January 10, 2001

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

Dear Ms. Salmonson:

Subject: Sand Island Parkway Wastewater Pump Station Modifications, TMK 1-5-41:5, Honolulu, Oahu, Hawaii; Final Environmental Assessment (EA) and Finding of No Significant Impact (FONSI)

The Department of Design and Construction of the City and County of Honolulu has reviewed the comments received during the 30-day public comment period that began on July 8, 2000. The agency has determined that this project will not have significant environmental effects and issues this Finding of No Significant Impact (FONSI). Please publish this notice in the January 23, 2001 OEQC Environmental Notice.

We have enclosed a completed OEQC Publication Form and four copies of the Final Environmental Assessment. Should you have any questions, please contact Robert Miyasaki with our Wastewater Design and Engineering Division at 527-5159.

Very truly yours,

RAE M. LOUI, P.E.
Acting Director

Attachments
SAND ISLAND PARKWAY
WASTEWATER PUMP STATION MODIFICATIONS
HONOLULU, OAHU, HAWAII
TMK: 1-5-41:5

FINAL ENVIRONMENTAL ASSESSMENT

Proposing Agency: Department of Design and Construction
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Responsible Official: Rae M. Lour, PE
Acting Director

JANUARY 2001
TABLE OF CONTENTS
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>SECTION</th>
<th>TITLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>INTRODUCTION</td>
<td>1-1</td>
</tr>
<tr>
<td>1.1</td>
<td>INTRODUCTION</td>
<td>1-1</td>
</tr>
<tr>
<td>1.2</td>
<td>PROPOSING AND APPROVING AGENCY</td>
<td>1-1</td>
</tr>
<tr>
<td>1.3</td>
<td>RELATIONSHIP TO OTHER PROJECTS</td>
<td>1-2</td>
</tr>
<tr>
<td>2</td>
<td>DESCRIPTION OF THE PROPOSED PROJECT</td>
<td>2-1</td>
</tr>
<tr>
<td>2.1</td>
<td>BACKGROUND AND EXISTING CONDITIONS</td>
<td>2-1</td>
</tr>
<tr>
<td>2.1.1</td>
<td>Existing Conditions at the Sand Island Parkway WWPS</td>
<td>2-1</td>
</tr>
<tr>
<td>2.1.2</td>
<td>Original Design Criteria</td>
<td>2-10</td>
</tr>
<tr>
<td>2.2</td>
<td>PROPOSED MODIFICATIONS</td>
<td>2-11</td>
</tr>
<tr>
<td>2.2.1</td>
<td>Design Criteria for Proposed Project</td>
<td>2-11</td>
</tr>
<tr>
<td>2.3</td>
<td>OTHER MODIFICATIONS</td>
<td>2-15</td>
</tr>
<tr>
<td>2.4</td>
<td>PROJECT FUNDING</td>
<td>2-15</td>
</tr>
<tr>
<td>2.5</td>
<td>PROJECT SCHEDULE</td>
<td>2-15</td>
</tr>
<tr>
<td>2.6</td>
<td>REQUIRED PERMITS AND APPROVALS REQUIRED</td>
<td>2-15</td>
</tr>
<tr>
<td>2.6.1</td>
<td>General</td>
<td>2-15</td>
</tr>
<tr>
<td>2.6.2</td>
<td>Special Management Area (SMA) Permit</td>
<td>2-16</td>
</tr>
<tr>
<td>2.6.3</td>
<td>Air Quality Permit</td>
<td>2-16</td>
</tr>
<tr>
<td>3</td>
<td>ENVIRONMENTAL SETTING</td>
<td>3-1</td>
</tr>
<tr>
<td>3.1</td>
<td>PHYSICAL ENVIRONMENT</td>
<td>3-1</td>
</tr>
<tr>
<td>3.1.1</td>
<td>Location and Topography</td>
<td>3-1</td>
</tr>
<tr>
<td>3.1.2</td>
<td>Geology and Soils</td>
<td>3-1</td>
</tr>
<tr>
<td>3.1.3</td>
<td>Ground Water</td>
<td>3-1</td>
</tr>
<tr>
<td>3.1.4</td>
<td>Climate</td>
<td>3-1</td>
</tr>
<tr>
<td>3.1.5</td>
<td>Flood Hazard</td>
<td>3-2</td>
</tr>
<tr>
<td>3.1.6</td>
<td>Water Quality</td>
<td>3-2</td>
</tr>
<tr>
<td>3.1.7</td>
<td>Air Quality</td>
<td>3-2</td>
</tr>
<tr>
<td>3.1.8</td>
<td>Noise</td>
<td>3-2</td>
</tr>
<tr>
<td>3.1.9</td>
<td>Underground Storage Tanks</td>
<td>3-3</td>
</tr>
<tr>
<td>3.2</td>
<td>BIOLOGICAL ENVIRONMENT</td>
<td>3-3</td>
</tr>
<tr>
<td>3.2.1</td>
<td>Flora and Fauna</td>
<td>3-3</td>
</tr>
<tr>
<td>3.2.2</td>
<td>Wetlands</td>
<td>3-3</td>
</tr>
</tbody>
</table>
### TABLE OF CONTENTS (Continued)

<table>
<thead>
<tr>
<th>SECTION</th>
<th>TITLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.3</td>
<td>SOCIAL/CULTURAL ENVIRONMENT</td>
<td>3 - 3</td>
</tr>
<tr>
<td>3.3.1</td>
<td>Land Ownership and Land Use</td>
<td>3 - 4</td>
</tr>
<tr>
<td>3.3.2</td>
<td>State Land Use</td>
<td>3 - 4</td>
</tr>
<tr>
<td>3.3.3</td>
<td>City Land Use</td>
<td>3 - 4</td>
</tr>
<tr>
<td>3.3.4</td>
<td>Special Designations</td>
<td>3 - 4</td>
</tr>
<tr>
<td>3.3.5</td>
<td>Archaeology and Historical Sites</td>
<td>3 - 4</td>
</tr>
<tr>
<td>4</td>
<td>SUMMARY OF IMPACTS AND MITIGATION MEASURES</td>
<td>4 - 1</td>
</tr>
<tr>
<td>4.1</td>
<td>GENERAL</td>
<td>4 - 1</td>
</tr>
<tr>
<td>4.2</td>
<td>PHYSICAL ENVIRONMENT</td>
<td>4 - 1</td>
</tr>
<tr>
<td>4.2.1</td>
<td>Land Alteration and Aesthetics Impacts</td>
<td>4 - 1</td>
</tr>
<tr>
<td>4.2.2</td>
<td>Flood Hazard Impacts</td>
<td>4 - 1</td>
</tr>
<tr>
<td>4.2.3</td>
<td>Groundwater Quality Impacts</td>
<td>4 - 1</td>
</tr>
<tr>
<td>4.2.4</td>
<td>Water Quality Impacts</td>
<td>4 - 2</td>
</tr>
<tr>
<td>4.2.5</td>
<td>Air Quality Impacts</td>
<td>4 - 2</td>
</tr>
<tr>
<td>4.2.6</td>
<td>Wastewater Odors</td>
<td>4 - 2</td>
</tr>
<tr>
<td>4.2.7</td>
<td>Noise Quality Impacts</td>
<td>4 - 3</td>
</tr>
<tr>
<td>4.2.8</td>
<td>Traffic Impacts</td>
<td>4 - 3</td>
</tr>
<tr>
<td>4.2.9</td>
<td>Impact on Public Utilities</td>
<td>4 - 4</td>
</tr>
<tr>
<td>4.3</td>
<td>BIOLOGICAL ENVIRONMENT</td>
<td>4 - 4</td>
</tr>
<tr>
<td>4.3.1</td>
<td>Flora and Fauna Impacts</td>
<td>4 - 4</td>
</tr>
<tr>
<td>4.3.2</td>
<td>Impact on Wetlands</td>
<td>4 - 4</td>
</tr>
<tr>
<td>4.3.3</td>
<td>Archaeological Impacts</td>
<td>4 - 4</td>
</tr>
<tr>
<td>4.4</td>
<td>SOCIO-ECONOMIC IMPACTS</td>
<td>4 - 5</td>
</tr>
<tr>
<td>4.5</td>
<td>ENVIRONMENTAL PROTECTION MEASURES/MITIGATION DURING CONSTRUCTION</td>
<td>4 - 5</td>
</tr>
<tr>
<td>4.5.1</td>
<td>Land Resources</td>
<td>4 - 5</td>
</tr>
<tr>
<td>4.5.2</td>
<td>Oily Substances</td>
<td>4 - 5</td>
</tr>
<tr>
<td>4.5.3</td>
<td>Dust Control</td>
<td>4 - 5</td>
</tr>
<tr>
<td>4.5.4</td>
<td>Disposal of Solid, Chemical and Sanitary Waste</td>
<td>4 - 6</td>
</tr>
<tr>
<td>4.5.5</td>
<td>Noise Quality</td>
<td>4 - 6</td>
</tr>
<tr>
<td>4.5.6</td>
<td>Air Quality</td>
<td>4 - 6</td>
</tr>
<tr>
<td>4.5.7</td>
<td>Standard Specifications for Construction</td>
<td>4 - 6</td>
</tr>
<tr>
<td>5</td>
<td>ALTERNATIVES CONSIDERED</td>
<td>5 - 1</td>
</tr>
<tr>
<td>5.1</td>
<td>ALTERNATIVE ONE - &quot;NO ACTION&quot;</td>
<td>5 - 1</td>
</tr>
<tr>
<td>5.2</td>
<td>ALTERNATIVE TWO - REPLACE PUMPS AND EMERGENCY GENERATOR ONLY</td>
<td>5 - 2</td>
</tr>
<tr>
<td>5.3</td>
<td>ALTERNATIVE THREE - MODIFY FORCE MAIN ONLY</td>
<td>5 - 2</td>
</tr>
<tr>
<td>SECTION</td>
<td>TITLE</td>
<td>PAGE</td>
</tr>
<tr>
<td>---------</td>
<td>-----------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>6</td>
<td>DETERMINATION</td>
<td>6 - 1</td>
</tr>
<tr>
<td>6.1</td>
<td>NOTICE OF FINDING OF NO SIGNIFICANT IMPACT (FONSI)</td>
<td>6 - 1</td>
</tr>
<tr>
<td>6.2</td>
<td>SIGNIFICANCE CRITERIA</td>
<td>6 - 1</td>
</tr>
<tr>
<td>6.2.1</td>
<td>Involves an Irrevocable Commitment to Loss or Destruction of Any Natural or Cultural Resources</td>
<td>6 - 1</td>
</tr>
<tr>
<td>6.2.2</td>
<td>Curtails the Range of Beneficial Uses of the Environment</td>
<td>6 - 1</td>
</tr>
<tr>
<td>6.2.3</td>
<td>Conflicts With the State's Long-Term Environmental Policies or Goals and Guidelines as Expressed in Chapter 344, HRS; and Any Revisions Thereto and Amendments Thereto, Court Decisions, or Executive Orders</td>
<td>6 - 2</td>
</tr>
<tr>
<td>6.2.4</td>
<td>Substantially Affects the Economic or Social Welfare of the Community or State</td>
<td>6 - 2</td>
</tr>
<tr>
<td>6.2.5</td>
<td>Substantially Affects Public Health</td>
<td>6 - 2</td>
</tr>
<tr>
<td>6.2.6</td>
<td>Involves Substantial Secondary Impacts, Such as Population Changes or Effects on Public Facilities</td>
<td>6 - 2</td>
</tr>
<tr>
<td>6.2.7</td>
<td>Involves a Substantial Degradation of Environmental Quality</td>
<td>6 - 3</td>
</tr>
<tr>
<td>6.2.8</td>
<td>Is Individually Limited But Cumulatively Has Considerable Effect on the Environment, or Involves a Commitment for Larger Actions</td>
<td>6 - 3</td>
</tr>
<tr>
<td>6.2.9</td>
<td>Substantially Affects a Rare, Threatened or Endangered Species or Its Habitat</td>
<td>6 - 3</td>
</tr>
<tr>
<td>6.2.10</td>
<td>Detrimentally Affects Air or Water Quality or Ambient Noise Levels</td>
<td>6 - 3</td>
</tr>
<tr>
<td>6.2.11</td>
<td>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</td>
<td>6 - 4</td>
</tr>
<tr>
<td>6.2.12</td>
<td>Substantially Affects Scenic Vistas and View Planes</td>
<td>6 - 4</td>
</tr>
<tr>
<td>6.2.13</td>
<td>Requires Substantial Energy Consumption</td>
<td>6 - 4</td>
</tr>
<tr>
<td>7</td>
<td>PERSONS AND AGENCIES CONTACTED</td>
<td>7 - 1</td>
</tr>
<tr>
<td>SECTION</td>
<td>TITLE</td>
<td>PAGE</td>
</tr>
<tr>
<td>----------</td>
<td>--------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>APPENDIX A</td>
<td>CORRESPONDENCE DURING PRE-ASSESSMENT PERIOD</td>
<td></td>
</tr>
<tr>
<td>APPENDIX B</td>
<td>CORRESPONDENCE DURING THE 30-DAY COMMENT PERIOD</td>
<td></td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>FIGURE</th>
<th>TITLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-1</td>
<td>PROJECT LOCATION MAP</td>
<td>2</td>
</tr>
<tr>
<td>2-2</td>
<td>SAND ISLAND LAND USE MAP</td>
<td>2</td>
</tr>
<tr>
<td>2-3</td>
<td>SAND ISLAND PARKWAY WWPS EXISTING SITE PLAN</td>
<td>2</td>
</tr>
<tr>
<td>2-4</td>
<td>GROUND FLOOR EXISTING PLAN</td>
<td>2</td>
</tr>
<tr>
<td>2-5</td>
<td>INTERMEDIATE FLOOR EXISTING PLAN</td>
<td>2</td>
</tr>
<tr>
<td>2-6</td>
<td>PUMP ROOM FLOOR EXISTING PLAN</td>
<td>2</td>
</tr>
<tr>
<td>2-7</td>
<td>EXISTING SECTIONAL VIEW OF WWPS</td>
<td>2</td>
</tr>
<tr>
<td>2-8</td>
<td>ROUTING OF PROPOSED FORCE MAIN</td>
<td>2-13</td>
</tr>
<tr>
<td>2-9</td>
<td>SAND ISLAND SEWER MANHOLE LOCATIONS</td>
<td>2-14</td>
</tr>
</tbody>
</table>
SECTION 1

INTRODUCTION
SECTION 1
INTRODUCTION

1.1 INTRODUCTION

The purpose of this project is to replace the pumps, emergency generator and discharge force main at the Sand Island Parkway Wastewater Pump Station (WWPS). The pump station is owned and operated by the City and County of Honolulu. It is located within the Sand Island Wastewater Treatment Plant (WWTP) site. The Sand Island Parkway WWPS currently pumps wastewater generated from the adjacent Sand Island industrial areas and from the Sand Island Recreational Park to the Sand Island WWTP for treatment.

The pumps are being replaced for two main reasons. First, the future (year 2020) wet weather peak flows are projected to be greater than the capacity of the existing pumps. Second, a separate project to modify the headworks at the Sand Island WWTP will increase the discharge head required by the pumps at the Sand Island WWPS. The capacity of the emergency generator also needs to be increased to operate two of the large pumps during times of peak wet weather flows during power outages.

The existing discharge force main is 12" diameter ductile iron and approximately 760 feet long. It currently discharges into the Hart Street Junction Box, which, in turn, discharges into the existing headworks of the Sand Island WWTP. As part of a separate project to upgrade the headworks, a large portion of the discharge force main must be rerouted and, therefore, replaced. As part of this pump station modification project, the remaining portion of the force main, approximately 280 feet, will be rerouted and replaced. The resulting new force main from the Sand Island Parkway WWPS to the new headworks at the Sand Island WWTP will be approximately 620 feet long.

This project will be financed by the City's Capital Improvement Program funds, which triggers the state's environmental review law. This Environmental Assessment for the Sand Island Parkway Wastewater Pump Station Modifications is prepared in accordance with Chapter 343 HRS and Title 11, chapter 200 HAR.

1.2 PROPOSING AND APPROVING AGENCY

The proposing and approving agency for the Sand Island Parkway WWPS Modifications project is the City and County of Honolulu, Department of Design and Construction (DDC).
1.3 RELATIONSHIP TO OTHER PROJECTS

This Final Environmental Assessment supplements the *East Mamala Bay Final Wastewater Facilities Plan Final Environmental Impact Statement* (Belt Collins Hawaii, December 1993) which discussed overall upgrades and improvement projects at Sand Island WWTP. The modifications to the Sand Island WWPS were mentioned, but not discussed in detail. Other current capital improvement projects discussed in the East Mamala Bay EIS include the Sand Island WWTP Effluent Disinfection Facility, Sand Island WWTP Interim Chemical Treatment Facility Modifications, and the Sand Island WWTP Plant Expansion.
SECTION 2
DESCRIPTION OF THE PROPOSED PROJECT
SECTION 2  
DESCRIPTION OF THE PROPOSED PROJECT

2.1  BACKGROUND AND EXISTING CONDITIONS

The existing Sand Island Parkway Wastewater Pump Station (WWPS) is located in the northwest corner of the Sand Island Wastewater Treatment Plant (WWTP), at 1350 Sand Island Parkway (TMK: 1-5-41:5). Figure 2-1 shows the general project location on Sand Island. Figure 2-2 shows the land uses on Sand Island, including the Sand Island Wastewater Treatment Plant (WWTP). The pump station’s service area is the entire Sand Island area, which is shown in Figure 2-2. Wastewater collected from the service area is pumped to the headworks of the Sand Island WWTP for treatment. The WWPS is nearly 20 years old and some equipment therein is nearing the end of its design life. Due to the age of the collection system, the wet weather flows to the pump station are expected to increase. The East Molama Bay Facility Plan Environmental Impact Statement (Belt Collins Hawaii, December, 1993) recommended a number of modifications to the pump station. The recommended modifications are intended to maintain the reliability of the wastewater collection system for the tributary area of Sand Island through the design year of 2020.

2.1.1  Existing Conditions at the Sand Island Parkway WWPS

The pump station was placed into service in 1981. It is constructed of cast-in-place concrete below grade with concrete masonry unit (CMU) in-fill walls above grade. All major equipment appears to be original. Figure 2-3 shows the existing site plan at the Sand Island Parkway WWPS. The pump station has three levels. Figures 2-4, 2-5, 2-6, show plans of the existing ground floor level, intermediate floor level and pump room level, respectively. Figure 2-7 shows a sectional view through the pump station.

On the ground floor are the three existing 15 horsepower (hp) motors that drive the pumps, the existing Motor Control Center (MCC), electrical switchgear, and a 60 kW conventional piston, diesel engine powered generator. The emergency generator is activated during power failures by an automatic transfer switch. It is sized to run two of the existing pumps at current design peak flow, as well as the station’s lighting and ventilation. The manhole leading down into the wet well is located outside the pump station at ground level on the north side of the building. Just below ground level are the existing Venturi meter pit where measurement of the pump station discharge takes place, and a 1,000 gallon capacity underground diesel fuel tank that supplies the emergency generator.
FIGURE 2-3  SAND ISLAND PARKWAY WWPS E.
SCALE: NOT TO SCALE
FIGURE 2-4 GROUND FLOOR EXISTING PLAN
SCALE: NOT TO SCALE
FIGURE 2-5 INTERMEDIATE FLOOR EXISTING PLAN
SCALE: NOT TO SCALE
FIGURE 2-6 PUMP ROOM FLOOR EXISTING
SCALE: NOT TO SCALE
CORRECTION

THE PRECEDING DOCUMENT(S) HAS BEEN REPHOTOGRAPHED TO ASSURE LEGIBILITY
SEE FRAME(S) IMMEDIATELY FOLLOWING
FIGURE 2-7 EXISTING SECTIONAL VIEW

SCALE: NOT TO SCALE.
The intermediate floor of the pump station houses the 10 inch diameter discharge pipe to the Venturi meter pit and the existing in-line centrifugal exhaust fan. The existing exhaust system removes air from the pump room and discharges it above roof level. Running from the ceiling to the floor of the intermediate floor are the gate valve stems and the pump drive shafts which are protected by a metal mesh cage.

The three existing pumps and associated valving are located at the lowest level of the pump station. The pumps are constant speed, extended shaft pumps, each is rated for 1.15 mgd at 42 ft Total Dynamic Head (TDH). Under current normal operations, only one pump is required for two to three hours every day. Reduced voltage starters are provided for all pump motors.

Adjacent to the pump room is the wet well. The influent wastewater flows into the wet well through an 18-inch diameter vitrified clay gravity sewer line. The wet well is divided into two separate compartments by a concrete partition to allow for maintenance and flexibility of operation. The lowest points in the interior of the pump station are the three 6-inch depressed slabs at the suction intakes. The low level alarm is at elevation of (-)11.0 ft and the high level alarm is at elevation of (-)7.00 ft.

The wastewater from the WWPS is currently discharged to the Hart Street junction box located at the Sand Island WWTP site via a 760-ft, 12-inch diameter ductile iron force main. The water surface level in the Hart Street junction box varies between approximately 18 and 22 feet above mean sea level. Under current normal conditions, only one pump runs for a few hours per day. Under peak conditions two pumps run together. The pump station handles a daily flow of approximately 150,000 gallons.

The pump station is well maintained and clean. The WWPS reinforced concrete and concrete masonry infill structure appears to be sound, despite a few small cracks. Review of the maintenance logs and interviews with personnel disclosed that the pump station and equipment are being operated effectively and efficiently.

One problem for the operators is clogging of pumps. The wet well is not equipped with a screening device or comminutor. Unclogging of the pumps must be performed periodically, despite enclosed, non-clog type impellers.

Power for the WWPS is provided from an existing load center at the Flotation Clarifier Building at the Sand Island WWTP. Power to this load center is provided by Hawaiian Electric Company (HECO). All electrical equipment appear to be working efficiently. The newest addition to the pump station was a strip chart recorder for flow through the pump station.

Data collected at the pump station are sent to the Supervisory Control and Data Acquisition (SCADA) Room, located in the Main Control Building of the Sand Island WWTP. The
connection is via conventional phone lines. The pump station activities, i.e. wet well level, pump flow rates, and discharge pressures, are recorded and can be graphically displayed throughout the telemetry system. Alarm situations are also displayed on the system to alert operators of power loss, pump malfunctions, and abnormal wet well levels. This monitoring system allows for quick emergency responses to such alarm situations, in order to prevent overflows and damage to the equipment.

2.1.2 Original Design Criteria

The original design criteria for Sand Island Parkway WWPS were obtained from the “Sand Island Parkway Increment II, Phase I and Sewage Pump Station” as-built plans, dated November 1981. This information is included herein as part of the description of the existing conditions at the Sand Island Parkway WWPS.

A. Design Flow (Initial)
   Avg. = 0.444 MGD = 100 GPM
   Max. = 0.655 MGD = 455 GPM
   Peak = 0.886 MGD = 615 GPM

Design Flow (Ultimate)
   Ave. = 0.714 MGD = 490 GPM
   Max. = 2.320 MGD = 1,610 GPM
   Peak = 2.830 MGD = 1,960 GPM

B. Pump Capacities
   Initial Flow (1980): One Pump 1,000 GPM @ 44 ft
   Shut Off Head: 69 ft
   Future Flow (2000): Two Pump 1,960 GPM @ 42 ft

C. Force Main
   760 Lf Single Line 12" Diameter

D. Existing 60 kW Generator

The existing emergency generator is operated by a conventional piston diesel engine. It is sized to provide electricity to run two of the existing pump motors, station lighting, and station ventilation. The generator is activated by an automatic transfer switch when there is a loss of normal electrical power to the pump station.

There is an underground diesel fuel tank with a 1,000 gallon capacity located near the WWPS that feeds the generator. The fuel tank was retrofitted in 1998 with a leak detection system to bring into compliance with current requirements for underground fuel storage tanks.
2.2 PROPOSED MODIFICATIONS

The purpose of this project is to increase the pump station’s capacity to accommodate the projected year 2020 wet weather wastewater flows and to accommodate the increase in discharge head resulting from the modifications to the headworks at the Sand Island WWTP. The modifications to the Sand Island WWTP headworks is part of the overall upgrade to the WWTP.

The proposed modifications at the Sand Island Parkway WWPS include:

- replacing the three (3) existing 15 horsepower 1.15 mgd capacity pumps with 20 horsepower 2.02 mgd capacity pumps;
- replacing the existing force main to convey the wastewater to the new headworks structure (new force main will be 14 inches in diameter and will be approximately 620 feet in length); and,
- replacing the existing 60 kW emergency generator with a 90 kW model.

No structural modifications to the pump station or wet well are necessary to accommodate these improvements.

2.2.1 Design Criteria for Proposed Project

The present design criteria are based on estimated future year 2020 flows and discharge head modifications due to the proposed improvements to the Sand Island WWTP headworks structure. The design flow rates were derived based on factors such as existing and planned land use in the service area, the condition of the existing wastewater collection system, estimated populations and estimates of wastewater volumes generated by particular types of land use or population in the Sand Island Parkway WWPS service area. The design discharge head for pumps is based on existing conditions at the pump station and on the proposed discharge point, both elevation and location, at the new headworks structure at the Sand Island WWTP.

A. Design Flows


<table>
<thead>
<tr>
<th>Design Flows</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Design Average Flow</td>
<td>0.93 MGD</td>
</tr>
<tr>
<td>Design Maximum Flow</td>
<td>2.28 MGD</td>
</tr>
<tr>
<td>Design Peak Flow</td>
<td>2.92 MGD</td>
</tr>
</tbody>
</table>
B. Pump Capacities

The pumps are sized so that the future year 2020 design peak flow can be pumped by two pumps operating in parallel. This allows a third pump of equal capacity to act as a standby unit.

C. Force Main

Analyses were conducted in order to determine the adequacy of the existing force main to handle the future design peak flow from the pump station. It was determined that a 14" diameter force main would be the best choice for the new force main. As part of a separate project to upgrade the headworks at the Sand Island WWTP, a large portion of the discharge force main must be rerouted and, therefore, replaced. As part of this pump station modification project, the remaining portion of the force main, approximately 280 feet, will be rerouted and replaced. The resulting new force main from the Sand Island Parkway WWPS to the new headworks at the Sand Island WWTP will be approximately 620 feet long. Figure 2-8 shows the proposed routing of the modified force main.

The new force main may be constructed of ductile iron, PVC, or high density polyethylene (HDPE). There are indications that the soils at the Sand Island WWTP site are corrosive to ductile iron pipe. Selection of the force main material will be done during detailed design. Specific soils condition, alignment and costs will be taken into account when making the final selection of the force main material.

D. Emergency Generator

The existing emergency generator will be replaced with a new larger emergency generator. The new generator will be sized to operate two of the new larger pumps, station lighting and station ventilation. The new generator will be activated by an automatic transfer switch in the event of an outage of normal electrical power to the pump station. Without an emergency generator to run at least two of the station's pumps during an outage of regular power, wastewater levels in the wet well will begin to rise. As the wastewater surface level rises, the collection system will also begin to fill. There is no emergency passive bypass system to redirect the wastewater before it rises to the overflow level. The initial spill point for the wastewater will be at the sewer manhole with the lowest top elevation in the collection system. The initial spill point for the Sand Island Parkway WWPS is the manhole identified on Figure 2-9 as SMH 0014. It has a top elevation of +5.4 feet above mean sea level (MSL). This elevation is lower than the manhole at the top of the wet well, which is at elevation +9.0 MSL.
LEGEND

- NEW 14" FM
  (PART OF PUMP STATION MODS)

- EXIST. 12" FM
  TO BE REMOVED OR ABANDONED

- NEW 14" FM TO BE CONSTRUCTED AS PART OF NEW HEADWORKS PROJECT (UNDER SEPARATE ENVIRONMENTAL DOCUMENTS)

**FIGURE 2-8 - PROPOSED ROUTING OF FORCE MAIN**
2.3 OTHER MODIFICATIONS

The existing wet well is functionally adequate. However, the existing pump controller system compromises the physical separation between the wet and dry wells. The existing system utilizes a float contained in an 8" diameter pipe connected to the wet well. The level of the wastewater in the 8" pipe is the same as the level of wastewater in the wet well. The float rides up and down on the surface of the wastewater in the 8" pipe. The wastewater surface in the float tube can release sewage gases into the dry well. The pump control system should be modified to provide gas tight separation between the wet and dry wells. This may be accomplished by scaling the existing float pipe from the wet well and installing two new float pipes (one for each side of the wet well) directly over the wet well. Two new controllers will be required. The new controllers would be installed inside the dry well.

2.4 PROJECT FUNDING

The proposed modifications to the Sand Island WWPS are expected to cost approximately $500,000. The construction of the project will be funded by the City and County of Honolulu Capital Improvement Program Funds. There will be no State Revolving Funds (SRF) used in the construction of this project.

2.5 PROJECT SCHEDULE

Construction of the proposed modifications to the Sand Island Parkway WWPS is expected to start in late 2001. Construction is expected to last approximately 18 months, through early to mid-2003.

2.6 REQUIRED PERMITS AND APPROVALS

2.6.1 General

Permits and approvals that are anticipated to be required for construction of the proposed modifications to the pump station and replacement of the force main are as follows:

<table>
<thead>
<tr>
<th>State Permits/Approvals</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPDES Dewatering Permit</td>
<td>Department of Health</td>
</tr>
<tr>
<td>Community Noise Permit</td>
<td>Department of Health</td>
</tr>
<tr>
<td>Air Quality Permit</td>
<td>Department of Health</td>
</tr>
</tbody>
</table>
City and County of Honolulu
Permits/Approvals

Construction plan approval
Department of Design and Construction,
Department of Planning and Permitting

Building permit for building,
electrical, plumbing, sidewalk/
driveway and demolition work
Department of Planning and Permitting, Building
Division

Special Management Area (SMA) Permit
Department of Planning and Permitting, Land Use
Approvals Branch

2.6.2 Special Management Area (SMA) Permit

The proposed modifications are within the Special Management Area. Based on their review of the Draft Environmental Assessment, the City's Department of Planning and Permitting (DPP), formerly known as Department of Land Utilization (DLU), has determined that the proposed modifications contained within the existing Sand Island Parkway WWPS building are exempt under Section 25-1.3(2)(F) of the Special Management Area Regulations, Chapter 25 of the Revised Ordinances of Honolulu (ROH). The replacement and re-routing of the force main requires an SMA permit. The City’s Department of Design and Construction intends to apply for a single SMA permit to cover the work being designed by RM Towill for Sand Island WWTP expansion and the modifications to the force main from the Sand Island Parkway WWTP.

2.6.3 Air Quality Permit

There is a current Air Quality Permit for the Sand Island WWTP site. The existing 60 kW emergency power generator at the SI Parkway Pump Station is included in this Air Quality Permit. The City and County of Honolulu is preparing the application to renew this permit. Information on the proposed 90 kW emergency generator will be provided to the City and County’s Environmental Quality Division of the Department of Environmental Services for inclusion in their permit application.
SECTION 3
ENVIRONMENTAL SETTING
SECTION 3

ENVIRONMENTAL SETTING

3.1 PHYSICAL ENVIRONMENT

3.1.1 Location And Topography

The Sand Island Parkway WWPS is located in the northwest corner of the Sand Island WWTP, at the Ewa (west) end of the visitor parking lot adjacent to the Sand Island Parkway. Figure 2-3 "Sand Island Parkway WWPS Site Plan" shows the location and layout of the WWPS. The topography of the project site is generally flat. The existing grade elevation in the immediate vicinity of the Sand Island WWPS is approximately 9.0 ft above mean sea level (MSL).

3.1.2 Geology and Soils

According to the United States Department of Agriculture, Soil Conservation Service, Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii (1972), the soils at the pump station are characteristic of low intensity mixed fill material.

3.1.3 Groundwater

The surface of the groundwater is at approximately +1 feet above MSL. Due to the proximity of this site to the ocean, the groundwater is expected to be saline in nature.

3.1.4 Climate

The island of Oahu experiences moderate and temperate weather throughout the year. The following information has been obtained from the State of Hawaii Data Book 1998 (Department of Business, Economic Development and Tourism). At the Honolulu International Airport, the average temperature in 1998 was 77.1°F with monthly averages ranging from 72.5°F to 81°F. In 1998 extreme low temperature was recorded as 59°F and extreme high 89°F. Relative humidity varies from 72% to 56%. The average annual precipitation at the Honolulu International Airport is 23 inches. In 1998, the total precipitation at the Honolulu International Airport was 4.52 inches. Average windspeed for 1998 recorded at the Honolulu International Airport was 11.0 mph.
3.1.5 Flood Hazard

According to FEMA Flood Insurance Rate Map, Community-Panel number 150001 0115C (1990), the Sand Island Parkway WWPS is located within Zone X, defined as areas determined to be outside the 500-year flood plain.

The project site is not located in a tsunami inundation zone.

3.1.6 Water Quality

According to the State of Hawaii Department of Heath Water Quality Standards of the Island of Oahu (1987), waters surrounding Sand Island are Class A Marine Waters. Honolulu Harbor is a Class A Embayment, while the ocean outside of Sand Island is Class A Open Coastal water. The Water Quality Standards state:

> It is the objective of class A waters that their use for recreational purposes and aesthetic enjoyment be protected. Any other use shall be permitted as long as it is compatible with the protection and propagation of fish, shellfish, and wildlife, and with recreation in and on these waters. These waters shall not act as receiving waters for any discharge which has not received the best degree of treatment or control compatible with the criteria established for this class.

No discharges to the surrounding waters will be associated with this project.

3.1.7 Air Quality

Oahu’s regional air quality, including the project site, is fairly pristine. Although Sand Island is an industrial area, air quality levels fall below the Clean Air Act’s primary and secondary National Ambient Air Quality Standards for particulate matter, nitrogen dioxide, carbon monoxide, photochemical oxidants, and sulfur oxides (40 CFR 52).

3.1.8 Noise

The existing noise quality at the WWPS is in accordance with the land use. The pump station is in a remote portion of Sand Island Industrial Park and does not have immediate neighbors except for the treatment plant.
3.1.9 Underground Storage Tanks

There is an existing 1,000 gallon underground fuel storage tank located to the southeast of the pump station building. The storage tank holds diesel fuel for the emergency generator that powers the pumps during periods of power outages. The underground tank was retrofitted in 1998 with a leak detection monitoring system to bring it into compliance with current Underground Storage Tank (UST) rules. Work was done under a City project entitled, "Upgrade Underground Fuel Storage Tanks at Various Wastewater Facilities, Phase 2."

3.2 BIOLOGICAL ENVIRONMENT

3.2.1 Flora and Fauna

The project area has been previously disturbed and developed. The site has several common terrestrial flora species for landscaping and aesthetic purposes. Wildlife in the Sand Island area includes small Indian mongoose, rats, mice, and feral cats.

The island of Oahu has a total of 129 species listed on the Rare, Threatened, and Endangered Species List (1995). There are 7 birds; 2 mammals; 79 plants; and 41 snails. There are no rare, threatened or endangered species located at the project site.

3.2.2 Wetlands

There are no wetlands in the immediate vicinity of the project site. However, a drainage ditch at the northeast side of the Sand Island WWTP has been identified as a wetland. The drainage ditch is approximately 1,000 feet to the east of the Sand Island Parkway WWPS. The drainage ditch is approximately five feet deep, with steeply sloped banks. It contains standing water and hydric vegetation (pickle weed and red mangrove). The ditch extends eastward from near the existing Flotation Clarifier Nos. 5 and 6, approximately 700 feet to the edge of the treatment plant property, then northward for approximately 120 feet to culverts at Sand Island Parkway. The culverts, in turn, drain into the ocean.

3.3 SOCIO-ECONOMIC ENVIRONMENT

The Sand Island Parkway WWPS service area is all of Sand Island. This area is primarily industrial. The Sand Island State Recreation Area occupies the southeastern portion of the island. Although the pump station does not have a direct relationship with the social/cultural environment, efficient wastewater management supports a sustainable physical and biological environment. The quality of the physical and biological environment influences the quality of the social/cultural environment.
3.3.1 Land Ownership and Land Use

The Sand Island Parkway WWPS is located within the boundaries of the Sand Island Wastewater Treatment Plant (TMK: 1-5-41:05). This parcel of land is owned by the State and leased to the City. The City owns and operates both the Sand Island Parkway WWPS and the Sand Island WWTP facilities.

Land in the vicinity of the Sand Island Parkway WWPS and Sand Island WWTP site is used primarily for industrial uses. Adjacent to the treatment plant is a shipping container facility and an industrial park subdivision. The Sand Island State Recreational Area is located to the south of the treatment plant site, along the south and southeast coasts of Sand Island.

3.3.2 State Land Use

The project site is in the Urban Land Use District.

3.3.3 City Land Use

The project site is a public facility in the City’s Primary Urban Center Development Plan area. City Land Use Ordinance Zoning is I-3 Waterfront Industrial District. Maximum allowable building height is 60 feet.

3.3.4 Special Designations

The Sand Island WWTP site and therefore the Sand Island Parkway WWPS site, is located within the Special Management Area (SMA). In most cases, an SMA use permit is required from the City and County’s Department of Planning and Permitting (DPP). DPP has determined that the work in the interior of the pump station building is not defined as “development,” and is exempt under Section 25-1.3(2)(F) of the Special Management Area Regulations. The replacement and re-routing of the discharge force main from the Sand Island Parkway WWTP is not exempt and must be covered by an SMA permit.

3.3.5 Archaeology and Historical Sites

The project is located in a portion of Sand Island that was previously filled with dredged materials. According to the State Historic Preservation Division, there are no known historic sites at the project location.
SECTION 4
SUMMARY OF IMPACTS
AND MITIGATION MEASURES
SECTION 4
SUMMARY OF IMPACTS
AND MITIGATION MEASURES

4.1 GENERAL

The project is anticipated to have little environmental impact. There will be temporary impacts due to construction, however, the long term impacts are expected to be minimal.

4.2 PHYSICAL ENVIRONMENT

4.2.1 Land Alteration and Aesthetics Impacts

The proposed modifications to the pump station will be contained within the existing pump station building. The proposed modifications to the force main will be located entirely underground. Therefore the project will not change the outward appearance of the pump station.

4.2.2 Flood Hazard Impacts

The proposed project does not change the surrounding topography of the existing pump station. It is not expected to increase the flood hazard at the project location.

4.2.3 Groundwater Quality Impacts

The new force main and venturi flow meter will be installed in a manner to prevent wastewater spills or leaks during construction. The contractor will be required to prepare a Wastewater Spill Mitigation Plan prior to start of construction at the pump station and force main. This plan will include, at a minimum, information on spill containment, disposal, clean-up, and treatment methods for the captured wastewater.

The installation and use of the new 90 kW emergency back-up generator will be performed in a manner that does not contaminate the surrounding soils and groundwater. All precautions and procedures will be implemented to prevent accidental fuel spills or leaks during the installation of the generator and hook-up to the underground fuel storage tank.
4.2.4 Water Quality Impacts

The proposed modifications to the existing pump station, will not adversely impact the water quality described in Section 3.1.6. The modifications at the pump station are required due to the anticipated increase in wet weather design flow and increase in discharge head after construction of the new headworks structure at the Sand Island WWTP. The increase in flow has been incorporated in the upgrade of the Sand Island Wastewater Treatment Plant currently being designed by RM Towill Corp. (The upgrade of the Sand Island WWTP, which includes the new headworks structure are to covered by separate environmental documents.) Therefore, the proposed undertaking complements previous planning which has taken into consideration impacts to water quality.

A positive impact is associated with the preferred alternative. The modifications to the pump station will ensure that wastewater is handled efficiently to meet the anticipated future needs for wastewater treatment. The proper handling and treatment of wastewater at the pump station and at the Sand Island WWTP supports the maintenance of water quality standards set by the State of Hawaii.

4.2.5 Air Quality Impacts

Short term impacts to air quality from dust and construction equipment emissions can be expected during construction activities. Fugitive dust emissions can result from activities such as vehicular movement and trench excavation and backfilling. However, adequate dust control can be provided through implementation of proper dust control measures at the project site. An increase in particulate emissions near the project site may also occur from construction equipment. Thus, all construction equipment shall be maintained in good mechanical condition and equipped with emission controls to help mitigate impacts on ambient air quality at the project site.

The upgrade from a 60 kW to a 90 kW emergency back up diesel generator is not expected to significantly increase the emissions being released into the environment. Operation of the emergency generator due to outages of normal power should be infrequent and of short duration. Periodic testing of the new emergency generator will be on a schedule similar to the current schedule. The new generator will be of modern design and shall be manufactured in accordance with current Air Quality Control regulations.

4.2.6 Wastewater Odors

There is no anticipated increase in odor created by the proposed modifications. The wastewater inlet structure, which is properly designed to prevent free fall and aeration of wastewater, along with the submerged discharge point of the WWPS, will remain intact during the modifications.
Therefore, there is no anticipated increase in odor from the WWPS due to the proposed modifications.

4.2.7 Noise Quality Impacts

Short term noise impacts are expected from construction activities and construction equipment. The location of the pump station is remote and noise quality impacts created during the construction activities are anticipated to be minimal. The use of mufflers on construction equipment will help mitigate the noise impacts. All operations will be in compliance with the State Department of Health’s rules and regulations on noise control, Hawaii Administrative Rules (HAR) Title 11, Chapter 42, Vehicular Noise Control for Oahu, and HAR Title 11, Chapter 46, Community Noise Control.

The ambient noise criteria set by State’s DOH for industrial areas is 70 dBA for both day time and night time hours (HAR Title 11, Chapter 46). There has been no record of any noise violations at the Sand Island Parkway WWPS. The new equipment, like the existing equipment it replaces, will be located inside the enclosed building. No significant noise increase is expected. Noise produced by the emergency generator is exempt from these noise limits by provisions in the HAR 11-46-5.

A major concern in terms of noise control is operator safety. Interior noise levels from pumps and motors is a concern for operation and maintenance personnel. According to generator set technical data, the 90 kW unit’s noise rating is 95 decibels at three feet when the generator is without inlet or outlet muffler. The Occupational Safety and Health Administration (OSHA) standards for occupational noise exposure state that the permissible noise exposure duration for 95 decibels is four hours. The generator is only expected to run occasionally for short durations, and the operators are not expected to remain in the WWPS building while the generator runs. In such a situation, there are not likely to be any further regulatory mandates for noise attenuation at the pump station. However, OSHA and local environmental control ordinances should be consulted when upgrading noise producing equipment within the WWPS. Noise attenuation measures through equipment isolation or sound dissipation may be necessary for new equipment installations. Operators should have access to hearing protection devices to allow them to perform their duties safely.

4.2.8 Traffic Impacts

Minimal traffic impacts are expected from the proposed project. All modifications are confined within the boundaries of the existing Sand Island WWTP, and therefore construction will not impact traffic flow on Sand Island Parkway. Trucks and other heavy equipment required to deliver and install the new pumps, emergency generator and the force main are of the type that are commonplace on Sand Island Parkway. No impact on traffic is expected from these trucks and other equipment.
4.2.9 Impacts on Public Utilities

There will be no short-term impact on the existing wastewater collection system served by the Sand Island WWPS. Construction work will be phased so that wastewater collected in the service area will continue to be pumped to the Sand Island WWTP for treatment. Pumping outages, if required, will be scheduled during low flow hours. Contractor will be required to provide temporary pumps of adequate size to pump incoming wastewater during any pumping outages.

4.3 BIOLOGICAL ENVIRONMENT

4.3.1 Flora and Fauna Impacts

The proposed modifications to the pump station and force main are expected to have a minimal impact on the flora and fauna in and around the project site. Any damage to the existing landscaping during construction will be repaired/replanted to resemble the existing conditions.

4.3.2 Impact on Wetlands

The project site is located over 1,000 feet from the designated wetlands area. This project will not impact the wetlands.

4.3.3 Archaeological Impacts

According to the DLNR State Historic Preservation Division (SHPD), there are no known archaeological sites at the project location. A letter determination of "no effect" has been issued by SHPD.

Should evidence of historic sites be encountered during construction, all activities in the area of the find shall cease, and the SHPD shall be notified immediately. The SHPD shall be provided sufficient time to assess the find and recommend appropriate mitigative measures. Any archaeological data recovery work that may be recommended by the SHPD shall be completed by a qualified archaeologist prior to the recommencement of construction work in the area of the find. Completion of the mitigative work shall be confirmed by SHPD and a report of the finding shall be prepared and submitted to the SHPD for review and acceptance. If human skeletal remains are inadvertently encountered during construction, procedures outlined in the Hawaii Revised Statutes 6E-43.6 shall be followed.
4.4 SOCIO-ECONOMIC ENVIRONMENT

The project site is located in an industrial area. The proposed work does not change the current use of the site nor will it change the character of the vicinity. This project will benefit the City by reducing the risk of overflow during periods of peak wet weather flows.

4.5 ENVIRONMENTAL PROTECTION MEASURES/MITIGATION DURING CONSTRUCTION

The proposed project will be confined to the pump station and discharge force main and will not permanently impact the exterior of the pump station structure. The contractor will use Best Management Practices (BMP) at all times to ensure the integrity and condition of the existing environment. Construction activities should be confined to areas defined by the work schedule, drawing and specifications. All construction equipment will be in good working order to prevent adverse noise and air emissions. The following list describes general provisions which shall be observed by the contractor to prevent potential adverse or significant impacts.

4.5.1 Land Resources

The contractor shall not remove, cut or deface, injure or destroy trees or shrubs without special permission from the City and County of Honolulu, Department of Environmental Services. Where such action is required by special circumstances, the contractor will be responsible for repairing any resultant damage.

4.5.2 Oily Substances

Special measures shall be taken to prevent oil or other hazardous substances from entering the ground, drainage areas (or local bodies of water). Temporary fuel oil, petroleum or liquid chemical storage shall be surrounded with a temporary earth berm of sufficient size and strength to contain the contents of the tanks in the event of content leakage or spillage.

4.5.3 Dust Control

Dust should be kept down at all times, including non-working hours, weekends and holidays. The contractor will sprinkle or treat with dust suppressors the soil at the site, haul roads, and other areas disturbed by operations. Vacuuming, wet mopping, wet sweeping or wet power brooming shall be used to avoid adverse air quality. Sandblasting shall not be permitted unless dust therefrom is confined. Only wet cutting of concrete and asphalt shall be permitted. No
unnecessary shaking of bags shall be permitted where bagged cement, concrete mortar, and plaster are used.

4.5.4 Disposal of Solid, Chemical and Sanitary Waste

The contractor shall pick up solid wastes and place wastes in containers, which are to be emptied on a regular schedule. The preparation, cooking and disposing of food shall be strictly prohibited on the project site. The handling and disposal of wastes shall be conducted to prevent contamination of the site and other areas. On completion of the project, areas shall be cleaned and natural looking. Signs of temporary construction from the permanent work in place shall be removed.

Rubbish and debris shall be disposed of in compliance with Federal, State and local requirements. Garbage shall be removed regularly to a pickup point disposal area as directed by the Contracting Officer. Wastewater will be disposed at a station wastewater system(s). Where such systems are not accessible, chemical toilets or comparable effective units shall be used and wastes emptied into the municipal wastewater system.

4.5.5 Noise Quality

During construction, the contractor shall make use of "low noise emission products" as certified by EPA, when available.

4.5.6 Air Quality

All activities shall comply with the regulations by meeting emission standards and control of fugitive dust guidelines.

4.5.7 Standard Specifications for Construction

The contractor shall follow the specifications compiled for the proposed project. Compliance with specifications maintains quality control and standardizes the methods used by the contractor throughout construction. No controversial social, economic, or environmental impacts are anticipated with proper compliance to the specifications.
SECTION 5
ALTERNATIVES CONSIDERED
SECTION 5
ALTERNATIVES CONSIDERED

Three alternatives to the proposed action were considered: (1) No Action, (2) Replacing the pumps and emergency generator, but not the force main, and (3) replacing the force main, but not the pumps nor emergency generator.

5.1 ALTERNATIVE ONE -- "NO ACTION"

Under the "no action" alternative, no upgrade or modifications would be performed at the Sand Island Parkway WWPS. The "no action" alternative is reviewed to evaluate the performance of the existing pumps, force main, and emergency generator.

The "no action" alternative for the pumps would involve keeping the existing 1.15 mgd pumps in service. It has been determined that the current design peak flow rate to the Sand Island Parkway WWPS is 2.92 mgd. This exceeds the capacity of two existing pumps operating in parallel and puts the pump station at risk of overflowing during peak wet weather flow conditions.

A new headworks structure is being planned as part of a separate project under design by RM Towill Corporation. The force main from the Sand Island Parkway WWPS will discharge into the new headworks structure. The discharge point for the force main will be approximately 4 feet higher than it currently is. This change in discharge elevation will reduce the pumps' capacity to less than 1.15 mgd, which further compounds the risk of overflowing during peak wet weather flow conditions.

Even under the "no action" alternative, modifications to the existing force main will be required. The existing 12-inch ductile iron force main runs directly through the area of the Sand Island WWTP where the new headworks structure will be constructed. Therefore, a substantial portion of the existing force main must be rerouted and replaced as part of the construction for the new headworks structure (this work will be covered under separate environmental documents). Although the remaining 280-foot portion of the force main is adequately sized for the future year 2020 design flows, the force main is already almost 20 years old and there are indications that the soils at the Sand Island WWTP are corrosive to ductile iron. In corrosive soils, corrosion attacks the pipe from the exterior, causing a potential for the pipe to rupture. If the discharge force main fails, there will be a wastewater spill.

The "no action" alternative for the emergency generator system is to keep the existing 60 kW standby generator in service. The existing generator is adequate for running two of the existing 1.15 mgd pumps.
5.2 ALTERNATIVE TWO -- REPLACE PUMPS AND EMERGENCY GENERATOR ONLY

This alternative evaluates the scenario where the existing pumps and emergency generator are replaced, and only the portion of the force main that must be rerouted due to the construction of the new headworks will be replaced. To meet the future year 2020 design peak wet weather flow rates, the three existing pumps must be replaced. Each of the new pumps will be rated for 2.02 mgd at 50 feet TDH. Each pump will have a 20 horsepower motor. Because the existing 60 kW emergency generator is not adequate to operate two of the new larger pumps, the installation of a new 90 kW emergency generator is included in this alternative.

Under this scenario, the pump station will be able to handle the projected future year 2020 peak wet weather flows. However, approximately 280 feet of the original ductile iron force main will remain as part of the discharge force main to the new headworks. By utilizing as much of the original force main as possible, less trenching would be required and construction efforts would be reduced. However, the original portion will be 20 years old at the beginning of construction. There are indications that the soils at the Sand Island WWTP site are corrosive to ductile iron pipes. In corrosive soils, corrosion attacks the pipe from the exterior, causing a potential for the pipe to rupture. If the discharge force main fails, there will be a wastewater spill.

In addition to the potential for failure due to corrosion, the existing portion of the force main does not follow an optimal routing between the Sand Island Parkway WWPS and the new headworks location. By utilizing the 280 linear feet of the existing force main, the overall length of the force main will be approximately 800 linear feet. If the entire force main is replaced and the routing optimized, the overall length of the force main will be approximately 620 linear feet.

5.3 ALTERNATIVE THREE -- MODIFY FORCE MAIN ONLY

This alternative evaluates the scenario where only the existing force main is modified, while the existing pumps and emergency generator remain in service. Even though the existing 12-inch force main is can accommodate future design peak wet weather flows, replacing the entire length of the force main with a new 14-inch diameter force main will benefit the Sand Island Parkway WWPS system in the following ways: (1) the entire length of the force main will be new. The materials of construction will be suitable for the specific soils conditions that exist at the Sand Island WWTP site, (2) the force main to the new headworks will be shorter by approximately 180 feet, and (3) the 14-inch force main will result in lower losses due to friction. Overall, the replacement of the force main will complement the plans for the upgrade of the Sand Island WWTP.
The "no action" scenario described above for the pumps and emergency generator also apply to this alternative. The current design peak flow to the Sand Island Parkway WWPS is 2.92 mgd. This exceeds the capacity of two existing pumps operating in parallel and puts pump station at risk of overflowing during peak wet weather flow conditions. Also, the discharge point for the force main will be approximately 4 feet higher than it currently is. This change in discharge elevation will reduce the pumps' capacity to less than 1.15 mgd, which further compounds the risk of overflowing during peak wet weather flow conditions.

In summary, this alternative allows for a minimum of facility modifications; specifically, only replacement of the WWPS force main. Because this alternative does not address the required modifications to the pumps and emergency generator, this alternative would continue to place the WWPS at risk of overflow during future peak wet weather flows.
SECTION 6
DETERMINATION
SECTION 6
DETERMINATION

6.1 NOTICE OF FINDING OF NO SIGNIFICANT IMPACT (FONSI)

This Environmental Assessment document constitutes a Finding of No Significant Impact (FONSI). Although some potential negative impacts are expected from the proposed project during construction, these impacts are temporary and can be mitigated through measures identified in Section 4. The benefits that result from the proposed project are expected to outweigh the short term negative impacts. As a result, an Environmental Impact Statement will not be required for the proposed modifications to the Sand Island Parkway WWPS.

6.2 SIGNIFICANCE CRITERIA

The FONSI determination was made in accordance with the Hawaii Revised Statutes, Chapter 342 and the “Significance Criteria” listed in the Department of Health Rules (11-200-12). The proposed project would have a significant impact on the environment if it meets any one of the following “Significance Criteria”:

6.2.1 Involves an Irrevocable Commitment to Loss or Destruction of Any Natural or Cultural Resources

The proposed project will not involve the loss or destruction of the natural or cultural resources in the area. The project site was not found to be the habitat of endangered or threatened species of native birds or mammals. The short term disturbances of the area associated with construction of the new force main are considered to be minor in nature. There will be no permanent impacts to the area around the project site.

There were no findings of significant archaeological or historical sites in or around the proposed project site. The project site has been previously disturbed. If archaeological artifacts or bones are discovered during construction, work in the area will cease. The Department of Land and Natural Resources will be notified immediately to assess the find and recommend the appropriate mitigative measures to be taken.

6.2.2 Curtails the Range of Beneficial Uses of the Environment

Sand Island Parkway WWPS is located within the existing site of the Sand Island Wastewater Treatment Plant. The proposed project does not change the current use and does not curtail the range of beneficial uses of the environment.
6.2.3 Conflicts With the State's Long-Term Environmental Policies or Goals and Guidelines as Expressed in Chapter 344, HRS; and Any Revisions Thereof and Amendments Thereto, Court Decisions, or Executive Orders

The proposed project is consistent with the State's Long-Term Environmental Policies established in Chapter 344, HRS.

6.2.4 Substantially Affects the Economic or Social Welfare of the Community or State

The proposed project will improve the economic and social welfare of the surrounding area by ensuring that the capacity of the Sand Island Parkway Pump Station will not be an obstacle to orderly development.

6.2.5 Substantially Affects Public Health

During the construction period, the ambient air quality, and noise levels near the project site may be temporarily affected. Nearby water quality should not be affected during the construction. The short term impacts anticipated during the construction of the force main include: nuisance dust; an increase in construction equipment emissions; and an increase in noise levels due to construction activities. Such short term impacts can be mitigated through compliance with the applicable Federal, State, and City and County regulations. Following the completion of the proposed modifications, the environment around the project site will return to its current conditions.

Benefits resulting from the proposed project are expected to outweigh the short term construction impacts. The "no action" alternative increases the potential for wastewater overflows.

6.2.6 Involves Substantial Secondary Impacts, Such as Population Changes or Effects on Public Facilities

The proposed modifications include increasing the capacity to meet the projected peak wet weather flows of the Sand Island Parkway WWPS. The future design flows were based on the land use designations of the surrounding areas. The increase in peak wet weather capacity will not change the nature of the existing land use designations. The impacts of the proposed modifications at the Sand Island Parkway WWPS on the adjacent Sand Island WWTP are not significant.
6.2.7 Involves a Substantial Degradation of Environmental Quality

The proposed project is not expected to degrade the environmental quality of the area substantially. However, the proposed project may temporarily affect the ambient air quality, and noise levels in the vicinity of the Sand Island Parkway WWPS during construction. The short term impacts anticipated during the installation of new pumps and construction of the new force main include: nuisance dust; an increase in construction equipment emissions; and an increase in noise levels due to construction activities. Such short term impacts can be mitigated through compliance with the applicable Federal, State, and City and County regulations. Following the completion of the work, the environment around the project site will return to its current conditions. Benefits resulting from the proposed project are expected to outweigh the short term construction impacts. The “no action” alternative increases the potential for wastewater overflows.

6.2.8 Is Individually Limited But Cumulatively Has Considerable Effect on the Environment, or Involves a Commitment for Larger Actions

The purpose of the modifications is to ensure the reliability of the existing pump station through the next 20 years. The modifications are consistent with current planning documents for the area. Once these modifications are implemented, no immediate future improvements are planned for the pump station. Should additional modifications be warranted in the future, the potential impacts will be evaluated and the appropriate measures will be taken.

6.2.9 Substantially Affects a Rare, Threatened or Endangered Species or Its Habitat

The project site has been previously disturbed. The presence of any rare, threatened or endangered plant or animal species is not anticipated at or near the project site.

6.2.10 Detrimentally Affects Air or Water Quality or Ambient Noise Levels

The proposed project may temporarily affect the ambient air quality, and noise levels in the immediate vicinity of the Sand Island Parkway WWPS during construction. Water quality is not expected to be affected. Short term impacts can be mitigated through compliance with the applicable Federal, State, and City and County regulations. A site specific Best Management Practices (BMP) plan would also be implemented during the construction phase of the project to minimize the short term impacts to the environment. Following the completion of the modifications to the pump station and the installation of the new force main, the environment around the project site will return to its current normal conditions. Benefits resulting from the proposed project are expected to outweigh the short term construction impacts. The “no action” alternative increases the potential for wastewater overflows.
6.2.11 Affects or is Likely to Suffer Damage by Being Located in an Environmentally Sensitive Area, Such as a Flood Plain, Tsunami Zone, Beach, Erosion-Prone Area, Geologically Hazardous Land, Estuary, Freshwater, or Coastal Waters.

The Sand Island Parkway WWTP is not located in a flood plain, tsunami zone, beach erosion-prone area, geologically hazardous land, estuary or coastal waters.

6.2.12 Substantially Affects Scenic Vistas and View Planes Identified in County or State Plans or Studies

The proposed modifications to the pump station involve work within the interior of the pump station building. The proposed new force main will be installed underground. Therefore, this project will not change the current appearance of the Sand Island Parkway WWPS.

6.2.13 Requires Substantial Energy Consumption

Implementation of the proposed project will not result in a substantial increase in energy consumption. Once the modifications are in place, only a modest increase in energy use is expected due to the replacement of three existing 15 hp pumps with new 20 hp pumps.
SECTION 7
PERSONS AND AGENCIES CONTACTED
SECTION 7
PERSONS AND AGENCIES CONTACTED

The agencies listed below were consulted in the preparation of this Environmental Assessment. Those agencies that responded are indicated by a “*.” A copy of all the agency correspondence is included in Appendix A and Appendix B.

Federal Agencies:
* U.S. Army Corps of Engineers

State of Hawaii Agencies:
* Department of Health (Wastewater Branch)
* Department of Health, Office of Environmental Quality Control
  Department of Land and Natural Resources
* Department of Land and Natural Resources, Office of Historic Preservation
  Department of Business, Economic Development and Tourism, Office of Planning
* Department of Business, Economic Development and Tourism, Land Use Commission
* Department of Transportation

City & County of Honolulu Agencies:
* Board of Water Supply
* Department of Environmental Services
* Department of Facility Maintenance
* Department of Planning and Permitting
* Department of Transportation Services

Other Agencies
  Sand Island Treatment Center
APPENDIX A
CORRESPONDENCE
DURING PRE-ASSESSMENT
CONSULTATION PERIOD
SAMPLE REQUEST FOR REVIEW LETTER
June 16, 2000

Mr. Ross S. Sasamura  
Director  
City & County of Honolulu  
Department of Facility Maintenance  
650 South King Street, Second Floor  
Honolulu, Hawaii 96813

RE: Draft Environmental Assessment for the Modifications  
at the Sand Island Parkway Wastewater Pump Station (SIPWWPS)

Dear Sir:

On behalf of the City and County of Honolulu, Department of Design and Construction, GMP Associates, Inc. is conducting an Environmental Assessment (EA) for the SIPWWPS. GMP is initiating consultation with concerned agencies and request that your department review the project summary.

Project Summary:

The SIPWWPS is nearly 20 years old and some of the equipment therein is nearing the end of its design life. The East Mamala Bay Facility Plan has recommended a number of modifications to the pump station so that wastewater collection from the nearly 500 acre tributary area of Sand Island will continue to be reliably conveyed to the Sand Island Wastewater Treatment Plant (SIWWTP) in the future. Figure 1 shows the project area on the Island of O‘ahu, and Figure 2 shows the SIPWWPS within the treatment plant property.

The modifications are necessary due to increased hydraulic head requirements resulting from planned construction of a new headworks structure at the SIWWTP, and the proposed increases for design flows to the pump station.

The modification will include the following:

- replacing the three (3) existing 15 horsepower 1.15 mgd capacity pumps with 20 horsepower 2.02 mgd capacity pumps;
- replacement of the force main to convey the wastewater to the new headworks structure; and,
- replacement of the existing 60 kW emergency back-up power generator with a 90 kW model.
June 16, 2000

Mr. Ross S. Sasamura

Page 2 of 2

No structural modifications to the pump station or wet well are necessary to accommodate these improvements.

Conclusion:

The proposed action is anticipated as having no adverse or significant impacts to the operation of the SI/WTP or the surrounding environment. Impacts to air and noise quality will be short term during construction activities. The anticipated increase in emissions will not degrade the environment and will be minimized by the use of Best Management Practices at all times.

The modifications listed above support the current and predicted increase in flow rates that have been accounted for in the design criteria of the WWTP. Based on the investigation performed for the draft EA, a determination of a Finding of No Significant Impact (FONSI) is expected.

Your concerns and comments are welcome. If you require additional information please feel to contact our office, and if the Department of Facilities Maintenance has any concerns and/or comments that may be applicable to the EA, please feel free to forward them to our office to my attention.

Your attention is appreciated.

Sincerely,

GMP ASSOCIATES, INC.

(signed)

Travis W. Hylton
Civil/Environmental Engineer

Enclosures
Similar letters were sent to:

State of Hawaii Department of Business, Economic Development and Tourism  
Coastal Zone Management Program  
P.O. Box 2359  
Honolulu, Hawaii 96804-2359

Mr. Timothy Johns, Chairman  
State of Hawaii  
Department of Land and Natural Resources  
1151 Punchbowl  
Honolulu, Hawaii 96813

State of Hawaii Department of Business, Economic Development and Tourism  
Land Use Commission  
P.O. Box 2359  
Honolulu, Hawaii 96804-2359

Ms. Lori Kajiwara  
State of Hawaii  
Department of Health  
Wastewater Branch  
919 Ala Moana Blvd., Room 309  
Honolulu, Hawaii 96814

State of Hawaii Department of Business, Economic Development and Tourism  
Office of Planning  
P.O. Box 2359  
Honolulu, Hawaii 96804-2359

Mr. Ross S. Sasamura  
Director  
City & County of Honolulu  
Department of Facility Maintenance  
650 South King Street, Second Floor  
Honolulu, Hawaii 96813

Mr. Randall K. Fujiki, Director  
City & County of Honolulu  
Department of Planning and Permitting  
650 South King Street  
Honolulu, Hawaii 96813

Sand Island Treatment Center  
c/o Sand Island Wastewater Treatment Plant  
1350 Sand Island Parkway  
Honolulu, Hawaii 96819

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

Mr. Tom Ushijima  
U.S. Army Corps of Engineers  
Pacific Ocean Division  
Building 230  
Fort Shafter, Hawaii 96858-5440

State of Hawaii  
Department of Land and Natural Resources  
State Historic Preservation Division  
601 Kamokila Blvd., Room 555  
Honolulu, Hawaii 96813

Mr. Clifford Jamile  
Manager and Chief Engineer  
City & County of Honolulu  
Board of Water Supply  
630 South Beretania Street  
Honolulu, Hawaii 96843
INCOMING CORRESPONDENCE AND RESPONSE LETTERS
June 28, 2000

Mr. Travis Hylton
GMP Associates, Inc.
1100 Alakea Street, Suite 1800
Honolulu, Hawaii 96813-2833

Dear Mr. Hylton:

Subject: Pre-assessment Consultation for the Sand Island Parkway
Wastewater Pump Station

Thank you for the opportunity to review and comment on the
subject document. We have the following comments.

1. Please consult with the City Department of Transportation
Services and the State Department of Transportation. These
agencies may have plans to improve Sand Island Access Road.

2. We are enclosing a copy of our Guidebook on the State’s
Environmental Review Process for your information and use.

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

Sincerely,

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

Dear Ms. Salmonson:

SUBJECT: SAND ISLAND PARKWAY WASTEWATER PUMP STATION MODIFICATIONS, DRAFT ENVIRONMENTAL ASSESSMENT, (TMK: 1-5-41:05)

Thank you for your June 28, 2000 letter that provided comments to the Draft Environmental Assessment for the subject project. We offer the following responses to your comments:

1. COMMENT: “Please consult with the City Department of Transportation Services and the State Department of Transportation. These agencies may have plans to improve Sand Island Access Road.”

RESPONSE: These agencies have been consulted.

2. COMMENT: “We are enclosing a copy of our Guidebook on the State’s Environmental Review Process for you information and use.”

RESPONSE: Receipt of guidelines is acknowledged.

Should you have any questions concerning these responses to your comments, please call Robert Miyasaki with our Wastewater Design and Engineering Division at 527-5159.

Very truly yours,

[Signature]

FOR GARY O. L. YEE, AIA
Director

cc: GMP Associates
June 16, 2000

Mr. Ross S. Sasamura, Director
City and County of Honolulu
Department of Facility Maintenance
650 South King Street, Second Floor
Honolulu, Hawaii 96813

RE: Draft Environmental Assessment for the Modifications at the Sand Island Parkway Wastewater Pump Station (SIPWWPS)

Dear Mr. Sasamura:

On behalf of the City and County of Honolulu, Department of Design and Construction, GMP Associates, Inc. is conducting an Environmental Assessment (EA) for the SIPWWPS. GMP is initiating consultation with concerned agencies and requests that your department review the project summary.

Project Summary:

The SIPWWPS is nearly 20 years old and some of the equipment therein is nearing the end of its design life. The East Mamala Bay Facility Plan has recommended a number of modifications to the pump station so that wastewater collection from the nearly 500 acre tributary area of Sand Island will continue to be reliably conveyed to the Sand Island Wastewater Treatment Plant (SIWWTP) in the future. Figure 1 shows the project area on the Island of O‘ahu, and Figure 2 shows the SIPWWPS within the treatment plant property.

The modifications are necessary due to increased hydraulic head requirements resulting from planned construction of a new headworks structure at the SIWWTP, and proposed increases for design flows to the pump station.

The modification will include the following:

- replacing the three (3) existing 15 horsepower 1.15 mgd capacity pumps with 20 horsepower 2.02 mgd capacity pumps;
- replacement of the force main to convey the wastewater to the new headworks structure; and,
- replacement of the existing 60 kW emergency back-up power generator with a 90 kW model.
No structural modifications to the pump station or wet well are necessary to accommodate these improvements.

Conclusion:

The proposed action is anticipated as having no adverse or significant impacts to the operation of the SIWWTP or the surrounding environment. Impacts to air and noise quality will be short term during construction activities. The anticipated increase in emissions will not degrade the environment and will be minimized by the use of Best Management Practices at all times.

The modifications listed above support the current and predicted increase in flow rates that have been accounted for in the design criteria of the WWTP. Based on the investigation performed for the draft EA, a determination of a Finding of No Significant Impact (FONSI) is expected.

Your concerns and comments are welcome. If you require additional information, please feel free to contact our office, and if the Department of Facility Maintenance has any concerns and/or comments that may be applicable to the EA, please feel free to forward them to our office to my attention.

June 22, 2000

We do not have any comments. If you have any questions, please call Laverne Higa at 527-6246.

Sincerely,

GMP ASSOCIATES, INC.

Travis W. Hylton
Civil/Environmental Engineer

Ross S. Sasamura
Director and Chief Engineer
Department of Facility Maintenance

Enclosures
December 20, 2000

MEMORANDUM

TO: MR. ROSS S. SASAMURA, DIRECTOR
   DEPARTMENT OF FACILITIES MAINTENANCE

FROM: GARY O. L. YEE, AIA, DIRECTOR
   DEPARTMENT OF DESIGN AND CONSTRUCTION

SUBJECT: SAND ISLAND PARKWAY WASTEWATER PUMP STATION
         MODIFICATIONS, DRAFT ENVIRONMENTAL ASSESSMENT,
         (TMK: 1-5-41:05)

Thank you for your June 22, 2000 response typed onto GMP Associates’ June 16, 2000 letter indicating that you “do not have any comments”. We appreciate your review of the subject Draft Environmental Assessment.

cc: GMP Associates
APPENDIX B
CORRESPONDENCE DURING
THE 30-DAY COMMENT PERIOD
SAMPLE REQUEST FOR REVIEW LETTER
June 19, 2000

Mr. Ross S. Sasamura, Director
City & County of Honolulu
Department of Facility Maintenance
650 South King Street, Second Floor
Honolulu, Hawaii 96813

RE: Draft Environmental Assessment for the Modifications
at the Sand Island Parkway Wastewater Pump Station (SIPWWPS)

Dear Mr. Sasamura:

On behalf of the City and County of Honolulu, Department of Design and Construction, GMP Associates, Inc. has prepared a Draft Environmental Assessment (EA) for the SIPWWPS. GMP requests that your agency review the enclosed Draft EA.

The proposed action is anticipated as having no adverse or significant impacts to the operation of the Sand Island Wastewater Treatment Plant (WWTP) or the surrounding environment. Impacts to air and noise quality will be short term during construction activities. The anticipated increase in emissions will not degrade the environment and will be minimized by the use of Best Management Practices at all times.

The modifications to the SIPWWPS support the current and predicted increase in flow rates that have been accounted for in the design criteria of the WWTP. Based on the investigation performed for the Draft EA a determination of a Finding of No Significant Impact (FONSI) is expected.

Your concerns and comments are welcome. If you require additional information please feel to contact our office. If you should have any concerns and/or comments that may be applicable to the Draft EA, please feel free to forward them to our office to my attention.

Your attention is appreciated.

Sincerely,

GMP ASSOCIATES, INC.

(signed)

Travis W. Hylton
Civil/Environmental Engineer

Enclosure
Similar letters were sent to:

State of Hawaii Department of Business,
Economic Development and Tourism
Coastal Zone Management Program
P.O. Box 2359
Honolulu, Hawaii 96804-2359

State of Hawaii Department of Business,
Economic Development and Tourism
Land Use Commission
P.O. Box 2359
Honolulu, Hawaii 96804-2359

State of Hawaii Department of Business,
Economic Development and Tourism
Office of Planning
P.O. Box 2359
Honolulu, Hawaii 96804-2359

Mr. Kazu Hayashida, Director
State of Hawaii
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

Mr. Randall K. Fujiki, Director
City & County of Honolulu
Department of Planning and Permitting
650 South King Street
Honolulu, Hawaii 96813

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

State of Hawaii
Department of Land and Natural Resources
State Historic Preservation Division
601 Kamokila Blvd., Room 555
Honolulu, Hawaii 96813

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

Mr. Timothy Johns, Chairman
State of Hawaii
Department of Land and Natural Resources
1151 Punchbowl
Honolulu, Hawaii 96813

Ms. Lori Kajiwara
State of Hawaii
Department of Health
Wastewater Branch
919 Ala Moana Blvd., Room 309
Honolulu, Hawaii 96814

Mr. Ross S. Sasamura, Director
City & County of Honolulu
Department of Facility Maintenance
650 South King Street, Second Floor
Honolulu, Hawaii 96813

Sand Island Treatment Center
c/o Sand Island Wastewater Treatment Plant
1350 Sand Island Parkway
Honolulu, Hawaii 96819

Mr. Tom Ushijima
U.S. Army Corps of Engineers
Pacific Ocean Division
Building 230
Fort Shafter, Hawaii 96858-5440
INCOMING CORRESPONDENCE AND RESPONSES
July 24, 2000

Gary Yee, Director
Department of Design & Construction
650 South King Street
Honolulu, Hawaii 96813

Attention: Kumar Bhagavan

Dear Mr. Yee:

Subject: Draft Environmental Assessment (EA) for Sand Island Parkway Wastewater Pump Station Modifications

We have the following comments to offer:

1. Two-sided pages: In order to reduce bulk and save on paper, please consider printing on both sides of the pages in the final document.

2. Contacts: In the final EA include copies of any correspondence, including any letters received during the pre-consultation phase.

3. Significance criteria: A simple reiteration of the criteria in the negative, as listed in the draft EA, will not suffice. The section must include a discussion of findings and reasons supporting your conclusion. Please also note that there are 13 criteria. You may use the enclosed sample as a guideline.

4. Terminology: As listed in the draft EA, the agency title "Department of Land Utilization" and the determination "Negative Declaration" are now out of date. DLU functions have been subsumed under the Department of Planning & Permitting, and negative declaration is now called Finding of No Significant Impact (FONSI). Please correct this in the final EA.

5. Time frame: What are the anticipated start and end dates of this project?
6. **Funding:** The total project cost is not given. Please disclose all state or county funds involved, including any federal funds flowing through the state or county.

Sincerely,

[Signature]

GENEVIEVE SALMONSON
Director

c: Travis Hylton, GMP Assoc.
Ms. Genevieve Salmonson
Director, Office of Environmental Quality Control
State of Hawaii
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Dear Ms. Salmonson:

SUBJECT: SAND ISLAND PARKWAY WASTEWATER PUMP STATION MODIFICATIONS, DRAFT ENVIRONMENTAL ASSESSMENT, (TMK: 1-5-41:05)

Thank you for your September July 24, 2000 letter that provided comments to the Draft Environmental Assessment for the subject project. We offer the following responses to your comments:

1. COMMENT: "Two-sided pages: In order to reduce bulk and save on paper, please consider printing on both sides of the pages in the final document."

RESPONSE: Two-sided printing will be considered.

2. COMMENT: "Contacts: In the final EA, include copies of any correspondence, including any letters received during the pre-consultation phase."

RESPONSE: Copies of all correspondence will be included in the Final EA.

3. COMMENT: "Significance criteria: A simple reiteration of the criteria in the negative, as listed in the draft EA, will not suffice. The section must include a discussion of findings and reasons supporting your conclusions. Please also note that there are 13 criteria. You may use the enclosed sample as a guideline."

WWDE.P 00-772
RESPONSE: The portion of the EA containing the significance criteria was re-written for the Final EA. A discussion of all 13 criteria has been included.

4. COMMENT: "Terminology: As listed in the draft EA, the agency title "Department of Land Utilization" and the determination "Negative Declaration" are now out of date. DLU functions have been subsumed under the Department of Planning & Permitting, and negative declaration is now called Finding of No Significant Impact (FONSI). Please correct this in the final EA."

RESPONSE: Terminology has been corrected in the Final EA.

5. COMMENT: "Time Frame: What are the anticipated start and end dates of this project?"

RESPONSE: It is anticipated that the project will start construction in late 2001 and end in mid-2003. The anticipated project schedule has been included in the Final EA.

6. COMMENT: "Funding: The total project cost is not given. Please disclose all state or county funds involved, including any federal funds flowing through the state or county."

RESPONSE: Total project cost is anticipated to be approximately $500,000. Funding will be by the City and County of Honolulu Capital Improvement Program Funds. There will be no State or Federal funds used. This information has been included in the Final EA.

Should you have any questions concerning these responses to your comments, please call Robert Miyasaki with our Wastewater Design and Engineering Division at 527-5159.

Very truly yours,

FOR: GARY Q. L. YEE, AIA
Director

cc: GMP Associates
September 1, 2000

Mr. Lee Mansfield, Vice-President
GMP Associates, Inc.
1100 Alakea Street, Suite 1800
Honolulu, Hawaii 96813-2833

Dear Mr. Mansfield:

Draft Environmental Assessment (DEA) for the Modifications at the Sand Island Parkway Wastewater Pump Station (SIPWWPS)

In response to your company’s request of June 19, 2000, we have reviewed the DEA and have the following comments to offer:

1. The proposal for modifications at the City’s Sand Island Parkway Wastewater Pump Station is consistent with the Public and Quasi-Public Facility use as shown on the existing Primary Urban Center Development Plan Land Use Map. The site is located on Sand Island, and isolated from other non-industrial uses such as housing and commercial. The proposed project will not change the character of the vicinity, which is industrial. The DEA document also recognizes the existing recreational area on Sand Island, and proposes buffers to guard against possible adverse impacts such as noise and odors.

2. The SIPWWPS project is also consistent with the Primary Urban Center Development Plan Public Facilities Map, which shows a symbol for a publicly funded sewage treatment plant/modification, site determined, within six years for the Sand Island Wastewater Treatment Plant (WWTP). The SIPWWPS is part of the overall on-site improvements/modifications to the Sand Island WWTP facility.

3. Regarding the proposed Draft Primary Urban Center (PUC) Development Plan, the site is designated Industrial on the Land Use Map, as is the majority of Sand Island. The draft Development Plan recognizes that the PUC’s aging wastewater collection system is a major obstacle to the orderly development of the city. Section 4.3.3, Guidelines, states that “the highest priority” should be given to expedite upgrades of treatment and collection systems within the Heart of Honolulu. The proposed modifications to ensure efficient wastewater management, including increases in current and future design flow, conform to this guideline.
4. The proposed modifications are within the Special Management Area, but are not defined as "development". The proposed modifications are exempt under Section 25-1.3(2)(F) of the Special Management Area Regulations, Chapter 25 of the Revised Ordinances of Honolulu (ROH). The replacement of the force main is also exempt, provided the work is within the existing corridor (utility easement), under Section 25-1.3(2)(vi) of the Special Management Area Regulations.

5. It appears that all construction work will be contained within the site and that no work will be performed within the road right-of-way. However, if it is determined that work is going to be needed within the road right-of-way, construction plans and traffic control plans during construction must be submitted to our department for review.

6. The DEA should include the entire alignment of the force main in a site plan of the project.

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

Sincerely yours,

[Signature]

RANDALL K. FUJIKI, AIA
Director of Planning and Permitting

RKF:js

cc: Department of Design and Construction
MEMORANDUM

TO: MR. RANDALL K. FUJIKI, AIA, DIRECTOR
DEPARTMENT OF PLANNING AND PERMITTING

FROM: GARY C. L. YEE, AIA, DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

SUBJECT: SAND ISLAND PARKWAY WASTEWATER PUMP STATION
MODIFICATIONS, DRAFT ENVIRONMENTAL ASSESSMENT,
(TMK: 1-5-41:05)

December 20, 2000

Thank you for your letter dated September 1, 2000 during the 30-day comment period on the proposed Modifications to the Sand Island Parkway WWPS. We offer the following responses to your comments:

1. COMMENT: "The proposal for modifications at the City's Sand Island Parkway Wastewater Pump Station is consistent with the Public and Quasi-Public Facility use as shown on the existing Primary Urban Center Development Plan Land Use Map. The site is located on Sand Island, and isolated from other non-industrial uses such as housing and commercial. The proposed project will not change the character of the vicinity, which is industrial. The DEA document also recognizes the existing recreational area on Sand Island, and proposes buffers to guard against possible adverse impacts such as noise and odors."

RESPONSE: Comment is acknowledged. No further response is required.

2. COMMENT: "The SIPWWPS project is also consistent with the Primary Urban Center Development Plan Public Facilities Map, which shows a symbol for a publicly funded sewage treatment plant/modification, site determined, within six years for the Sand Island Wastewater Treatment Plant (WWTP). The SIPWWPS is part of the overall on-site improvements/modifications to the Sand Island WWTP facility."

WWDEP 00-769
RESPONSE: *Comment is acknowledged. No further response is required.*

3. COMMENT: "Regarding the proposed Draft Primary Urban Center (PUC) Development Plan, the site is designated Industrial on the Land Use Map, as is the majority of Sand Island. The draft Development Plan recognizes that the PUC's aging wastewater collection system is a major obstacle to the orderly development of the city. Section 4.3.3, Guidelines, states that "the highest priority" should be given to expedite upgrades of treatment and collection systems within the Heart of Honolulu. The proposed modifications to ensure efficient wastewater management, including increases in current and future design flow, conform to this guideline."

RESPONSE: *Comment is acknowledged. No further response is required.*

4. COMMENT: "The proposed modifications are within the Special Management Area, but are not defined as "development". The proposed modifications are exempt under Section 25-1.3(2)(F) of the Special Management Area Regulations, Chapter 25 of the Revised Ordinances of Honolulu (ROH). The replacement of the force main is also exempt, provided the work is within the existing corridor (utility easement), under Section 25-1.3(2)(M) of the Special Management Area Regulations."

RESPONSE: *It is acknowledged that the work in the interior of the pump station building is exempt from the SMA regulation.*

The existing force main is to be re-routed around the new headworks structure that is being designed by R.M. Towill Corporation. Since the replacement force main will not be reinstalled within the existing utility corridor, it would not be exempt under Section 25-1.3(2)(M). The Department of Design and Construction will submit an application for a SMA permit to cover both the expansion of the existing Sand Island WWTP (being designed by RM Towill Corp.) and the re-routing of the discharge force main from the Sand Island Parkway WWPS.

5. COMMENT: "It appears that all construction work will be contained within the site and that no work will be performed within the road right-of-way. However, if it is determined that work is going to be needed within the road right-of-way, construction plans and traffic control plans during construction must be submitted to our department for review."
RESPONSE: The proposed modifications will be entirely within the existing Sand Island Parkway Wastewater Pump Station and the within the boundaries of the existing Sand Island Wastewater Treatment Plant. No work associated with this project is currently planned within the road right-of-way.

6. COMMENT: "The DEA should include the entire alignment of the force main in a site plan of the project."

RESPONSE: A figure showing the proposed routing of the replacement force main will be included in the Final EA. A copy of this figure is attached for your information.

Should you have any questions concerning these responses to your comments, please call Robert Miyasaki with our Wastewater Design and Engineering Division at 527-5159.

Attachment

cc: GMP Associates
June 22, 2000

Mr. Gary Q.L. Yee  
Department of Design and Construction  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Yee:

Subject: Draft Environmental Assessment (DEA) for the Sand Island Parkway Wastewater Pump Station (SIPWWPS) Modifications

We have reviewed the DEA for the subject project and find that the SIPWWPS, as represented on Figure 1-2, is designated within the State Land Use Urban District.

We have no further comments to offer at this time. We appreciate the opportunity to comment on the DEA.

Should you have any questions, please feel free to call me or Bert Saruwatari of our office at 587-3822.

Sincerely,

ESTHER UEDA  
Executive Officer

EU:aa

c: GMP Associates, Inc.  
OEQC
December 20, 2000

Ms. Esther Ueda, Executive Officer
Department of Business, Economic Development & Tourism
Land Use Commission
State of Hawaii
P.O. Box 2359
Honolulu, Hawaii 96804-2359

Dear Ms. Ueda:

SUBJECT: SAND ISLAND PARKWAY WASTEWATER PUMP STATION MODIFICATIONS, DRAFT ENVIRONMENTAL ASSESSMENT, (TMK: 1-5-41:05)

Thank you for your letter of June 22, 2000 indicating that the SIPWWPS is “designated within the State Land Use Urban District” and that you “have no further comments to offer at this time”. Your review of the subject Draft Environmental Assessment is appreciated.

Very truly yours,

[Signature]

cc: GMP Associates
Mr. Ross S. Sasamura, Director  
City and County of Honolulu  
Department of Facility Maintenance  
650 South King Street. Second Floor  
Honolulu, Hawaii 96813

RE: Draft Environmental Assessment for the Modifications  
at the Sand Island Parkway Wastewater Pump Station (SIPWWPS)

Dear Mr. Sasamura:

On behalf of the City and County of Honolulu, Department of Design and Construction, GMP Associates, Inc. has prepared a Draft Environmental Assessment (EA) for the SIPWWPS. GMP requests that your agency review the enclosed Draft EA.

The proposed action is anticipated as having no adverse or significant impacts to the operation of the Sand Island Wastewater Treatment Plant (WWTP) or the surrounding environment. Impacts to air and noise quality will be short term during construction activities. The anticipated increase in emissions will not degrade the environment and will be minimized by the use of Best Management Practices at all times.

The modifications to the SIPWWPS support the current and predicted increase in flow rates that have been accounted for in the design criteria of the WWTP. Based on the investigation performed for the Draft EA, a determination of a Finding of No Significant Impact (FONSI) is expected.

Your concerns and comments are welcome. If you require additional information, please feel free to contact our office. If you should have any concerns and/or comments that may be applicable to the Draft EA, please feel free to forward them to our office to my attention.

Your attention is appreciated.

Sincerely,

June 22, 2000

We do not have any comments. If you have any questions, please call Laverne Higa at 527-6246.

Ross S. Sasamura  
Director and Chief Engineer  
Department of Facility Maintenance

Enclosure
MEMORANDUM

TO: MR. ROSS S. SASAMURA, DIRECTOR
DEPARTMENT OF FACILITIES MAINTENANCE

FROM: GARY Q. L. YEE, AIA, DIRECTOR
DEPARTMENT OF DESIGN AND CONSTRUCTION

SUBJECT: SAND ISLAND PARKWAY WASTEWATER PUMP STATION MODIFICATIONS, DRAFT ENVIRONMENTAL ASSESSMENT, (TMK: 1-5-41:05)

Thank you for your June 22, 2000 response typed onto GMP Associates’ June 16, 2000 letter indicating that you “do not have any comments”. We appreciate your review of the subject Draft Environmental Assessment.

cc: GMP Associates
July 5, 2000

Mr. Travis W. Hylton
GMP Associates, Inc.
1100 Ilakea Street, Suite 1800
Honolulu, Hawaii 96813-2833

Dear Mr. Hylton:

This responds to your request for review of the Draft Environmental Assessment (DEA) for Modifications at the Sand Island Parkway Wastewater Pump Station, Honolulu, Hawaii.

Based on the information in the DEA, I have determined that the proposed improvements will not involve any work in waters of the U.S., including wetlands; therefore, a Department of the Army permit is not required.

Should you have any questions regarding this determination, please contact Peter Galloway of my staff (telephone 438-8416; fax 438-4060). File number 200000245 has been assigned to this project.

Sincerely,

[Signature]

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

Copies Furnished:

Clean Water Branch, State of Hawaii Department of Health,
P.O. Box 3378, Honolulu, HI 96801-3386
State of Hawaii, Department of Land and Natural Resources,
Commission on Water Resource Management, P.O. Box 621,
Honolulu, HI 96809
City and County of Honolulu, Department of Design and
Construction, 650 South King Street, Honolulu, HI 96813
December 20, 2000

Mr. George P. Young, P.E.
Chief, Regulatory Branch
Department of the Army
U.S. Army Engineering District, Honolulu
Ft. Shafter, Hawaii 97858-5440

Dear Mr. Young:

SUBJECT: SAND ISLAND PARKWAY WASTEWATER PUMP STATION MODIFICATIONS, DRAFT ENVIRONMENTAL ASSESSMENT, (TMK: 1-5-41:05)

Thank you for your letter of July 5, 2000 indicating that you have “determined that the proposed improvements will not involve any work within the water of the U.S., including wetlands” and that a “Department of the Army permit is not required”. Your review of the subject Draft Environmental Assessment is appreciated.

Very truly yours,

FOR

GARY D. YEE, AIA
Director

cc: GMP Associates
July 7, 2000

Travis W. Hylton
Civil/Environmental Engineer
GMP Associates, Inc.
1100 Alakea Street, Suite 1800
Honolulu, Hawaii 96813-2833

Dear Mr. Hylton:

SUBJECT: Chapter 6E-8 Historic Preservation Review – Draft Environmental Assessment for the Modifications at the Sand Island Parkway Wastewater Pump Station
Honolulu, Kona, O‘ahu
TMK: 1-5-41:5

Thank you for the opportunity to provide comment on the DEA for the Sand Island Wastewater Pump Station. Modifications proposed include replacement of existing pumps, replacement of the existing force main and replacement of the existing emergency back up power generator.

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

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

Aloha,

Don Hubbard, Administrator
State Historic Preservation Division

EJ:jk
Mr. Don Hibbard  
Administrator, Historic Preservation Division  
Department of Land and Natural Resources  
State of Hawaii  
Kakuhihea Building, Room 556  
501 Kamokila Boulevard  
Kapolei, Hawaii 96707

Dear Mr. Hibbard:

SUBJECT: SAND ISLAND PARKWAY WASTEWATER PUMP STATION MODIFICATIONS, DRAFT ENVIRONMENTAL ASSESSMENT, (TMK: 1-5-41:85)

Thank you for your letter of July 7, 2000 (Doc No.: 0007EJ10) indicating that a review of your “records shows that there are no known historic sites at the project location” and that you “believe that this project will have “no effect” on historic sites”. We appreciate your review of the subject Draft Environmental Assessment.

Very truly yours,

[Signature]

cc: GMP Associates
Mr. Travis W. Hylton
GMP Associates, Inc.
1100 Alakea Street, Suite 1800
Honolulu, Hawaii 96813-2833

Dear Mr. Hylton:

Subject: Your Letter of June 16, 2000 Regarding the Draft Environmental Assessment for the Proposed Modifications at the Sand Island Parkway Wastewater Pump Station

Thank you for the opportunity to review and comment on the Draft Environmental Assessment for the proposed modifications to the Sand Island Parkway Wastewater Pump Station.

We have no comments to offer at this time.

If you have any questions, please contact Kathryn Kami at 527-5221.

Very truly yours,

[Signature]
CLIFFORD K. JAMILE
Manager and Chief Engineer
DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4564 Fax: (808) 523-4567
Website: www.cc.honolulu.hi

December 20, 2000

MEMORANDUM

TO: MR. CLIFFORD JAMILE, MANAGER AND CHIEF ENGINEER
   BOARD OF WATER SUPPLY

FROM: GARY D. YEE, AIA, DIRECTOR
   DEPARTMENT OF DESIGN AND CONSTRUCTION

SUBJECT: SAND ISLAND PARKWAY WASTEWATER PUMP STATION
   MODIFICATIONS, DRAFT ENVIRONMENTAL ASSESSMENT,
   (TMK: 1-5-41:05)

Thank you for your letter of July 17, 2000 indicating that you have "no comments to offer at this
time". We appreciate your review of the subject Draft Environmental Assessment.

cc: GMP Associates
July 18, 2000

Mr. Travis W. Hylton  
GMP Associates, Inc.  
1100 Alakea Street Suite 1800  
Honolulu, Hawaii 96813-2633

Dear Mr. Hylton:

Subject: Draft Environmental Assessment for the Modifications  
Sand Island Parkway Wastewater Pump Station (SIPWPS)

Thank you for allowing us to comment on the Draft Environmental Assessment for the Modifications at the Sand Island Parkway Wastewater Pump Station (SIPWPS).

We have reviewed your document on the subject project. We concur with the modifications to improve and upgrade the SIPWPS which will have no adverse or significant impacts to the operation of the Sand Island Wastewater Treatment Plant (SIWWTP) and surrounding environment.

Should you have any further questions, please contact our Planning and Design Section Supervisor Mr. Harold Yee of the Wastewater Branch at telephone no. 586-4294.

Sincerely,

DENNIS TULANG, P.E., CHIEF  
Wastewater Branch

LKerm
December 20, 2000

Mr. Dennis Tulang, P.E.
Chief, Wastewater Branch
Department of Health
State of Hawaii
P.O. Box 3378
Honolulu, Hawaii 96801

Dear Mr. Tulang:

SUBJECT: SAND ISLAND PARKWAY WASTEWATER PUMP STATION MODIFICATIONS, DRAFT ENVIRONMENTAL ASSESSMENT, (TMK: 1-5-41:05)

Thank you for your letter of July 18, 2000 (EMD/WB 2000586, SANDISLA.doc 00B) indicating that you “concur with the modifications to improve and upgrade the SIPWPS which will have no adverse or significant impacts to the operation of the Sand Island Wastewater Treatment Plant and surrounding environment”. We appreciate your review of the subject Draft Environmental Assessment.

Very truly yours,

GARY O. L. YEE, AIA
Director

cc: GMP Associates
Mr. Travis W. Hylton
GMP Associates, Inc.
1100 Alakea Street, Suite 1800
Honolulu, Hawaii 96813-2833

Dear Mr. Hylton:

Subject: Draft Environmental Assessment, Modification of Sand Island Parkway Wastewater Pump Station, Sand Island, Oahu

Thank you for requesting our review of the proposed modifications to the wastewater pump station.

The proposed modifications will probably not impact our State highway facility, Sand Island Parkway. However, if it does involve work within our highway right-of-way, please continue to coordinate with us.

Very truly yours,

KAZU HAYASHIDA
Director of Transportation
December 20, 2000

Mr. Kazu Hayashida
Director, Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

Dear Mr. Hayashida:

SUBJECT: SAND ISLAND PARKWAY WASTEWATER PUMP STATION,
DRAFT ENVIRONMENTAL ASSESSMENT, (TMK: 1-5-41:05)

Thank you for your letter of August 15, 2000 (HWY-PS, 2.9652) indicating that the "proposed modifications will probably not impact" Sand Island Parkway. We do not anticipate any work within Sand Island Parkway and will notify you should there be any change. We appreciate your review of the subject Draft Environmental Assessment.

Very truly yours,

[Signature]

FOR GARY L. YEE, AIA
Director

cc: GMP Associates
December 5, 2000

Ms. B. Kainani Andrade, P.E.
Project Engineer
GMP Associates, Inc.
1100 Alakea Street, Suite 1800
Honolulu, Hawaii 96813-2833

Dear Ms. Andrade:

Subject: Sand Island Parkway Wastewater Pump Station Modifications

In response to your October 17, 2000 letter, the draft Final Environmental Assessment for the subject project was reviewed. We have no comments regarding the traffic or transportation impacts of the project.

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

Sincerely,

[Signature]

CHERYL D. SOON
Director
MEMORANDUM

TO:   MS. CHERYL D. SOON, DIRECTOR
      DEPARTMENT OF TRANSPORTATION SERVICES

FROM: GARY O. L. YEE, AIA, DIRECTOR
      DEPARTMENT OF DESIGN AND CONSTRUCTION

SUBJECT: SAND ISLAND PARKWAY WASTEWATER PUMP STATION
         MODIFICATIONS, DRAFT ENVIRONMENTAL ASSESSMENT,
         (TMK: 1-5-41:05)

Thank you for your letter of December 5, 2000 (TPD10/00-05113R) indicating that you “have no
comments regarding the traffic or transportation impacts of the project”. Your review of the
subject Draft Environmental Assessment is appreciated.

cc:   GMP Associates