahu, Hawaii (TMK: 1-2-23 & 1-5-41)

Dear Mr. Murakami,

We have reviewed the Draft Environmental Assessment for the proposed project as you requested. Our comments are at Enclosure 1 for your disposition.

If we can be of any further service, please call me at 836-1381.

Sincerely,

Ronald W. Barringer

Ronald W. Barringer
Manager
Environmental, Safety & Health
Quality Assurance

Enclosure

cc: J. Richardson

**Comments to
Draft Environmental
Assessment**

1. Page 19 (sub paragraph J1d - Fuel Lines):
With reference to the "other" 12" fuel line. It belongs to Tesoro (formerly BHP, formerly HIRI). Line is currently inactive.
2. Figure 2:
 - a. Need to know exact location of proposed directional drilling to insure that such activity will not inadvertently damage existing live fuel lines which cross the Kalihi Channel in the vicinity of the northern section of the Marine Education Training Center. Theoretically, these lines should be far enough away so as not to be affected by any drilling activity in the south.
 - b. The vertical line between the words "Future Comfort Station" and "Bulk Fuel Storage" is misleading. The area within which the words "Future Comfort Station" is printed and the section to the right entitled "Bulk Fuel Storage" is one area which we identify as Lot 2. The other "Bulk Fuel Storage" area is identified as Lot 3.
 - c. For security reasons, we request that the "Future Comfort Station" be built a minimum of 4 feet away from the Lot 2 containment wall
3. Request that we be notified when the directional drilling will be initiated and that we be granted permission to observe the activity on a periodic basis. Please call Ron Barringer at 836-1381.

BENJAMIN J. CAYETANO
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF BOATING AND OCEAN RECREATION
333 QUEEN STREET, SUITE 300
HONOLULU, HAWAII 96813

MICHAEL D. WILSON
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY DIRECTOR
GILBERT S. COLOMA-AGARAN

December 8, 1998

BOR 0503.99

Mr. Ronald W. Barringer, Manager
Airport Group International
Honolulu International Airport
200 Rodgers Blvd.
Honolulu, Hawaii 96819

Dear Mr. Barringer:

SUBJECT: Draft Environmental Assessment (DEA) for Keehi Small Boat Harbor
Boating Pump-Out Facility
Honolulu, Oahu, Hawaii

Thank you for your letter of October 2, 1998, regarding the above DEA. We appreciate the confirmation of the information in Chapter II.J.1.d of the DEA regarding existing utility lines within Kalihi Channel. Figure 2 of the Final Environmental Assessment will be amended to show an approximate location of the force main and the revised labeling of the fuel facilities. The exact location of the force main will be determined during the design phase of the project. We will notify Airport Group International during the design phase for comment and review of the construction plans.

Observation of the construction of the future comfort station and the directional drilling should be coordinated with the State Department of Land and Natural Resources, Division of Boating and Ocean Recreation.

Very truly yours

A handwritten signature in cursive script, appearing to read "Howard B. Gehring".
Howard B. Gehring
Acting Administrator

c: SSFM

The Nature Conservancy
of Hawaii
1116 Smith Street
Honolulu, Hawaii 96817
Phone (808) 537-4308
Facsimile (808) 543-2019

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The Nature Conservancy
International
Headquarters
1115 North Lynn Street
Arlington, Virginia 22204
http://www.tnc.org



October 13, 1998

Coy Murakami
SSFM Engineers, Inc.
501 Summer Street Suite 502
Honolulu, Hawaii 96817

RE: Draft Environmental Assessment for the Keehi Small Boat Harbor Boating Pump-Out Facility

Dear Mr. Murakami,

According to the Hawaii Natural Heritage Program / Rare Species Database, there have been no recordings of rare or endangered species/ecosystems in your project area. According to the Hawaii Stream Assessment, Nuuanu Stream which flows into your project area is ranked as "limited" (presence of at least one common native species). There are many alien species in the stream but also includes some common native species such as *Atyoida bisulcata*, *Macrobrachium grandimanus*, *Eleotris sandwicensis*, and *Stenogobius genivittatus*.

If you have any further questions, you may contact me at 537-4308. Thank you.

Sincerely,

Roy Kam
Database Coordinator
Hawaii Natural Heritage Program

cc: Mr. Hiram Young
Engineering Branch, Land Division
Department of Land and Natural Resources



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF BOATING AND OCEAN RECREATION
333 OLEA STREET, SUITE 300
HONOLULU, HAWAII 96813

December 8, 1998

BOR 0502.99

Mr. Roy Kam, Database Coordinator
The Nature Conservancy of Hawaii
1116 Smith Street
Honolulu, Hawaii 96817

Dear Mr. Kam:

SUBJECT: Draft Environmental Assessment (DEA) for Keehi Small Boat Harbor Boating Pump-Out Facility
Honolulu, Oahu, Hawaii

Thank you for your letter of October 13, 1998, regarding the above DEA. Your comments indicate several endemic and indigenous species within Nuuanu Stream. The project site is located well beyond Nuuanu Stream in a marine environment and does not pose a threat to these species. However, precautions will be taken to prevent the release of any pollutants into open waters during and after construction.

Very truly yours

Howard B. Gehring
Acting Administrator

cc: SSFM

MICHAEL D. NELSON
Commissioner
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