

# STATE WATER PROJECTS PLAN

Hawaii Water Plan

## **VOLUME 5**

### **SWPP for Island of Oahu**



*For the:*  
*Commission on Water Resource Management*  
*Department of Land and Natural Resources*  
*State of Hawaii*

February 2003

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**ABBREVIATIONS**

AWUDP	Agriculture Water Use and Development Plan
BWS	Board of Water Supply
CIP	Capital Improvements Project
Commission	Commission on Water Resource Management
CWRM	Commission on Water Resource Management
DBEDT	Department of Business Economic Development & Tourism
DHHL	Department of Hawaiian Home Lands
DHS	Department of Human Services
DLNR	Department of Land and Natural Resources
DOA	Department of Agriculture
DOH	Department of Health
DOT	Department of Transportation
DPS	Department of Public Safety
DWS	Department of Water
EXSS	Existing State or Private Sources
EXSWS	Existing State Water Systems
Gpd	gallons per day
Gpm	gallons per minute
HOST	Hawaii Ocean, Science and Technology Park
HRS	Hawaii Revised Statutes
KSBE	Kamehameha Schools Bishop Estate
HWP	Hawaii Water Plan
LHD	Lower Hamakua Ditch
MOU	Memorandum of Understanding
NELHA	Natural Energy Laboratory of Hawaii Authority
NEWSS	New/Planned State Wells
NEWSWS	New State Water Systems
OWMP	Oahu Water Management Plan
PLANPS	Planned Private Sources
SWAP	Source Water Assessment Program
SWPP	State Water Projects Plan
UH	University of Hawaii
UHD	Upper Hamakua Ditch
USEPA	United States Environmental Protection Agency
WIS	Waimea Irrigation System
WQP	Water Quality Plan
WRPP	Water Resource Protection Plan
WUDP	Water Use and Development Plans

# **CHAPTER 1**

## **INTRODUCTION**

---

### **1.1. BACKGROUND**

#### **1.1.1. Legislative History**

The State Constitution, Article XI Section 7, mandates that the State of Hawaii is responsible to protect, control, and regulate the use of Hawaii's water resources for the benefit of its people. Pursuant to this mandate, Act 45, the Fourteenth Legislature signed the State Water Code, into law on July 1, 1987. The Act is now codified as Chapter 174C, Hawaii Revised Statutes (HRS).

#### **1.1.2. State Water Code**

The State Water Code as described in Chapter 174C, HRS, is divided into nine parts. The code outlines administration structure, regulation of water use, water resources planning and water rights. The State Water Code policies insure the maximum beneficial uses of State water for Hawaii residents. The code mandates a program of comprehensive water resource planning to maintain the supply, conservation, and quality of State waters. The State Water Code calls for the establishment of a six member Commission on Water Resource Management (CWRM) to have exclusive jurisdiction and final authority relating to the implementation and administration of the Code. To guide the Commission in executing its general powers, duties, and responsibilities, the Code requires the formulation of a Hawaii Water Plan.

#### **1.1.3. Hawaii Water Plan**

The Hawaii Water Plan serves as a continuing long-range guide for water resource management. The plan consists of five component parts:

- 1) Water Resources Protection Plan (WRPP)
- 2) Water Quality Plan (WQP)
- 3) State Water Projects Plan (SWPP)
- 4) State Agriculture Water Use and Development Plan (AWUDP) (Per modification of Section 174-31, HRS, Act 101)
- 5) Water Use and Development Plans (WUDP) for each County

The Hawaii Water Plan objectives include:

- 1) The attainment of maximum reasonable-beneficial use of water of the State;
- 2) The proper conservation and development of the waters of the State;
- 3) The control of the waters of the State for such purposes as navigation, drainage, sanitation, and flood control;
- 4) The attainment of adequate water quality as expressed in the State Water Resources Protection Plan and Water Quality Plan;
- 5) The implementation of water resource policies of the State Water Code, as expressed in section 174C-2.

By statute, Section 174C-32, HRS, the Hawaii Water Plan was completed and adopted by the commission in 1990. The maintenance and coordination of current water related information requires the CWRM to periodically update components of the plan. The status and schedules for the individual plans are shown on **Table 1.1**.

**Table 1.1**  
**Scheduled Updates to the Hawaii Water Plan**

<b>Hawaii Water Plan</b>	<b>Scheduled Completion Date</b>	<b>Comments</b>
State Water Projects Plan	2003	SWPP Update Complete
State Water Master Plan for Oahu	2004	In Progress
Water Resources Protection Plan	2004	In Progress
Water Quality Plan	No Date Scheduled	Plan Update not Scheduled
Water Use and Development Plan - Maui	No Date Provided	Plan Update Scheduled
Water Use and Development Plan - Kauai	No Date Scheduled	Plan Update not Scheduled
Water Use and Development Plan - Hawaii	No Date Scheduled	Plan Update not Scheduled
Oahu Water Management Plan – Oahu	No Date Provided	Plan Update Scheduled
State Agriculture Water Use and Development Plan	2004	In Progress

## **1.2. OBJECTIVE OF THE SWPP**

The primary objective of the SWPP is to provide a framework for the planning and implementation of Water Development Strategy for future State projects. Other objectives include:

- 1) Inventory State water resources including State wells, stream diversions, and State water systems;
- 2) Inventory State Projects and their water requirements. The State project demands to be incorporated within respective County Water Use and Development Plans for comprehensive water planning. State projects on Oahu to be used to justify source development and water use permits or water reservations from CRWM;
- 3) Inventory State department water conservation programs;
- 4) Develop a Water Development Strategy to meet the needs of proposed State projects;
- 5) Incorporation of the Agricultural Water Use and Development Plans; and
- 6) Consistency with the Water Resources Protection Plan and the Water Quality Plan, and coordination with the Counties' Water Use and Development Plans.



### 1.3. SWPP DOCUMENT FORMAT

The SWPP has been organized into five separate volume reports. The five volumes include: SWPP technical document and four individual island SWPP reports. The SWPP technical document contains statewide department project water planning, methodology, procedures, project demand summaries and water development strategies. Individual island SWPP reports focus on island project demands and strategies to meet project demands. The SWPP volume structure includes:

Volume 1: State Water Projects Plan, Technical Document

Volume 2: State Water Projects Plan, Island of Hawaii

Volume 3: State Water Projects Plan, Island of Kauai

Volume 4: State Water Projects Plan, Island of Lanai/Maui/Molokai

**Volume 5: State Water Projects Plan, Island of Oahu**

### 1.4 ELEMENTS OF STUDY – Volume 5: SWPP Island of Oahu

#### 1.4.1. Inventory of Existing Water Resources

A compilation of available information of existing State wells, stream diversions and water systems owned and/or operated by the State of Hawaii on the island of Oahu was performed. An inventory of existing State water resources were taken to assess the extent of the State's current water-related operations.

#### 1.4.2. Inventory of Proposed State Projects

Each State department was surveyed to inventory future water requirements associated with proposed State sponsored projects. Using a 20-year planning horizon, future State projects were identified by State departments for the period between 2001 and 2020 based on estimated construction schedules. Water demand requirements were tabulated for 2001 and in one-year increments to 2005, then in five-year increments until the year 2020.

#### 1.4.3. Assessment of Future Water Requirements

Upon completion of the State project inventory, an assessment of the future water requirements was performed. Estimated water demands were determined using the best available information. It should be noted that these demands are based on the projected future water requirements and the values derived herein should be reevaluated as the specific projects become better defined.

#### **1.4.4. SWPP Water Development Strategy**

The SWPP Water Development Strategy was developed to identify, evaluate and recommend source development options to meet the forecasted State project water demands. Strategy options and recommendations were organized into two periods: Short-term (2001 to 2010) and the Long-term (2011 to 2020). The strategy objective was to provide more effective planning, coordination and development of water resources to meet projected State water demands. The strategy utilized several source development options including, but not limited to, existing and/or planned State water sources/systems, county/private water agreements, and existing master plans, all of which were prioritized and assigned to individual SWPP projects. These strategy options, however, are preliminary in nature and must be further evaluated with regard to scheduling, funding, system reliability, requirements for infrastructure improvements, and other planning considerations. DLNR will initiate discussions with City and County of Honolulu, Board of Water Supply on the availability and feasibility of County water systems accommodating SWPP project demands. In the event County water systems are unable to supply SWPP project demands, DLNR will assist to develop additional source or system capacity.

## **CHAPTER 2**

### **EXISTING STATE WATER RESOURCES**

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#### **2.1. GENERAL**

The vast majority of existing State facilities including schools, office buildings, airports, harbors, housing projects and institutions are served by water systems owned and operated by the respective Counties. The County water departments are specifically organized to manage, maintain and operate water systems and are usually more capable of efficiently providing water service. However, in areas where the Counties do not have distribution systems, other purveyors, including State, Federal or private agencies, must provide water service to their respective facilities.

An inventory of existing State owned and operated water systems was conducted to assess the extent of the State's current water-related operations, and are discussed in Section 2.4 below. Information on existing water uses and sources registered by the State were also compiled and are presented herein.

#### **2.2. STATE WATER RESOURCES**

##### **2.2.1. Wells**

A "Well" is defined as "any excavation or opening in the ground, or an artificial enlargement of a natural opening drilled, tunneled, dug, or otherwise constructed for the location, exploration, development, injection, or recharge of ground water and by which ground water is drawn or is capable of being withdrawn or made to flow." The State currently owns 195 existing wells. There are 79 existing State wells located on the island of Oahu, shown on **Figure 2.1**. A listing of the State owned wells located on the island of Oahu are included in **Appendix B**. State well data and location was referenced from CWRM databases.

Water from the State wells is used for various applications. Principal uses include potable water supply and irrigation. Miscellaneous uses include cooling water, landscaping, aquaculture, and wetland maintenance.

##### **2.2.2. Stream Diversions**

A "Stream Diversion" is defined as "the act of diverting, pumping or otherwise removing water from a stream into a channel, ditch, pipeline, or other conduit." Based on registered stream diversion records with CWRM, the State of Hawaii currently owns and/or operates 54 stream diversions. There are 10 existing registered stream diversions located on the island of Oahu, shown in **Figures 2.2**. A listing of the State owned/operated diversions is included in **Appendix B**. The water collected from existing State diversion works is used primarily for agricultural operations. Other uses include potable water supply, generally for remote areas, e.g. parks and recreation areas. Since diversion works involve surface water sources, the collected water generally requires treatment before it is considered safe for human consumption.

### 2.2.3. State Owned and/or Operated Water Systems

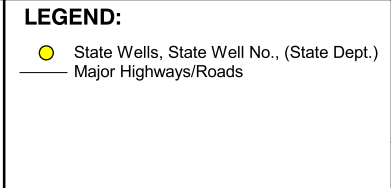
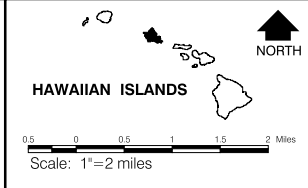
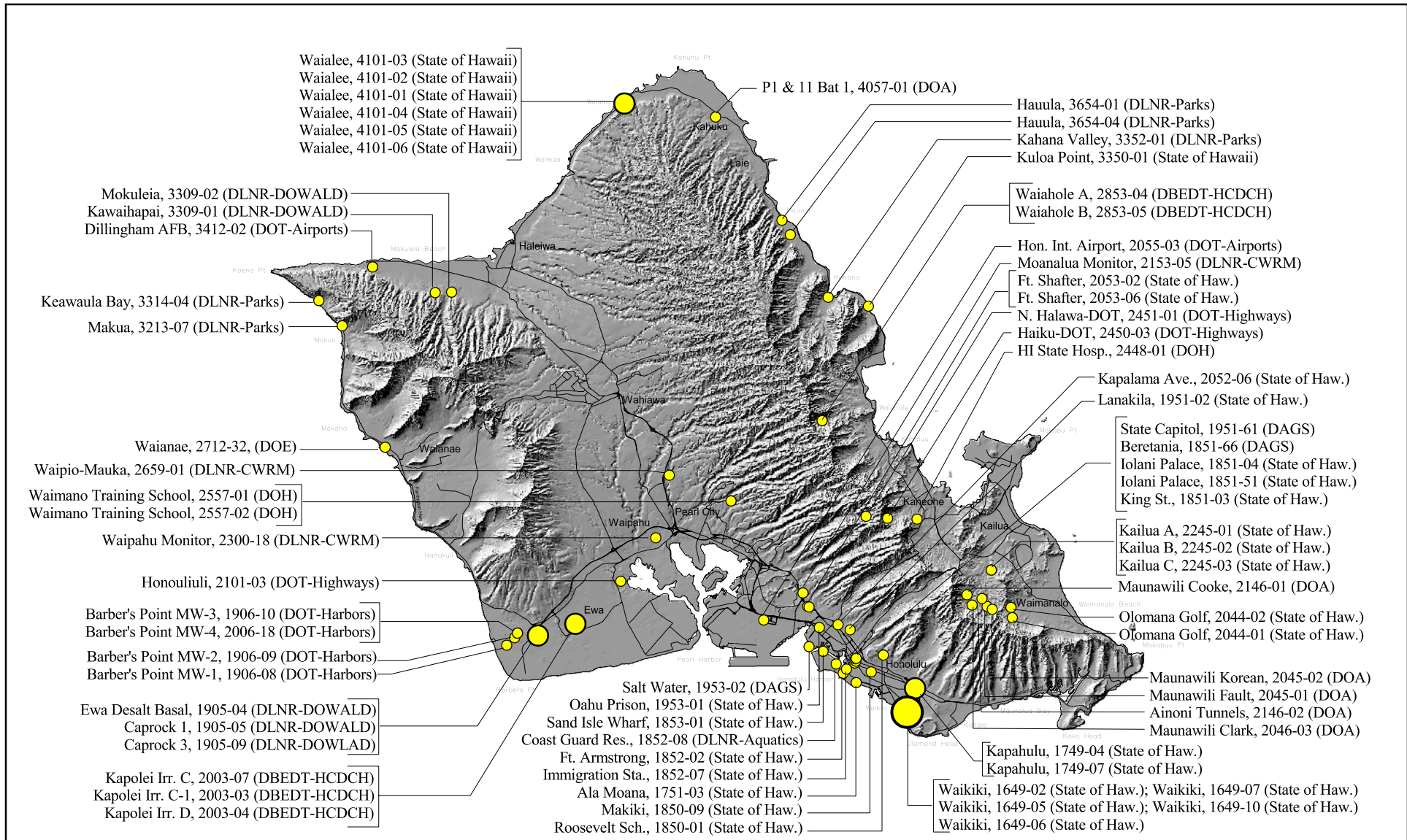
A State water system is defined as a water system owned and/or operated by the State that provides water service to State projects or facilities; provides source water and treatment of source water; stores water in storage reservoirs; provides booster pump capacity; conveys water through a distribution system and distributes water to service connections.

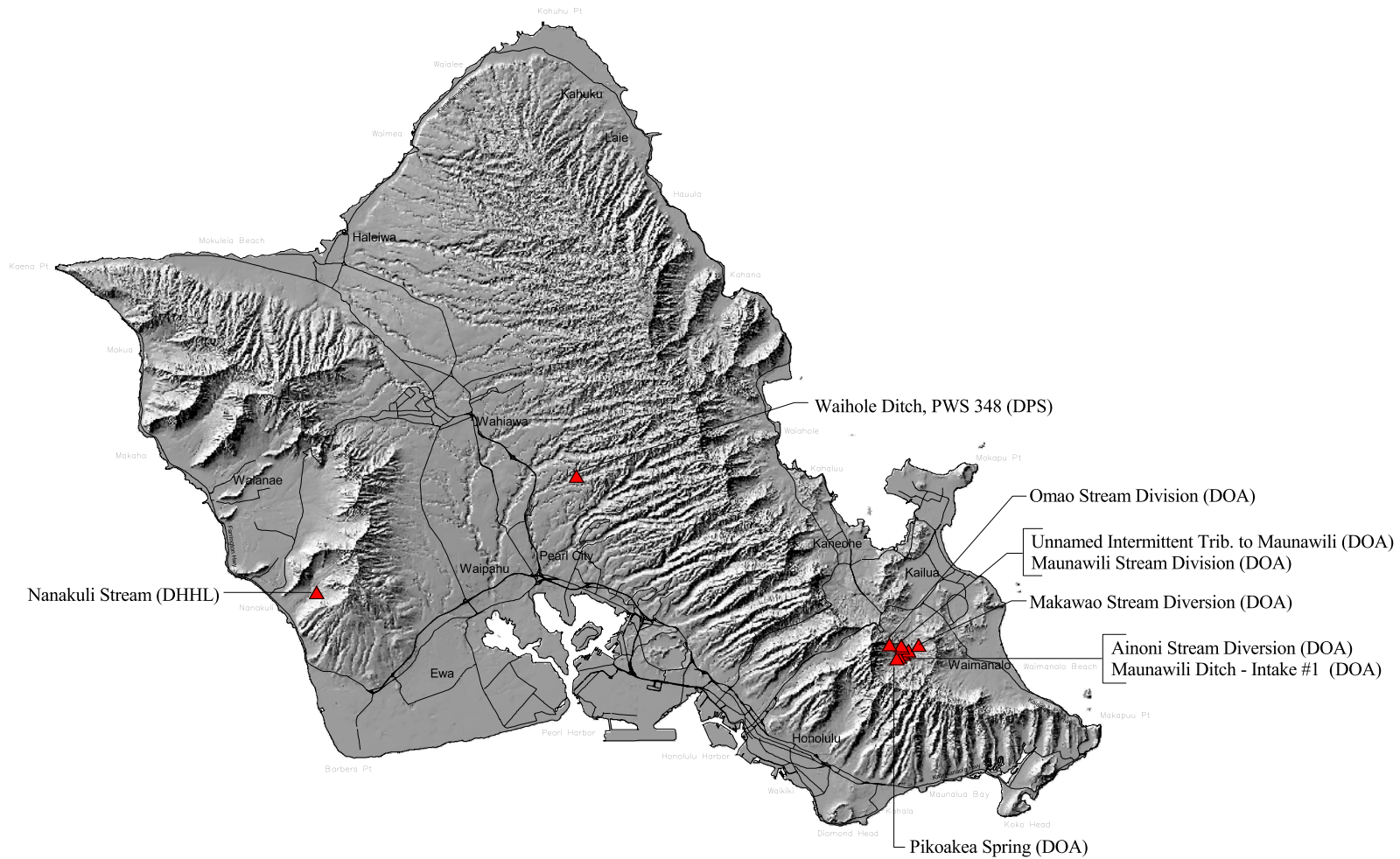
A State water system is also defined when a County or private source supplies a State owned and/or operated water service serving State facilities. The State water systems are listed in **Table 2.1** by State department. Location map of State water systems on the island of Oahu is shown in **Figures 2.3**. Schematic line diagrams showing water systems components, end users and existing/future water demands are provided in **Appendix B**.

**Table 2.1**  
**Water Systems Owned or Operated by the State**

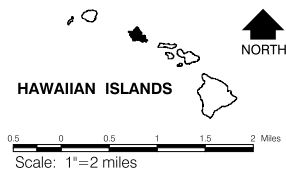
Water System Name	State Agency	Island	Primary Use	State Owned	State Operated
Kahuku Irrigation System	DOA	Oahu	Irrigation	Yes	Yes *
Waiahole Ditch	Ag.Bus Dev Corp.	Oahu	Nonpotable	Yes	Yes
Waimanalo Irrigation System	DOA	Oahu	Irrigation	Yes	Yes
Waiahole Water System	DBEDT	Oahu	Potable	Yes	Yes *
Hawaii State Hospital	DOH	Oahu	Potable	Yes, Source provided by BWS	Yes
Waimano Training School	DOH	Oahu	Potable	Yes	Yes
Hawaii Youth Correctional Facility	DHS	Oahu	Potable	Yes, Source provided by BWS	Yes
Kaena Point SP - Leeward	DLNR	Oahu	Nonpotable	Yes	Yes
Kahana Valley SP	DLNR	Oahu	Potable	Yes	Yes
Keaiwa Heiau SRA	DLNR	Oahu	Potable	Yes	Yes
Makiki-Tantalus SP - Puu Ualakaa SW	DLNR	Oahu	Potable	Yes	Yes
Waahila Ridge SRA	DLNR	Oahu	Potable	Yes	Yes
Waiawa Correctional Facility	DPS	Oahu	Potable	Yes	Yes
Dillingham Airfield	DOT	Oahu	Potable	No, US Army	Yes *
Waialeale Livestock Station	UH	Oahu	Irrigation	Yes	Yes

Note: \* State water system operated by private contractor, managed by the State





**Dept. of Land and Natural Resources**  
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**LEGEND:**  
 ▲ State Stream Diversions (State Dept.)  
 — Major Highways/Roads

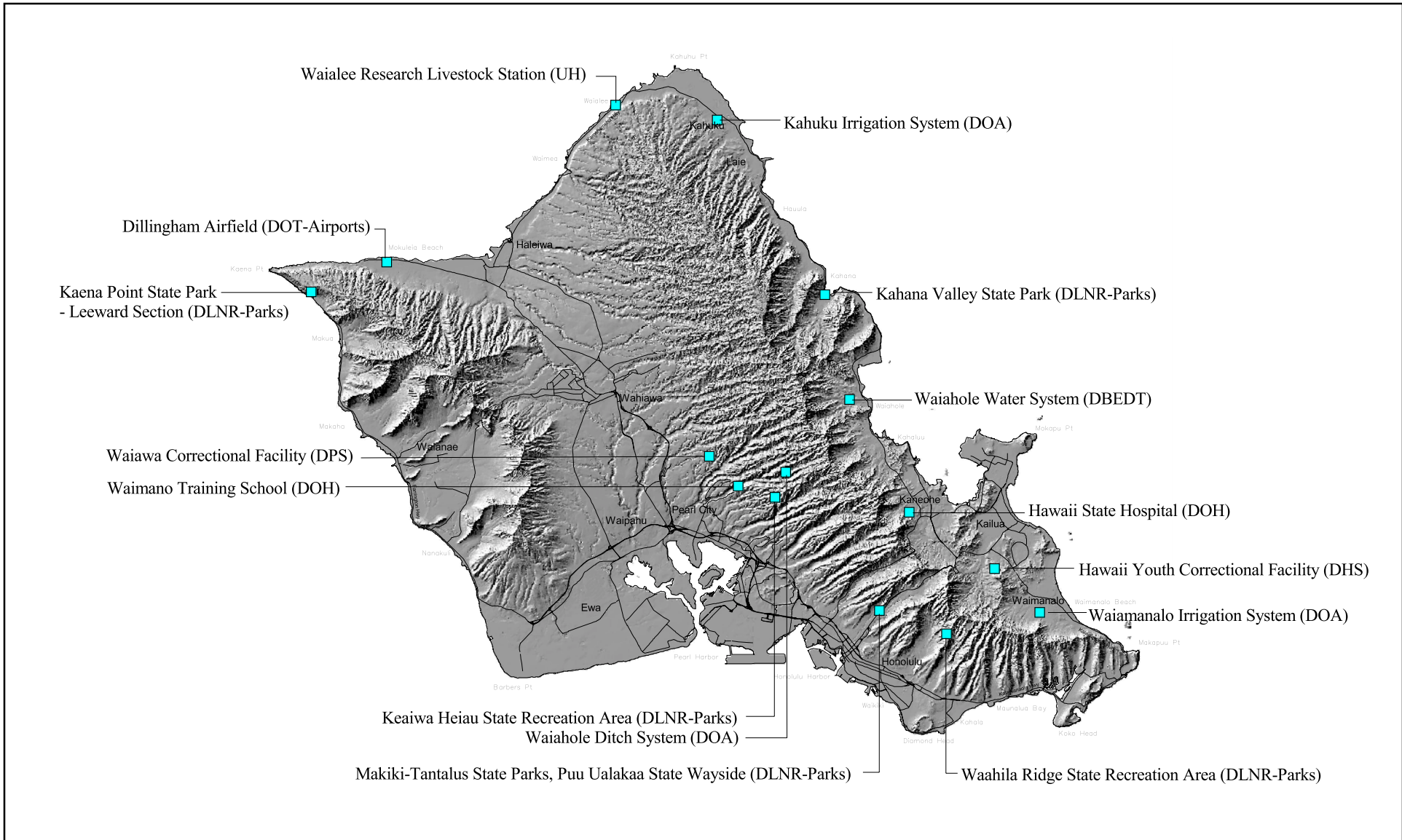
**State Water Projects Plan**  
**EXISTING STATE STREAM DIVERSIONS - OAHU**  
**FIGURE 2.2**

Date: February 2003

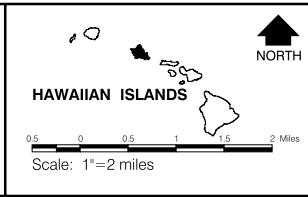
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 Engineering Branch  
 Commission on Water Resource Management



**LEGEND:**  
■ State Water Systems (State Dept.)  
 — Major Highways/Roads

**State Water Projects Plan**  
**EXISTING STATE WATER SYSTEMS - OAHU**  
**FIGURE 2.3**

Date: February 2003

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## 2.3. WATER SYSTEMS OWNED AND/OR OPERATED BY THE STATE

An inventory of State owned and/or operated water systems were compiled as part of the SWPP data survey. Department of Health, “Sanitary Survey Forms” for public water systems were referenced for system information. CWRM “Registration of Stream Diversion Works and Declaration of Water Use” were also used as system information references. Water System field operators were contacted to obtain and verify current system data.

The objectives of the State water system inventory was to provide:

- 1) A comprehensive list of State water systems;
- 2) Description of water system components and service areas including: source, storage, booster, pump, distribution, service connections, service area, primary water use, existing consumption and future water demand, schematic diagram for each water system and GIS mapping;
- 3) Identify water system, which contain surplus source capacity. Surplus source capacity was determined by comparing water source capacity (groundwater wells, catchment systems and/or stream diversions) against existing average day and maximum day consumption;
- 4) Determine whether water systems with surplus capacity could accommodate future State project water demands.

### 2.3.1. Evaluation Of Water System Source Capacity

Water system sources range from single source (groundwater well, stream diversion) to multiple combination of sources. A standardized approach to evaluate water system source capacity was based on the following methodology:

- 1) Identify water system source and source capacity;
- 2) If a system is supplied by a groundwater well, the pump capacity of the well was used;
- 3) If a system is supplied by a stream diversion, the design capacity of the diversion was used, if the diversion capacity information was available;
- 4) Systems served by stream diversions and wells, the combined source capacity of the diversion and well was used;
- 5) If the stream diversion design capacity was not known, the intake capacity into the reservoir was used. (Note: Design stream diversion capacity was not available on many stream diversions. Stream diversion flows are rarely measured in the field.) For water systems supplied by stream diversions with no information concerning the



stream diversion capacity, the evaluation of source capacity adequacy could not be performed.

The following procedure documents the criteria and methods used to determine the existing average and maximum day consumption, source capacity and water system surplus source capacity.

2.3.1.1. Determine the Existing Average Day and Maximum Day Consumption

Existing metered consumption records were obtained from State agencies. An estimation of water consumption was performed for water systems, which do not meter existing consumption. Water System Standard Domestic Consumption Guidelines average daily demand unit rates and land use type units/areas along with other unit rates provided by State departments were used to calculate estimated water demands. The maximum day demand was then calculated by multiplying the average day demand by a demand factor of 1.5. Primary use of the water was also identified.

2.3.1.2. Determine the Source Capacity

- 1) For water systems served by a single groundwater well, the safe source capacity was based on a well pump operating time of 16 hours a day, allowing for 8 hours of down time per average day. The safe source capacity is calculated by multiplying the well capacity by a factor of 16 hours/24 hours/day.
- 2) For water systems served by a single stream diversion, the source capacity was based on the design stream diversion capacity, if available.
- 3) For water systems served by multiple groundwater wells, the cumulative safe source capacity was based on the cumulative well capacities, well pump operating time of 16 hours a day with the largest well pump on stand-by.
- 4) For water systems served by multiple stream diversions, the source capacity was based on the cumulative design stream diversion capacities, if available.
- 5) For water systems served by both multiple groundwater wells and stream diversions, the cumulative safe source capacity was based on the cumulative well capacities and design stream diversion capacities, well pump operating time of 16 hours a day with the largest well pump on stand-by.
- 6) If the design stream diversion capacity was not known, the average intake capacity was used as the water system source capacity.

- 7) For water systems supplied by stream diversions with no information concerning the stream diversion capacity, the evaluation of source capacity adequacy could not be performed.

#### 2.3.1.3. Determine Surplus Source Capacity

A comparison of the water system cumulative safe source capacity against existing maximum day consumption or estimation of maximum day demand was performed to evaluate source capacity adequacy. Water systems with source capacity greater than existing maximum day demand were identified as water system with surplus source capacity.

#### 2.3.1.4. Determine Irrigation System Source and Storage Capacity

Existing State irrigation system source and storage capacities were referenced using engineering design reports and water budget computations. The design reports identify the irrigation system inflow source capacity, required storage volume, and the design irrigation area based on system demands. Water budget computations evaluate storage requirements based on the inflow and outflow of the irrigation system. The inflow into the system is based on source capacity and rainfall. Outflow from the system is based on irrigation demand requirements (crop requirements, planting schedules), system loss and evapotranspiration.

#### 2.3.1.5. Evaluation of Future Project Water Demand

Future projects to be served by existing State water systems were identified. The future project water demand was added to the existing consumption and evaluated against the source capacity of the water system. For irrigation systems, detailed information of the irrigation requirements was not available. New water budget calculations are recommended for irrigation systems with planned expansions.

## 2.4. DESCRIPTION AND EVALUATION OF STATE WATER SYSTEMS

### 2.4.1. Department Of Agriculture Water Systems

The Department of Agriculture (DOA) owns three agricultural irrigation water systems:

Kahuku Irrigation System (Oahu),  
Waihole Ditch System (Oahu),  
Waimanalo Irrigation System (Oahu).

#### 2.4.1.1. Kahuku Irrigation System

The Kahuku Irrigation System is located in Kahuku within the Koolauloa District on the island of Oahu. The system is located in the Windward hydrological sector, and Koolauloa system. The irrigation system is owned by the State of Hawaii and managed

by the Department of Agriculture. The system is operated and maintained by Mel's Water Works, a private contractor. The Kahuku Irrigation System is supplied by Pump 1 battery, State Well No. 4057-01. There are six pumps: 3 - 50 hp pumps with capacities of 0.72 mgd, 0.72 mgd and 0.86 mgd respectively; and 3 - 100 hp pumps with capacities of 0.86 mgd for each pump. The Pump 1 battery produces nonpotable water, with a total pumping capacity of 4.90 mgd and a cumulative safe source capacity of 2.68 mgd. The Kahuku well battery has a permitted water allocation of 0.307 mgd. A request from DOA to CWRM to increase the permitted water allocation to 1.28 mgd is currently being processed. The Kahuku Farmers Association (lot number 25) obtains source water directly from the well site (3 - 50 hp pumps), the other 24 farm lots receive water from the 3 - 100 hp pumps which pumps the water to a 0.1 mg steel reservoir tank situated at the 300 foot elevation. The transmission and distribution system from the reservoir tank to the 24 individual farm lots is composed of 12-inch and 8-inch ductile iron pipes. The irrigation system serves the Kahuku Agricultural Park, which consists of 25 farm lots of 370 usable farming acres. Presently, only one lot is being leased and occupied by the Kahuku Farmers Association. They occupy lot number 25, which has 215 acres of farmable land. The existing consumption of the Kahuku Farmers Association in 1997 was 0.42 mgd. The consumption was lower than past historical demand due to drought restrictions placed on water usage. Historical records indicate water consumption from the Kahuku Farmers Association was 0.93 mgd. The types of crops grown include: sweet corn, banana, papaya, eggplant, and watermelon. The remaining 24 farm lots are anticipated to be leased and occupied by the end of 1999. The estimated water demand for the 24 farm lots and 155 acres is 0.775 mgd. The cumulative design source capacity is adequate to meet existing consumption from the Kahuku Farmers Association and the projected water demand from the additional 24 farm lots. Note: The existing consumption, historical consumption and projected demand exceed the permitted water allocation from CWRM.

#### 2.4.1.2. Waiahole Ditch System

The Waiahole Ditch and tunnel system is located on the island of Oahu. The water system is owned by the State of Hawaii and operated by the Agribusiness Development Corporation. The system is located in the hydrological sectors: Windward, Central and Pearl Harbor and systems: Kahana, Koolaupoko, Wahaiawa and Waipahu-Waiawa. The system was constructed between 1913 and 1916, as a means of transporting water from the windward side of Oahu, through the Koolau Mountains to the central and leeward areas, primarily for agricultural uses. The total length of the system is approximately 25 miles. The source water is collected from high level dike impounded ground water and surface water in Kahana Valley. The source of the high level water and amount received are as follows: the Kahana tunnel (1.1 mgd), Waikane #1 (4.2 mgd), Waikane #2 (1.1 mgd), Uwau tunnel (13.5 mgd), Tunnel to North Portal (1.3 mgd) and the Main Tunnel (3.7 mgd). Surface source water collected from unnamed tributaries of Kahana Stream provides 2.1 mgd to the system. The Waiahole ditch system consists of open/concrete lined ditches, gates, flumes and siphons. The present flow is estimated at 27 mgd.

#### 2.4.1.3. Waimanalo Irrigation System

The Waimanalo Irrigation System is located in Waimanalo on the windward coast of the island of Oahu. The system is located in the Windward hydrological sector, and Waimanalo system. The irrigation system is owned by the State of Hawaii, managed by the Department of Agriculture and operated and maintained by the Agricultural Resource Management Division. The irrigation system was constructed in 1878 by the Waimanalo Sugar Company for sugar cane irrigation. The sources for the Waimanalo Irrigation System includes five intake structures: intake structure number 1 diverts water from Clark Tunnel; intake structure number 3 diverts stream water from Maunawili Stream; intake structure number 10 diverts stream water from Ainoni Stream; intake structure number 16 diverts water from Fault Tunnel; and intake structure number 17 diverts stream water from Makawao Stream. The intake structures are located in the Waimanalo Forest Reserve in Maunawili Valley. Water is transmitted from the intake structures to a 60 million gallon lined reservoir in Waimanalo via an open ditch and tunnel system composed of concrete lined ditches, open ditches, siphons, flumes and Aniani Nui Tunnel, approximately four miles in length. The source intake water measured by USGS gage station at the control box is 1.48 mgd. The 60 MG reservoir is located at the end of Mahailua Street at an elevation of approximately 300 feet. From the reservoir a distribution system composed of 6-inch to 24-inch transmission lines services the farm lots. The irrigation system currently serves approximately 580 acres, with 67 metered service connections. The irrigation system serves smaller diversified agricultural farms in the Waimanalo Agricultural Farm lot Subdivisions. The irrigation water is used to supply agricultural crops such as corn, papaya, banana, vegetables, taro, soybeans, turfgrass and tropicals. The existing consumption identified by water sold (MG) and acreage served is shown on **Table 2.2**. The DOA plans to expand the irrigation system by a total of 250 acres and require an additional 1.25 mgd of irrigation water. The project expects to add 50 acres and 0.25 mgd each year until 2003. The Waimanalo Agricultural Farm lot Subdivision potable water and fire protection is provided by a separate BWS water system.

Based on the Design Report for the Waimanalo Reservoir, prepared by US Department of Agriculture, Soil Conservation Service, 1990, the design irrigation acreage served by the 60 MG reservoir was calculated at 650 acres. The design irrigation acreage for the 60 MG is based on estimation of crops, truck crop and nursery irrigation requirements, monthly irrigation distribution seepage and other losses = 5 %, zero rainfall and monthly inflow available into the reservoir of 2.4 mgd. The proposed expansion of the agriculture subdivision will reach the design irrigation acreage by 2000. However the future expansion demand and current consumption is not expected to exceed the existing source capacity until the 5<sup>th</sup> year of the project, in the year 2003. A water budget calculation is recommended to determine source and storage adequacy based on the planned expansions. Note: Design irrigation acreage may be reached within 2 years. However, current consumption (0.35 mgd) plus additional future demand for 200 acres expansion (1.00 mgd) are still below existing source intake of 1.48 mgd.

**Table 2.2  
State Irrigation Systems**

Fiscal Year	Molokai Irrigation System		Waimanalo Irrigation System		Kekaha Irrigation System	
	Water Sold (MG)/ (mgd)	Acreage Served (Acres)	Water Sold (MG)/ (mgd)	Acreage Served (Acres)	Water Sold (MG)/ (mgd)	Acreage Served (Acres)
94-95	1,811.85/ 4.96	3,343	94.42/ 0.26	1,083		
95-96	1,529.78/ 4.19	3,395	124.35/ 0.34	1,085		
96-97	1,176.53/ 3.22	3,382	140.07/ 0.38	1,085		
97-98	1,626.31/ 4.46	3,298	128.28/ 0.35	583	0/ 0	43

Note: The Kahuku Irrigation System Water Sold and Acreage Served Information were not available.

#### **2.4.2. Department Of Business And Economic Development**

There is one water system under the Department of Business Economic Development & Tourism (DBEDT):

Waiahole Water System (Oahu)

##### **2.4.2.1. Waiahole Water System**

The Waiahole water system is located in Waiahole Valley on Oahu. The system is located in the Windward hydrological sector, and Koolaupoko system. The water system is owned by the State of Hawaii and managed by the Housing and Community Development Corporation of Hawaii within the Department of Business Economic Development & Tourism. The Waiahole water system is DOH public water system 368. The water system is operated by a private contractor, Doonwood Engineering, Inc. The source for the water system are two wells, State well numbers 2853-04 and 2853-05, with a design pump capacity of 1.15 mgd for each well. The safe source capacity is 0.77 mgd. The Waiahole well battery has a permitted water allocation of 0.075 mgd. The water is chlorinated by a gas unit chlorinator at the well sites. The well water is pumped to a 2,100 gallon fiberglass tank, elevation 537.7 and gravity fed to a 1.0 MG steel reservoir at elevation 199.0. The distribution system consists of 8-inch water lines. The water system serves 90 service connections with a residential population of 300 people. The water system also services the Waiahole Elementary School. The water use types consist of residential, diversified agriculture and elementary school. The existing consumption of the residents, farmers and elementary school averaged 0.14 mgd between December 1997

and November 1998. The existing maximum day demand is 0.21 mgd. The Department of Hawaiian Home Lands will add 22 residential lots to the water system. The projected increased water demand is 0.011 mgd. The estimated maximum day demand with the projected expansion is 0.23 mgd. The safe source capacity for the Waiahole water system has adequate capacity to meet current consumption and future maximum day demand.

### **2.4.3. Department Of Health**

The Department of Health (DOH) owns two water systems:

Hawaii State Hospital (Oahu),  
Waimano Training School and Hospital (Oahu).

#### **2.4.3.1. Hawaii State Hospital Water System**

The Hawaii State Hospital water system is located in Kaneohe, Oahu. The system is located in the Windward hydrological sector, and Koolaupoko system. The water system is owned and operated by the State of Hawaii, Department of Health. The water system is classified as a public water system, DOH number 317. The water system is currently supplied by the BWS water system through a 4-inch meter. The water quality from the DOH groundwater well, State well number 2448-01, which used to serve the Hawaii State Hospital water system does not meet DOH drinking water standards. The pumping capacity of the out of service well was 0.65 mgd. The well has a permitted water allocation of 0.088 mgd. The well water was treated using salt pellets at the well site. The well water was stored in an underground concrete reservoir and pumped to a 0.60 MG reservoir at elevation 427 feet. The treatment process and storage reservoir were also taken out of service. The distribution system serves both the Hawaii State Hospital and parts of the Windward Community College. The newly constructed buildings at Windward Community College have a separate BWS connection. Water consumption from the water system has steadily decreased in average gallons used per month since 1993. Data from CWRM monthly ground water use report in 1997 indicate 0.07 mgd water usage from the water system. There is no future water demand anticipated for the water system. Evaluation of surplus source capacity for the Hawaii State Hospital water system should be conducted as part of the planned update of the Oahu Water Use and Development Plan.

#### **2.4.3.2. Waimano Training School and Hospital Water System**

The Waimano Training School and Hospital water system is located in Pearl City, Oahu at the end of Waimano Home Road. The system is located in the Pearl Harbor hydrological sector, and Waimalu system. The water system is owned and operated by the State of Hawaii, Department of Health. The DOH public water system number is 306. The water supply consists of two groundwater wells, State well numbers 2557-01 and 2557-02, with a pumping capacity of 0.58 mgd for each pump. The safe source capacity is 0.39 mgd. The well battery has a permitted water allocation of 0.136 mgd. The water is chlorinated by a gas unit chlorinator at the well sites. The water is pumped

from the well sites to a 0.10 MG concrete reservoir at elevation 600 feet. The water is boosted by two booster pumps to two reservoirs: a 0.60 MG steel reservoir and a 0.10 MG steel reservoir located on a hill above the Waimano Home at an elevation of 840 feet.

Water is fed by gravity through a 6-inch and 12-inch cast iron distribution system. The water system serves the Waimano Training School and Hospital, DOH Laboratory Facilities, Pearl City Cultural Center (DOE), Training Academy and meal preparation for Waiawa Correctional Facility (DPS) and numerous private users. The total estimated water use from the system is 0.133 mgd. The existing maximum day demand is 0.20 mgd. The DOH SWWP project, Residence Children Facility - Oahu (DOH) is planned for this water system. The future average day demand is estimated at 0.0047 mgd, with a maximum day demand of 0.007 mgd. The total future and existing maximum day demand is 0.207 mgd. The source capacity for the Waimano Training School and Hospital water system has adequate capacity to meet current consumption and future maximum day demand.

#### **2.4.4. Department Of Human Services**

The Department of Human Services (DHS) owns one water system, the Hawaii Youth Correctional Facility water system on Oahu.

##### **2.4.4.1. Hawaii Youth Correctional Facility Water System**

The Hawaii Youth Correctional Facility water system is located in Kailua, Oahu. The system is located in the Windward hydrological sector, and Waimanalo system. The water system is owned and operated by the State of Hawaii, Department of Human Services, Office of Youth Services. Board of Water Supply supplies the water from an 8-inch connection off of Kalaniana'ole Hwy. The water from the BWS services the makai and mauka sides of the correctional facility. The makai end includes the Women's Correctional Facility. The water on the mauka side is pumped up to two reservoirs: a 0.5 MG reservoir and a 0.125 MG reservoir, which serves the Hawaii Youth Correctional Facility, Department of Education Olomana School and the Department of Public Safety Officer Training Facility. The distribution system consists of over 1,000 LF of 8-inch water line, booster pump facility and storage reservoirs. The existing average day consumption for the water system between December 1997 and November 1998 was 0.044 mgd. The maximum day demand was estimated at 0.066 mgd. The future average day water demand is projected to increase by 0.0038 mgd in the year 2000. Evaluation of the source capacity for the Hawaii Youth Correctional Facility water system should be conducted as part of the planned update of the Oahu Water Use and Development Plan.

### 2.4.5. Department of Land and Natural Resources

The Department of Land and Natural Resources (DLNR), Division of State Parks owns and operates five State Park water systems:

Kaena Point State Park - Leeward Section Water System (Oahu),  
Kahana Valley State Park Water System (Oahu),  
Keaiwa Heiau State Recreation Area Water System (Oahu),  
Makiki-Tantalus State Park - Puu Ualakaa State Wayside Water System (Oahu),  
Waahila Ridge State Recreation Area (Oahu).

#### 2.4.5.1. Kaena Point State Park Water System - Leeward Section

The Kaena Point State Park - Leeward Section water system is located at the end of Farrington Highway on the Waianae Coast on the island of Oahu. The system is located in the Waianae hydrological sector, and Keaau system. The water system is owned and operated by the State of Hawaii and managed by the DLNR-State Parks. The source for the nonpotable water system is a groundwater well, Keawaula Bay (3314-04), with a pump capacity of 0.13 mgd. The safe source capacity is 0.09 mgd. The nonpotable water is boosted by a booster pump and fed into an irrigation system. The estimated existing irrigation demand for the park is 0.008 mgd. The estimated increase future irrigation for the park is 0.024 mgd based on an expansion of 6 acres of park landscaping. An additional nonpotable well, Kahanahaiki (3213-07) and booster pump has been constructed. The well provides additional source capacity of 0.14 mgd. The Kaena Point State Park - Leeward Section nonpotable groundwater sources are adequate to meet current irrigation consumption and future irrigation demands. The future potable demand projected by State Parks is 0.01 mgd, which is served by the BWS water system.

#### 2.4.5.2. Kahana Valley State Park Water System

The Kahana Valley State Park is located in Kahana Valley between Kaaawa and Punaluu, above Kamehameha Hwy on the island of Oahu. The system is located in the Windward hydrological sector, and Kahana system. The Kahana State Park water system is classified as a public water system, DOH number 327. The State Parks owns the water system, but does not maintain or operate the water system. The water system includes an artesian well, State well number 3352-01 and a two-inch galvanized iron pipe water line. The well has a permitted water allocation of 0.008 mgd. The two-inch line extends from the well head into the valley. The water system serves approximately six residential houses in the valley. The Kahana Valley State Park facilities are served by the BWS water system. The residential water use is not metered. The water demand is estimated at 0.008 mgd. There are no future expansion plans for the water system. Water levels in the artesian well have maintained to provide adequate capacity and water pressure to meet the current consumption.



#### 2.4.5.3. Keaiwa Heiau State Recreation Area Water System

The Keaiwa Heiau State Recreation Area water system is located at the end of Aiea Heights Drive, in Aiea Heights on the island of Oahu. The system is located in the Pearl Harbor hydrological sector, and Waimalu system. The water system is owned and operated by the State of Hawaii and managed by the DLNR-State Parks. The potable water serving the park is obtained from the BWS. The water is boosted by a booster pump into a 0.02 MG reservoir, and then distributed through the water system to park facilities. The park facilities include restrooms, caretaker residence and campground area. The existing metered consumption from park facilities is 0.002 mgd. Future water demands for the park were not reported. Evaluation of the source capacity for the Keaiwa Heiau water system should be conducted as part of the planned update of the Oahu Water Use and Development Plan.

#### 2.4.5.4. Makiki-Tantalus State Park - Puu Ualakaa State Wayside Water System

The Makiki-Tantalus State Park - Puu Ualakaa State Wayside water system is located in upper Makiki on the island of Oahu. The system is located in the Honolulu hydrological sector, and Nuuanu system. The water system is owned and operated by the State of Hawaii and managed by the DLNR-State Parks. The potable water serving the park is obtained from the BWS. The water is boosted by a booster pump into a 0.008 MG reservoir, and then distributed through the irrigation system to park facilities. The park facilities include restrooms, caretaker residence and campground area. The existing metered consumption from park facilities is 0.001 mgd. The future potable demand projected by State Parks is 0.03 mgd. Evaluation of the source capacity for the Makiki-Tantalus Puu Ualakaa State Wayside water system should be conducted as part of the planned update of the Oahu Water Use and Development Plan.

#### 2.4.5.5. Waahila State Recreation Area Water System

The Waahila State Recreation Area water system is located in St. Louis Heights on the island of Oahu. The system is located in the hydrological sector, Honolulu and system, Nuuanu. The water system is owned and operated by the State of Hawaii and managed by the DLNR-State Parks. The potable water serving the park is obtained from the BWS. The water is stored in a 0.01 MG reservoir and distributed through an irrigation system to park facilities. The park facilities include a restroom and three pavilions. The existing metered consumption from park facilities is 0.002 mgd. Future water demands for the park were not reported. Evaluation of the source capacity for the Waahila water system should be conducted as part of the planned update of the Oahu Water Use and Development Plan.

## **2.4.6. Department Of Public Safety**

The Department of Public Safety (DPS) owns and operates one existing water system:

Waiawa Correctional Facility (Oahu).

### **2.4.6.1. Waiawa Correctional Facility Water System**

The Waiawa Correctional Facility is located in central Oahu, nearly 2-1/2 miles east of the H-2 Freeway and Mililani Memorial Cemetery Road interchange. The system is located in the Pearl Harbor hydrological sector, and Waipahu-Waiawa system. The water system is owned and operated by the State of Hawaii, Department of Public Safety. The correctional facility was originally a U.S. Army radio station facility. The State of Hawaii acquired the facility in 1985. The water system is classified as DOH public water system number 348. Source water for the correctional facility is obtained from the Waiahole Ditch through two intake water lines. The design diversion capacity is 37.50 gpm (0.05 mgd). The permitted water allocation from the Waiahole Ditch system is 0.15 mgd. Improvements to the potable water system were completed in April 1999. The water treatment facility capacity was increased to meet maximum day demands. A new 0.33 MG storage reservoir and potable water distribution system was installed to provide adequate domestic and fire flow capacities. Two booster pump stations (No. 6 and 7) pump the treated water to the new 0.33 MG reservoir and distributed through the new water system. The distribution system consists of 6-inch, 8-inch and 12-inch water lines. The existing inmate population was 134 inmates. The estimated existing average day demand is 0.02 mgd. The estimated maximum day demand is 0.03 mgd. The facility is expected to increase by 200 inmates to 334 inmates. The future increase in average day demand is 0.03 mgd. The future increase in maximum day demand is 0.045 mgd. A separate nonpotable system serves a small scale farming activity at the correctional facility. The irrigation water is stored in a 0.092 MG reservoir and supplied through a nonpotable irrigation system. The existing irrigation water use was not provided. There were no reported plans to expand the farming activities. The improved potable water system is adequate to meet existing and future potable water requirements.

## **2.4.7. Department Of Transportation**

The Department of Transportation (DOT) operates one water system, the Dillingham Airfield water system on the island of Oahu.

### **2.4.7.1. Dillingham Airfield Water System**

The Dillingham Airfield water system is located in the Mokuleia, Oahu. The system is located in the North hydrological sector, and Mokuleia system. The United States Army owns the Dillingham Airfield water system. The Dillingham Airfield water system is DOH public water system 338. The Department of Transportation, Airports Division (DOT-A) leases the facility from the Army. A private contractor, R.I. Namba Construction maintains and operates the water system for DOT-A. The source for the

water system is the Army owned well, State well number 3412-02, with a design pump capacity of 0.72 mgd. The safe source capacity is 0.48 mgd. The well has a permitted water allocation of 0.055 mgd. The water is chlorinated with a gas unit chlorinator at the well head. The well water is stored into a 0.1 MG storage reservoir at an elevation 200 feet. The distribution system branches into a 4-inch line serving the Army beach, Camp Erdman and the Kaena Point Satellite tracking station; and 6-inch line, which serves the airfield complex and Mokuleia Beach Park. A booster pump station is located on the 4-inch line branch to increase the water pressure. The existing metered consumption is 2,650,000 gal per month. The average day consumption is 0.087 mgd, with a maximum day demand of 0.13 mgd. The estimated increase future demand is 0.035 mgd. The Dillingham Airfield has adequate safe source capacity to meet the maximum day demand and increase in future demand.

#### **2.4.8. University Of Hawaii**

The University of Hawaii (UH) owns one water system, the Waialeale Livestock Research Station water system on Oahu.

##### **2.4.8.1. Waialeale Livestock Research Station Water System**

The Waialeale Livestock Research Station water system is located in Waialeale on the North Shore of Oahu. The system is located in the hydrological sector, North and system, Kawaihoa. The water system is owned and operated by the State of Hawaii, University of Hawaii, Manoa, College of Tropical Agriculture and Human Resources. The Waialeale Livestock Research Station consists of 40 acres of pasture lands and 309 dairy cattle and swine. The water system is supplied by two sources: Waialeale Well, State Well Number 4101-10, which serves the Research Station; and the Waialeale Pond (Kalou Fish Pond, spring fed with a pump, State Diversion Number 4101-01), which supplies irrigation water to the pasture lands. The pump capacity of the Waialeale Well is 0.316 mgd and the pump capacity from the Waialeale Pond is 0.72 mgd. The safe source capacity of the Waialeale Well is 0.21 mgd. The safe source capacity of the Waialeale Pond pump is 0.48 mgd. Both sources supply brackish non-potable water. The well does not have a permitted water allocation, however a water use permit is being processed. The estimated average day consumption from the Research Station is 0.023 mgd, with a maximum day demand of 0.035 mgd. The pasture lands estimated irrigation demand ranges from 0 to 0.0065 mgd, depending on weather conditions. There are no planned future projects to be serviced by the Waialeale Livestock Research Station water system. There is adequate source capacity to meet the Research Station existing consumption and maximum day demand.

## 2.5. STATE WATER SYSTEMS WITH SURPLUS CAPACITY

Based on the evaluation of source capacity and existing maximum day consumption, a summary of State water systems with surplus source capacity is presented in **Table 2.3**. Existing State irrigation systems with major planned expansions should conduct design reports and water balance calculations to reevaluate system source and storage capacities. State Parks water systems supplied by surface water were not evaluated for surplus source capacity because source capacity could not be determined. The stream flows supplying the State Parks systems are not gauged or measured.

**Table 2.3**  
State Water Systems with Surplus Capacity

Water System Name	State Agency	Surplus Source Capacity (Excess Source Cap in mgd)	Future Ave. Day Demand (mgd)
Kahuku Irrigation System	DOA	Yes (2.26)	0.775
Waiahole Ditch System	DOA	To be determined	To be determined
Waiahole Water System	DBEDT	Yes (0.56)	0.011
Hawaii State Hospital	DOH	a <sup>3</sup>	0.000
Waimano Training School	DOH	Yes (0.19)	0.0047
Hawaii Youth Correctional Facility	DHS	a <sup>3</sup>	0.0038
Kaena Point SP - Leeward Section	DLNR	Yes (0.08)	0.024
Kahana Valley SP	DLNR	a <sup>1</sup>	0.000
Keaiwa Heiau SRA	DLNR	a <sup>3</sup>	0.000
Makiki-Tantalus SP - Puu Ualaka SW	DLNR	a <sup>3</sup>	0.030
Waahila Ridge SRA	DLNR	a <sup>3</sup>	0.000
Waiawa Correctional Facility	DPS	Yes (0.02)	0.030
Dillingham Airfield	DOT	Yes (0.35)	0.035
Waialeale Livestock Station	UH	Yes (0.18)	0.000

a<sup>1</sup> Stream flow not gauged, unable to determine source capacity adequacy.

a<sup>2</sup> Updated water budget recommended. Water budget to determine source capacity adequacy.

a<sup>3</sup> Source obtained from County Water Department, source analysis to be performed in WUDP/OWMP.

## **CHAPTER 3**

### **PROPOSED WATER-RELATED STATE PROJECTS**

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#### **3.1. GENERAL**

The State of Hawaii, in its effort to satisfy the many needs of the public, has numerous projects scheduled for implementation by the various State departments. In order to anticipate the future water requirements of proposed State projects, an inventory of State projects requiring water was compiled. State departments were contacted for their proposed project listings and schedules. The collected data was reviewed and sorted to obtain a listing of future projects. The project data was used as the basis for water resource planning, water system improvements and source development. In general, projects involving new housing developments, agriculture/irrigation projects, major facilities or major expansions were considered as having significant impact on water resources.

#### **3.2. EVALUATION AND METHODOLOGY OF SWPP WATER DEMAND**

##### **3.2.1. Evaluation of SWPP Project Information**

The status of State projects and water requirement information submitted for the SWPP varied from the planning stage, engineering stage to the final design stage. Project information in the planning stage remained conceptual and schematic, with water demand units or areas grossly estimated. Project information in the engineering stage was based on the project design. Project information in the final design stage had water demand requirements based on construction documents, typically plumbing fixture units, and known units or areas.

Project information received through the SWPP survey forms were reviewed for completeness and accuracy. Generally, project water demand calculations were made to conform to Water System Standards domestic consumption guidelines (refer to **Table 3.1**) to determine average day water demands. The use of standard guidelines to compute water demands allows consistency of projected water demands among all State departments and other components of the Hawaii Water Plan.

However, some State projects specified primary water uses not classified by Water System Standards. Project water demands were calculated using unit rates from other reference sources such as: DOH Wastewater Standards, American Society of Heating and Refrigeration and Air Condition, engineering studies and historical consumption records. These unit rates are shown on **Table 3.2**.

**Table 3.1  
Domestic Consumption Guideline  
Average Daily Demand\***

<b>Zone</b>	<b>Hawaii</b>	<b>Kauai</b>	<b>Maui</b>	<b>Oahu</b>
<b>RESIDENTIAL:</b>				
Single Family or Duplex	400 gal/unit	500 gal/unit	600 gal/unit or 3000 gal/acre	500 gal/unit or 2500 gal/acre
Multi-Family Low Rise	400 gal/unit	350 gal/unit	560 gal/unit or 5000 gal/acre	400 gal/unit or 4000 gal/acre
Multi-Family High Rise	400 gal/unit	350 gal/unit	560 gal/unit	300 gal/unit
<b>COMMERCIAL:</b>	3000 gal/acre	3000 gal/acre	6000 gal/acre	3000 gal/acre
Commercial/Industry Mix	--	500 gal/acre	140 gal/1000 sq. ft.	100 gal/ 1000 sq. ft.
Commercial/Residential Mix	--	3000 gal/acre	140 gal/1000 sq. ft.	120 gal/1000 sq. ft.
<b>RESORT (To include hotel For Maui only):</b>	400 gal/unit	350 gal/unit	350 gal/unit or 17000 gal/acre	350 gal/unit or 4000 gal/acre
<b>LIGHT INDUSTRY:</b>	4000 gal/acre	4000 gal/acre	6000 gal/acre	4000 gal/acre
<b>SCHOOLS, PARKS:</b>	4000 gal/acre or 60 gal/student	2500 gal/acre plus 20 gal/student	1700 gal/acre or 60 gal/student	4000 gal/acre or 60 gal/student
<b>HOSPITAL:</b>			1800 gal/acre	
<b>AGRICULTURAL:</b>			5000 gal/acre	

\*Where two or more figures are listed for the same zoning, the daily demand resulting in higher consumption use shall govern the design unless specified otherwise.

Note: Table 3.1 is taken from Table 15, Domestic Consumption Guideline Average Daily Demand, Water System Standards, State of Hawaii, 1985, Volume I.

**Table 3.2  
Department Specific Unit Rates**

State Department	Zone	Primary Use	Consumption Guideline Average Daily Demand	Remarks	Source
DOA	Agriculture	Nonpotable Irrigation	5000 gals/acre	Planning Level	DOA
DOE	New Cafeteria	Potable	3 gals/meal	Design Level	American Society of Heating, Refrigeration, and Air Conditioning
	New Gymnasium	Potable	20 gals/student	Planning Level Assumed 200 students	DOE
DLNR-BOATING	Harbor Ships/Piers	Potable	50 gals/boat	Non-Live In	DLNR-Boating
			250 gals/boat	Live In	DLNR-Boating
DLNR-PARKS	Parks-Restroom Facility	Potable or Nonpotable	5 gals/park user	w/out showers Assumed 1000 park users/day	DOH
			10 gals/park user	w/ showers Assumed 1000 park users/day	DOH
DPS	Correctional Facility	Potable	150 gals/inmate	Planning Level	DPS
DOT-HIGHWAYS	Landscaping	Nonpotable Irrigation	6000 – 12000 gals/acre	Range for Temporary Irrigation	DOT-Highways
			8000 gals/acre	Temp. Irrig. Average	DOT-Highways
			2000 gals/acre	Permanent	DOT-Highways

### 3.2.2. Project Water Demand Calculation Methodology

SWPP project water demands were calculated using the following methodology:

- 1) Demands for projects that conform to the Water System Standards Land Use Types were based on project units or areas, then multiplied by the standard unit rates to determine the average day demand. Examples include: *New School*, used projected student enrollment multiplied by 60 gals/student (depending on island); *Residential Housing* on Oahu, used number of residential units multiplied by 500 gals/unit.
- 2) Other references and assumptions to determine unit rates and method of demand calculations were used for projects that do not conform to Water System Standard Land Use Types, as discussed below.

#### 3.2.2.1. Non-Standard Guidelines and Methods

The following guidelines and methods were used to calculate and verify SWPP project average day demands for projects with land use types not specified in Water System Standards:

- 1) Agricultural Parks/Subdivisions: Use agricultural irrigation area, and then multiply by 5,000 gal/acre to determine irrigation demand.
- 2) DOE-New Classrooms at Existing School for Projected Increase in Student Enrollment: Determine the projected increased student enrollment or proposed number of new classrooms. If water demand based on the number of classrooms, multiply classrooms by 30 students per classroom. If water demand based on increased students, multiply projected number of students by 60 gal/student to determine potable demand.
- 3) DOE-New Administration Building/Library/Renovation to Classroom at Existing School: Determine the floor area, and then multiply by Water System Standard Commercial/Industrial Mix unit rate to determine the potable demand.
- 4) DOE-New Cafeteria at Existing School: Determine the total enrollment of students, and then multiply by 3 gal/student to determine potable demand.
- 5) DOE-New Gymnasium at Existing School: Determine number of students using gymnasium per day, assume fall sports season = 200 students, multiply by 20 gal/student to determine the potable demand.
- 6) Expansion of Correctional Facility: Determine the number of additional inmates, and then multiply by 150 gal/inmate to determine potable demand.
- 7) Harbor/Boat Slips and Piers: Determine number of boats, and then multiply by 50



- gal/boat (non-live in situation) or 250 gal/boat (live in situation) to determine the potable demand.
- 8) Highway Landscaping: Determine the landscaped highway area, and then multiply by 8,000 gal/acre for temporary landscaping demand. The temporary landscaping period lasts for the first two years of project. Use a reduced unit rate of 2,000 gal/acre for the permanent landscaping demand.
  - 9) New State Building: Determine building floor area based on number of floors in building and use Water System Standard, Commercial/Industrial Mix unit rate to determine the potable demand. Landscaping demand was determined using landscape area multiplied by Water System Standard, Parks unit rate.
  - 10) Renovation to State Building/Facility: Determine renovated floor area, and then multiply by Water System Standard Commercial/Industrial Mix unit rate to determine the potable demand.
  - 11) Restroom/Park Facility: Determine the projected number of park users, if park projection not available, assume 1,000 park users/day, multiply by 5 gal/park user (facility without showers) or 10 gal/park user (facility with showers) to determine park demand.

### 3.3. SWPP PROJECT WATER DEMAND

#### 3.3.1. SWPP Project Water Demands for the Island of Oahu

The individual State projects and water demands located on the island of Oahu are listed in tabular form separated by Department in **Appendix B**, by Island in **Appendix C** and by Aquifer Sector/System in **Appendix D**.

SWPP project data was updated by DLNR in September 2002 through coordination of each State department. Project water demands were revised based department input and current project status. SWPP project data will be updated every two years by DLNR.

The total project water demands were sorted and summarized to report the yearly cumulative average day demands throughout the 20-year planning period. **Table 3.3** reports the projected water demand for SWPP projects by State department. **Table 3.4** summarizes the sustainable yields, permitted water use (if applicable) and SWPP projected 2020 demands for each aquifer sector and system. The table provides an overview of future State water requirements in relation with current permitted water use and available sustainable yields. **Figure 3.1** shows the map of the island of Oahu hydrological sectors and aquifer systems.

**Table 3.3**  
**Total Projected Demands on the Island of Oahu by State Department**

Department	Total Additional Yearly Projected Cumulative Average Day Demand (mgd)							
	2001	2002	2003	2004	2005	2010	2015	2020
DAGS	0.099	0.581	0.634	0.634	0.634	0.684	0.684	0.716
DOA	0.750	1.000	2.010	2.010	2.010	7.510	7.510	7.665
DBEDT	0.213	0.549	0.986	1.164	1.435	3.885	5.809	7.223
DOD	0.791	0.791	0.791	0.791	0.791	0.791	0.791	0.791
DOE	0.336	0.506	1.018	1.018	1.018	1.168	1.168	1.168
DHHL	0.141	0.141	0.301	0.301	0.301	1.256	1.256	1.681
DOH	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.007
DHS	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
Judiciary	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
DLNR	0.310	0.319	0.720	0.726	0.774	1.029	1.031	1.075
DPS	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
DOT	0.002	0.374	0.455	0.835	0.855	1.087	1.063	1.073
UH	0.240	0.801	1.470	1.494	1.522	2.310	2.699	3.077
<b>Oahu</b>	<b>2.936</b>	<b>5.114</b>	<b>8.437</b>	<b>9.026</b>	<b>9.393</b>	<b>19.772</b>	<b>22.064</b>	<b>24.522</b>
<b>State Totals</b>	<b>12.194</b>	<b>18.089</b>	<b>25.221</b>	<b>26.586</b>	<b>33.204</b>	<b>69.421</b>	<b>76.554</b>	<b>80.874</b>

**Table 3.4**  
**Summary of SWPP Projected Water Demands, Sustainable Yield, and Permitted Water Use by Aquifer System**

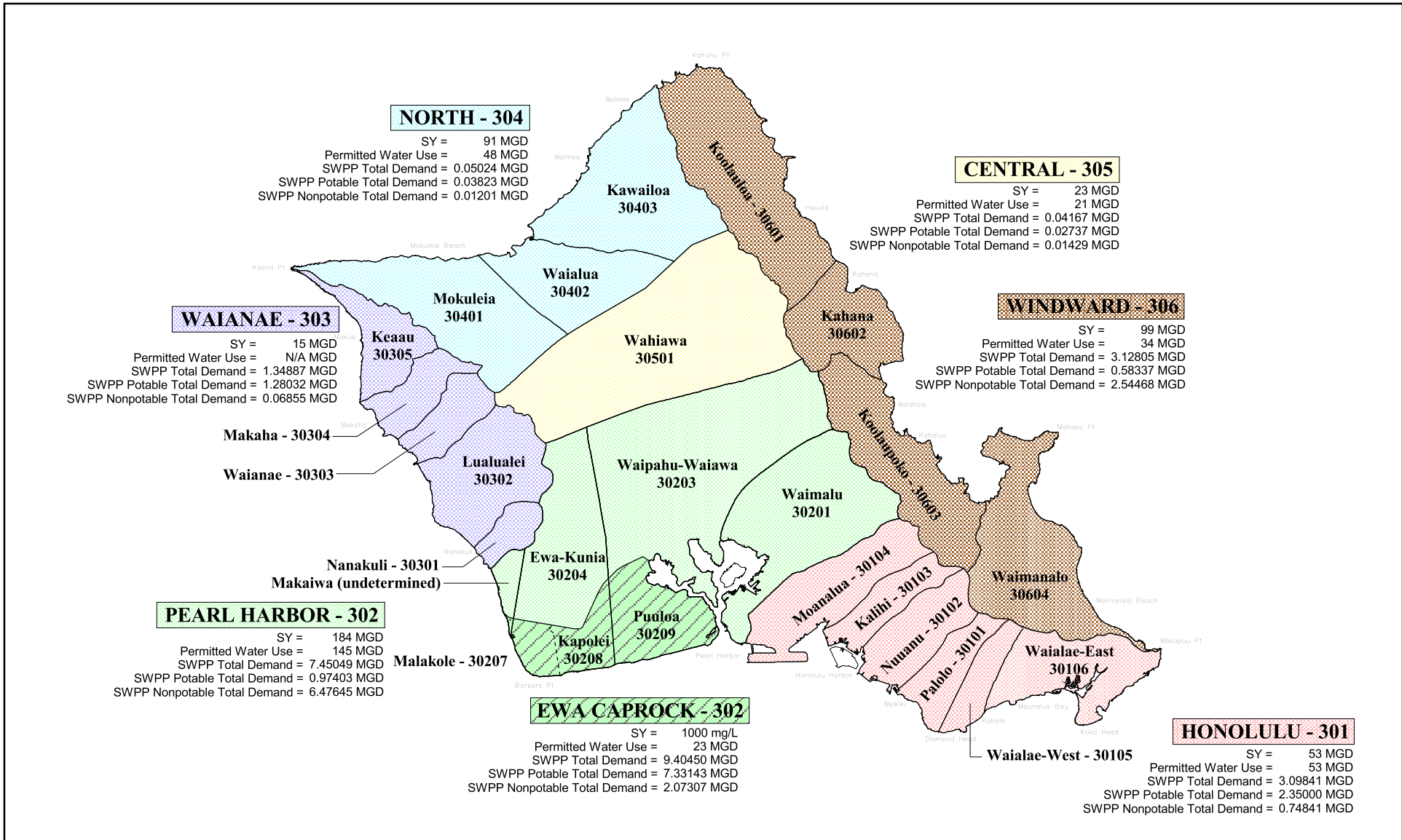
Island	Aquifer Sector	Sector No.	Aquifer System	System No.	Sus. Yield (MGD)	Permitted Water Use (MGD)	SWPP 2018 Nonpotable Demand (MGD)	SWPP 2018 Potable Demand (MGD)	SWPP 2018 Total Demand (MGD)
OAHU	EWA CAPROCK	302			N/A	23	2.07307	7.33143	9.40450
			MALAKOLE	30207	N/A	5.928	1.21005	0.66337	1.87342
			KAPOLEI	30208	N/A	2.033	0.86302	6.65726	7.52028
			PUULOA	30209	N/A	14.817	0.00000	0.01080	0.01080
	PEARL HARBOR	302			165	145	6.47645	0.97403	7.45048
			WAIMALU	30201	45	46.793	0.19032	0.04907	0.23939
			WAIPAHU WAIAWA	30203	104	82.905	6.28613	0.76996	7.05609
			EWA KUNIA	30204	16	15.413	0.00000	0.15500	0.15500
	WAIANAE	303			15	N/A	0.06855	1.28032	1.34887
			NANAKULI	30301	1		0.00643	0.63659	0.64302
			LUALUALEI	30302	3		0.03800	0.45530	0.49330
			WAIANAE	30303	3		0.00000	0.17693	0.17693
			MAKAHA	30304	4		0.00000	0.00066	0.00066
			KEAAU	30305	4		0.02412	0.01084	0.03496
	NORTH	304			91	48	0.01201	0.03836	0.05037
			MOKULEIA	30401	12	6.319	0.00000	0.03500	0.03500
			WAIALUA	30402	40	30.311	0.00000	0.00045	0.00045
			KAWAILOA	30403	39	1.549	0.01201	0.00278	
	CENTRAL	305			23	21	0.02737	0.01430	0.04167
			WAHIAWA	30501	23	20.386	0.01430	0.02737	0.04167
WINDWARD	306			99	34	2.54468	0.58680	3.13148	
		KOOLAULOA	30601	35	20.586	0.15999	0.06038	0.22087	
		KAHANA	30602	13	2.465	0.00000	0.00250	0.00250	
		KOOLAUPOKO	30603	43	10.312	0.02523	0.15025	0.17548	
		WAIMANALO	30604	8	1.656	2.35946	0.37025	2.72971	

NOTE: Permitted Water Use as of September 2000.

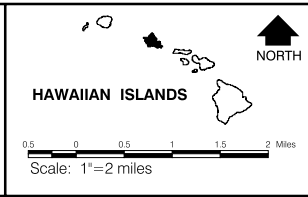
**Table 3.4 (cont'd)**  
**Summary of SWPP Projected Water Demands, Sustainable Yield, and Permitted Water Use by Aquifer System**

Island	Aquifer Sector	Sector No.	Aquifer System	System No.	Sus. Yield (MGD)	Permitted Water Use (MGD)	SWPP 2018 Nonpotable Demand (MGD)	SWPP 2018 Potable Demand (MGD)	SWPP 2018 Total Demand (MGD)
OAHU	HONOLULU	301			<b>53</b>	<b>53</b>	<b>0.74840</b>	<b>2.35001</b>	<b>3.09841</b>
			PALOLO	30101	5	5.646	0.37764	0.49405	0.87169
			NUUANU	30102	15	15.27	0.10073	0.72804	0.82877
			KALIHI	30103	9	8.761	0.24060	0.94171	1.18231
			MOANALUA	30104	18	19.960	0.01143	0.11373	0.12516
			WAIALAE WEST	30105	4	2.987	0.01800	0.06200	0.08000
			WAIALAE EAST	30106	2	0.600	0.00000	0.01048	0.01048

NOTE: Permitted Water Use as of September 2000.



Dept. of Land and Natural Resources  
 Land Division  
 Engineering Branch  
 Commission on Water Resource Management



**LEGEND:**  
**HONOLULU - 301** Hydrological Sector - No.  
 Palolo - 30101 Aquifer System - No.

**State Water Projects Plan  
 HYDROLOGIC UNITS - OAHU  
 FIGURE 3.1**

Date: February 2003

FUKUNAGA & ASSOCIATES, INC.  
 Consulting Engineers  
 1388 Kapiolani Boulevard  
 Honolulu, Hawaii 96814

### **3.3.2. Issues, Concerns and Uncertainties Related to Project Demands**

The issues, concerns and uncertainties raised in this section are based on discussions with departmental contacts, evaluation of SWPP survey data and calculation of SWPP project water demands. The comments and recommendations are provided for discussion purposes only and suggest ways of improving the gathering of more accurate SWPP data in the future.

- 1) Improve the project coordination among the various divisions and branches within departments. Recommend maintaining an updated list and information of all future department projects.
- 2) Establish a uniform method of calculating projected water demand by using standard land use types of units and areas, unit rates based on either Water System Standards or other accepted references. Establish uniform consumption guidelines for State departments to follow while projecting future water demand and reviewing submitted project demands. Generally, project water demands computed from Water System Standards represent planning level demands. Project demands should be reevaluated or calculated when additional or design information becomes available.
- 3) Water demand information of projects that do not receive funding or encounter funding delays by the legislature should be maintained and kept current. Projects in the initial planning phase generally have limited data to compute project water demands.
- 4) Modifications or changes to CIP projects brought on by funding issues, project priority status, or departmental policies may affect the completion and water requirements of State projects.
- 5) Establish a uniform method of calculating project average day demand based on plumbing fixture units. Establish uniform guidelines or range of demands to convert project water demands from gallons per minute to gallon per day for various land uses. A comparison of the actual metered water consumption and estimated demand projection upon project completion is recommended.
- 6) Project water demands using State water allocation credits from the BWS should be monitored and reviewed. Project water demands, which remain on a planning level, should be revised based on final design criteria. New project demands should be resubmitted to the BWS to adjust the water allocation balance.

## **CHAPTER 4**

### **SWPP WATER DEVELOPMENT STRATEGY**

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#### **4.1. WATER DEVELOPMENT STRATEGY – ISLAND OF OAHU**

The source options were assigned to each SWPP project on the island of Oahu as described in the SWPP Water Development Strategy. Each SWPP project was categorized into a SWPP Water Development Strategy option, detailed in **Table 4.1**. The objective of the strategy was to determine projects with source and water system options to supply project water needs and identify SWPP projects without source and water system options. SWPP projects without source or system options were classified as “remain or unmet project demand”. The unmet project demand is the basis for future planning and development of source and water system improvements.

#### **4.2. SWPP PROJECT DEMAND OVERVIEW**

A summary of the SWPP project demands accounted for by water development strategies and the remaining balance of unmet project demand for the island of Oahu is shown on **Table 4.2**. The SWPP Water Development Strategies account for nearly 73% of the total island of Oahu SWPP project demand. Strategy options used to account for supplying projected demands include: existing State water systems, master plans, County and private water agreements, and new State water systems. Strategy options were assigned to each SWPP project based on information provided by State departments. The assignment of strategy options to SWPP projects should be monitored and verified since resources in the strategy options are subject to change. A graph of the remaining potable and nonpotable demands is shown on **Figure 4.1**. The remaining unmet project demands will require securing additional source water allocation credits from the BWS. Water allocation credits reserve source water for future State projects within the BWS water system. Discussions between the BWS and DLNR to purchase water allocation credits have begun, however no agreement has been reached. DLNR also continues with their water source development program to develop new State wells to provide source water for future State projects.

Unmet State project demands are projects typically involving renovations, additions and improvements to existing State facilities generally located in the Honolulu and Waianae hydrological sectors.

A list of SWPP projects with demands greater than 0.10 were compiled to identify projects with the greatest potential to impact existing water system components and require system improvements. These projects are shown on **Table 4.3**.

**TABLE 4.1**  
SWPP UPDATE - OAHU WATER DEVELOPMENT STRATEGY

DEPT	SWPP PROJECT NAME	PRIMARY USE	SECTOR	YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)									STRATEGY OPTION	SYSTEM OR SOURCE
				SHORT-TERM					LONG-TERM					
				02001	02002	02003	02004	02005	02010	02015	02020			
	<b>ISLAND OF OAHU</b>			2.93563	5.11409	8.43693	9.02589	9.39297	19.77242	22.06434	24.52223	<b>SWPP Total Project Demand for Island of Oahu</b>		
	<b>SWPP Projects Within Existing State Water Systems (#1)</b>													
DOT-A	DILLINGHAM FIELD - MOKULEIA	POTABLE	NORTH	0.00200	0.00300	0.00400	0.00500	0.00600	0.01500	0.02500	0.03500	EXSWS - DILLINGHAM AIRFIELD WATER SYSTEM	STATE	
DLNR-PARKS	KAENA POINT SP	NONPOTABLE	WAIANAE	0.00227	0.00302	0.01206	0.01282	0.01357	0.02412	0.02412	0.02412	EXSWS - KAENA POINT STATE PARK WATER SYSTEM	STATE	
DHHL	WAIHOLE SCATTERED LOTS	POTABLE	WINDWARD						0.01100	0.01100	0.01100	EXSWS - WAIHOLE WATER SYSTEM	STATE	
DPS	NEW 200-BED ADDITION	POTABLE	PEARL HARBOR	0.03000	0.03000	0.03000	0.03000	0.03000	0.03000	0.03000	0.03000	EXSWS - WAIAWA CORRECTIONAL FACILITY WATER SYSTEM	STATE	
DOA	WAIMANALO IRRIGATION SYSTEM	NONPOTABLE	WINDWARD	0.75000	1.00000	1.25000	1.25000	1.25000	1.25000	1.25000	1.25000	EXSWS - WAIMANALO IRRIGATION SYSTEM	STATE	
DOH	RESIDENCE CHILDREN FACILITIES - OAHU	POTABLE	PEARL HARBOR	0.00470	0.00470	0.00470	0.00470	0.00470	0.00470	0.00470	0.00470	EXSWS - WAIMANO TRAINING SCHOOL AND HOSPITAL	STATE	
				<b>0.78897</b>	<b>1.04072</b>	<b>1.30076</b>	<b>1.30252</b>	<b>1.30427</b>	<b>1.33482</b>	<b>1.34482</b>	<b>1.35482</b>	<b>Subtotal SWPP Projects Within Existing State Water Systems (#1)</b>		
	<b>SWPP Projects Within Existing Master Plans (#2)</b>													
DLNR-PARKS	DIAMOND HEAD STATE MONUMENT	NONPOTABLE	HONOLULU	0.27733	0.27733	0.27733	0.27733	0.27733	0.27733	0.27733	0.27733	MASTER PLAN - DIAMOND HEAD STATE MONUMENT	COUNTY/STATE	
DLNR-PARKS	DIAMOND HEAD STATE MONUMENT	POTABLE	HONOLULU	0.02087	0.02087	0.02087	0.02087	0.02087	0.02087	0.02087	0.02087	MASTER PLAN - DIAMOND HEAD STATE MONUMENT	COUNTY/STATE	
DLNR-PARKS	MAKALEI PLACE	NONPOTABLE USING POTABLE	HONOLULU			0.00018	0.00024	0.03990	0.03997	0.04003	0.07981	MASTER PLAN - DIAMOND HEAD STATE MONUMENT	COUNTY/STATE	
DLNR-PARKS	MAKALEI PLACE	POTABLE	HONOLULU			0.00000	0.00000	0.00040	0.00040	0.00040	0.00081	MASTER PLAN - DIAMOND HEAD STATE MONUMENT	COUNTY/STATE	
DBEDT-HCDCH	EAST KAPOLEI	POTABLE	EWA CAPROCK					0.07500	0.47500	2.39900	3.81300	MASTER PLAN - EAST KAPOLEI WATER MASTER PLAN	COUNTY	
DHHL	EAST KAPOLEI	POTABLE	EWA CAPROCK	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000	MASTER PLAN - EAST KAPOLEI WATER MASTER PLAN	COUNTY	
DOE	EAST KAPOLEI ELEMENTARY SCHOOL NEW SCH	POTABLE	EWA CAPROCK	PROJECT DEMAND ACCOUNTED FOR BY EAST KAPOLEI PROJECT									MASTER PLAN - EAST KAPOLEI WATER MASTER PLAN	COUNTY
DOE	EAST KAPOLEI HIGH SCHOOL	POTABLE	EWA CAPROCK						0.06000	0.06000	0.06000	MASTER PLAN - EAST KAPOLEI WATER MASTER PLAN	COUNTY	
DOE	EAST KAPOLEI MIDDLE SCHOOL	POTABLE	EWA CAPROCK	PROJECT DEMAND ACCOUNTED FOR BY EAST KAPOLEI PROJECT									MASTER PLAN - EAST KAPOLEI WATER MASTER PLAN	COUNTY
DOE	EWA MARINA ELEM SCHOOL NEW SCHOOL	POTABLE	PEARL HARBOR			0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	MASTER PLAN - EAST KAPOLEI WATER MASTER PLAN	COUNTY	
DAGS-PM	KAPOLEI SPORTS RECREATIONAL COMPLEX	NONPOTABLE	EWA CAPROCK	PROJECT DEMAND ACCOUNTED FOR BY EAST KAPOLEI PROJECT									MASTER PLAN - EAST KAPOLEI WATER MASTER PLAN	COUNTY
DAGS-PM	KAPOLEI SPORTS RECREATIONAL COMPLEX	POTABLE	EWA CAPROCK	PROJECT DEMAND ACCOUNTED FOR BY EAST KAPOLEI PROJECT									MASTER PLAN - EAST KAPOLEI WATER MASTER PLAN	COUNTY
UH	UNIVERSITY OF HAWAII - WEST OAHU CAMPUS	NONPOTABLE	EWA CAPROCK						0.35620	0.54610	0.73840	MASTER PLAN - EAST KAPOLEI WATER MASTER PLAN	COUNTY	
UH	UNIVERSITY OF HAWAII - WEST OAHU CAMPUS	POTABLE	EWA CAPROCK						0.32880	0.50400	0.68160	MASTER PLAN - EAST KAPOLEI WATER MASTER PLAN	COUNTY	
DBEDT	KALAELOA COMMUNITY DEVELOPMENT DISTRICT (NONPOTABLE)	NONPOTABLE	EWA CAPROCK						1.21	1.21	1.21	MASTER PLAN - KALAELOA COMMUNITY DEVELOPMENT DISTRICT	FEDERAL/COUNTY	
DBEDT	KALAELOA COMMUNITY DEVELOPMENT DISTRICT (POTABLE)	POTABLE	EWA CAPROCK						0.431	0.431	0.431	MASTER PLAN - KALAELOA COMMUNITY DEVELOPMENT DISTRICT	FEDERAL/COUNTY	
DAGS-PL	KAPOLEI CIVIC CENTER, STATE OFC BLDG NO.2	NONPOTABLE USING POTABLE	EWA CAPROCK		0.03476	0.03476	0.03476	0.03476	0.03476	0.03476	0.03476	MASTER PLAN - KAPOLEI WATER MASTER PLAN	COUNTY	
DAGS-PL	KAPOLEI CIVIC CENTER, STATE OFC BLDG NO.2	POTABLE	EWA CAPROCK		0.44240	0.44240	0.44240	0.44240	0.44240	0.44240	0.44240	MASTER PLAN - KAPOLEI WATER MASTER PLAN	COUNTY	
DOE	KAPOLEI HIGH SCHOOL 1ST INCREMENT	POTABLE	EWA CAPROCK	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	MASTER PLAN - KAPOLEI WATER MASTER PLAN	COUNTY	
DOE	KAPOLEI HIGH SCHOOL 2ND INCREMENT	POTABLE	EWA CAPROCK	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	MASTER PLAN - KAPOLEI WATER MASTER PLAN	COUNTY	
DOE	KAPOLEI HIGH SCHOOL 3RD INCREMENT	POTABLE	EWA CAPROCK		0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	MASTER PLAN - KAPOLEI WATER MASTER PLAN	COUNTY	
DOE	KAPOLEI II ELEMENTARY SCHOOL NEW SCHOOL	POTABLE	PEARL HARBOR	0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	MASTER PLAN - KAPOLEI WATER MASTER PLAN	COUNTY	
DAGS-PL	KAPOLEI PUBLIC LIBRARY	NONPOTABLE	EWA CAPROCK	0.00796	0.00796	0.00796	0.00796	0.00796	0.00796	0.00796	0.00796	MASTER PLAN - KAPOLEI WATER MASTER PLAN	COUNTY	
DAGS-PL	KAPOLEI PUBLIC LIBRARY	POTABLE	EWA CAPROCK	0.01244	0.01244	0.01244	0.01244	0.01244	0.01244	0.01244	0.01244	MASTER PLAN - KAPOLEI WATER MASTER PLAN	COUNTY	



**TABLE 4.1**  
SWPP UPDATE - OAHU WATER DEVELOPMENT STRATEGY

DEPT	SWPP PROJECT NAME	PRIMARY USE	SECTOR	YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								STRATEGY OPTION	SYSTEM OR SOURCE
				SHORT-TERM					LONG-TERM				
				02001	02002	02003	02004	02005	02010	02015	02020		
	<b>ISLAND OF OAHU</b>			<b>2.93563</b>	<b>5.11409</b>	<b>8.43693</b>	<b>9.02589</b>	<b>9.39297</b>	<b>19.77242</b>	<b>22.06434</b>	<b>24.52223</b>	<b>SWPP Total Project Demand for Island of Oahu</b>	
DOE	LAULANI ELEMENTARY SCHOOL NEW SCHOOL	POTABLE	PEARL HARBOR			0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	MASTER PLAN - KAPOLEI WATER MASTER PLAN	COUNTY
DBEDT:HCDCH	VILLAGES OF KAPOLEI	POTABLE	EWA CAPROCK		0.19300	0.51800	0.53000	0.53000	0.68000	0.68000	0.68000	MASTER PLAN - MASTER PLAN REPORT KAPOLEI VILLAGE	COUNTY
	<b>SWPP Projects Within Existing Master Plans (#2) CONTINUED</b>												
DOE	MILILANI HIGH SCHOOL NEW 6 CLASSROOM	POTABLE	PEARL HARBOR			0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	MASTER PLAN - MILILANI TOWN WATER MASTER PLAN	COUNTY
DOE	MILILANI INTER (BALANCE OF INCRE) NEW SCH	POTABLE	PEARL HARBOR	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	MASTER PLAN - MILILANI TOWN WATER MASTER PLAN	COUNTY
DAGS-PL	MILILANI MAUKA II ELEM SCH, FIRST INCREMENT	POTABLE	PEARL HARBOR			0.05160	0.05160	0.05160	0.05160	0.05160	0.05160	MASTER PLAN - MILILANI TOWN WATER MASTER PLAN	COUNTY
DOE	MILILANI MAUKA II ELEM SCHOOL 1ST INCREMENT	POTABLE	PEARL HARBOR			0.03600	0.03600	0.03600	0.03600	0.03600	0.03600	MASTER PLAN - MILILANI TOWN WATER MASTER PLAN	COUNTY
DOE	MILILANI MAUKA II ELEM SCHOOL 2ND INCREMENT	POTABLE	PEARL HARBOR			0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	MASTER PLAN - MILILANI TOWN WATER MASTER PLAN	COUNTY
DOA	ROYAL KUNIA AGRICULTURAL PARK	NONPOTABLE	PEARL HARBOR			0.74997	0.74997	0.74997	0.74997	0.74997	0.74997	MASTER PLAN - REVISED ROYAL KUNIA WATER MASTER PLAN	COUNTY
DOA	ROYAL KUNIA AGRICULTURAL PARK	POTABLE	PEARL HARBOR			0.00999	0.00999	0.00999	0.00999	0.00999	0.00999	MASTER PLAN - REVISED ROYAL KUNIA WATER MASTER PLAN	COUNTY
DOE	WAIAWA I ELEMENTARY SCHOOL 1ST INCREMENT	POTABLE	PEARL HARBOR			0.03600	0.03600	0.03600	0.03600	0.03600	0.03600	MASTER PLAN - WAIAWA BY GENTRY	COUNTY
DOE	WAIAWA INTER SCHOOL 1ST INCRE	POTABLE	PEARL HARBOR			0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	MASTER PLAN - WAIAWA BY GENTRY	COUNTY
DOE	WAIAWA INTERMEDIATE 2ND INCREMENT	POTABLE	PEARL HARBOR			0.03600	0.03600	0.03600	0.03600	0.03600	0.03600	MASTER PLAN - WAIAWA BY GENTRY	COUNTY
				<b>0.62260</b>	<b>1.34076</b>	<b>2.80031</b>	<b>2.81237</b>	<b>2.92743</b>	<b>5.86349</b>	<b>8.15265</b>	<b>9.97674</b>	<b>Subtotal SWPP Projects Within Existing Master Plans (#2)</b>	
	<b>SWPP Projects Within Existing State or Private Sources (#3)</b>												
	No SWPP Projects												
	<b>SWPP Projects with County Water Department and/or Private Water Agreements (#4)</b>												
DOE	EWA ELEM NEW LIBRARY & ADMINISTRATION	POTABLE	PEARL HARBOR	0.00076	0.00076	0.00076	0.00076	0.00076	0.00076	0.00076	0.00076	COUNTY - EXWALL (BWS CREDIT - MAAKUA WELL)	COUNTY
DAGS-PM	EWA ELEMENTARY SCHOOL ADMIN/LIBRARY RENOVATION CLASSROOM	POTABLE	EWA CAPROCK	0.00672	0.00672	0.00672	0.00672	0.00672	0.00672	0.00672	0.00672	COUNTY - EXWALL (BWS CREDIT - MAAKUA WELL)	COUNTY
DOE	MAKALAPA ELEM ADMIN AND RENOVATION	POTABLE	PEARL HARBOR	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	COUNTY - EXWALL (BWS CREDIT - MAAKUA WELL)	COUNTY
DPS	NEW 84-BED HOUSING	POTABLE	WINDWARD	0.01260	0.01260	0.01260	0.01260	0.01260	0.01260	0.01260	0.01260	COUNTY - EXWALL (BWS CREDIT - MAAKUA WELL)	COUNTY
DOH	NEW VECTOR CONTROL BUILDING	POTABLE	HONOLULU	0.00226	0.00226	0.00226	0.00226	0.00226	0.00226	0.00226	0.00226	COUNTY - EXWALL (BWS CREDIT - MAAKUA WELL)	COUNTY
DOE	PEARL RIDGE ELEM SCH ADMINISTRATION BLDG	POTABLE	PEARL HARBOR	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	COUNTY - EXWALL (BWS CREDIT - MAAKUA WELL)	COUNTY
DAGS-PM	ROYAL ELEM SCHOOL, ADMIN & LIB BLDG	POTABLE	HONOLULU	0.00107	0.00107	0.00107	0.00107	0.00107	0.00107	0.00107	0.00107	COUNTY - EXWALL (BWS CREDIT - MAAKUA WELL)	COUNTY
DOE	WAIAU ELEMENTARY SCHOOL ADMIN/LIBRARY	POTABLE	PEARL HARBOR	0.00111	0.00111	0.00111	0.00111	0.00111	0.00111	0.00111	0.00111	COUNTY - EXWALL (BWS CREDIT - MAAKUA WELL)	COUNTY
UH	UNIVERSITY OF HAWAII AT MANOA - AGRICULTURAL SCIENCE FACILITY, PHASE III	NONPOTABLE USING POTABLE	HONOLULU	0.00406	0.00406	0.00406	0.00406	0.00406	0.00406	0.00406	0.00406	COUNTY - EXWALL (BWS CREDIT - UH AGREEMENT)	COUNTY
UH	UNIVERSITY OF HAWAII AT MANOA - AGRICULTURAL SCIENCE FACILITY, PHASE III	POTABLE	HONOLULU	0.02494	0.02494	0.02494	0.02494	0.02494	0.02494	0.02494	0.02494	COUNTY - EXWALL (BWS CREDIT - UH AGREEMENT)	COUNTY
UH	UNIVERSITY OF HAWAII AT MANOA - HAMILTON LIBRARY, PHASE III	POTABLE	HONOLULU	0.00022	0.00022	0.00022	0.00022	0.00022	0.00022	0.00022	0.00022	COUNTY - EXWALL (BWS CREDIT - UH AGREEMENT)	COUNTY
UH	UNIVERSITY OF HAWAII AT MANOA, HAMILTON LIBRARY, PHASE III	NONPOTABLE USING POTABLE	HONOLULU	0.00698	0.00698	0.00698	0.00698	0.00698	0.00698	0.00698	0.00698	COUNTY - EXWALL (BWS CREDIT - UH AGREEMENT)	COUNTY
UH	WINDWARD COMMUNITY COLLEGE - BUILDING J HUMANITIES	NONPOTABLE USING POTABLE	WINDWARD	0.00059	0.00059	0.00059	0.00059	0.00059	0.00059	0.00059	0.00059	COUNTY - EXWALL (BWS CREDIT - WCC AGREEMENT)	COUNTY
UH	WINDWARD COMMUNITY COLLEGE - BUILDING J HUMANITIES	POTABLE	WINDWARD	0.05815	0.05815	0.05815	0.05815	0.05815	0.05815	0.05815	0.05815	COUNTY - EXWALL (BWS CREDIT - WCC AGREEMENT)	COUNTY
UH	WINDWARD COMMUNITY COLLEGE - SCIEN ANNEX	POTABLE	WINDWARD	0.00360	0.00360	0.00360	0.00360	0.00360	0.00360	0.00360	0.00360	COUNTY - EXWALL (BWS CREDIT - WCC AGREEMENT)	COUNTY
DBEDT	HAWAII CONVENTION CENTER	POTABLE	HONOLULU	0.10000	0.15000	0.20000	0.25000	0.30000	0.30000	0.30000	0.30000	COUNTY - EXWALL (BWS CREDIT)	

**TABLE 4.1**  
SWPP UPDATE - OAHU WATER DEVELOPMENT STRATEGY

DEPT	SWPP PROJECT NAME	PRIMARY USE	SECTOR	YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								STRATEGY OPTION	SYSTEM OR SOURCE
				SHORT-TERM					LONG-TERM				
				02001	02002	02003	02004	02005	02010	02015	02020		
	ISLAND OF OAHU			2.93563	5.11409	8.43693	9.02589	9.39297	19.77242	22.06434	24.52223	SWPP Total Project Demand for Island of Oahu	
				0.22396	0.27396	0.32396	0.37396	0.42396	0.42396	0.42396	0.42455	Subtotal SWPP Projects with County Water Department and/or Private Water Agreements (#4)	
	SWPP Projects with County Water Department Water Agreements - Use of Water Allocation Credits (#5)												
DHHL	AGENA/PINE	POTABLE	WAIANAE						0.02750	0.02750	0.02750	COUNTY-BWSWALL-DHHL	COUNTY
DHHL	CARLOS DAIRY	NONPOTABLE	WAIANAE			0.03800	0.03800	0.03800	0.03800	0.03800	0.03800	COUNTY-BWSWALL-DHHL	COUNTY
DHHL	FREITAS DAIRY	POTABLE	WAIANAE	0.01600	0.01600	0.01600	0.01600	0.01600	0.01600	0.01600	0.01600	COUNTY-BWSWALL-DHHL	COUNTY
DHHL	HANOANO LOT	POTABLE	WAIANAE			0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	COUNTY-BWSWALL-DHHL	COUNTY
DHHL	KALAWAHINE	POTABLE	HONOLULU			0.04350	0.04350	0.04350	0.04350	0.04350	0.04350	COUNTY-BWSWALL-DHHL	COUNTY
DHHL	KUPUNA HOUSING	POTABLE	WINDWARD			0.04320	0.04320	0.04320	0.04320	0.04320	0.04320	COUNTY-BWSWALL-DHHL	COUNTY
DHHL	NANAKULI RESIDENCE, ULEI ST.	POTABLE	WAIANAE	0.00800	0.00800	0.00800	0.00800	0.00800	0.00800	0.00800	0.00800	COUNTY-BWSWALL-DHHL	COUNTY
DHHL	NANAKULI SCATTERED LOTS	POTABLE	WAIANAE	0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	COUNTY-BWSWALL-DHHL	COUNTY
DHHL	NANAKULI SCATTERED SUBDIVISIONS	POTABLE	WAIANAE			0.00250	0.00250	0.00250	0.00250	0.00250	0.00250	COUNTY-BWSWALL-DHHL	COUNTY
DHHL	PAHEEHEE RIDGE	POTABLE	WAIANAE	0.00950	0.00950	0.00950	0.00950	0.00950	0.00950	0.00950	0.00950	COUNTY-BWSWALL-DHHL	COUNTY
DHHL	TAAMU LOT	POTABLE	WAIANAE			0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	COUNTY-BWSWALL-DHHL	COUNTY
DHHL	WAIANAE LOTS 2A-2	POTABLE	WAIANAE			0.03100	0.03100	0.03100	0.03100	0.03100	0.03100	COUNTY-BWSWALL-DHHL	COUNTY
DHHL	WAIMANALO SCATTERED LOTS	POTABLE	WINDWARD	0.00250	0.00250	0.00250	0.00250	0.00250	0.00250	0.00250	0.00250	COUNTY-BWSWALL-DHHL	COUNTY
DHHL	WAIMANALO, RESIDENTIAL LOTS ALA KOA STREET	POTABLE	WINDWARD			0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	COUNTY-BWSWALL-DHHL	COUNTY
DAGS-PM	HYCF RENOVATION MAKAI HOOKIPA COTTAGE	POTABLE	WINDWARD	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	COUNTY-BWSWALL-DLNR	COUNTY
DAGS-PM	HYCF RENOVATION MALUHIA COTTAGE	POTABLE	WINDWARD	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	COUNTY-BWSWALL-DLNR	COUNTY
DAGS-PL	MANOA PUBLIC LIBRARY	NONPOTABLE USING POTABLE	HONOLULU	0.00143	0.00143	0.00143	0.00143	0.00143	0.00143	0.00143	0.00143	COUNTY-BWSWALL-DLNR	COUNTY
DAGS-PL	NANAKULI ELEM SCHOOL, 8-CLASSROOM BLDG.	POTABLE	WAIANAE	0.00129	0.00258	0.00258	0.00258	0.00258	0.00258	0.00258	0.00258	COUNTY-BWSWALL-DLNR	COUNTY
DAGS-PM	NANAKULI HI RESTROOM FACILITY	POTABLE	WAIANAE	0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	COUNTY-BWSWALL-DLNR	COUNTY
DAGS-PL	PEARL CITY HIGHLANDS ELEMENTARY SCHOOL, BUILDING E, SHOWER AND TOILET	POTABLE	PEARL HARBOR	0.00005	0.00010	0.00010	0.00010	0.00010	0.00010	0.00010	0.00010	COUNTY-BWSWALL-DLNR	COUNTY
DAGS-PM	SALT LAKE ELEM BILD E INTERIOR IMPROVMTS.	POTABLE	HONOLULU	0.00100	0.00100	0.00100	0.00100	0.00100	0.00100	0.00100	0.00100	COUNTY-BWSWALL-DLNR	COUNTY
DAGS-PL	WAIPAHU ELEM SCH. DRAINAGE IMPROVEMENTS	POTABLE	PEARL HARBOR	0.00160	0.00160	0.00160	0.00160	0.00160	0.00160	0.00160	0.00160	COUNTY-BWSWALL-DLNR	COUNTY
DOE	AIEA HIGH SCHOOL LIBRARY EXPANSION	POTABLE	PEARL HARBOR	0.00127	0.00127	0.00127	0.00127	0.00127	0.00127	0.00127	0.00127	COUNTY-BWSWALL-DOE	COUNTY
DOE	HELEMANO ELEMENTARY NEW LIBRARY	POTABLE	CENTRAL	0.00066	0.00066	0.00066	0.00066	0.00066	0.00066	0.00066	0.00066	COUNTY-BWSWALL-DOE	COUNTY
DOE	KANEHOE ELEMENTARY NEW ADMINISTRATION	POTABLE	WINDWARD	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	COUNTY-BWSWALL-DOE	COUNTY
DOE	WAIALUA ELEM SCHOOL NEW ADMINISTRATION	POTABLE	NORTH	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	COUNTY-BWSWALL-DOE	COUNTY
DOE	WAIMALU ELEM - RENOVATE BLDG A 6 CLASSRM	POTABLE	PEARL HARBOR	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	COUNTY-BWSWALL-DOE	COUNTY
DOT-A	HONOLULU INTERNATIONAL AIRPORT	POTABLE	HONOLULU						0.10000	0.10000	0.10000	COUNTY-BWSWALL-DOT-AIRPORTS	COUNTY
DOT-HWY	FARRINGTON HWY IMPROVEMENTS, WAIPAHU DEPOT ROAD TO ANIANI STREET	NONPOTABLE USING POTABLE	PEARL HARBOR				0.01600	0.01600	0.00400	0.00400	0.00400	COUNTY-BWSWALL-DOT-HIGHWAYS	COUNTY
DOT-HWY	FARRINGTON HWY MEDIAL STRIP, KAMEHAMEHA HWY TO FORT WEAVER ROAD	NONPOTABLE USING POTABLE	PEARL HARBOR		0.06000	0.06000	0.06000	0.03000	0.03000	0.03000	0.03000	COUNTY-BWSWALL-DOT-HIGHWAYS	COUNTY
DOT-HWY	KAHEKILU HWY	NONPOTABLE USING POTABLE	WINDWARD		0.05400	0.01350	0.01350	0.01350	0.01350	0.01350	0.01350	COUNTY-BWSWALL-DOT-HIGHWAYS	COUNTY
DOT-HWY	NORTH-SOUTH ROAD KAPOLEI PARKWAY TO FARRINGTON HWY, PHASE 1	NONPOTABLE USING POTABLE	EWA CAPROCK						0.04500	0.01140	0.01140	COUNTY-BWSWALL-DOT-HIGHWAYS	COUNTY

**TABLE 4.1**  
SWPP UPDATE - OAHU WATER DEVELOPMENT STRATEGY

DEPT	SWPP PROJECT NAME	PRIMARY USE	SECTOR	YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								STRATEGY OPTION	SYSTEM OR SOURCE
				SHORT-TERM					LONG-TERM				
				02001	02002	02003	02004	02005	02010	02015	02020		
	<b>ISLAND OF OAHU</b>			<b>2.93563</b>	<b>5.11409</b>	<b>8.43693</b>	<b>9.02589</b>	<b>9.39297</b>	<b>19.77242</b>	<b>22.06434</b>	<b>24.52223</b>	<b>SWPP Total Project Demand for Island of Oahu</b>	
DOT-HWY	NORTH-SOUTH ROAD, FARRINGTON HIGHWAY TO INTERSTATE RTE. H-1, PHASE 2	NONPOTABLE USING POTABLE	EWA CAPROCK				0.24000	0.24000	0.06000	0.06000	0.06000	COUNTY-BWSWALL-DOT-HIGHWAYS	COUNTY
DOT-HWY	PIULOA ROAD IMPROVEMENTS, KAMEHAMEHA HWY TO SALT LAKE BLVD (LANDSCAPING)	NONPOTABLE USING POTABLE	HONOLULU			0.02400	0.02400	0.00600	0.00600	0.00600	0.00600	COUNTY-BWSWALL-DOT-HIGHWAYS	COUNTY
DOT-HWY	ROUTE H3, HALAWA INTERCHANGE FINISH CONTRACT, UNIT VII	NONPOTABLE USING POTABLE	PEARL HARBOR		0.00650	0.00325	0.00650	0.00325	0.00325	0.00325	0.00325	COUNTY-BWSWALL-DOT-HIGHWAYS	COUNTY
DBEDT-HCDA	HISTORIC PUMP STATION (LOT 5)	NONPOTABLE USING POTABLE	HONOLULU			0.00328	0.00328	0.00328	0.00328	0.00328	0.00328	COUNTY-BWSWALL-HCDA	COUNTY
	<b>SWPP Projects with County Water Department Water Agreements - Use of Water Allocation Credits (#5) CONTINUED</b>												
DBEDT-HCDA	KAKAOKO MAUKA PARK (QUEEN STREET)	NONPOTABLE USING POTABLE	HONOLULU			0.00608	0.00608	0.00608	0.00608	0.00608	0.00608	COUNTY-BWSWALL-HCDA	COUNTY
UH	CRAWFORD HALL RENOVATIONS	POTABLE	HONOLULU	0.00250	0.00250	0.00250	0.00250	0.00250	0.00250	0.00250	0.00250	COUNTY-BWSWALL-UH MANOA	COUNTY
UH	HAWAII HALL RENOVATION	POTABLE	HONOLULU	0.00350	0.00350	0.00350	0.00350	0.00350	0.00350	0.00350	0.00350	COUNTY-BWSWALL-UH MANOA	COUNTY
UH	WINDWARD COMMUNITY COLLEGE - BUILDING D CAMPUS CENTER	POTABLE	WINDWARD		0.05961	0.05961	0.05961	0.05961	0.05961	0.05961	0.05961	COUNTY-BWSWALL-UH WCC	COUNTY
UH	WINDWARD COMMUNITY COLLEGE - BUILDING K-1, MULTI-MEDIA FACILITY	NONPOTABLE USING POTABLE	WINDWARD	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	COUNTY-BWSWALL-UH WCC	COUNTY
UH	WINDWARD COMMUNITY COLLEGE - BUILDING K-1, MULTI-MEDIA FACILITY	POTABLE	WINDWARD	0.00479	0.00479	0.00479	0.00479	0.00479	0.00479	0.00479	0.00479	COUNTY-BWSWALL-UH WCC	COUNTY
				<b>0.10160</b>	<b>0.28305</b>	<b>0.43236</b>	<b>0.69161</b>	<b>0.64036</b>	<b>0.62086</b>	<b>0.58726</b>	<b>0.58726</b>	<b>Subtotal SWPP Projects with County Water Department Water Agreements - Use of Water Allocation Credits (#5)</b>	
	<b>SWPP Projects Assigned to New/Planned State Wells (#6)</b>												
	No SWPP Projects												
	<b>SWPP Projects Within New State Water Systems (#7)</b>												
DOA	FUTURE SUBDIVISION IN WAIKELE	NONPOTABLE	PEARL HARBOR						5.50000	5.50000	5.50000	NEWSWS - DOA WATER SYSTEM	STATE
				<b>0.00000</b>	<b>0.00000</b>	<b>0.00000</b>	<b>0.00000</b>	<b>0.00000</b>	<b>5.50000</b>	<b>5.50000</b>	<b>5.50000</b>	<b>Subtotal SWPP Projects Within New State Water Systems (#7)</b>	
	<b>SWPP Projects Assigned to Planned Private Sources (#8)</b>												
	No SWPP Projects												
	<b>Remaining Unmet SWPP Projects to be Supplied by DWS (#9)</b>												
DHHL	CAMP ANDREWS	POTABLE	WAIANAE						0.07800	0.07800	0.07800	REMAIN-DHHL	COUNTY
DHHL	KAPALAMA	POTABLE	HONOLULU						0.10000	0.10000	0.10000	REMAIN-DHHL	COUNTY
DHHL	MAILILI ROAD	POTABLE	WAIANAE						0.01500	0.01500	0.01500	REMAIN-DHHL	COUNTY
DHHL	MOILILI	POTABLE	HONOLULU						0.10000	0.10000	0.10000	REMAIN-DHHL	COUNTY
DHHL	MOOREIRA	POTABLE	HONOLULU						0.01150	0.01150	0.01150	REMAIN-DHHL	COUNTY
DHHL	PRINCESS KAHANU	POTABLE	WAIANAE						0.14030	0.14030	0.14030	REMAIN-DHHL	COUNTY
DHHL	PROSPECT STREET	POTABLE	HONOLULU						0.12000	0.12000	0.12000	REMAIN-DHHL	COUNTY
DHHL	PIU MAILILI	POTABLE	WAIANAE						0.05000	0.05000	0.05000	REMAIN-DHHL	COUNTY
DHHL	SOUKASEN	POTABLE	WINDWARD						0.02500	0.02500	0.02500	REMAIN-DHHL	COUNTY
DHHL	UNIT 9	POTABLE	WINDWARD						0.02650	0.02650	0.02650	REMAIN-DHHL	COUNTY
DHHL	UPPER NANAKULI	POTABLE	WAIANAE								0.42500	REMAIN-DHHL	COUNTY

**TABLE 4.1**  
SWPP UPDATE - OAHU WATER DEVELOPMENT STRATEGY

DEPT	SWPP PROJECT NAME	PRIMARY USE	SECTOR	YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								STRATEGY OPTION	SYSTEM OR SOURCE
				SHORT-TERM					LONG-TERM				
				02001	02002	02003	02004	02005	02010	02015	02020		
	<b>ISLAND OF OAHU</b>			<b>2.93563</b>	<b>5.11409</b>	<b>8.43693</b>	<b>9.02589</b>	<b>9.39297</b>	<b>19.77242</b>	<b>22.06434</b>	<b>24.52223</b>	<b>SWPP Total Project Demand for Island of Oahu</b>	
DHHL	VOICE OF AMERICA	POTABLE	WAIANAE						0.25000	0.25000	0.25000	REMAIN-DHHL	COUNTY
HS	HYCF VOCATIONAL TRNG/MAINTENANCE FAC	POTABLE	WINDWARD	0.00380	0.00380	0.00380	0.00380	0.00380	0.00380	0.00380	0.00380	REMAIN-DLNR	COUNTY
DOH	MALUHIA EXPANSION DAY HOSPITAL	POTABLE	HONOLULU	0.00014	0.00014	0.00014	0.00014	0.00014	0.00014	0.00014	0.00014	REMAIN-DLNR	COUNTY
DLNR-BOATING	ALA WAI BOAT HARBOR COMFORT STATION	POTABLE	HONOLULU		0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	REMAIN-DLNR (BOATING)	COUNTY
DLNR-BOATING	KEEHI BOAT HARBOR	NONPOTABLE USING POTABLE	HONOLULU			0.00543	0.00543	0.00543	0.00543	0.00543	0.00543	REMAIN-DLNR (BOATING)	COUNTY
DLNR-BOATING	KEEHI BOAT HARBOR	POTABLE	HONOLULU			0.01008	0.01008	0.01008	0.01008	0.01008	0.01008	REMAIN-DLNR (BOATING)	COUNTY
	<b>Remaining Unmet SWPP Projects to be Supplied by DWS (#9) CONTINUED</b>												
DLNR-BOATING	MAUNALUA BAY COMFORT STATION	POTABLE	HONOLULU			0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	REMAIN-DLNR (BOATING)	COUNTY
DAGS-PM	AIEA PUBLIC LIBRARY	NONPOTABLE USING POTABLE	PEARL HARBOR								0.02484	REMAIN-DLNR (DAGS)	COUNTY
DAGS-PM	AIEA PUBLIC LIBRARY	POTABLE	PEARL HARBOR								0.00216	REMAIN-DLNR (DAGS)	COUNTY
DAGS-PM	HYCF MAINTENANCE BLDG & RENOVATION HOOKIPA COTTAGE	POTABLE	WINDWARD	0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	REMAIN-DLNR (DAGS)	COUNTY
DAGS-PL	KAMAMALU BUILDING RENOVATIONS	POTABLE	HONOLULU								0.00250	REMAIN-DLNR (DAGS)	COUNTY
DAGS-PL	KANEHOE CIVIC CENTER	NONPOTABLE USING POTABLE	WINDWARD						0.00112	0.00112	0.00112	REMAIN-DLNR (DAGS)	COUNTY
DAGS-PL	KANEHOE CIVIC CENTER	POTABLE	WINDWARD						0.00065	0.00065	0.00065	REMAIN-DLNR (DAGS)	COUNTY
DAGS-PL	KANEHOE DISTRICT COURT	NONPOTABLE USING POTABLE	WINDWARD		0.00201	0.00201	0.00201	0.00201	0.00201	0.00201	0.00402	REMAIN-DLNR (DAGS)	COUNTY
DAGS-PL	KANEHOE DISTRICT COURT	POTABLE	WINDWARD		0.00099	0.00099	0.00099	0.00099	0.00099	0.00099	0.00198	REMAIN-DLNR (DAGS)	COUNTY
DAGS-PL	LILIHA CIVIC CENTER	NONPOTABLE USING POTABLE	HONOLULU						0.00893	0.00893	0.00893	REMAIN-DLNR (DAGS)	COUNTY
DAGS-PL	LILIHA CIVIC CENTER	POTABLE	HONOLULU						0.01007	0.01007	0.01007	REMAIN-DLNR (DAGS)	COUNTY
DAGS-PL	MANOA PUBLIC LIBRARY	POTABLE	HONOLULU	0.00067	0.00067	0.00067	0.00067	0.00067	0.00067	0.00067	0.00067	REMAIN-DLNR (DAGS)	COUNTY
DAGS-PL	NANAKULI PUBLIC LIBRARY	NONPOTABLE USING POTABLE	WAIANAE						0.00643	0.00643	0.00643	REMAIN-DLNR (DAGS)	COUNTY
DAGS-PL	NANAKULI PUBLIC LIBRARY	POTABLE	WAIANAE						0.00151	0.00151	0.00151	REMAIN-DLNR (DAGS)	COUNTY
DAGS-PL	QUEEN LILIUOKALANI BLDG. EXPANSION	POTABLE	HONOLULU			0.00160	0.00160	0.00160	0.00160	0.00160	0.00160	REMAIN-DLNR (DAGS)	COUNTY
DAGS-PL	STATE CAPITOL ANNEX (REPLACE DOH BUILDING)	POTABLE	HONOLULU						0.00750	0.00750	0.00750	REMAIN-DLNR (DAGS)	COUNTY
DAGS-PL	WAHIAWA CIVIC CENTER	NONPOTABLE USING POTABLE	CENTRAL						0.00426	0.00426	0.00426	REMAIN-DLNR (DAGS)	COUNTY
DAGS-PL	WAHIAWA CIVIC CENTER	POTABLE	CENTRAL						0.00949	0.00949	0.00949	REMAIN-DLNR (DAGS)	COUNTY
DBEDT	ALOHA TOWER DEVELOPMENT	POTABLE	HONOLULU		0.09300	0.09300	0.09300	0.09300	0.13400	0.13400	0.13400	REMAIN-DLNR (DBEDT)	COUNTY
DOD	HAWAII VETERANS CENTER	POTABLE	PEARL HARBOR	0.00180	0.00180	0.00180	0.00180	0.00180	0.00180	0.00180	0.00180	REMAIN-DLNR (DEFENSE)	COUNTY
DOD	KALAELOA TRAINING FACILITY/ARMORY	NONPOTABLE USING POTABLE	EWA CAPROCK	0.01050	0.01050	0.01050	0.01050	0.01050	0.01050	0.01050	0.01050	REMAIN-DLNR (DEFENSE)	COUNTY
DOD	KALAELOA TRAINING FACILITY/ARMORY	POTABLE	EWA CAPROCK	0.71710	0.71710	0.71710	0.71710	0.71710	0.71710	0.71710	0.71710	REMAIN-DLNR (DEFENSE)	COUNTY
DOD	REGIONAL TRAINING INSTITUTE	NONPOTABLE USING POTABLE	WINDWARD	0.05946	0.05946	0.05946	0.05946	0.05946	0.05946	0.05946	0.05946	REMAIN-DLNR (DEFENSE)	COUNTY
DOD	REGIONAL TRAINING INSTITUTE	POTABLE	WINDWARD	0.00184	0.00184	0.00184	0.00184	0.00184	0.00184	0.00184	0.00184	REMAIN-DLNR (DEFENSE)	COUNTY
DOA	BARBERS POINT AGRICULTURAL PARK	POTABLE	PEARL HARBOR								0.15500	REMAIN-DLNR (DOA)	COUNTY
DOT-HAR	OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: COMMERCIAL FISHING BERTHS	POTABLE	HONOLULU						0.00003	0.00003	0.00003	REMAIN-DLNR (DOT-HARBORS)	COUNTY
DOT-HAR	OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: DRY BULK CARGO YARD	POTABLE	EWA CAPROCK		0.11000	0.11000	0.11000	0.11000	0.11000	0.11000	0.11000	REMAIN-DLNR (DOT-HARBORS)	COUNTY
DOT-HAR	OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: EXCURSION VESSEL & FERRY TERMINAL	POTABLE	HONOLULU		0.07000	0.07000	0.07000	0.07000	0.07000	0.07000	0.07000	REMAIN-DLNR (DOT-HARBORS)	COUNTY

**TABLE 4.1**  
SWPP UPDATE - OAHU WATER DEVELOPMENT STRATEGY

DEPT	SWPP PROJECT NAME	PRIMARY USE	SECTOR	YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								STRATEGY OPTION	SYSTEM OR SOURCE
				SHORT-TERM					LONG-TERM				
				02001	02002	02003	02004	02005	02010	02015	02020		
	<b>ISLAND OF OAHU</b>			2.93563	5.11409	8.43693	9.02589	9.39297	19.77242	22.06434	24.52223	<b>SWPP Total Project Demand for Island of Oahu</b>	
DOT-HAR	OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: FOREIGN FISHING & OIL RESPONSE LAY BERTHS	POTABLE	HONOLULU					0.00003	0.00003	0.00003	0.00003	REMAIN-DLNR (DOT-HARBORS)	COUNTY
DOT-HAR	OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: GENERAL/NEOBULK CARGO YARD	POTABLE	HONOLULU		0.04000	0.08000	0.08000	0.08000	0.08000	0.08000	0.08000	REMAIN-DLNR (DOT-HARBORS)	COUNTY
DOT-HAR	OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: KAPALAMA MILITARY RESER.CONTAINER YD	POTABLE	HONOLULU						0.27000	0.27000	0.27000	REMAIN-DLNR (DOT-HARBORS)	COUNTY
DOT-HAR	OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: KEEHI INDUSTRIAL PARK ASSOCIATION	POTABLE	HONOLULU					0.05000	0.05000	0.05000	0.05000	REMAIN-DLNR (DOT-HARBORS)	COUNTY
DOT-HAR	OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: PASSENGER TERMINAL	POTABLE	HONOLULU			0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	REMAIN-DLNR (DOT-HARBORS)	COUNTY
DOT-HAR	OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: PASSENGER TERMINAL & GENERAL CARGO YARD	POTABLE	HONOLULU		0.03000	0.03000	0.06000	0.06000	0.06000	0.06000	0.06000	REMAIN-DLNR (DOT-HARBORS)	COUNTY
DOT-HAR	OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: PETROLEUM PIER	POTABLE	EWA CAPROCK					0.02000	0.02000	0.02000	0.02000	REMAIN-DLNR (DOT-HARBORS)	COUNTY
DOT-HAR	OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: SHIPYARD	POTABLE	EWA CAPROCK				0.09000	0.09000	0.09000	0.09000	0.09000	REMAIN-DLNR (DOT-HARBORS)	COUNTY
	<b>Remaining Unmet SWPP Projects to be Supplied by DWS (#9) CONTINUED</b>												
DLNR-PARKS	AIEA BAY STATE RECREATION AREA	POTABLE	PEARL HARBOR	0.00021	0.00027	0.00034	0.00041	0.00048	0.00069	0.00069	0.00069	REMAIN-DLNR (PARKS)	COUNTY
DLNR-PARKS	HEEIA STATE PARK	POTABLE	WINDWARD	0.00003	0.00004	0.00006	0.00007	0.00008	0.00011	0.00011	0.00011	REMAIN-DLNR (PARKS)	COUNTY
DLNR-PARKS	KAENA POINT SP	POTABLE	WAIANA	0.00102	0.00136	0.00542	0.00576	0.00610	0.01084	0.01084	0.01084	REMAIN-DLNR (PARKS)	COUNTY
DLNR-PARKS	KAHANA VALLEY SP	POTABLE	WINDWARD	0.00026	0.00034	0.00043	0.00051	0.00060	0.00085	0.00085	0.00085	REMAIN-DLNR (PARKS)	COUNTY
DLNR-PARKS	KAIWI SP	POTABLE	HONOLULU			0.00164	0.00219	0.00274	0.00329	0.00384	0.00548	REMAIN-DLNR (PARKS)	COUNTY
DLNR-PARKS	KALIHI VALLEY SP	POTABLE	HONOLULU			0.00019	0.00025	0.00031	0.00037	0.00043	0.00062	REMAIN-DLNR (PARKS)	COUNTY
DLNR-PARKS	KUKANILOKO HEIAU (NEAR WHITMORE VILLAGE)	NONPOTABLE USING POTABLE	CENTRAL	0.00028	0.00037	0.00502	0.00511	0.00511	0.01003	0.01003	0.01003	REMAIN-DLNR (PARKS)	COUNTY
DLNR-PARKS	KUKANILOKO HEIAU (NEAR WHITMORE VILLAGE)	POTABLE	CENTRAL			0.00003	0.00004	0.00050	0.00051	0.00051	0.00099	REMAIN-DLNR (PARKS)	COUNTY
DLNR-PARKS	KUULEI CLIFFS	NONPOTABLE USING POTABLE	HONOLULU	0.00027	0.00037	0.00758	0.00767	0.00776	0.00803	0.00803	0.00803	REMAIN-DLNR (PARKS)	COUNTY
DLNR-PARKS	KUULEI CLIFFS	POTABLE	HONOLULU					0.00003	0.00005	0.00094	0.00095	REMAIN-DLNR (PARKS)	COUNTY
DLNR-PARKS	LAIE POINT STATE WAYSIDE	NONPOTABLE USING POTABLE	WINDWARD			0.00024	0.00032	0.00158	0.00166	0.00175	0.00199	REMAIN-DLNR (PARKS)	COUNTY
DLNR-PARKS	LAIE POINT STATE WAYSIDE	POTABLE	WINDWARD			0.00017	0.00022	0.00110	0.00116	0.00121	0.00138	REMAIN-DLNR (PARKS)	COUNTY
DLNR-PARKS	MAKIKI TANTALUS STATE PARK	NONPOTABLE USING POTABLE	HONOLULU	0.00229	0.00306	0.01622	0.01699	0.01775	0.02004	0.02004	0.02004	REMAIN-DLNR (PARKS)	COUNTY
DLNR-PARKS	MAKIKI TANTALUS STATE PARK	POTABLE	HONOLULU	0.00141	0.00187	0.00994	0.01041	0.01088	0.01229	0.01229	0.01229	REMAIN-DLNR (PARKS)	COUNTY
DLNR-PARKS	MALAEKAHANA SRA (KAHUKU SECTION)	NONPOTABLE	WINDWARD			0.03000	0.03000	0.03000	0.06000	0.06000	0.06000	REMAIN-DLNR (PARKS)	COUNTY
DLNR-PARKS	MALAEKAHANA SRA (KAHUKU SECTION)	POTABLE	WINDWARD			0.01000	0.01000	0.01000	0.02000	0.02000	0.02000	REMAIN-DLNR (PARKS)	COUNTY
DLNR-PARKS	MALAEKAHANA SRA (KALANAI POINT SECTION)	NONPOTABLE	WINDWARD			0.03000	0.03000	0.03000	0.06000	0.06000	0.06000	REMAIN-DLNR (PARKS)	COUNTY
DLNR-PARKS	MALAEKAHANA SRA (KALANAI POINT SECTION)	POTABLE	WINDWARD			0.01000	0.01000	0.01000	0.02000	0.02000	0.02000	REMAIN-DLNR (PARKS)	COUNTY
DLNR-PARKS	NUUANU PALI SW	POTABLE	WINDWARD				0.00164	0.00219	0.00274	0.00329	0.00384	REMAIN-DLNR (PARKS)	COUNTY
DLNR-PARKS	PIU MAHUKA HEIAU SM	NONPOTABLE USING POTABLE	NORTH	0.00061	0.00082	0.01098	0.01119	0.01139	0.01201	0.01201	0.01201	REMAIN-DLNR (PARKS)	COUNTY
DLNR-PARKS	PIU MAHUKA HEIAU SM	POTABLE	NORTH				0.00013	0.00017	0.00225	0.00229	0.00233	REMAIN-DLNR (PARKS)	COUNTY
DLNR-PARKS	ROYAL MAUSOLEUM SM	POTABLE	HONOLULU	0.00014	0.00019	0.00024	0.00029	0.00034	0.00048	0.00048	0.00048	REMAIN-DLNR (PARKS)	COUNTY
DLNR-PARKS	SACRED FALLS STATE PARK	POTABLE	WINDWARD	0.00154	0.00206	0.00257	0.00308	0.00360	0.00514	0.00514	0.00514	REMAIN-DLNR (PARKS)	COUNTY
DLNR-PARKS	SAND ISLAND SRA	NONPOTABLE USING POTABLE	HONOLULU	0.00081	0.00109	0.23896	0.23923	0.23950	0.24031	0.24031	0.24031	REMAIN-DLNR (PARKS)	COUNTY
DLNR-PARKS	SAND ISLAND SRA	POTABLE	HONOLULU	0.00001	0.00001	0.00241	0.00242	0.00242	0.00243	0.00243	0.00243	REMAIN-DLNR (PARKS)	COUNTY
DLNR-PARKS	LULUPO HEIAU STATE MONUMENT	POTABLE	WINDWARD			0.00039	0.00052	0.00065	0.00078	0.00091	0.00130	REMAIN-DLNR (PARKS)	COUNTY

**TABLE 4.1**  
SWPP UPDATE - OAHU WATER DEVELOPMENT STRATEGY

DEPT	SWPP PROJECT NAME	PRIMARY USE	SECTOR	YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								STRATEGY OPTION	SYSTEM OR SOURCE
				SHORT-TERM					LONG-TERM				
				02001	02002	02003	02004	02005	02010	02015	02020		
	<b>ISLAND OF OAHU</b>			<b>2.93563</b>	<b>5.11409</b>	<b>8.43693</b>	<b>9.02589</b>	<b>9.39297</b>	<b>19.77242</b>	<b>22.06434</b>	<b>24.52223</b>	<b>SWPP Total Project Demand for Island of Oahu</b>	
DLNR-PARKS	WAIMANO GULCH STATE PARK RESERVE	NONPOTABLE USING POTABLE	PEARL HARBOR	0.00002	0.00003	0.00003	0.00004	0.00005	0.14223	0.14223	0.14223	REMAIN-DLNR (PARKS)	COUNTY
DLNR-PARKS	WAIMANO GULCH STATE PARK RESERVE	POTABLE	PEARL HARBOR				0.00000	0.00000	0.00000	0.00000	0.00000	REMAIN-DLNR (PARKS)	COUNTY
DLNR-PARKS	WASHINGTON PLACE	POTABLE	HONOLULU	0.00062	0.00082	0.00103	0.00123	0.00144	0.00206	0.00206	0.00206	REMAIN-DLNR (PARKS)	COUNTY
DOE	AHRENS ELEMENTARY SCH NEW 8 CLASSROOM	POTABLE	PEARL HARBOR			0.00072	0.00072	0.00072	0.00072	0.00072	0.00072	REMAIN-DOE	COUNTY
DOE	CASTLE HIGH SCHOOL NEW CAFETERIA	POTABLE	WINDWARD	0.00600	0.00600	0.00600	0.00600	0.00600	0.00600	0.00600	0.00600	REMAIN-DOE	COUNTY
DOE	CENTRAL INTER - RENOV BLDG A PH 1 15 CLSRM	POTABLE	HONOLULU		0.00166	0.00166	0.00166	0.00166	0.00166	0.00166	0.00166	REMAIN-DOE	COUNTY
DOE	CENTRAL INTER - RENOV BLDG C 16 CLASSROOM	POTABLE	HONOLULU		0.00215	0.00215	0.00215	0.00215	0.00215	0.00215	0.00215	REMAIN-DOE	COUNTY
DOE	CENTRAL MIDDLE SCH - RENOVATE CAFETERIA	POTABLE	HONOLULU		0.00225	0.00225	0.00225	0.00225	0.00225	0.00225	0.00225	REMAIN-DOE	COUNTY
DOE	CENTRAL OAHU HIGH SCHOOL	POTABLE	PEARL HARBOR						0.06000	0.06000	0.06000	REMAIN-DOE	COUNTY
DOE	EWA BEACH ELEMENTARY NEW 6 CLASSROOM	POTABLE	EWA CAPROCK			0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	REMAIN-DOE	COUNTY
	<b>Remaining Unmet SWPP Projects to be Supplied by DWS (#9) CONTINUED</b>												
DOE	HALE KULA ELEMENTARY NEW ADMINISTRATION	POTABLE	CENTRAL			0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	REMAIN-DOE	COUNTY
DOE	HALE KULA ELEMENTARY NEW LIBRARY	POTABLE	CENTRAL			0.00066	0.00066	0.00066	0.00066	0.00066	0.00066	REMAIN-DOE	COUNTY
DOE	HICKAM ELEM NEW CAFETERIA & LIBRY EXPAN	POTABLE	PEARL HARBOR			0.00329	0.00329	0.00329	0.00329	0.00329	0.00329	REMAIN-DOE	COUNTY
DOE	HICKAM ELEM SCHOOL, NEW ADMIN. BLDG.	POTABLE	PEARL HARBOR				0.00045	0.00045	0.00045	0.00045	0.00045	REMAIN-DOE	COUNTY
DOE	HLIP	POTABLE	PEARL HARBOR						0.03000	0.03000	0.03000	REMAIN-DOE	COUNTY
DOE	KAAWA ELEM NEW LIBRARY/ADMINISTRATION	POTABLE	WINDWARD			0.00111	0.00111	0.00111	0.00111	0.00111	0.00111	REMAIN-DOE	COUNTY
DOE	KAAWA ELEMENTARY NEW CAFETERIA	POTABLE	WINDWARD			0.00054	0.00054	0.00054	0.00054	0.00054	0.00054	REMAIN-DOE	COUNTY
DOE	KAELEPULU ELEM SCH, NEW ADMIN BLDG.	POTABLE	WINDWARD						0.00045	0.00045	0.00045	REMAIN-DOE	COUNTY
DOE	KAHUKU HIGH SCHOOL - ATHLETIC FIELD	NONPOTABLE USING POTABLE	WINDWARD		0.03800	0.03800	0.03800	0.03800	0.03800	0.03800	0.03800	REMAIN-DOE	COUNTY
DOE	KAHUKU HIGH/INT SCH NEW PE LOCKR SHOWR	POTABLE	WINDWARD			0.00065	0.00065	0.00065	0.00065	0.00065	0.00065	REMAIN-DOE	COUNTY
DOE	KAHUKU HIGH/INTER SCHOOL NEW CAFETERIA	POTABLE	WINDWARD			0.00660	0.00660	0.00660	0.00660	0.00660	0.00660	REMAIN-DOE	COUNTY
DOE	KAHUKU HIGH/INTER SCHOOL NEW GYMNASIUM	POTABLE	WINDWARD			0.00400	0.00400	0.00400	0.00400	0.00400	0.00400	REMAIN-DOE	COUNTY
DOE	KAILUA ELEMENTARY LIBRARY EXPANSION	POTABLE	WINDWARD			0.00066	0.00066	0.00066	0.00066	0.00066	0.00066	REMAIN-DOE	COUNTY
DOE	KAINALU ELEMENTARY NEW ADMINISTRATION	POTABLE	WINDWARD			0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	REMAIN-DOE	COUNTY
DOE	KAKAAKO ELEM 1ST AND 2ND INCREMENTS	POTABLE	HONOLULU			0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	REMAIN-DOE	COUNTY
DOE	KALAKAUA MIDDLE SCHOOL - RENOVATE BLDGS G & H 3 CLASSROOM	POTABLE	HONOLULU		0.00064	0.00064	0.00064	0.00064	0.00064	0.00064	0.00064	REMAIN-DOE	COUNTY
DOE	KAMAILE ELEMENTARY SCH NEW 8 CLASSROOM	POTABLE	WAIANAE			0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	REMAIN-DOE	COUNTY
DOE	KAULUWELA ELEMENTARY - NEW CAFETERIA	POTABLE	HONOLULU		0.00173	0.00173	0.00173	0.00173	0.00173	0.00173	0.00173	REMAIN-DOE	COUNTY
DOE	KAULUWELA ELEMENTARY 6 CLASSROOM BLDG	POTABLE	HONOLULU			0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	REMAIN-DOE	COUNTY
DOE	LAIE ELEMENTARY NEW CAFETERIA	POTABLE	WINDWARD		0.00261	0.00261	0.00261	0.00261	0.00261	0.00261	0.00261	REMAIN-DOE	COUNTY
DOE	LEIHOKU ELEM NEW LIBRARY/ADMINISTRATION	POTABLE	WAIANAE		0.00111	0.00111	0.00111	0.00111	0.00111	0.00111	0.00111	REMAIN-DOE	COUNTY
DOE	LEIHOKU ELEMENTARY NEW 6 CLASSROOM	POTABLE	WAIANAE		0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	REMAIN-DOE	COUNTY
DOE	LEILEHUA HIGH SCHOOL NEW 8 CLASSROOM	POTABLE	CENTRAL		0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	REMAIN-DOE	COUNTY
DOE	LINAPUNI ELEM SCH NEW ADMIN BUILDING	POTABLE	HONOLULU			0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	REMAIN-DOE	COUNTY

**TABLE 4.1**  
**SWPP UPDATE - OAHU WATER DEVELOPMENT STRATEGY**

DEPT	SWPP PROJECT NAME	PRIMARY USE	SECTOR	YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								STRATEGY OPTION	SYSTEM OR SOURCE
				SHORT-TERM				LONG-TERM					
				02001	02002	02003	02004	02005	02010	02015	02020		
	<b>ISLAND OF OAHU</b>			<b>2.93563</b>	<b>5.11409</b>	<b>8.43693</b>	<b>9.02589</b>	<b>9.39297</b>	<b>19.77242</b>	<b>22.06434</b>	<b>24.52223</b>	<b>SWPP Total Project Demand for Island of Oahu</b>	
DOE	MAKAHA ELEMENTARY NEW LIBRARY	POTABLE	WAIANAЕ			0.00066	0.00066	0.00066	0.00066	0.00066	0.00066	REMAIN-DOE	COUNTY
DOE	MAKALAPA ELEM SCH RENOV/EXPAN OF CAFÉ	POTABLE	PEARL HARBOR			0.00195	0.00195	0.00195	0.00195	0.00195	0.00195	REMAIN-DOE	COUNTY
DOE	McKINLEY HIGH SCHOOL - RENOVATE INDUSTRIAL ARTS EDUC BLDG 6 CLASSROOM	POTABLE	HONOLULU	0.00190	0.00190	0.00190	0.00190	0.00190	0.00190	0.00190	0.00190	REMAIN-DOE	COUNTY
DOE	NANAKULI HIGH SCHOOL NEW 8 CLASSROOM	POTABLE	WAIANAЕ			0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	REMAIN-DOE	COUNTY
DOE	NANAKULI III ELEMENTARY 1ST INCREMENT	POTABLE	WAIANAЕ			0.00660	0.00660	0.00660	0.00660	0.00660	0.00660	REMAIN-DOE	COUNTY
DOE	NANAKULI III ELEMENTARY 2ND INCREMENT	POTABLE	WAIANAЕ			0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	REMAIN-DOE	COUNTY
DOE	NANAKULI IV ELEMENTARY 1ST & 2ND INCREMENT	POTABLE	WAIANAЕ	0.06300	0.06300	0.06300	0.06300	0.06300	0.06300	0.06300	0.06300	REMAIN-DOE	COUNTY
DOE	PEARL HARBOR ELEM SCH NEW 4 CLASSRM BLD	POTABLE	HONOLULU			0.00036	0.00036	0.00036	0.00036	0.00036	0.00036	REMAIN-DOE	COUNTY
DOE	PEARL HARBOR KAI ELEMENTARY BLDG "P" RENOVATION 2 CLASSROOM	POTABLE	PEARL HARBOR	0.00020	0.00020	0.00020	0.00020	0.00020	0.00020	0.00020	0.00020	REMAIN-DOE	COUNTY
DOE	PUNAHUA ELEMENTARY SCHOOL EXPANSION OF LIBRARY & ADMINISTRATION	POTABLE	WINDWARD			0.00111	0.00111	0.00111	0.00111	0.00111	0.00111	REMAIN-DOE	COUNTY
DOE	ROOSEVELT HIGH SCHOOL - RENOVATE BLDG A PHASE 1: ADMIN, LIB., CAFÉ., 43 CLASSROOM	POTABLE	HONOLULU	0.00804	0.00804	0.00804	0.00804	0.00804	0.00804	0.00804	0.00804	REMAIN-DOE	COUNTY
DOE	ROYAL KUNIA ELEMENTARY 1ST INCREMENT	POTABLE	PEARL HARBOR	0.03600	0.03600	0.03600	0.03600	0.03600	0.03600	0.03600	0.03600	REMAIN-DOE	COUNTY
	<b>Remaining Unmet SWPP Projects to be Supplied by DWS (#9) CONTINUED</b>												
DOE	ROYAL KUNIA ELEMENTARY 2ND INCREMENT	POTABLE	PEARL HARBOR	0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	REMAIN-DOE	COUNTY
DOE	SUNSET BEACH ELEM NEW ADMINISTRATION	POTABLE	NORTH			0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	REMAIN-DOE	COUNTY
DOE	WAIANAЕ HIGH SCHOOL NEW 8 CLASSROOM	POTABLE	WAIANAЕ	0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	REMAIN-DOE	COUNTY
DOE	WAIANAЕ HIGH SCHOOL NEW ADMINISTRATION	POTABLE	WAIANAЕ			0.00067	0.00067	0.00067	0.00067	0.00067	0.00067	REMAIN-DOE	COUNTY
DOE	WAIANAЕ HIGH SCHOOL NEW CAFETERIA	POTABLE	WAIANAЕ			0.00735	0.00735	0.00735	0.00735	0.00735	0.00735	REMAIN-DOE	COUNTY
DOE	WAIANAЕ INTER SCHOOL NEW 4 CLASSROOM	POTABLE	WAIANAЕ			0.00720	0.00720	0.00720	0.00720	0.00720	0.00720	REMAIN-DOE	COUNTY
DOE	WAIPAHU HIGH SCHOOL NEW 8 CLASSROOM	POTABLE	PEARL HARBOR	0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	REMAIN-DOE	COUNTY
DOE	WAIPAHU HIGH SCHOOL NEW CAFETERIA	POTABLE	PEARL HARBOR			0.00771	0.00771	0.00771	0.00771	0.00771	0.00771	REMAIN-DOE	COUNTY
DOE	WAIPAHU INTERMEDIATE - NEW CAFETERIA	POTABLE	PEARL HARBOR	0.00456	0.00456	0.00456	0.00456	0.00456	0.00456	0.00456	0.00456	REMAIN-DOE	COUNTY
DOE	WHEELER ELEMENTARY 8 CLASSROOM BUILDING	POTABLE	CENTRAL			0.00072	0.00072	0.00072	0.00072	0.00072	0.00072	REMAIN-DOE	COUNTY
DBEDT-HCDA	BISHOP LEARNING SCIENCE CENTER	NONPOTABLE USING POTABLE	HONOLULU			0.00918	0.00918	0.00918	0.00918	0.00918	0.00918	REMAIN-HCDA	COUNTY
DBEDT-HCDA	BISHOP LEARNING SCIENCE CENTER	POTABLE	HONOLULU			0.01000	0.01000	0.01000	0.01000	0.01000	0.01000	REMAIN-HCDA	COUNTY
DBEDT-HCDA	COMMERCIAL PROJECT (LOT 1)	NONPOTABLE USING POTABLE	HONOLULU			0.00420	0.00420	0.00420	0.00420	0.00420	0.00420	REMAIN-HCDA	COUNTY
DBEDT-HCDA	COMMERCIAL PROJECT (LOT 1)	POTABLE	HONOLULU			0.01385	0.01385	0.01385	0.01385	0.01385	0.01385	REMAIN-HCDA	COUNTY
DBEDT-HCDA	COMMERCIAL PROJECT (LOT 2)	NONPOTABLE USING POTABLE	HONOLULU			0.00440	0.00440	0.00440	0.00440	0.00440	0.00440	REMAIN-HCDA	COUNTY
DBEDT-HCDA	COMMERCIAL PROJECT (LOT 2)	POTABLE	HONOLULU			0.03593	0.03593	0.03593	0.03593	0.03593	0.03593	REMAIN-HCDA	COUNTY
DBEDT-HCDA	HISTORIC PUMP STATION (LOT 5)	POTABLE	HONOLULU			0.05273	0.05273	0.05273	0.05273	0.05273	0.05273	REMAIN-HCDA	COUNTY
DBEDT-HCDA	JOHN A. BURNS SCHOOL OF MEDICINE	NONPOTABLE USING POTABLE	HONOLULU			0.01550	0.01550	0.01550	0.01550	0.01550	0.01550	REMAIN-HCDA	COUNTY
DBEDT-HCDA	JOHN A. BURNS SCHOOL OF MEDICINE	POTABLE	HONOLULU			0.06360	0.06360	0.06360	0.06360	0.06360	0.06360	REMAIN-HCDA	COUNTY
DBEDT-HCDA	KAKAАKO WATERFRONT PARK IMPROVEMENTS	NONPOTABLE USING POTABLE	HONOLULU			0.00916	0.00916	0.00916	0.00916	0.00916	0.00916	REMAIN-HCDA	COUNTY
DBEDT-HCDA	KEWALO BASIN RETAIL/MARKET	NONPOTABLE USING POTABLE	HONOLULU			0.00916	0.00916	0.00916	0.00916	0.00916	0.00916	REMAIN-HCDA	COUNTY
DBEDT-HCDA	KEWALO BASIN RETAIL/MARKET	POTABLE	HONOLULU			0.02000	0.02000	0.02000	0.02000	0.02000	0.02000	REMAIN-HCDA	COUNTY

**TABLE 4.1**  
SWPP UPDATE - OAHU WATER DEVELOPMENT STRATEGY

DEPT	SWPP PROJECT NAME	PRIMARY USE	SECTOR	YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								STRATEGY OPTION	SYSTEM OR SOURCE
				SHORT-TERM					LONG-TERM				
				02001	02002	02003	02004	02005	02010	02015	02020		
	<b>ISLAND OF OAHU</b>			<b>2.93563</b>	<b>5.11409</b>	<b>8.43693</b>	<b>9.02589</b>	<b>9.39297</b>	<b>19.77242</b>	<b>22.06434</b>	<b>24.52223</b>	<b>SWPP Total Project Demand for Island of Oahu</b>	
DBEDT-HCDA	PARKING STRUCTURE	NONPOTABLE USING POTABLE	HONOLULU					0.00680	0.00680	0.00680	0.00680	REMAIN-HCDA	COUNTY
DBEDT-HCDCH	CIVIC CENTER RENTAL HOUSING	POTABLE	HONOLULU	0.05490	0.05490	0.05490	0.05490	0.05490	0.05490	0.05490	0.05490	REMAIN-HFDC	COUNTY
DBEDT-HCDCH	CROWN COMMERCIAL	POTABLE	PEARL HARBOR						0.01360	0.01360	0.01360	REMAIN-HFDC	COUNTY
DBEDT-HCDCH	CROWN III	POTABLE	PEARL HARBOR						0.04320	0.04320	0.04320	REMAIN-HFDC	COUNTY
DBEDT-HCDCH	CROWN IV	POTABLE	PEARL HARBOR						0.02400	0.02400	0.02400	REMAIN-HFDC	COUNTY
DBEDT-HCDCH	ELDERLY RESIDENTIAL COMPLEX AT IWILEI	POTABLE	HONOLULU					0.05100	0.05100	0.05100	0.05100	REMAIN-HFDC	COUNTY
DBEDT-HCDCH	ELDERLY RESIDENTIAL COMPLEX AT IWILEI	POTABLE	HONOLULU					0.00900	0.00900	0.00900	0.00900	REMAIN-HFDC	COUNTY
DBEDT-HCDCH	KAM HOMES ELDERLY	POTABLE	HONOLULU						0.02250	0.02250	0.02250	REMAIN-HFDC	COUNTY
DBEDT-HCDCH	KUHIU PARK TERRACE COMMUNITY PARK CTR	POTABLE	HONOLULU	0.00458	0.00458	0.00458	0.00458	0.00458	0.00458	0.00458	0.00458	REMAIN-HFDC	COUNTY
DBEDT-HCDCH	PALAMA ELDERLY HOUSING	POTABLE	HONOLULU	0.01640	0.01640	0.01640	0.01640	0.01640	0.01640	0.01640	0.01640	REMAIN-HFDC	COUNTY
DBEDT-HCDCH	POHUKAINA MIXED USE	POTABLE	HONOLULU						0.11500	0.11500	0.11500	REMAIN-HFDC	COUNTY
DBEDT-HCDCH	WAIANA LOW INCOME HOUSING	POTABLE	WAIANA	0.03700	0.03700	0.03700	0.03700	0.03700	0.03700	0.03700	0.03700	REMAIN-HFDC	COUNTY
UH	BIOMEDICAL SCIENCE BLDG RENOVATIONS	POTABLE	HONOLULU						0.01850	0.01850	0.01850	REMAIN-UH MANOA	COUNTY
UH	DEAN HALL RENOVATIONS	POTABLE	HONOLULU					0.00190	0.00190	0.00190	0.00190	REMAIN-UH MANOA	COUNTY
	<b>Remaining Unmet SWPP Projects to be Supplied by DWS (#9) CONTINUED</b>												
UH	DIAMOND HEAD HEALTH SCIENCE CAMPUS DEV	POTABLE	HONOLULU						0.01900	0.04300	0.05000	REMAIN-UH MANOA	COUNTY
UH	GARTLEY HALL RENOVATIONS	POTABLE	HONOLULU				0.00240	0.00240	0.00240	0.00240	0.00240	REMAIN-UH MANOA	COUNTY
UH	HANGER 111 (EXISTING)	POTABLE	EWA CAPROCK	0.00805	0.00805	0.00805	0.00805	0.00805	0.00805	0.00805	0.00805	REMAIN-UH MANOA	COUNTY
UH	HONOLULU COMMUNITY COLLEGE, HIGH TECHNOLOGY PROGRAM RENOVATION	POTABLE	HONOLULU			0.00510	0.00510	0.00510	0.00510	0.00510	0.00510	REMAIN-UH MANOA	COUNTY
UH	HONOLULU COMMUNITY COLLEGE, HUMAN SERVICES LABORATORY FACILITY	NONPOTABLE USING POTABLE	HONOLULU						0.00029	0.00029	0.00029	REMAIN-UH MANOA	COUNTY
UH	HONOLULU COMMUNITY COLLEGE, HUMAN SERVICES LABORATORY FACILITY	POTABLE	HONOLULU						0.01405	0.01405	0.01405	REMAIN-UH MANOA	COUNTY
UH	HONOLULU COMMUNITY COLLEGE, MARINE PROPULSION FACILITY	POTABLE	HONOLULU						0.01072	0.01072	0.01072	REMAIN-UH MANOA	COUNTY
UH	ITS (INFORMATION TECHNOLOGY SERVICES) FAC	POTABLE	HONOLULU					0.00480	0.00480	0.00480	0.00480	REMAIN-UH MANOA	COUNTY
UH	KAPIOLANI COMMUNITY COLLEGE, CULINARY INSTITUTE OF PACIFIC EXPANSION	NONPOTABLE USING POTABLE	HONOLULU			0.01600	0.01600	0.01600	0.01600	0.01600	0.01600	REMAIN-UH MANOA	COUNTY
UH	KAPIOLANI COMMUNITY COLLEGE, CULINARY INSTITUTE OF PACIFIC EXPANSION	POTABLE	HONOLULU			0.01200	0.01200	0.01200	0.01200	0.01200	0.01200	REMAIN-UH MANOA	COUNTY
UH	KAPIOLANI COMMUNITY COLLEGE, PARKING IMPROVEMENTS 18TH AVE.	NONPOTABLE USING POTABLE	HONOLULU						0.00200	0.00200	0.00200	REMAIN-UH MANOA	COUNTY
UH	LEEWARD COMMUNITY COLLEGE - BUILDING L SOCIAL SCIENCES	NONPOTABLE USING POTABLE	PEARL HARBOR						0.00016	0.00016	0.00016	REMAIN-UH MANOA	COUNTY
UH	LEEWARD COMMUNITY COLLEGE - BUILDING L SOCIAL SCIENCES	POTABLE	PEARL HARBOR						0.01604	0.01604	0.01604	REMAIN-UH MANOA	COUNTY
UH	LEEWARD COMMUNITY COLLEGE - NAO PRKG LOT	NONPOTABLE USING POTABLE	PEARL HARBOR						0.00200	0.00200	0.00200	REMAIN-UH MANOA	COUNTY
UH	LEEWARD COMMUNITY COLLEGE, FOOD SERVICES PROGRAM RENOVATION	POTABLE	PEARL HARBOR			0.00088	0.00088	0.00088	0.00088	0.00088	0.00088	REMAIN-UH MANOA	COUNTY
UH	PEARL CITY URBAN GARDEN CENTER	NONPOTABLE USING POTABLE	PEARL HARBOR	0.02000	0.02000	0.02000	0.02000	0.02000	0.02000	0.02000	0.02000	REMAIN-UH MANOA	COUNTY
UH	RENOVATE BARRACK, BLDG. 36	NONPOTABLE USING POTABLE	EWA CAPROCK				0.00005	0.00005	0.00005	0.00005	0.00005	REMAIN-UH MANOA	COUNTY
UH	RENOVATE BARRACK, BLDG. 36	POTABLE	EWA CAPROCK				0.00432	0.00432	0.00432	0.00432	0.00432	REMAIN-UH MANOA	COUNTY
UH	SINCLAIR LIBRARY RENOVATION	POTABLE	HONOLULU					0.01180	0.01180	0.01180	0.01180	REMAIN-UH MANOA	COUNTY
UH	UNIVERSITY OF HAWAII AT MANOA, SCHOOL OF MEDICINE AND CANCER RESEARCH CENTER	NONPOTABLE USING POTABLE	HONOLULU			0.00100	0.00200	0.00400	0.00400	0.00400	0.00400	REMAIN-UH MANOA	COUNTY



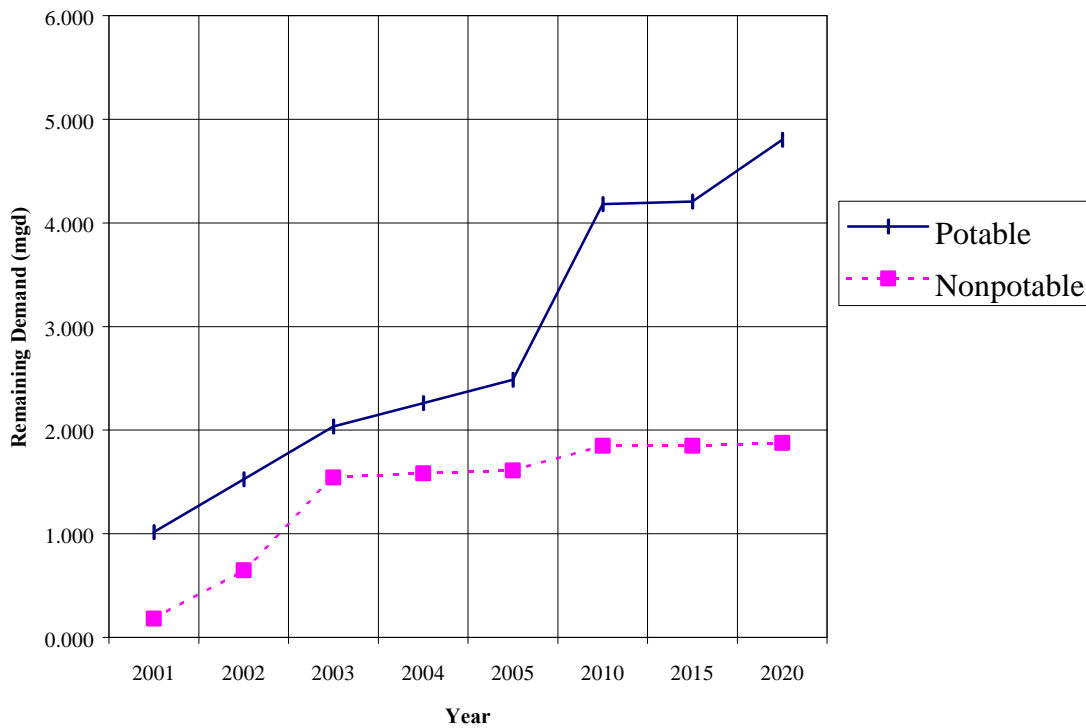
**TABLE 4.1**  
SWPP UPDATE - OAHU WATER DEVELOPMENT STRATEGY

DEPT	SWPP PROJECT NAME	PRIMARY USE	SECTOR	YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								STRATEGY OPTION	SYSTEM OR SOURCE
				SHORT-TERM					LONG-TERM				
				02001	02002	02003	02004	02005	02010	02015	02020		
	<b>ISLAND OF OAHU</b>			<b>2.93563</b>	<b>5.11409</b>	<b>8.43693</b>	<b>9.02589</b>	<b>9.39297</b>	<b>19.77242</b>	<b>22.06434</b>	<b>24.52223</b>	<b>SWPP Total Project Demand for Island of Oahu</b>	
UH	UNIVERSITY OF HAWAII AT MANOA, SCHOOL OF MEDICINE AND CANCER RESEARCH CENTER	POTABLE	HONOLULU				0.00900	0.01800	0.03600	0.03600	0.03600	REMAIN-UH MANOA	COUNTY
UH	UNIVERSITY OF HAWAII AT MANOA, WAIMANALO, FOOD AND AGRICULTURE INNOVATION CENTER	NONPOTABLE USING POTABLE	WINDWARD	0.08800	0.51000	1.05000	1.05000	1.05000	1.05000	1.05000	1.05000	REMAIN-UH MANOA	COUNTY
UH	UNIVERSITY OF HAWAII AT MANOA, WAIMANALO, FOOD AND AGRICULTURE INNOVATION CENTER	POTABLE	WINDWARD	0.01500	0.09000	0.18500	0.18500	0.18500	0.18500	0.18500	0.18500	REMAIN-UH MANOA	COUNTY
UH	YIAN CHINESE TEA HOUSE	POTABLE	HONOLULU			0.00020	0.00020	0.00020	0.00020	0.00020	0.00020	REMAIN-UH MANOA	COUNTY
UH	WINDWARD COMMUNITY COLLEGE - BUILDING D CAMPUS CENTER	NONPOTABLE USING POTABLE	WINDWARD		0.00381	0.00381	0.00381	0.00381	0.00381	0.00381	0.00381	REMAIN-UH WCC	COUNTY
UH	WINDWARD COMMUNITY COLLEGE - BUILDING H, LEARNING RESOURCE CENTER	NONPOTABLE USING POTABLE	WINDWARD				0.00054	0.00054	0.00054	0.00054	0.00054	REMAIN-UH WCC	COUNTY
UH	WINDWARD COMMUNITY COLLEGE - BUILDING H, LEARNING RESOURCE CENTER	POTABLE	WINDWARD				0.00482	0.00482	0.00482	0.00482	0.00482	REMAIN-UH WCC	COUNTY
UH	WINDWARD COMMUNITY COLLEGE - PARKING LOT @ KUHINA	NONPOTABLE USING POTABLE	WINDWARD				0.00160	0.00160	0.00160	0.00160	0.00160	REMAIN-UH WCC	COUNTY
				<b>1.19849</b>	<b>2.17558</b>	<b>3.57954</b>	<b>3.84543</b>	<b>4.09694</b>	<b>6.02928</b>	<b>6.05563</b>	<b>6.67885</b>	<b>Subtotal Remaining Unmet SWPP Projects to be Supplied by DWS (#9)</b>	
	<b>Other Strategy Consideration</b>												
	<b>Nonpotable Demand to be Met by Nonpotable Sources (by Hydrological Sector)</b>												
	<b>HONOLULU-301</b>	NONPOTABLE		0.27733	0.27733	0.27733	0.27733	0.27733	0.27733	0.27733	0.27733	0.27733	
	<b>EWA CAPROCK-302</b>	NONPOTABLE		0.00796	0.00796	0.00796	0.00796	0.00796	1.57416	1.76406	1.95636		
	<b>PEARL HARBOR-302</b>	NONPOTABLE		0.00000	0.00000	0.74997	0.74997	0.74997	6.24997	6.24997	6.24997		
	<b>WAIANAE-303</b>	NONPOTABLE		0.00227	0.00302	0.05006	0.05082	0.05157	0.06212	0.06212	0.06212		
	<b>NORTH-304</b>	NONPOTABLE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
	<b>CENTRAL-305</b>	NONPOTABLE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
	<b>WINDWARD-306</b>	NONPOTABLE		0.75000	1.00000	1.31000	1.31000	1.31000	1.37000	1.37000	1.37000		
		NONPOTABLE		<b>1.03755</b>	<b>1.28831</b>	<b>2.39532</b>	<b>2.39607</b>	<b>2.39683</b>	<b>9.53358</b>	<b>9.72348</b>	<b>9.91578</b>	<b>Subtotal Nonpotable Demand to be Met by Nonpotable Sources (by Hydrological Sector)</b>	
	<b>Additional Nonpotable Demand to be Met by Potable Sources (by Hydrological Sector)</b>												
	<b>HONOLULU-301</b>	NONPOTABLE USING POTABLE		0.01586	0.01698	0.33020	0.36849	0.41458	0.43124	0.43130	0.47108		
	<b>EWA CAPROCK-302</b>	NONPOTABLE USING POTABLE		0.01050	0.04526	0.04526	0.28531	0.28531	0.15031	0.11671	0.11671		
	<b>PEARL HARBOR-302</b>	NONPOTABLE USING POTABLE		0.02002	0.08653	0.08328	0.10254	0.06930	0.20164	0.20164	0.22648		
	<b>WAIANAE-303</b>	NONPOTABLE USING POTABLE							0.00643	0.00643	0.00643		
	<b>NORTH-304</b>	NONPOTABLE USING POTABLE		0.00061	0.00082	0.01098	0.01119	0.01139	0.01201	0.01201	0.01201		
	<b>CENTRAL-305</b>	NONPOTABLE USING POTABLE		0.00028	0.00037	0.00502	0.00511	0.00511	0.01429	0.01429	0.01429		
	<b>WINDWARD-306</b>	NONPOTABLE USING POTABLE		0.14810	0.66792	1.16766	1.16988	1.17114	1.17234	1.17243	1.17468		
		NONPOTABLE USING POTABLE		<b>0.19537</b>	<b>0.81788</b>	<b>1.64241</b>	<b>1.94253</b>	<b>1.95684</b>	<b>1.98827</b>	<b>1.95481</b>	<b>2.02168</b>	<b>Subtotal Additional Nonpotable Demand to be Met by Potable Sources (by Hydrological Sector)</b>	
				<b>Total Nonpotable Demand Oahu=</b>	<b>1.23293</b>	<b>2.10619</b>	<b>4.03773</b>	<b>4.33860</b>	<b>4.35367</b>	<b>11.52184</b>	<b>11.67829</b>	<b>11.93746</b>	

**Table 4.2**  
**Water Development Strategy Summary – Oahu**

State Water Demand Status	SWPP Project (Potable and Nonpotable) Water Demands (mgd)							
	2001	2002	2003	2004	2005	2010	2015	2020
Total Water Demand for Oahu	2.94	5.11	8.44	9.03	9.39	19.77	22.06	24.52
Demand Accounted for by Water Development Strategy	1.74	2.94	4.86	5.18	5.30	13.75	16.01	17.85
Remaining Water Demand Balance to be Accommodated by County Water System	1.19	2.17	3.58	3.84	4.09	6.03	6.05	6.67

**Figure 4.1**  
**Total Yearly Cumulative Remaining Demand for Oahu**



**Table 4.3**  
**SWPP Projects with Significant Water Demands (>0.10 mgd) - Oahu**

<b>SWPP Project</b>	<b>Primary Use</b>	<b>2018 Demand (mgd)</b>	<b>Water Development Strategy</b>
Future Subdivision in Waikele	Nonpotable	5.50	REMAIN
East Kapolei	Potable	4.56	Master Plan – East Kapolei
	Nonpotable	0.93	
University of Hawaii – West Oahu Campus	Potable	0.68	Master Plan – East Kapolei
	Nonpotable	0.74	
Waimanalo Irrigation System	Nonpotable	1.25	EXSWS – Waimanalo Irrigation Syst
Kalaeloa Community Development District	Potable	0.43	Master Plan – Kalaeloa Community Development District
	Nonpotable	1.21	
UH-Waimanalo, Food and Agriculture Innovation Center	Potable	0.19	REMAIN
	Nonpotable	1.05	
Villages of Kapolei	Potable	0.68	Master Plan – Villages of Kapolei
Honolulu International Airport	Potable	0.10	COUNTY-BWSWALL/REMAIN
Royal Kunia Agricultural Park	Potable	0.01	REMAIN
	Nonpotable	0.75	
Kalaeloa Training Facility/Armory	Potable	0.72	REMAIN
Upper Nanakuli	Potable	0.43	REMAIN
Hawaii Convention Center	Potable	0.30	COUNTY-EXWALL
Diamond Head State Monument	Potable	0.02	NEWSS – New State Source
	Nonpotable	0.28	
Oahu Commercial Harbors 2020 Master Plan: Kapalama Military Res	Potable	0.27	REMAIN
Voice of America	Potable	0.25	REMAIN
Sand Island SRA	Nonpotable	0.24	REMAIN
Kapolei Civic Center	Potable	0.44	Master Plan – East Kapolei
Barbers Point Agricultural Park	Potable	0.16	NEWSS – New State Source
Waimano Gulch State Park Reserve	Nonpotable	0.14	NEWSS – New State Source
Princess Kahanu	Potable	0.14	COUNTY-EXWALL
Aloha Tower Development	Potable	0.13	REMAIN
Prospect Street	Potable	0.12	REMAIN
Pohukaina Mixed Use	Potable	0.12	NEWSS – New State Source
Oahu Commercial Harbors 2020 Master Plan: Dry Bulk Cargo Yard	Potable	0.11	NEWSS – New State Source
Kapalama	Potable	0.10	REMAIN
Moilili	Potable	0.10	REMAIN

### **4.3. EVALUATION OF WATER DEVELOPMENT STRATEGY OPTIONS**

#### 4.3.1. Existing State Water Systems

##### 4.3.1.1. Dillingham Airfield Water System (EXSWS-Dillingham Airfield Water System)

The Dillingham Airfield water system is planned to supply the increased demand from the airfield facility. The SWPP project average day demand was computed as 0.035 mgd and a maximum day demand of 0.053 mgd. The Dillingham Airfield water system is operated by DOT-Airports. The existing source pumping capacity is 0.72 mgd with a safe source capacity of 0.48 mgd. The existing average day water consumption from the system is 0.087 mgd. The total existing and future average day demand is 0.122 mgd with a maximum day demand of 0.180 mgd. The current safe source capacity is adequate to meet future demands. System operators confirm existing source capacity is adequate to meet future demands and other water system improvements are not required.

##### 4.3.1.2. Kaena Point State Park Water System (EXSWS-Kaena Point State Park Water System)

The Kaena Point State Park water system is planned for the DLNR-Parks park expansion. The future nonpotable demand is estimated at 0.02 mgd. The Kaena Point State Park water system is owned and operated by DLNR- State Parks. The existing nonpotable source capacity is 0.13 mgd with a safe source capacity of 0.09 mgd. The existing nonpotable irrigation demand is 0.008 mgd. The total existing and future demand for the park is 0.03 mgd. The current safe source capacity is adequate to meet future demands. System operators acknowledge the source capacity is adequate to meet future nonpotable irrigation demands and no system improvements are required.

##### 4.3.1.3. Waiahole Ditch Irrigation System (EXSWS-Waiahole Ditch Irrigation System)

The Decision and Order for the Waiahole Ditch Combined Contested Case Hearing (currently under appeal) has specified an agricultural reserve of 1.58 mgd from the Waiahole Ditch. There are no SWPP projects planned to use the agricultural reserve.

##### 4.3.1.4. Waiahole Valley Water System (EXSWS-Waiahole Valley Water System)

The Waiahole Valley water system is owned and operated by the Housing and Community Development Corporation of Hawaii. A proposed DHHL (SWPP) project to develop 22 residential lots within the existing water system service area, estimates an increased potable demand of 0.011 mgd. According to system operators, the water system was designed to include the proposed DHHL project area. The existing water system has adequate capacity to accommodate the DHHL SWPP project demand.

4.3.1.5. Waiawa Correctional Facility Water System  
(EXSWS-Waiawa Correctional Facility Water System)

The Waiawa Correctional Facility water system is owned and operated by the Department of Public Safety. The existing average day consumption is 0.03 mgd. The future inmate population is expected to rise to 334 with a staff of 167. The DPS SWPP project estimates the future average day demand of 0.075 mgd and a maximum day demand of 0.11 mgd. The Waiahole Ditch will continue to provide source water to the facility. The facility has a permitted use of 0.15 mgd from the Waiahole Ditch System. A preliminary engineering report on the infrastructure improvements was prepared in 1997. The report recommended improvements to treatment, storage and distribution components of the system. The microfiltration system membrane modules were upgraded from M10 modules to newer M10C modules. The membrane module flux rate was increased to 0.57 gpm/sq.ft., improving the capacity of the treatment facility to meet future maximum day demands. The existing storage capacity needed to be increased to 330,000 gallons. A new distribution system was recommended to be constructed parallel to the existing system to provide adequate domestic and fire flow capacities. The cost for water system improvements was \$431,500. Water system improvements were completed in April 1999. The water system is able to provide adequate service and supply to the projected DPS (SWPP) project demand.

4.3.1.6. Waimanalo Irrigation System (EXSWS-Waimanalo Irrigation System)

Expansion of the Waimanalo Irrigation System is planned for the next five years. The system will expand 50 acres a year for a total of 250 acres. The projected increase in demand from the 250 acres is 1.25 mgd. The current amount of water sold to system users was metered at 0.35 mgd. The source water from the five intake structures was measured at 1.48 mgd. The existing 60 MG reservoir was designed for a service area of 650 acres. The projected demand and service area is expected to be greater than the current source and reservoir capacities. There were no CIP projects on record. System operators have expressed concerns about proposed expansions and the ability for the irrigation system to support increased demands. A preliminary engineering report is recommended to evaluate surface source and storage requirements of the proposed system expansion.

4.3.1.7. Waimano Training School and Hospital Water System (EXSWS-Waimano Training School and Hospital Water System)

The Waimano Training School and Hospital water system is owned and operated by the Department of Health. A proposed DOH SWPP project to support a children residential facility within the existing water system service area, estimates an increase potable demand of 0.0047 mgd. The State water system has adequate source capacity to accommodate the future project water demand.

#### 4.3.2 Master Plans on Oahu

##### 4.3.2.1. Diamond Head State Monument (MASTER PLAN- Diamond Head State Monument)

The Diamond Head State Monument master plan objective to establish a semi-wild interior park and development of the exterior park area for public use will require improvements to the existing potable water system and construction of a separate nonpotable water system. The SWPP project potable demand is 0.02 mgd and nonpotable demand is 0.34 mgd. The existing potable water system is supplied by the BWS system. The proposed on-site potable water system improvements include: expansion of transmission and distribution mains to new facilities and increased fire protection coverage. A new nonpotable water system is planned to supply the proposed irrigation demand. The nonpotable system includes construction of nonpotable wells outside the park, transmission mains, a storage pond, pump station, and irrigation lines. The potable water system improvements are estimated to cost \$586,500. The nonpotable system cost estimate is \$2,010,750. The water system improvements are scheduled in phase three and phase four of the master plan proposed phasing plan; however, no specific completion date was provided. CIP funding for the improvements were requested and appropriated through DLNR.

##### 4.3.2.2. East Kapolei Water Master Plan (MASTER PLAN-East Kapolei Water Master Plan)

The East Kapolei Water Master plan was prepared to support the Housing and Community Development Corporation of Hawaii (HCDCH) East Kapolei project. The East Kapolei project potable demand is estimated at 4.71 mgd. The nonpotable demand is 0.74 mgd. The demands account for SWPP projects submitted by HCDCH, DAGS-PM, DOE, DHHL and UH. A proposed new potable water system will be constructed to service individual development parcels by 2020. The potable water system will establish two service pressure zones at the 440-ft and 215-ft elevations. Storage capacity will be provided by two 5.0 MG reservoirs at the 215-ft elevation and one 4.0 MG reservoir at the 440-ft elevation. The 5.0 MG reservoirs will be connected to the existing BWS 36-inch water main, which originates from the Honouliuli Tank and booster pump station. A new booster pump station is planned to pump water from the 215-ft system to the 440-ft elevation reservoir. A network of distribution mains in both service zones will also be constructed. The East Kapolei development is currently working with the BWS to acquire a water source for the water system. The potable system will interconnect with the Villages of Kapolei water system. The water system will provide service connections to the UH-West Oahu Campus and Kalaeloa Community District water systems.

The majority of the planned UH-West Oahu campus will be served by the East Kapolei 440-ft service zone water system. The potable demand from the campus is estimated at 0.68 mgd. A portion of the campus is situated above the service limits of the 440-ft service zone. The University plans to construct a water system at the 515-ft elevation to accommodate the upper portion campus.

A nonpotable water system is planned to serve the nonpotable requirements from the East Kapolei, UH-West Oahu campus and Kalaeloa Community District projects. Evaluation of the nonpotable water system has not been performed because of uncertainties with nonpotable water sources and projected nonpotable demands.

4.3.2.3. Kalaeloa Community Development District Utility Master Plan

(MASTER PLAN- Kalaeloa Community Development District Utility Master Plan)

The Kalaeloa Community Development District water system improvements were outlined in a Utilities Master Plan prepared for the Barbers Point Redevelopment Commission. The plan proposes major upgrades to the existing potable system and construction of a new nonpotable system. The projected potable demand is 0.43 mgd and nonpotable demand is 1.21 mgd. The potable system improvements include off-site and on-site upgrade to transmission and distribution mains, increase storage capacity and adding 2.0 mgd of potable source development. The Barbers Point Redevelopment Commission is coordinating source development with the BWS. The nonpotable system involves construction of a new booster pump station, 2.2 MG reservoir and transmission and distribution mains. The nonpotable source will use effluent reuse water produced at the Honouliuli Wastewater Treatment Plant. The preliminary cost estimates of the potable water system is \$33,068,000. The nonpotable system is estimated to cost approximately \$11,275,000. The Utilities Master Plan remains in draft form. Construction schedules and funding sources were not available.

4.3.2.4. Kapolei and Kapolei Village Water Master Plans

(MASTER PLAN- Kapolei Water Master Plan)

(MASTER PLAN- Master Plan Report for Kapolei Villages)

The backbone infrastructure for the Kapolei and Kapolei Villages development areas has been constructed. The water system within the development areas and off-site improvements has been installed. The water system is served by the Kapolei 215-ft service zone system. SWPP projects planned within development areas are expected to receive water service from these systems. The source water allocation for State projects are being provided by the BWS through an advancement of water from the Waipahu III well to the Kapolei Village project. State departments and the BWS are currently working on providing source water to the development area in exchange for the Waipahu III source.

4.3.2.5. Master Plans for Mililani Town, Ewa Marina, Waiawa by Gentry and Royal Kunia

(MASTER PLAN-followed by name of master plan report)

Master plan developments in Mililani, Ewa Marina, Waiawa and Royal Kunia are developed through private ventures. Typically, private developers have provided infrastructure to accommodate water, sewer, electric, telephone and other utility demands. Within master plan developments, State facilities are planned to support community needs such as: schools, parks, libraries and civic centers. SWPP projects within these master plan areas are anticipated to be supplied by water systems provided by private developers.

#### 4.3.3. Existing State or Private Sources (EXSS)

There are no existing State or private sources serving SWPP projects.

#### 4.3.4. County and Private Water Agreements (COUNTY-)

SWPP projects noted with a Water Development Strategy abbreviation COUNTY-EXEMPT will not be subject to BWS facilities charges because no increase in fixture units are anticipated.

Water allocation requested and granted by the BWS for SWPP projects were noted with the Water Development Strategy abbreviation COUNTY-EXWALL. The use of existing State water allocation credits allows these projects to obtain source water from the BWS.

#### 4.3.5. County and Private Water Agreements – Use of Water Allocation Credits (COUNTY-BWSWALL)

The State has accumulated source water credits from the Honolulu BWS through cash purchase and other agreements. An accounting of the existing credits is shown on **Table 4.4**. This strategy option attempts to assign remaining BWS source water credits to new SWPP projects based on department ownership of credits. The departments' existing credits were assigned based on projects with the earliest (yearly) water demands. (The assignment of existing source credits to specific projects was performed for planning purposes and do not reflect the actual use of existing source water credits.) Each State department was evaluated to determine adequacy of available credits to meet projected project demands and when the existing credits would be fully allocated, as shown on **Table 4.5**.

#### 4.3.6. New/Planned State Wells (NEWS)

The DLNR source water development program on Oahu has been significantly scaled back. The program has cancelled all of its potable water well projects on Oahu. DLNR remains in discussions with the Honolulu Board of Water Supply concerning water development on Oahu. Two non potable wells have remained and are planned for development, displayed on **Table 4.6**.

#### 4.3.7. New State Water Systems (NEWSWS)

A new State DOA irrigation system is planned for construction to support agricultural demand from the Future Subdivision in Waikele project. The project involves 1,100 acres developed into agricultural lots. The projected demand is 5.5 mgd. The planned irrigation system includes source exploration, a new reservoir and distribution system. Construction of a new irrigation system is scheduled in 2008. A preliminary construction cost has not been estimated.



**Table 4.4**  
**Source Strategy - State Water Allocation Credit with BWS (as of August, 2002)**

<b>Water Purveyor</b>	<b>Source</b>	<b>Dept.</b>	<b>Original BWS Credit (gpd)</b>	<b>Used Credits by State Projects (gpd)</b>	<b>Balance BWS Credit (gpd)</b>
BWS	Special Agreement	UH	272,000	263,630	8,370
BWS	Special Agreement	UH-WCC	120,000	52,295	67,705
BWS	Special Agreement (Recent Credit)	DOT-A	185,000	0	185,000
BWS	Makaha Waianae Wells	DOT-A	54,022	0	54,022
BWS	Waipahu III Well	DHHL	500,000	246,050	253,950
BWS	Waipahu III Well Advance Water for Kapolei Village	HCDCH	2,000,000	1,721,935	278,065
BWS	Makaha Waianae Wells	DOT-Hwy	319,565	80,858	238,707
BWS	Makaha Waianae Wells	HCDA	27,935	0	27,935
BWS	Makaha Waianae Wells	DOE	20,652	17,130	3,522
BWS	Makaha Waianae Wells	HFDC	39,456	37,300	2,156
BWS	Makaha Waianae Wells	DLNR	27,500	0	27,500
BWS	Maakua Manoa Kuliouou Wells	DLNR	1,567,000	1,547,974	19,026
BWS	Maakua Manoa Kuliouou Wells	Job Corp	87,700	46,080	41,620

**Table 4.5**  
**Source Strategy - State Water Allocation Credit with BWS (as of August, 2002)**

Dept.	Balance BWS Credit (mgd)	2001 (mgd)	2002 (mgd)	2003 (mgd)	2004 (mgd)	2005 (mgd)	2010 (mgd)	2015 (mgd)	2020 (mgd)	Year Credits Fully Allocated	Credits Reqd Year Fully Allocated	Add. Credits Req. in 2005 (mgd)	Add. Credits Req. in 2020 (mgd)
UH	0.008370	0.137	0.634	1.303	1.320	1.349	1.451	1.475	1.482	2001	0.129	1.340	1.474
UH-WCC	0.067705	0.005	0.068	0.068	0.075	0.075	0.075	0.075	0.075	2002	0.0003	0.008	0.008
DOT-A	0.239022	0.000	0.000	0.000	0.000	0.000	0.100	0.100	0.100	None	None	None	None
DHHL	0.253950	0.041	0.041	0.201	0.201	0.201	1.145	1.145	1.570	2010	0.891	None	1.316
HFDC	0.002156	0.113	0.113	0.113	0.113	0.173	0.391	0.391	0.391	2010	0.389	0.171	0.389
DOT-Hwy	0.238707	0.000	0.121	0.101	0.360	0.309	0.162	0.128	0.128	None	None	None	None
HCDA	0.027935	0.000	0.000	0.062	0.178	0.264	0.264	0.264	0.264	2003	0.034	0.236	0.236
DOE	0.003522	0.129	0.251	0.440	0.440	0.440	0.531	0.531	0.531	2001	0.125	0.437	0.527
DLNR	0.046526	0.874	1.229	1.719	1.844	1.921	2.521	2.523	2.559	2001	1.874	1.874	2.513

**Table 4.6**  
**Water Source Development Program on Oahu (DLNR)**

<b>Well Name</b>	<b>Primary Use</b>	<b>Exploratory Well Phase Completion</b>	<b>Well Development Phase Completion</b>	<b>Well Capacity (gpd)</b>
Diamond Head State Park*	Nonpotable	NA	NA	270,000**
Kapolei Sports Complex*	Nonpotable	NA	NA	390,100**

\* Wells Proposed by Individual State Agencies to meet the water requirements of specific State projects.

\*\* Well capacity information not available. Well capacity estimated based on projected water demand.

#### 4.3.8. Planned Private Sources (PLANPS)

The potable demand from the DOA Royal Kunia Agricultural Park project will be supplied by the Horita Development wells. The potable demand of 0.01 mgd is based on 20 residential units. No details regarding the water service agreement were provided.

#### 4.3.9. Coordination of Unmet SWPP Project Demand with County Water Department (REMAIN)

The remaining balances of potable and nonpotable demands are summarized by hydrological sector in **Table 4.7**. It is anticipated that Honolulu Board of Water Supply will be able to meet potable and nonpotable demands in the Central and North sectors. Hydrological sectors with unmet SWPP water demands of 1.0 mgd or greater will be recommended for State source development. Additional source development is required to meet project demands in the Honolulu and Waianae sectors. DLNR has initiated discussions with the BWS to determine the availability and feasibility of integrating State project demands into County water systems.

#### 4.3.10. Other Strategy Considerations

The nonpotable project demand is approximately 51% of the total overall SWPP Oahu project water demand. A large portion of the projects have source options identified to meet nonpotable demands. Source options proposed to meet nonpotable SWPP project demands on the island of Oahu were identified from the draft Oahu Water Management Plan (OWMP), 1998. The primary objectives of the nonpotable water use strategies were to conserve and protect natural water resources by promoting the use of nonpotable quality source water to supply nonpotable demands. The OWMP strategies included:

- 1) Pursue reclaimed water use in the Ewa area; and
- 2) Pursue nonpotable brackish sources for irrigation

The Honouliuli Wastewater Reclamation project, a partnership between the City and County of Honolulu and USFilter was scheduled for completion by August 2000. The water recycling plant will produce 13 mgd of reclaimed water at the Honouliuli Wastewater Treatment Plant. The 13 mgd reclaimed water will consist of 10 mgd of R-1 quality water for reuse application, 2 mgd of RO (reverse osmosis) water for industrial use and 1 mgd of backwash lost during the processing. By agreement, 6 mgd of the R-1 water is reserved for the City and County and the remaining 4 mgd of R-1 and 2 mgd of RO water will be sold by USFilter. The reclaimed water will be delivered to end users through a new distribution system. The distribution system services the area from West Loch Golf Course through Kapolei to Campbell Industrial Park. The reclaimed water will be sold to consumers at approximately \$1.00 per 1,000 gallons. The cost may increase depending on additional costs to extend the distribution system to certain projects. SWPP projects with nonpotable demands in the Ewa plain are possible candidates for the use of reclaimed water. The projected SWPP 2018 nonpotable demand in the Ewa plain is approximately 3 mgd. SWPP projects that plan on using potable sources to supply nonpotable demands in the Ewa plain is nearly 0.4 mgd. Evaluation of reclaimed water as a viable alternative is recommended.

The Honolulu International Airport recently converted the landscaping irrigation from a potable water source to a nonpotable water source. The nonpotable system used to supply the airport demand is the Kalauao Spring near Pearl Ridge Center. Other nonpotable sources such as: Koolina nonpotable system and Waiiau, Waiawa and Waikele springs could be used to supply SWPP project nonpotable demands.

**Table 4.7**  
**Water Development Strategy Remaining Balance of Unmet SWPP Project Demand - Hydrologic Sector Oahu**

Hydrologic Sector	Remaining Balance of Unmet SWPP Project Demands															
	Potable Demand (mgd)								Nonpotable Demand (mgd)							
	2001	2002	2003	2004	2005	2010	2015	2020	2001	2002	2003	2004	2005	2010	2015	2020
Central		0.01	0.02	0.02	0.02	0.03	0.03	0.03			0.01	0.01	0.01	0.01	0.01	0.01
<b>Honolulu</b>	0.09	0.34	0.61	0.73	0.93	<b>1.81</b>	<b>1.84</b>	<b>1.85</b>			0.28	0.32	0.35	0.36	0.36	0.36
<b>Pearl Harbor</b>	0.76	0.92	0.94	<b>1.04</b>	<b>1.06</b>	<b>1.24</b>	<b>1.24</b>	<b>1.40</b>	0.03	0.03	0.03	0.03	0.03	0.17	0.17	0.20
North											0.01	0.01	0.01	0.01	0.01	0.01
<b>Waianae</b>	0.11	0.13	0.20	0.20	0.20	0.74	0.74	<b>1.17</b>						0.01	0.01	0.01
<b>Windward</b>	0.05	0.13	0.26	0.27	0.27	0.34	0.34	0.35	0.15	0.61	<b>1.21</b>	<b>1.22</b>	<b>1.22</b>	<b>1.28</b>	<b>1.28</b>	<b>1.28</b>
<b>TOTAL</b>	<b>1.01</b>	<b>1.53</b>	<b>2.03</b>	<b>2.26</b>	<b>2.51</b>	<b>4.16</b>	<b>4.19</b>	<b>4.80</b>	<b>0.18</b>	<b>0.64</b>	<b>1.54</b>	<b>1.59</b>	<b>1.62</b>	<b>1.84</b>	<b>1.87</b>	<b>1.87</b>

#### **4.4. RECOMMENDED WATER DEVELOPMENT STRATEGY ACTIONS**

Source water from the Honolulu Board of Water Supply remains the strategy option to meet unmet SWPP project water demand on Oahu. Currently, there is no written agreement with BWS to secure source water allocation credits for future SWPP projects and assure water supply to the project, however discussions between DLNR and BWS continue. The State will coordinate and work with BWS to supply future State project water demands. There are no plans to develop or construct State wells on Oahu to meet future State water demands at this time.

A planning level estimate to determine the anticipated cost of supplying source water to future SWPP projects is shown below in **Table 4.8**. The cost estimates are for budgetary purposes and remain on a planning level. The cost estimate is based on: total remaining unmet SWPP project demands in 2010 (short term) and 2020 (long term), project demands computed using average consumption unit rates and project characteristics and a source facilities charge price of \$9 per gallon/day. SWPP projects will also be subject to storage and transmission facilities charges, which are not included in cost estimates below because those charges are based on the number of new fixture units to be determined during the design and building permitting stages of the project.

Cumulative SWPP projects exceeding 1.0 mgd within a given hydrological sector should trigger an evaluation of BWS water system components of source, storage, transmission and distribution to determine adequacy of existing capacities. **Table 4.7** highlights hydrological sectors which SWPP projects exceed 1.0 mgd future project water demands. Analysis to incorporate future SWPP with existing BWS water usage will be required to determine improvements to upgrade water system components in these areas. Evaluation of BWS water system components is not part of this study and reflected in cost estimates below.

Additional recommendations are listed below.

A preliminary engineering report is recommended for the Waimanalo Irrigation System to evaluate proposed system expansions.

DLNR to monitor all proposed master plans water system improvements to insure adequacy to meet SWPP project demands.

A preliminary engineering report is recommended for the new State water system for the Future Subdivision in Waikele. The report shall investigate source alternatives and the development of new water system components.

**Table 4.8**  
**Recommended Water Development Strategy Actions – Oahu**  
**(To meet unmet SWPP project demands)**

<b>Project Description</b>	<b>Hydrologic Sector</b>	<b>SWPP Project (Potable and Nonpotable) Water Demand (mgd)</b>	<b>Installation Schedule</b>	<b>Estimated Cost</b>
<b>Short-term Actions (2001 – 2010):</b>				
Source Component Cost for SWPP Projects	Central	0.04	2010	\$360,000
Source Component Cost for SWPP Projects	Honolulu	2.17	2010	\$19,530,000
Source Component Cost for SWPP Projects	North	0.01	2010	\$90,000
Source Component Cost for SWPP Projects	Pearl Harbor	1.41	2010	\$12,690,000
Source Component Cost for SWPP Projects	Waianae	0.75	2010	\$6,750,000
Source Component Cost for SWPP Projects	Windward	1.62	2010	\$14,580,000
<b>Long-term Actions (2011 – 2020):</b>				
Additional Source Component Cost for SWPP Projects (less 2010 demand)	Central	0.00	2020	\$0
Additional Source Component Cost for SWPP Projects (less 2010 demand)	Honolulu	0.04	2020	\$360,000
Additional Source Component Cost for SWPP Projects (less 2010 demand)	North	0.00	2020	\$0
Additional Source Component Cost for SWPP Projects (less 2010 demand)	Pearl Harbor	0.19	2020	\$1,710,000
Additional Source Component Cost for SWPP Projects (less 2010 demand)	Waianae	0.42	2020	\$3,780,000
Additional Source Component Cost for SWPP Projects (less 2010 demand)	Windward	0.01	2020	\$90,000

Notes: Cost estimate based on purchase of source water credits from the BWS. Price based on a unit cost of \$9 per gal/day for source water, referenced previous BWS source agreements. The unit cost is a preliminary planning cost estimate.

The unmet SWPP project demands are referenced from Table 4.7.

## **APPENDICES**

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**APPENDIX A  
WELLS; STREAM DIVERSIONS,  
STATE WATER SYSTEM DIAGRAMS**

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State Water Projects Plan  
Inventory of State Wells

DEPARTMENT	WELL NAME	STATE WELL NO.	ISLAND	USE	YR DRILLED
NO STATE DEPARTMENT LISTED	WAIKIKI	1649-02	OAHU	SLD	1883
NO STATE DEPARTMENT LISTED	WAIKIKI	1649-05	OAHU	SLD	1884
NO STATE DEPARTMENT LISTED	WAIKIKI	1649-06	OAHU	SLD	1891
NO STATE DEPARTMENT LISTED	WAIKIKI	1649-07	OAHU	SLD	1892
NO STATE DEPARTMENT LISTED	WAIKIKI	1649-10	OAHU	OTH	1954
NO STATE DEPARTMENT LISTED	KAPAHULU	1749-04	OAHU	SLD	1883
NO STATE DEPARTMENT LISTED	KAPAHULU	1749-07	OAHU	OBS	1885
NO STATE DEPARTMENT LISTED	ALA MOANA	1751-03	OAHU	OTH	1959
NO STATE DEPARTMENT LISTED	ROOSEVELT SCH	1850-01	OAHU	SLD	0
NO STATE DEPARTMENT LISTED	MAKIKI	1850-09	OAHU	SLD	1882
EDUCATION	MCKINLEY AQUA I	1850-28	OAHU	OTH	
EDUCATION	MCKINLEY AQUA II	1850-29	OAHU	OTH	
NO STATE DEPARTMENT LISTED	KING ST	1851-03	OAHU	SLD	1882
NO STATE DEPARTMENT LISTED	IOLANI PALACE	1851-04	OAHU	UNU	1882
NO STATE DEPARTMENT LISTED	IOLANI PALACE	1851-51	OAHU	OTH	1952
ACCOUNTING & GENERAL SERVICES	STATE CAPITOL	1851-61	OAHU	OTH	1963
NO STATE DEPARTMENT LISTED	BERETANIA	1851-66	OAHU	OTH	1967
NO STATE DEPARTMENT LISTED	FT ARMSTRONG	1852-02	OAHU	UNU	1939
NO STATE DEPARTMENT LISTED	IMMIGRATION STA	1852-07	OAHU		1955
LAND & NATURAL RESOURCES	COAST GUARD RES	1852-08	OAHU	OTH	1971
NO STATE DEPARTMENT LISTED	SAND ISLE WHARF	1853-01	OAHU		1973
LAND & NATURAL RESOURCES	EWA DESALT BASAL	1905-04	OAHU	UNU	1988
LAND & NATURAL RESOURCES	CAPROCK 1	1905-05	OAHU	UNU	1988
LAND & NATURAL RESOURCES	CAPROCK 3	1905-09	OAHU	UNU	1992
TRANSPORTATION	BARBERS PT. MW-1	1906-08	OAHU	OBS	1997
TRANSPORTATION	BARBERS PT. MW-2	1906-09	OAHU	OBS	
TRANSPORTATION	BARBERS PT. MW-3	1906-10	OAHU	OBS	1997
NO STATE DEPARTMENT LISTED	LANAKILA	1951-02	OAHU	SLD	1894
NO STATE DEPARTMENT LISTED	OAHU PRISON	1953-01	OAHU	SLD	1915
ACCOUNTING & GENERAL SERVICES	SALT WATER	1953-02	OAHU	SLD	1976
BUSINESS ECONOMIC DEVELOPMENT & TOURISM	KAPOLEI IRR C	2003-03	OAHU	SLD	1991
BUSINESS ECONOMIC DEVELOPMENT & TOURISM	KAPOLEI IRR D	2003-04	OAHU	IRR	1991
BUSINESS ECONOMIC DEVELOPMENT & TOURISM	KAPOLEI IRR C-1	2003-07	OAHU	IRR	1994
TRANSPORTATION	BARBERS PT. MW-4	2006-18	OAHU	OBS	1997
NO STATE DEPARTMENT LISTED	OLOMANA GOLF	2044-01	OAHU	OBS	1933
NO STATE DEPARTMENT LISTED	OLOMANA GOLF	2044-02	OAHU	UNU	1937
AGRICULTURE	MAUNAWILI FAULT	2045-01	OAHU	IRR	1900
AGRICULTURE	MAUNAWILI KOREAN	2045-02	OAHU	IRR	1923
AGRICULTURE	MAUNAWILI CLARK	2046-03	OAHU	IRR	1926
NO STATE DEPARTMENT LISTED	KAPALAMA AVE	2052-06	OAHU	SLD	1910
NO STATE DEPARTMENT LISTED	FT SHAFTER	2053-02	OAHU	SLD	1885
NO STATE DEPARTMENT LISTED	FT SHAFTER	2053-06	OAHU	SLD	1895
TRANSPORTATION	HON INTL AIRPORT	2055-03	OAHU	SLD	1982
TRANSPORTATION	HONOULIULI	2101-03	OAHU	OBS	1981
AGRICULTURE	MAUNAWILI COOKE	2146-01	OAHU	UNU	1926
AGRICULTURE	AINONI TUNNELS	2146-02	OAHU	IRR	1926
LAND & NATURAL RESOURCES	MOANALUA MONITOR	2153-05	OAHU	OBS	1980
NO STATE DEPARTMENT LISTED	KAILUA A	2245-01	OAHU	SLD	1940
NO STATE DEPARTMENT LISTED	KAILUA B	2245-02	OAHU	DOM	1940

State Water Projects Plan  
Inventory of State Wells

DEPARTMENT	WELL NAME	STATE WELL NO.	ISLAND	USE	YR DRILLED
NO STATE DEPARTMENT LISTED	KAILUA C	2245-03	OAHU	DOM	1948
LAND & NATURAL RESOURCES	WAIPAHU MONITOR	2300-18	OAHU	OBS	1980
HEALTH	HI STATE HOSP	2448-01	OAHU	IRR	1946
TRANSPORTATION	HAIKU-DOT	2450-03	OAHU	OTH	1990
TRANSPORTATION	N.HALAWA-DOT	2451-01	OAHU	OTH	1991
HEALTH	WAIMANO TRNG SCH	2557-01	OAHU	DOM	1941
HEALTH	WAIMANO TRNG SCH	2557-02	OAHU	DOM	1950
LAND & NATURAL RESOURCES	WAIPIO-MAUKA	2659-01	OAHU	OBS	1986
EDUCATION	WAIANAE	2712-32	OAHU	OTH	1991
BUSINESS ECONOMIC DEVELOPMENT & TOURISM	WAIAHOLE A	2853-04	OAHU	MUN	1986
BUSINESS ECONOMIC DEVELOPMENT & TOURISM	WAIAHOLE B	2853-05	OAHU	MUN	1986
LAND & NATURAL RESOURCES	MAKUA	3213-07	OAHU	UNU	1987
LAND & NATURAL RESOURCES	KAWAIHAPAI	3309-01	OAHU	UNU	1994
LAND & NATURAL RESOURCES	MOKULEIA	3309-02	OAHU	UNU	1994
LAND & NATURAL RESOURCES	KEAWAULA BAY	3314-04	OAHU	DOM	1979
NO STATE DEPARTMENT LISTED	KULOA PT	3350-01	OAHU	UNU	1937
UH (SWPP REPORTED WELL)	WAIALEE	335-10	OAHU	OTH	NR
LAND & NATURAL RESOURCES	KAHANA VALLEY	3352-01	OAHU	DOM	1932
UH (SWPP REPORTED WELL)	WAIALEE POND	3-4101-10	OAHU	IRR	NR
TRANSPORTATION	DILLINGHAM AFB	3412-01	OAHU	UNU	1894
TRANSPORTATION	DILLINGHAM AFB	3412-02	OAHU	DOM	1920
NO STATE DEPARTMENT LISTED	HAUULA	3654-01	OAHU	SLD	0
LAND & NATURAL RESOURCES	HAUULA	3654-04	OAHU	UNU	0
AGRICULTURE	P1&11 BAT 1	4057-01	OAHU	IRR	0
NO STATE DEPARTMENT LISTED	WAIALEE	4101-01	OAHU	SLD	1921
NO STATE DEPARTMENT LISTED	WAIALEE	4101-02	OAHU	SLD	1921
NO STATE DEPARTMENT LISTED	WAIALEE	4101-03	OAHU	OBS	1921
NO STATE DEPARTMENT LISTED	WAIALEE	4101-04	OAHU	SLD	1938
NO STATE DEPARTMENT LISTED	WAIALEE	4101-05	OAHU	UNU	1939
NO STATE DEPARTMENT LISTED	WAIALEE	4101-06	OAHU	UNU	1941

State Water Projects Plan  
Inventory of Stream Diversions

STREAM NAME/DIVERSION STRUCTURE	DEPT.	ISLAND	USETYPE	DIVERSION OWNER	DIVERSION OPERATOR	DIVERSION SYSTEM NAME	DIVERSION STRUCTURE NAME	TMK
AINONI STREAM	DOA	OAHU	IRRIGATION	DLNR	WAIMANALO IRRIGATION SYSTEM	WAIMANALO IRRIGATION SYSTEM	INTAKE #10	4-2-10:1
KAPAKAHI SPRING	DOA	OAHU	IRRIGATION	DLNR	WAIMANALO IRRIGATION SYSTEM	KAPAKAHI SPRING		4-2-10:1
MAKAWAO STREAM	DOA	OAHU		DLNR	WAIMANALO IRRIGATION SYSTEM	WAIMANALO IRRIGATION SYSTEM	INTAKE #17	
MAUNAWILI DITCH - INTAKE #1	DOA	OAHU	IRRIGATION	DLNR	WAIMANALO IRRIGATION SYSTEM	WAIMANALO IRRIGATION SYSTEM	#1	4-2-10:1
MAUNAWILI STREAM	DOA	OAHU	IRRIGATION	DLNR	WAIMANALO IRRIGATION SYSTEM			
NANAKULI STREAM	DHHL	OAHU	AGRICULTURAL	DHHL				1-8-9-17,8
OMAO STREAM	DOA	OAHU	IRRIGATION	DLNR	WAIMANALO IRRIGATION SYSTEM	WAS PART OF WAIMANALO IRRIGATION SYSTEM	ABANDONED INTAKE AND DITCH SEGMENT	4-2-10:1
PIKOAKEA SPRING	DOA	OAHU	IRRIGATION	DLNR	WAIMANALO IRRIGATION SYSTEM	PIKOAKEA SPRING	PIKOAKEA SPRING DIVERSION	4-2-10:1
UNNAMED INTERMITTENT TRIB TO MAUNAWILI	DOA	OAHU		DLNR	WAIMANALO IRRIGATION SYSTEM	WAIMANALO IRRIGATION SYSTEM	INTAKE #3	
WAIHOLE DITCH, PWS 348	DPS	OAHU		DPS	PUBLIC SAFETY DEPARTMENT	WAIAWA CORRECTIONAL FACILITY WATER SYSTEM	WAIAWA CORRECTIONAL FACILITY PUMP STATION	9-6-05:11,12

**State Water System Diagrams  
have been removed for security reasons.**

**Please contact the  
Commission on Water Resource Management  
for more information.**

**APPENDIX B**  
**SWPP DEMAND TABLE BY DEPARTMENT**

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STATE WATER PROJECTS PLAN  
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

PROJECT NAME	PRIMARY USE	ISLAND	SECTOR	YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)									TMK
				02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD		
			<b>SWPP Statewide Project Demand Total=</b>	<b>12.19</b>	<b>18.10</b>	<b>25.22</b>	<b>26.59</b>	<b>33.20</b>	<b>69.42</b>	<b>76.55</b>	<b>80.87</b>		
KAMAMALU BUILDING RENOVATIONS	POTABLE	OAHU	HONOLULU								0.00250	2-1-17:10	
<b>PLANNING BRANCH CONT.</b>													
LILIHA CIVIC CENTER	POTABLE	OAHU	HONOLULU						0.01007	0.01007	0.01007	NR	
LILIHA CIVIC CENTER	NONPOTABLE USING POTABLE	OAHU	HONOLULU						0.00893	0.00893	0.00893	NR	
MANOA PUBLIC LIBRARY	POTABLE	OAHU	HONOLULU	0.00067	0.00067	0.00067	0.00067	0.00067	0.00067	0.00067	0.00067	NR	
MANOA PUBLIC LIBRARY	NONPOTABLE USING POTABLE	OAHU	HONOLULU	0.00143	0.00143	0.00143	0.00143	0.00143	0.00143	0.00143	0.00143	NR	
QUEEN LILIUOKALANI BLDG. EXPANSION	POTABLE	OAHU	HONOLULU			0.00160	0.00160	0.00160	0.00160	0.00160	0.00160	2-1-18:16	
STATE CAPITOL ANNEX (REPLACE DOH BUILDING)	POTABLE	OAHU	HONOLULU						0.00750	0.00750	0.00750	2-1-18: 46	
MILILANI MAUKA II ELEM SCH, FIRST INCREMENT	POTABLE	OAHU	PEARL HARBOR			0.05160	0.05160	0.05160	0.05160	0.05160	0.05160		
PEARL CITY HIGHLANDS ELEMENTARY SCHOOL, BUILDING E, SHOWER AND TOILET	POTABLE	OAHU	PEARL HARBOR	0.00005	0.00010	0.00010	0.00010	0.00010	0.00010	0.00010	0.00010	9-7-36:122	
WAIPAHU ELEM SCH, DRAINAGE IMPROVEMENTS	POTABLE	OAHU	PEARL HARBOR	0.00160	0.00160	0.00160	0.00160	0.00160	0.00160	0.00160	0.00160	9-4-29:01	
NANAKULI ELEM SCHOOL, 8-CLASSROOM BLDG.	POTABLE	OAHU	WAIANAE	0.00129	0.00258	0.00258	0.00258	0.00258	0.00258	0.00258	0.00258	8-9-7:9	
NANAKULI PUBLIC LIBRARY	POTABLE	OAHU	WAIANAE						0.00151	0.00151	0.00151	NR	
NANAKULI PUBLIC LIBRARY	NONPOTABLE USING POTABLE	OAHU	WAIANAE						0.00643	0.00643	0.00643	NR	
KANEOHE CIVIC CENTER	POTABLE	OAHU	WINDWARD						0.00065	0.00065	0.00065	NR	
KANEOHE CIVIC CENTER	NONPOTABLE USING POTABLE	OAHU	WINDWARD						0.00112	0.00112	0.00112	NR	
KANEOHE DISTRICT COURT	POTABLE	OAHU	WINDWARD		0.00099	0.00099	0.00099	0.00099	0.00099	0.00099	0.00099	NR	
KANEOHE DISTRICT COURT	NONPOTABLE USING POTABLE	OAHU	WINDWARD		0.00201	0.00201	0.00201	0.00201	0.00201	0.00201	0.00201	NR	
			<b>DAGS SUBTOTAL=</b>	<b>0.12449</b>	<b>0.60640</b>	<b>0.69071</b>	<b>0.77514</b>	<b>0.77514</b>	<b>0.95686</b>	<b>0.95686</b>	<b>0.99736</b>		

STATE WATER PROJECTS PLAN  
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

PROJECT NAME	PRIMARY USE	ISLAND	SECTOR	YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)									TMK
				02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD		
<b>SWPP Statewide Project Demand Total=</b>				<b>12.19</b>	<b>18.10</b>	<b>25.22</b>	<b>26.59</b>	<b>33.20</b>	<b>69.42</b>	<b>76.55</b>	<b>80.87</b>		
<b>DEPARTMENT OF AGRICULTURE</b>													
WAIMEA IRRIGATION SYSTEM	NONPOTABLE	HAWAII	KOHALA	1.82500	1.82500	1.82500	1.82500	1.82500	1.82500	1.82500	1.82500	NR	
FUTURE SUBDIVISION IN HONOKAA	NONPOTABLE	HAWAII	WEST MAUNA KEA						7.00000	7.00000	7.00000	VARIOUS	
FUTURE SUBDIVISION IN PAAUILO	NONPOTABLE	HAWAII	WEST MAUNA KEA						1.25000	1.25000	1.25000	6-3-6	
FUTURE SUBDIVISION IN WAIMEA	NONPOTABLE	HAWAII	WEST MAUNA KEA						0.80000	0.80000	0.80000	6-3-6	
WAIMEA/PAAUILO WATERSHED PROJECT	NONPOTABLE	HAWAII	WEST MAUNA KEA						4.00000	4.00000	4.00000		
LANAI AGRICULTURAL PARK	NONPOTABLE	LANAI	CENTRAL						0.50000	0.50000	0.50000	4-9	
LOWER KULA WATERSHED PROJECT	NONPOTABLE	MAUI	CENTRAL					6.00000	6.00000	6.00000	6.00000		
UPCOUNTRY MAUI IRRIGATION PROJECT	NONPOTABLE	MAUI	CENTRAL	3.61000	3.61000	3.61000	3.61000	3.61000	3.61000	3.61000	3.61000	2-2, 2-3	
FUTURE SUBDIVISION IN PALAAU	NONPOTABLE	MOLOKAI	CENTRAL						1.50000	1.50000	1.50000	5-2-1	
MOLOKAI AGRICULTURAL PARK	NONPOTABLE	MOLOKAI	CENTRAL	1.32000	1.32000	1.32000	1.32000	1.32000	1.32000	1.32000	1.32000	5-2-1	
BARBERS POINT AGRICULTURAL PARK	POTABLE	OAHU	PEARL HARBOR								0.15500	9-1-31:01 POR, 25,26,37 POR	
FUTURE SUBDIVISION IN WAIKELE	NONPOTABLE	OAHU	PEARL HARBOR						5.50000	5.50000	5.50000	VARIOUS	
ROYAL KUNIA AGRICULTURAL PARK	POTABLE	OAHU	PEARL HARBOR			0.00999	0.00999	0.00999	0.00999	0.00999	0.00999	9-4-02	
ROYAL KUNIA AGRICULTURAL PARK	NONPOTABLE	OAHU	PEARL HARBOR			0.74997	0.74997	0.74997	0.74997	0.74997	0.74997	9-4-02	
WAIMANALO IRRIGATION SYSTEM	NONPOTABLE	OAHU	WINDWARD	0.75000	1.00000	1.25000	1.25000	1.25000	1.25000	1.25000	1.25000	NR	
<b>DOA SUBTOTAL=</b>				<b>7.50500</b>	<b>7.75500</b>	<b>8.76496</b>	<b>8.76496</b>	<b>14.76496</b>	<b>35.31496</b>	<b>35.31496</b>	<b>35.46996</b>		

STATE WATER PROJECTS PLAN  
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

PROJECT NAME	PRIMARY USE	ISLAND	SECTOR	YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								TMK
				02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD	
<b>SWPP Statewide Project Demand Total=</b>				12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
<b>DEPARTMENT OF BUSINESS ECONOMIC DEVELOPMENT &amp; TOURISM</b>												
<b>ALOHA TOWER DEVELOPMENT CORPORATION</b>												
ALOHA TOWER DEVELOPMENT	POTABLE	OAHU	HONOLULU		0.09300	0.09300	0.09300	0.09300	0.13400	0.13400	0.13400	NR
<b>BARBERS POINT NAVAL AIR STATION REDEVELOPMENT COMMISSION</b>												
KALAELOA COMMUNITY DEVELOPMENT DISTRICT (NONPOTABLE)	NONPOTABLE	OAHU	EWA CAPROCK						1.21	1.21	1.21	NR
KALAELOA COMMUNITY DEVELOPMENT DISTRICT (POTABLE)	POTABLE	OAHU	EWA CAPROCK						0.431	0.431	0.431	NR
<b>CONVENTION CENTER AUTHORITY</b>												
HAWAII CONVENTION CENTER	POTABLE	OAHU	HONOLULU	0.10000	0.15000	0.20000	0.25000	0.30000	0.30000	0.30000	0.30000	NR
<b>HAWAII COMMUNITY DEVELOPMENT AUTHORITY</b>												
BISHOP LEARNING SCIENCE CENTER	POTABLE	OAHU	HONOLULU				0.01000	0.01000	0.01000	0.01000	0.01000	2-1-60: 2
BISHOP LEARNING SCIENCE CENTER	NONPOTABLE USING POTABLE	OAHU	HONOLULU				0.00918	0.00918	0.00918	0.00918	0.00918	2-1-60: 2
COMMERCIAL PROJECT (LOT 1)	POTABLE	OAHU	HONOLULU				0.01385	0.01385	0.01385	0.01385	0.01385	2-1-15: POR. 9
COMMERCIAL PROJECT (LOT 1)	NONPOTABLE USING POTABLE	OAHU	HONOLULU				0.00420	0.00420	0.00420	0.00420	0.00420	2-1-15: POR. 9
COMMERCIAL PROJECT (LOT 2)	POTABLE	OAHU	HONOLULU				0.03593	0.03593	0.03593	0.03593	0.03593	2-1-15: POR. 9
COMMERCIAL PROJECT (LOT 2)	NONPOTABLE USING POTABLE	OAHU	HONOLULU				0.00440	0.00440	0.00440	0.00440	0.00440	2-1-15: POR. 9
HISTORIC PUMP STATION (LOT 5)	POTABLE	OAHU	HONOLULU			0.05273	0.05273	0.05273	0.05273	0.05273	0.05273	2-1-15: 43.44, POR. 9
HISTORIC PUMP STATION (LOT 5)	NONPOTABLE USING POTABLE	OAHU	HONOLULU			0.00328	0.00328	0.00328	0.00328	0.00328	0.00328	2-1-15: 43.44, POR. 9
JOHN A. BURNS SCHOOL OF MEDICINE	POTABLE	OAHU	HONOLULU					0.06360	0.06360	0.06360	0.06360	2-1-60: 9, 10
JOHN A. BURNS SCHOOL OF MEDICINE	NONPOTABLE USING POTABLE	OAHU	HONOLULU					0.01550	0.01550	0.01550	0.01550	2-1-60: 9, 10
KAKAAKO MAUKA PARK (QUEEN STREET)	NONPOTABLE USING POTABLE	OAHU	HONOLULU			0.00608	0.00608	0.00608	0.00608	0.00608	0.00608	2-3-07: 2
KAKAAKO WATERFRONT PARK IMPROVEMENTS	NONPOTABLE USING POTABLE	OAHU	HONOLULU				0.00916	0.00916	0.00916	0.00916	0.00916	2-1-60: POR 8, 3
KEWALO BASIN RETAIL/MARKET	POTABLE	OAHU	HONOLULU				0.02000	0.02000	0.02000	0.02000	0.02000	2-1-58: 1, 95
KEWALO BASIN RETAIL/MARKET	NONPOTABLE USING POTABLE	OAHU	HONOLULU				0.00916	0.00916	0.00916	0.00916	0.00916	2-1-58: 1, 95
PARKING STRUCTURE	NONPOTABLE USING POTABLE	OAHU	HONOLULU					0.00680	0.00680	0.00680	0.00680	2-1-60: 5, 6

STATE WATER PROJECTS PLAN  
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

PROJECT NAME	PRIMARY USE	ISLAND	SECTOR	YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)										TMK
				02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD			
<b>SWPP Statewide Project Demand Total=</b>				<b>12.19</b>	<b>18.10</b>	<b>25.22</b>	<b>26.59</b>	<b>33.20</b>	<b>69.42</b>	<b>76.55</b>	<b>80.87</b>			
<b>HOUSING AND COMMUNITY &amp; DEVELOPMENT CORPORATION OF HAWAII</b>														
KEALAKEHE PLANNED COMMUNITY (LA'I'OPUA)	POTABLE	HAWAII	HUALALAI	0.29310	0.39080	0.48850	0.58650	0.68400	0.97700	1.46550	2.46204	7-4-20:1-06;7-4-21:1-19;7-4-8:POR56		
KEALAKEHE PLANNED COMMUNITY (LA'I'OPUA)	NONPOTABLE USING POTABLE	HAWAII	HUALALAI	0.00690	0.00920	0.01150	0.01350	0.01600	0.02300	0.03450	0.05796	7-4-20:1-06;7-4-21:1-19;7-4-8:POR56		
LAHAINA MASTER PLAN	POTABLE	MAUI	LAHAINA	0.04840	0.31240	0.61160	0.65560	0.69960	0.74360	0.87560	1.00760	4-5-21:03		
LAHAINA MASTER PLAN	NONPOTABLE USING POTABLE	MAUI	LAHAINA	0.06160	0.39760	0.77840	0.83440	0.89040	0.94641	1.00440	1.28240	4-5-21:03		
EAST KAPOLEI	POTABLE	OAHU	EWA CAPROCK					0.07500	0.47500	2.39900	3.81300	9-1-16:108,109		
VILLAGES OF KAPOLEI	POTABLE	OAHU	EWA CAPROCK		0.19300	0.51800	0.53000	0.53000	0.68000	0.68000	0.68000	9-1-16:23,25		
CIVIC CENTER RENTAL HOUSING	POTABLE	OAHU	HONOLULU	0.05490	0.05490	0.05490	0.05490	0.05490	0.05490	0.05490	0.05490	1-5-7:1		
ELDERLY RESIDENTIAL COMPLEX AT IWILEI	POTABLE	OAHU	HONOLULU					0.05100	0.05100	0.05100	0.05100	7:1.2,14,15,18,66,67,69,71,74,75,78-84		
ELDERLY RESIDENTIAL COMPLEX AT IWILEI	POTABLE	OAHU	HONOLULU					0.00900	0.00900	0.00900	0.00900	7:1.2,14,15,18,66,67,69,71,74,75,78-84		
KAM HOMES ELDERLY	POTABLE	OAHU	HONOLULU						0.02250	0.02250	0.02250	NR		
KUHIO PARK TERRACE COMMUNITY PARK CTR	POTABLE	OAHU	HONOLULU	0.00458	0.00458	0.00458	0.00458	0.00458	0.00458	0.00458	0.00458	1-3-39:01		
PALAMA ELDERLY HOUSING	POTABLE	OAHU	HONOLULU	0.01640	0.01640	0.01640	0.01640	0.01640	0.01640	0.01640	0.01640	1-7-44:94,97		
POHUKAINA MIXED USE	POTABLE	OAHU	HONOLULU						0.11500	0.11500	0.11500	2-1-51:09		
CROWN COMMERCIAL	POTABLE	OAHU	PEARL HARBOR						0.01360	0.01360	0.01360	9-4-17:53,54		
CROWN III	POTABLE	OAHU	PEARL HARBOR						0.04320	0.04320	0.04320	9-4-17:1,58		
CROWN IV	POTABLE	OAHU	PEARL HARBOR						0.02400	0.02400	0.02400	9-4-17:1,58		
WAIANA LOW INCOME HOUSING	POTABLE	OAHU	WAIANA	0.03700	0.03700	0.03700	0.03700	0.03700	0.03700	0.03700	0.03700	8-5-28:POR42		
<b>NATURAL ENERGY LABORATORY OF HAWAII AUTHORITY</b>														
NATURAL ENERGY LABORATORY OF HAWAII	POTABLE	HAWAII	HUALALAI	0.40000	0.60000	0.80000	0.90000	0.90000	1.50000	1.60000	1.80000	7-3-43:POR 4, 5		
<b>DBEDT SUBTOTAL=</b>				<b>1.02288</b>	<b>2.25888</b>	<b>3.67597</b>	<b>4.15385</b>	<b>4.62475</b>	<b>8.07506</b>	<b>10.78905</b>	<b>13.83305</b>			















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				02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD		
<b>SWPP Statewide Project Demand Total=</b>				<b>12.19</b>	<b>18.10</b>	<b>25.22</b>	<b>26.59</b>	<b>33.20</b>	<b>69.42</b>	<b>76.55</b>	<b>80.87</b>		
WAIHEE ELEM - PLAYFLD/WTR RETENTN BASIN	NONPOTABLE USING POTABLE	MAUI	WAILUKU	0.00510	0.00510	0.00510	0.00510	0.00510	0.00510	0.00510	0.00510	3-2-007:021	
WAIHEE ELEMENTARY NEW 8 CLASSROOM	POTABLE	MAUI	WAILUKU	0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	3-2-007: 021	
WAIHEE ELEMENTARY NEW ADMINISTRATION	POTABLE	MAUI	WAILUKU			0.00063	0.00063	0.00063	0.00063	0.00063	0.00063	3-2-007: 021	
WAILUKU II ELEM SCHOOL 1ST & 2ND INCREMENT	POTABLE	MAUI	WAILUKU			0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	NEW	
KUALAPUU ELEM SCH 6-CLASSROOM BLD	POTABLE	MOLOKAI	CENTRAL	0.00054	0.00054	0.00054	0.00054	0.00054	0.00054	0.00054	0.00054	5-2-13:27	
<b>DEPARTMENT OF EDUCATION CONT.</b>													
MOLOKAI HIGH SCHOOL 8-CLASSROOM BUILDING	POTABLE	MOLOKAI	CENTRAL	0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	5-2-15:46, 5-2-7:01	
MOLOKAI HIGH SCHOOL CAFETERIA	POTABLE	MOLOKAI	CENTRAL			0.00300	0.00300	0.00300	0.00300	0.00300	0.00300	5-2-15:46, 5-2-7:01	
MOLOKAI HIGH SCHOOL NEW ADMINISTRATION	POTABLE	MOLOKAI	CENTRAL			0.00093	0.00093	0.00093	0.00093	0.00093	0.00093	5-2-015: 046	
KAUNAKAKAI ELEMENTARY NEW 8 CLASSROOM	POTABLE	MOLOKAI	SOUTH EAST			0.00101	0.00101	0.00101	0.00101	0.00101	0.00101	5-3-002: 052	
KILOHANA ELEMENTARY NEW CAFETERIA	POTABLE	MOLOKAI	SOUTH EAST			0.00057	0.00057	0.00057	0.00057	0.00057	0.00057	5-6-002: 008	
KILOHANA ELEMENTARY NEW LIBRARY	POTABLE	MOLOKAI	SOUTH EAST			0.00092	0.00092	0.00092	0.00092	0.00092	0.00092	5-6-002: 008	
MAUNALOA ELEM SCHOOL NEW 4 CLASSROOM	POTABLE	MOLOKAI	WEST			0.00720	0.00720	0.00720	0.00720	0.00720	0.00720	5-1-002: 003	
MAUNALOA ELEMENTARY NEW LIBRARY	POTABLE	MOLOKAI	WEST						0.00092	0.00092	0.00092	5-1-002: 003	
HALE KULA ELEMENTARY NEW ADMINISTRATION	POTABLE	OAHU	CENTRAL			0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	7-7-001: 003	
HALE KULA ELEMENTARY NEW LIBRARY	POTABLE	OAHU	CENTRAL			0.00066	0.00066	0.00066	0.00066	0.00066	0.00066	7-7-001: 003	
HELEMANO ELEMENTARY NEW LIBRARY	POTABLE	OAHU	CENTRAL	0.00066	0.00066	0.00066	0.00066	0.00066	0.00066	0.00066	0.00066	7-1-002: 017	
LEILEHUA HIGH SCHOOL NEW 8 CLASSROOM	POTABLE	OAHU	CENTRAL		0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	7-4-018: 001	
WHEELER ELEMENTARY 8-CLASSROOM BUILDING	POTABLE	OAHU	CENTRAL			0.00072	0.00072	0.00072	0.00072	0.00072	0.00072	7-7-01:02	
EAST KAPOLEI ELEMENTARY SCHOOL NEW SCH	POTABLE	OAHU	EWA CAPROCK	PROJECT DEMAND ACCOUNTED FOR BY EAST KAPOLEI PROJECT									NEW
EAST KAPOLEI HIGH SCHOOL	POTABLE	OAHU	EWA CAPROCK						0.06000	0.06000	0.06000	NR	
EAST KAPOLEI MIDDLE SCHOOL	POTABLE	OAHU	EWA CAPROCK	PROJECT DEMAND ACCOUNTED FOR BY EAST KAPOLEI PROJECT									NR
EWA BEACH ELEMENTARY NEW 6 CLASSROOM	POTABLE	OAHU	EWA CAPROCK			0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	9-1-012: 019	
KAPOLEI HIGH SCHOOL 1ST INCREMENT	POTABLE	OAHU	EWA CAPROCK	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	NEW	
KAPOLEI HIGH SCHOOL 2ND INCREMENT	POTABLE	OAHU	EWA CAPROCK	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	NEW	
KAPOLEI HIGH SCHOOL 3RD INCREMENT	POTABLE	OAHU	EWA CAPROCK		0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	NEW	
CENTRAL INTER - RENOV BLDG A PH 1 15 CLSRM	POTABLE	OAHU	HONOLULU		0.00166	0.00166	0.00166	0.00166	0.00166	0.00166	0.00166	2-1-005:1; 2, 2-1-009: 1,2,3	
CENTRAL INTER - RENOV BLDG C 16 CLASSROOM	POTABLE	OAHU	HONOLULU		0.00215	0.00215	0.00215	0.00215	0.00215	0.00215	0.00215	2-1-005:1; 2, 2-1-009: 1,2,3	





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				02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD	
<b>SWPP Statewide Project Demand Total=</b>				<b>12.19</b>	<b>18.10</b>	<b>25.22</b>	<b>26.59</b>	<b>33.20</b>	<b>69.42</b>	<b>76.55</b>	<b>80.87</b>	
KAAWA ELEM NEW LIBRARY/ADMINISTRATION	POTABLE	OAHU	WINDWARD			0.00111	0.00111	0.00111	0.00111	0.00111	0.00111	5-1-002: 018
KAAWA ELEMENTARY NEW CAFETERIA	POTABLE	OAHU	WINDWARD			0.00054	0.00054	0.00054	0.00054	0.00054	0.00054	5-1-002: 018
KAELEPULU ELEM SCH, NEW ADMIN BLDG.	POTABLE	OAHU	WINDWARD						0.00045	0.00045	0.00045	4-2-90: 74
KAHUKU HIGH SCHOOL - ATHLETIC FIELD	NONPOTABLE USING POTABLE	OAHU	WINDWARD		0.03800	0.03800	0.03800	0.03800	0.03800	0.03800	0.03800	5-6-006:3,9,10,25
KAHUKU HIGH/INT SCH NEW PE LOCKR SHOWR	POTABLE	OAHU	WINDWARD			0.00065	0.00065	0.00065	0.00065	0.00065	0.00065	5-6-006: 003,009,010,025
KAHUKU HIGH/INTER SCHOOL NEW CAFETERIA	POTABLE	OAHU	WINDWARD			0.00660	0.00660	0.00660	0.00660	0.00660	0.00660	5-6-006: 003,009,010,025
KAHUKU HIGH/INTER SCHOOL NEW GYMNASIUM	POTABLE	OAHU	WINDWARD			0.00400	0.00400	0.00400	0.00400	0.00400	0.00400	5-6-006: 003,009,010,025
KAILUA ELEMENTARY LIBRARY EXPANSION	POTABLE	OAHU	WINDWARD			0.00066	0.00066	0.00066	0.00066	0.00066	0.00066	4-3-056: 003_009
<b>DEPARTMENT OF EDUCATION CONT.</b>												
KAINALU ELEMENTARY NEW ADMINISTRATION	POTABLE	OAHU	WINDWARD			0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	4-3-076: 015
KANEOHE ELEMENTARY NEW ADMINISTRATION	POTABLE	OAHU	WINDWARD	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	4-5-103: 011
<b>DOE SUBTOTAL=</b>				<b>0.61955</b>	<b>0.81025</b>	<b>2.22742</b>	<b>2.24340</b>	<b>2.24340</b>	<b>2.59797</b>	<b>2.59797</b>	<b>2.59797</b>	

STATE WATER PROJECTS PLAN  
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

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				02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD		
<b>SWPP Statewide Project Demand Total=</b>				<b>12.19</b>	<b>18.10</b>	<b>25.22</b>	<b>26.59</b>	<b>33.20</b>	<b>69.42</b>	<b>76.55</b>	<b>80.87</b>		
<b>DEPARTMENT OF HAWAIIAN HOME LANDS</b>													
LAIOPUA VILLAGE 4	POTABLE	HAWAII	HUALALAI	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000		
MAKUU - FARM LOTS (2 ACRES)	POTABLE	HAWAII	KILAUEA						0.02000	0.02000	0.02000	NR	
MAKUU - FARM LOTS (2 ACRES) (IRRIG)	NONPOTABLE	HAWAII	KILAUEA						0.20000	0.20000	0.20000	NR	
MAKUU - FARM LOTS (5 ACRE)	POTABLE	HAWAII	KILAUEA						0.05080	0.05080	0.05080	NR	
MAKUU - FARM LOTS (5 ACRE) (IRRIG)	NONPOTABLE	HAWAII	KILAUEA						1.27000	1.27000	1.27000	NR	
KAWAIHAE - MASTER PLAN AREA	POTABLE	HAWAII	KOHALA							1.40000	1.40000	NR	
KAWAIHAE - RESIDENCE LOTS (MAKAI)	POTABLE	HAWAII	KOHALA						0.00880	0.00880	0.00880	NR	
KAWAIHAE - RESIDENTIAL LOTS (MAUKA)	POTABLE	HAWAII	KOHALA						0.07800	0.07800	0.07800	NR	
HAWAII EAST SCTRD LOT	POTABLE	HAWAII	NORTH EAST MAUNA LOA	0.04400	0.04400	0.04400	0.04400	0.04400	0.04400	0.04400	0.04400	VARIOUS	
HUMUULA - PASTURE LOTS	POTABLE	HAWAII	NORTH EAST MAUNA LOA						0.00480	0.00480	0.00480	NR	
KEAUKAHA - RESIDENCE LOTS UNIT 2	POTABLE	HAWAII	NORTH EAST MAUNA LOA						0.03320	0.03320	0.03320	2-1-20,21,22,23	
PANAWEA - FARM LOTS (AUWAE ST)	POTABLE	HAWAII	NORTH EAST MAUNA LOA						0.03000	0.03000	0.03000	NR	
PANAWEA - FARM LOTS (AUWAE ST) (IRRIG)	NONPOTABLE	HAWAII	NORTH EAST MAUNA LOA						0.64000	0.64000	0.64000	NR	
PANAWEA - FARM LOTS PUNA PAPAYA	POTABLE	HAWAII	NORTH EAST MAUNA LOA						0.01000	0.01000	0.01000	2-1-25;25-40,67-71,74,77-83	
PANAWEA - FARM LOTS PUNA PAPAYA (IRRIG)	NONPOTABLE	HAWAII	NORTH EAST MAUNA LOA						0.30000	0.30000	0.30000	NR	
PANAWEA RESIDENCE LOTS	POTABLE	HAWAII	NORTH EAST MAUNA LOA	0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	0.02400		
WAIKEA - RESIDENCE LOTS UNIT 2A-5	POTABLE	HAWAII	NORTH EAST MAUNA LOA						0.00800	0.00800	0.00800	NR	
KAMAOA - PASTURE LOTS	POTABLE	HAWAII	SOUTH EAST MAUNA LOA						0.01000	0.01000	0.01000	NR	
KAMAOA - PUUEO FARM LOTS	POTABLE	HAWAII	SOUTH EAST MAUNA LOA							0.02000	0.02000	NR	
LALAMILO RESIDENCE LOTS	POTABLE	HAWAII	WEST MAUNA KEA	0.07000	0.07000	0.07000	0.07000	0.07000	0.07000	0.07000	0.07000		
PUUKAPU - FARM LOTS UNITS 2, 2A	POTABLE	HAWAII	WEST MAUNA KEA						0.03000	0.03000	0.03000	NR	
PUUKAPU - FARM LOTS UNITS 2, 2A (IRRIG)	NONPOTABLE	HAWAII	WEST MAUNA KEA						1.60000	1.60000	1.60000	NR	
PUUKAPU - PASTURE LOTS	POTABLE	HAWAII	WEST MAUNA KEA						0.07360	0.07360	0.07360	NR	
PUUKAPU - RESIDENTIAL LOTS (PUU PELEHU)	POTABLE	HAWAII	WEST MAUNA KEA						0.01320	0.01320	0.01320	NR	
ANAHOLA - FARM LOTS UNIT 1A INCREMENT 2	POTABLE	KAUAI	LIHUE	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	NR	
ANAHOLA - HUNDLEY ROAD	POTABLE	KAUAI	LIHUE	0.01500	0.01500	0.01500	0.01500	0.01500	0.01500	0.01500	0.01500		
ANAHOLA - NORTH (IRRIG)	NONPOTABLE	KAUAI	LIHUE						0.60000	0.60000	0.60000	NR	

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				02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD		
SWPP Statewide Project Demand Total=				12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87		
ANAHOLA - RESIDENCE LOTS BAYVIEW/G, G1	POTABLE	KAUAI	LIHUE	0.03050	0.03050	0.03050	0.03050	0.03050	0.03050	0.03050	0.03050	0.03050	NR
<b>DEPARTMENT OF HAWAIIAN HOME LANDS CONT.</b>													
ANAHOLA - RESIDENCE LOTS J & K	POTABLE	KAUAI	LIHUE						0.01100	0.01100	0.01100	0.01100	NR
ANAHOLA - RESIDENCE LOTS M	POTABLE	KAUAI	LIHUE						0.02000	0.02000	0.02000	0.02000	NR
ANAHOLA - RESIDENCE LOTS UNIT 3	POTABLE	KAUAI	LIHUE	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	NR
ANAHOLA - RESIDENCE LOTS UNIT 4	POTABLE	KAUAI	LIHUE	0.04500	0.04500	0.04500	0.04500	0.04500	0.04500	0.04500	0.04500	0.04500	NR
ANAHOLA - RESIDENCE LOTS UNIT 5	POTABLE	KAUAI	LIHUE	0.02000	0.02000	0.02000	0.02000	0.02000	0.02000	0.02000	0.02000	0.02000	NR
ANAHOLA UNIT 6	POTABLE	KAUAI	LIHUE			0.12500	0.12500	0.12500	0.12500	0.12500	0.12500	0.12500	VARIOUS
ANAHOLA VILLAGE RESIDENCE LOTS	POTABLE	KAUAI	LIHUE	0.00550	0.00550	0.00550	0.00550	0.00550	0.00550	0.00550	0.00550	0.00550	
MOLOAA - FARM LOTS	POTABLE	KAUAI	LIHUE								0.01000	0.01000	NR
MOLOAA - PASTURE LOTS	POTABLE	KAUAI	LIHUE								0.00400	0.00400	NR
KEKAHA RESIDENCE LOTS	POTABLE	KAUAI	WAIMEA			0.01500	0.01500	0.01500	0.01500	0.01500	0.01500	0.01500	
LANAI	POTABLE	LANAI	CENTRAL		0.01250	0.01250	0.01250	0.01250	0.01250	0.01250	0.01250	0.01250	
KEOKEA AGRICULTURAL LOTS (RES.)	POTABLE	MAUI	CENTRAL	0.04260	0.04260	0.04260	0.04260	0.04260	0.04260	0.04260	0.04260	0.04260	
KULA - KEOKEA AG LOTS	POTABLE	MAUI	CENTRAL							3.60000	3.60000	3.60000	NR
KULA - KEOKEA RES. AG LOTS	POTABLE	MAUI	CENTRAL							0.04000	0.04000	0.04000	NR
KULA - MASTER PLAN AREA	POTABLE	MAUI	CENTRAL								2.10000	2.10000	NR
KULA - RESIDENCE LOTS WAIOHULI 1, 2	POTABLE	MAUI	CENTRAL								0.18000	0.18000	NR
KULA - RESIDENCE LOTS, UNIT 2	POTABLE	MAUI	CENTRAL	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	
WAIOHULI RES LOTS UNIT 1	POTABLE	MAUI	CENTRAL			0.23040	0.23040	0.23040	0.23040	0.23040	0.23040	0.23040	2-2-02:56
KAHIKINUI - HOMESTEAD	POTABLE	MAUI	KAHIKINUI								0.00720	0.00720	1-9-01
KAHIKINUI - LIVESTOCK	POTABLE	MAUI	KAHIKINUI								0.01000	0.01000	NR
PAUKUKALO - RESIDENCE LOTS UNIT 3 PHASE 3	POTABLE	MAUI	WAILUKU							0.01980	0.01980	0.01980	NR
PAUKUKALO - RESIDENCE LOTS UNIT 4	POTABLE	MAUI	WAILUKU							0.00840	0.00840	0.00840	NR
WAIIEHU - RESIDENCE LOTS	POTABLE	MAUI	WAILUKU			0.02000	0.02000	0.02000	0.02000	0.02000	0.02000	0.02000	3-2-13:18
WAIIEHU KOU	POTABLE	MAUI	WAILUKU			0.10000	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000	NR
WAIIEHU KOU III	POTABLE	MAUI	WAILUKU	0.04200	0.04200	0.04200	0.04200	0.04200	0.04200	0.04200	0.04200	0.04200	
DEPT. OF EDUCATION	POTABLE	MOLOKAI	CENTRAL			0.00270	0.00270	0.00270	0.00270	0.00270	0.00270	0.00270	5-2-13:27, 5-2-15:46





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				02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD		
<b>SWPP Statewide Project Demand Total=</b>				<b>12.19</b>	<b>18.10</b>	<b>25.22</b>	<b>26.59</b>	<b>33.20</b>	<b>69.42</b>	<b>76.55</b>	<b>80.87</b>		
UPPER NANAKULI	POTABLE	OAHU	WAIANAE								0.42500	8-9-08: 03	
VOICE OF AMERICA	POTABLE	OAHU	WAIANAE						0.25000	0.25000	0.25000	8-7-10: 07	
WAIANAE LOTS 2A-2	POTABLE	OAHU	WAIANAE			0.03100	0.03100	0.03100	0.03100	0.03100	0.03100	8-5-04: 02	
<b>DEPARTMENT OF HAWAIIAN HOME LANDS CONT.</b>													
KUPUNA HOUSING	POTABLE	OAHU	WINDWARD			0.04320	0.04320	0.04320	0.04320	0.04320	0.04320	4-1-19: 32	
SOUKASEN	POTABLE	OAHU	WINDWARD						0.02500	0.02500	0.02500	4-1-08-11, 4-1-23-65	
UNIT 9	POTABLE	OAHU	WINDWARD						0.02650	0.02650	0.02650	4-1-08: POR 08, 4-1-37: 68,69	
WAIHOLE SCATTERED LOTS	POTABLE	OAHU	WINDWARD						0.01100	0.01100	0.01100	NR	
WAIMANALO SCATTERED LOTS	POTABLE	OAHU	WINDWARD	0.00250	0.00250	0.00250	0.00250	0.00250	0.00250	0.00250	0.00250	4-1-37: 58-60	
WAIMANALO, RESIDENTIAL LOTS ALA KOA STREET	POTABLE	OAHU	WINDWARD			0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	4-1-37:35	
<b>DHHL SUBTOTAL=</b>				<b>0.64760</b>	<b>0.66010</b>	<b>2.02474</b>	<b>2.02474</b>	<b>2.02474</b>	<b>11.65914</b>	<b>15.39034</b>	<b>15.81534</b>		







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				02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD	
<b>SWPP Statewide Project Demand Total=</b>				<b>12.19</b>	<b>18.10</b>	<b>25.22</b>	<b>26.59</b>	<b>33.20</b>	<b>69.42</b>	<b>76.55</b>	<b>80.87</b>	
<b>DEPARTMENT OF LAND AND NATURAL RESOURCES</b>												
<b>BOATING AND OCEAN RECREATION DIVISION</b>												
KAWAIHAE BOAT HARBOR IMPROVEMENTS	POTABLE	HAWAII	KOHALA	0.00140	0.00140	0.00140	0.00140	0.00140	0.00140	0.00140	0.00140	6-1-03
PUAKO BOAT RAMP	POTABLE	HAWAII	NORTH WEST MAUNA LOA						0.00500	0.00500	0.00500	NR
NA WILIWILI BOAT HARBOR	POTABLE	KAUAI	LIHUE						0.00500	0.00500	0.00500	3-2-03
WAIKAEA BOAT HARBOR IMPROVEMENTS	POTABLE	KAUAI	LIHUE			0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	4-5-06
KIKIAOLA BOAT HARBOR IMPROVEMENTS	POTABLE	KAUAI	WAIMEA	0.02250	0.02250	0.02250	0.02250	0.02250	0.04500	0.04500	0.04500	1-2-06
MANELE BOAT HARBOR ELEC/TELE IMPROVEMTS.	NONPOTABLE USING POTABLE	LANAI	KANAO	0.00100	0.00300	0.00300	0.00300	0.00300	0.00300	0.00300	0.00300	4-9-17:06
MANELE BOAT HARBOR ELEC/TELE IMPROVMTS.	POTABLE	LANAI	KANAO	0.00100	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	4-9-17:06
KAHULUI BOAT HARBOR	POTABLE	MAUI	CENTRAL			0.00504	0.00504	0.00504	0.00504	0.00504	0.00504	3-7-01
KAHULUI BOAT HARBOR	NONPOTABLE USING POTABLE	MAUI	CENTRAL			0.00096	0.00096	0.00096	0.00096	0.00096	0.00096	3-7-01
MAALAEA BOAT HAR EAST MOLE IMPROVEMTS	POTABLE	MAUI	CENTRAL						0.02300	0.02300	0.02300	3-6-01, 3-8-14
MAALAEA BOAT HARBOR ADMIN BLD AND BYD	POTABLE	MAUI	CENTRAL			0.00021	0.00021	0.00021	0.00021	0.00021	0.00021	3-6-01, 3-8-14
MAALAEA BOAT HARBOR ADMIN BLD AND BYD	NONPOTABLE USING POTABLE	MAUI	CENTRAL			0.00170	0.00170	0.00170	0.00170	0.00170	0.00170	3-6-01, 3-8-14
ALA WAI BOAT HARBOR COMFORT STATION	POTABLE	OAHU	HONOLULU		0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	2-6-10,2-3-37,2-1-58
KEEHI BOAT HARBOR	POTABLE	OAHU	HONOLULU			0.01008	0.01008	0.01008	0.01008	0.01008	0.01008	1-2-23, 1-5-41
KEEHI BOAT HARBOR	NONPOTABLE USING POTABLE	OAHU	HONOLULU			0.00543	0.00543	0.00543	0.00543	0.00543	0.00543	1-2-23, 1-5-41
MAUNALUA BAY COMFORT STATION	POTABLE	OAHU	HONOLULU			0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	2-9-2,3,4,7,16,17,33
<b>STATE PARKS DIVISION</b>												
KALOPA SRA	POTABLE	HAWAII	EAST MAUNA KEA	0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	4-4-14:1
WAILUKU RIVER SP (BOILING POTS)	POTABLE	HAWAII	EAST MAUNA KEA						0.00500	0.00500	0.00500	2-3-27:1, 2-3-29:12, 2-5-10:1
KEKAHA KAI SP (MAHAIULA)	POTABLE	HAWAII	HUALALAI			0.00336	0.00662	0.00667	0.00673	0.00678	0.00695	NR
KEKAHA KAI SP (MAHAIULA)	NONPOTABLE USING POTABLE	HAWAII	HUALALAI			0.03869	0.07612	0.07675	0.07738	0.07801	0.07990	NR
OLD KONA AIRPORT SRA	POTABLE	HAWAII	HUALALAI		0.01008	0.01008	0.01008	0.01008	0.01008	0.01008	0.01008	7-5-05:7,72,73,74,79,82,83
OLD KONA AIRPORT SRA	NONPOTABLE USING POTABLE	HAWAII	HUALALAI		0.00592	0.00592	0.00592	0.00592	0.00592	0.00592	0.00592	7-5-05:7,72,73,74,79,82,83
KOHALA HISTORICAL SITES STATE MONUMENT	POTABLE	HAWAII	KOHALA	0.00006	0.00008	0.00178	0.00180	0.00182	0.00357	0.00357	0.00357	5-5-05:6,20, 5-6-01:75
KOHALA HISTORICAL SITES STATE MONUMENT	NONPOTABLE USING POTABLE	HAWAII	KOHALA	0.00097	0.00129	0.02793	0.02825	0.02857	0.05586	0.05586	0.05586	5-5-05:6,20, 5-6-01:75

STATE WATER PROJECTS PLAN  
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				02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD		
<b>SWPP Statewide Project Demand Total=</b>				<b>12.19</b>	<b>18.10</b>	<b>25.22</b>	<b>26.59</b>	<b>33.20</b>	<b>69.42</b>	<b>76.55</b>	<b>80.87</b>		
LAPAKAHI SHP	POTABLE	HAWAII	KOHALA	0.00011	0.00015	0.00179	0.00183	0.00186	0.00358	0.00358	0.00358	5-7-01:22	
<b>STATE PARKS DIVISION CONT.</b>													
LAPAKAHI SHP	NONPOTABLE USING POTABLE	HAWAII	KOHALA	0.00101	0.00135	0.01609	0.01643	0.01676	0.03218	0.03218	0.03218	5-7-01:22	
KEALAKEKUA BAY SHP	POTABLE	HAWAII	SOUTH WEST MAUNA LOA	0.00080	0.00080	0.00080	0.00080	0.00080	0.00081	0.00081	0.00081	8-1-07:50 & OTHERS	
KEALAKEKUA BAY SHP	NONPOTABLE USING POTABLE	HAWAII	SOUTH WEST MAUNA LOA	0.07936	0.07941	0.07946	0.07952	0.07957	0.07973	0.07973	0.07973	8-1-07:50 & OTHERS	
HAPUNA BEACH SRA	POTABLE	HAWAII	WEST MAUNA KEA		0.05270	0.05270	0.05270	0.05270	0.05270	0.05270	0.05270	6-6-01:2, 6-6-02:32,34,35,41	
HAPUNA BEACH SRA	NONPOTABLE	HAWAII	WEST MAUNA KEA						0.64995	0.64995	0.64995	6-6-01:2, 6-6-02:32,34,35,41	
HAENA SP	POTABLE	KAUAI	HANALEI	0.01258	0.01998	0.01998	0.01998	0.01998	0.01998	0.01998	0.01998	5-9-6,7,8	
HAENA SP	NONPOTABLE	KAUAI	HANALEI	0.02142	0.03402	0.03402	0.03402	0.03402	0.03402	0.03402	0.03402	5-9-6,7,8	
AHUKINI SRP	POTABLE	KAUAI	LIHUE	0.00021	0.00027	0.00034	0.00041	0.00048	0.00069	0.00069	0.00069	3-7-02:2,7,9,10	
WAILUA RIVER SP	POTABLE	KAUAI	LIHUE	0.00090	0.00121	0.00151	0.00181	0.00211	0.00301	0.00301	0.00301	3-9-02 & OTHERS	
MALAE HEIAU	POTABLE	KAUAI	LIHUE			0.00199	0.00199	0.00202	0.00204	0.00206	0.00215	3/9/02	
MALAE HEIAU	NONPOTABLE USING POTABLE	KAUAI	LIHUE			0.01612	0.01612	0.01631	0.01649	0.01667	0.01740	3/9/02	
RUSSIAN FORT ELIZABETH SHP	POTABLE	KAUAI	WAIMEA	0.00003	0.00192	0.00193	0.00194	0.00195	0.00198	0.00198	0.00198	1-7-05:3	
RUSSIAN FORT ELIZABETH SHP	NONPOTABLE USING POTABLE	KAUAI	WAIMEA	0.00059	0.03641	0.03660	0.03680	0.03699	0.03758	0.03758	0.03758	1-7-05:3	
MAKENA STATE PARK - COMFORT STATIONS WITH COMPOSTING TOILETS	POTABLE	MAUI	KAHIKINUI	0.00250	0.00250	0.00250	0.00250	0.00250	0.00250	0.00250	0.00250	2-1-06: 27 & 30	
MAKENA STATE PARK - SECURITY RESIDENCE	POTABLE	MAUI	KAHIKINUI	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	2-1-06: 28 & POR. 53	
HALEKII-PIHANA HEIAU SM	POTABLE	MAUI	WAILUKU	0.00003	0.00004	0.00004	0.00005	0.00006	0.00128	0.00128	0.00128	3-4-30:4	
HALEKII-PIHANA HEIAU SM	NONPOTABLE USING POTABLE	MAUI	WAILUKU	0.00035	0.00047	0.00059	0.00070	0.00082	0.01698	0.01698	0.01698	3-4-30:4	
KUKANILOKO HEIAU (NEAR WHITMORE VILLAGE)	POTABLE	OAHU	CENTRAL			0.00003	0.00004	0.00050	0.00051	0.00051	0.00099	7-1-01:4,8	
KUKANILOKO HEIAU (NEAR WHITMORE VILLAGE)	NONPOTABLE USING POTABLE	OAHU	CENTRAL	0.00028	0.00037	0.00502	0.00511	0.00511	0.01003	0.01003	0.01003	7-1-01:4,8	
DIAMOND HEAD STATE MONUMENT	POTABLE	OAHU	HONOLULU	0.02087	0.02087	0.02087	0.02087	0.02087	0.02087	0.02087	0.02087	3-1-42, 3-1-35	
DIAMOND HEAD STATE MONUMENT	NONPOTABLE	OAHU	HONOLULU	0.27733	0.27733	0.27733	0.27733	0.27733	0.27733	0.27733	0.27733	3-1-42, 3-1-35	
KAIWI SP	POTABLE	OAHU	HONOLULU			0.00164	0.00219	0.00274	0.00329	0.00384	0.00548	3-9-11:2,3,5,6,7,4-01-14:1	
KALIHI VALLEY SP	POTABLE	OAHU	HONOLULU			0.00019	0.00025	0.00031	0.00037	0.00043	0.00062	1-3-24:2	
KUULEI CLIFFS	POTABLE	OAHU	HONOLULU					0.00003	0.00005	0.00094	0.00095	3-1-42	
KUULEI CLIFFS	NONPOTABLE USING POTABLE	OAHU	HONOLULU	0.00027	0.00037	0.00758	0.00767	0.00776	0.00803	0.00803	0.00803	3-1-42	
MAKALEI PLACE	POTABLE	OAHU	HONOLULU			0.00000	0.00000	0.00040	0.00040	0.00040	0.00081	3-1-42	

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				02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD	
<b>SWPP Statewide Project Demand Total=</b>				<b>12.19</b>	<b>18.10</b>	<b>25.22</b>	<b>26.59</b>	<b>33.20</b>	<b>69.42</b>	<b>76.55</b>	<b>80.87</b>	
MAKALEI PLACE	NONPOTABLE USING POTABLE	OAHU	HONOLULU			0.00018	0.00024	0.03990	0.03997	0.04003	0.07981	3-1-42
MAKIKI TANTALUS STATE PARK	POTABLE	OAHU	HONOLULU	0.00141	0.00187	0.00994	0.01041	0.01088	0.01229	0.01229	0.01229	2-5-19
<b>STATE PARKS DIVISION CONT.</b>												
MAKIKI TANTALUS STATE PARK	NONPOTABLE USING POTABLE	OAHU	HONOLULU	0.00229	0.00306	0.01622	0.01699	0.01775	0.02004	0.02004	0.02004	2-5-19
ROYAL MAUSOLEUM SM	POTABLE	OAHU	HONOLULU	0.00014	0.00019	0.00024	0.00029	0.00034	0.00048	0.00048	0.00048	2-2-20:14, 2-2-21:7,12
SAND ISLAND SRA	POTABLE	OAHU	HONOLULU	0.00001	0.00001	0.00241	0.00242	0.00242	0.00243	0.00243	0.00243	1-5-41:6
SAND ISLAND SRA	NONPOTABLE USING POTABLE	OAHU	HONOLULU	0.00081	0.00109	0.23896	0.23923	0.23950	0.24031	0.24031	0.24031	1-5-41:6
WASHINGTON PLACE	POTABLE	OAHU	HONOLULU	0.00062	0.00082	0.00103	0.00123	0.00144	0.00206	0.00206	0.00206	2-1-18:46
PUU MAHUKA HEIAU SM	POTABLE	OAHU	NORTH				0.00013	0.00017	0.00225	0.00229	0.00233	5-9-05:68
PUU MAHUKA HEIAU SM	NONPOTABLE USING POTABLE	OAHU	NORTH	0.00061	0.00082	0.01098	0.01119	0.01139	0.01201	0.01201	0.01201	5-9-05:68
AIEA BAY STATE RECREATION AREA	POTABLE	OAHU	PEARL HARBOR	0.00021	0.00027	0.00034	0.00041	0.00048	0.00069	0.00069	0.00069	9-8-19:2 & OTHERS
WAIMANO GULCH STATE PARK RESERVE	POTABLE	OAHU	PEARL HARBOR				0.00000	0.00000	0.00000	0.00000	0.00000	9-7-25
WAIMANO GULCH STATE PARK RESERVE	NONPOTABLE USING POTABLE	OAHU	PEARL HARBOR	0.00002	0.00003	0.00003	0.00004	0.00005	0.14223	0.14223	0.14223	9-7-25
KAENA POINT SP	POTABLE	OAHU	WAIANAE	0.00102	0.00136	0.00542	0.00576	0.00610	0.01084	0.01084	0.01084	6-9-01:2 & OTHERS
KAENA POINT SP	NONPOTABLE	OAHU	WAIANAE	0.00227	0.00302	0.01206	0.01282	0.01357	0.02412	0.02412	0.02412	6-9-01:2 & OTHERS
HEEIA STATE PARK	POTABLE	OAHU	WINDWARD	0.00003	0.00004	0.00006	0.00007	0.00008	0.00011	0.00011	0.00011	4-6-05:2,4,9
KAHANA VALLEY SP	POTABLE	OAHU	WINDWARD	0.00026	0.00034	0.00043	0.00051	0.00060	0.00085	0.00085	0.00085	5-2-01:1, 5-2-02:1-8, 5-2-05:1,3,20,21
LAIE POINT STATE WAYSIDE	POTABLE	OAHU	WINDWARD			0.00017	0.00022	0.00110	0.00116	0.00121	0.00138	5-5-10:2,3,22,29
LAIE POINT STATE WAYSIDE	NONPOTABLE USING POTABLE	OAHU	WINDWARD			0.00024	0.00032	0.00158	0.00166	0.00175	0.00199	5-5-10:2,3,22,29
MALAEKAHANA SRA (KAHUKU SECTION)	POTABLE	OAHU	WINDWARD			0.01000	0.01000	0.01000	0.02000	0.02000	0.02000	5-6-01:4,24,25,45,46,47,51,53-65
MALAEKAHANA SRA (KAHUKU SECTION)	NONPOTABLE	OAHU	WINDWARD			0.03000	0.03000	0.03000	0.06000	0.06000	0.06000	5-6-01:4,24,25,45,46,47,51,53-65
MALAEKAHANA SRA (KALANAI POINT SECTION)	POTABLE	OAHU	WINDWARD			0.01000	0.01000	0.01000	0.02000	0.02000	0.02000	5-6-01:4,24,25,45,46,47,49,51,53-65
MALAEKAHANA SRA (KALANAI POINT SECTION)	NONPOTABLE	OAHU	WINDWARD			0.03000	0.03000	0.03000	0.06000	0.06000	0.06000	5-6-01:4,24,25,45,46,47,49,51,53-65
NUUANU PALI SW	POTABLE	OAHU	WINDWARD				0.00164	0.00219	0.00274	0.00329	0.00384	1-9-07:1, 2-2-54:1
SACRED FALLS STATE PARK	POTABLE	OAHU	WINDWARD	0.00154	0.00206	0.00257	0.00308	0.00360	0.00514	0.00514	0.00514	5-3-11:9
ULUPO HEIAU STATE MONUMENT	POTABLE	OAHU	WINDWARD			0.00039	0.00052	0.00065	0.00078	0.00091	0.00130	4-2-13:2
<b>DLNR SUBTOTAL=</b>				<b>0.46241</b>	<b>0.60201</b>	<b>1.12148</b>	<b>1.17029</b>	<b>1.22051</b>	<b>2.25145</b>	<b>2.25476</b>	<b>2.30154</b>	





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				02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD	
<b>SWPP Statewide Project Demand Total=</b>				<b>12.19</b>	<b>18.10</b>	<b>25.22</b>	<b>26.59</b>	<b>33.20</b>	<b>69.42</b>	<b>76.55</b>	<b>80.87</b>	
<b>DEPARTMENT OF TRANSPORTATION</b>												
<b>AIRPORTS DIVISION</b>												
KONA INTERNATIONAL AIRPORT MASTER PLAN	POTABLE	HAWAII	HUALALAI	0.12200	0.13200	0.14200	0.15200	0.16200	0.17200	0.20400	0.24200	7-3-10
HILO INTERNATIONAL AIRPORT MASTER PLAN	POTABLE	HAWAII	NORTH EAST MAUNA LOA	0.00400	0.00600	0.00800	0.01000	0.01200	0.01300	0.02000	0.02800	2-1-12
LIHUE AIRPORT MASTER PLAN	POTABLE	KAUAI	LIHUE	0.00800	0.01300	0.01500	0.01900	0.02400	0.05200	0.09500	0.14500	3-5-01
LANAI AIRPORT MASTER PLAN	POTABLE	LANAI	CENTRAL	0.00040	0.00060	0.00090	0.00120	0.00150	0.00190	0.00290	0.00390	4-9-02
KAHULUI AIRPORT ACCESS ROAD	POTABLE	MAUI	CENTRAL				0.10000					3-8-01
KAHULUI AIRPORT MASTER PLAN	POTABLE	MAUI	CENTRAL	0.01200	0.01700	0.02200	0.02700	0.03200	0.06700	0.11700	0.16700	3-8-01
HANA AIRPORT MASTER PLAN	POTABLE	MAUI	HANA	0.00050	0.00060	0.00070	0.00080	0.00090	0.00100	0.00200	0.00400	NR
MOLOKAI AIRPORT MASTER PLAN	POTABLE	MOLOKAI	CENTRAL	0.00020	0.00030	0.00040	0.00050	0.00060	0.00100	0.00150	0.00250	5-2-04
HONOLULU INTERNATIONAL AIRPORT	POTABLE	OAHU	HONOLULU						0.10000	0.10000	0.10000	1-1-03
DILLINGHAM FIELD - MOKULEIA	POTABLE	OAHU	NORTH	0.00200	0.00300	0.00400	0.00500	0.00600	0.01500	0.02500	0.03500	6-8-02
<b>HARBORS DIVISION</b>												
HAWAII COMMERCIAL HARBORS 2020 MASTER PLAN: DRY BULK CARGO TERMINALS	POTABLE	HAWAII	KOHALA		0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	3-6-1:03
HAWAII COMMERCIAL HARBORS 2020 MASTER PLAN: INTER-ISLAND CARGO TERMINAL	POTABLE	HAWAII	KOHALA						0.03300	0.06600	0.06600	3-6-1:03
HAWAII COMMERCIAL HARBORS 2020 MASTER PLAN: LIQUID BULK CARGO TERMINALS	POTABLE	HAWAII	KOHALA			0.06900	0.06900	0.06900	0.06900	0.06900	0.06900	3-6-1:03
HAWAII COMMERCIAL HARBORS 2020 MASTER PLAN: MILITARY CARGO TERMINAL	POTABLE	HAWAII	KOHALA		0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	3-6-1:03
HAWAII COMMERCIAL HARBORS 2020 MASTER PLAN: OVERSEAS CONTAINER TERMINAL	POTABLE	HAWAII	KOHALA					0.06300	0.06300	0.06300	0.06300	3-6-1:03
HAWAII COMMERCIAL HARBORS 2020 MASTER PLAN: PASSENGER TERMINAL-KAWAIHAE HARBOR	POTABLE	HAWAII	KOHALA						0.01500	0.01500	0.01500	3-6-1:03
HAWAII COMMERCIAL HARBORS 2020 MASTER PLAN: OCEAN RESEARCH STATION	POTABLE	HAWAII	NORTH EAST MAUNA LOA						0.01200	0.01200	0.01200	3-2-1:07
HAWAII COMMERCIAL HARBORS 2020 MASTER PLAN: OVERSEAS CONTAINER TERMINAL	POTABLE	HAWAII	NORTH EAST MAUNA LOA				0.06000	0.06000	0.06000	0.06000	0.06000	3-2-1:09
HAWAII COMMERCIAL HARBORS 2020 MASTER PLAN: PASSENGER TERMINAL-HILO HARBOR	POTABLE	HAWAII	NORTH EAST MAUNA LOA						0.01500	0.01500	0.01500	3-2-1:07
HAWAII COMMERCIAL HARBORS 2020 MASTER PLAN: INTER-ISLAND CARGO TERMINAL	POTABLE	HAWAII	NORTH EAST MAUNA LOA					0.06000	0.06000	0.06000	0.06000	3-2-1:07
PORT ALLEN AIRPORT MASTER PLAN	POTABLE	KAUAI	LIHUE	0.00300	0.00300	0.00300	0.00300	0.00300	0.00300	0.00300	0.00400	1-8-08:1
KAUAI COMMERCIAL HARBORS - 2025 MASTER PLAN: COMMERCIAL/NAVY VESSEL BERTHING	POTABLE	KAUAI	WAIMEA						0.00300	0.00300	0.00300	4-2-1:03
KAHULUI COMMERCIAL HARBOR - 2025 MASTER PLAN: CARGO YARD	POTABLE	MAUI	CENTRAL	0.05000	0.05000	0.05000	0.05000	0.05000	0.10000	0.10000	0.10000	2-3-7:8,10
KAUNAKAKAI HARBOR - 2010 MASTER PLAN	POTABLE	MOLOKAI	SOUTH EAST							0.03660	0.03660	NR

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				02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD		
<b>SWPP Statewide Project Demand Total=</b>				<b>12.19</b>	<b>18.10</b>	<b>25.22</b>	<b>26.59</b>	<b>33.20</b>	<b>69.42</b>	<b>76.55</b>	<b>80.87</b>		
OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: DRY BULK CARGO YARD	POTABLE	OAHU	EWA CAPROCK		0.11000	0.11000	0.11000	0.11000	0.11000	0.11000	0.11000	9-1-14	
<b>HARBORS DIVISION CONT.</b>													
OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: PETROLEUM PIER	POTABLE	OAHU	EWA CAPROCK					0.02000	0.02000	0.02000	0.02000	9-1-14	
OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: SHIPYARD	POTABLE	OAHU	EWA CAPROCK				0.09000	0.09000	0.09000	0.09000	0.09000	9-1-14	
OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: COMMERCIAL FISHING BERTHS	POTABLE	OAHU	HONOLULU					0.00003	0.00003	0.00003	0.00003	2-1-01	
OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: EXCURSION VESSEL & FERRY TERMINAL	POTABLE	OAHU	HONOLULU		0.07000	0.07000	0.07000	0.07000	0.07000	0.07000	0.07000	1-5-38	
OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: FOREIGN FISHING & OIL RESPONSE LAY BERTHS	POTABLE	OAHU	HONOLULU					0.00003	0.00003	0.00003	0.00003	1-1-76	
OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: GENERAL/NEOBULK CARGO YARD	POTABLE	OAHU	HONOLULU		0.04000	0.08000	0.08000	0.08000	0.08000	0.08000	0.08000	1-5-36	
OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: KAPALAMA MILITARY RESER.CONTAINER YD	POTABLE	OAHU	HONOLULU						0.27000	0.27000	0.27000	1-2-25	
OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: KEEHI INDUSTRIAL PARK ASSOCIATION	POTABLE	OAHU	HONOLULU					0.05000	0.05000	0.05000	0.05000	1-2-23	
OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: PASSENGER TERMINAL	POTABLE	OAHU	HONOLULU			0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	2-1-15	
OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: PASSENGER TERMINAL & GENERAL CARGO YARD	POTABLE	OAHU	HONOLULU		0.03000	0.03000	0.06000	0.06000	0.06000	0.06000	0.06000	1-5-39	
<b>DIVISION OF HIGHWAYS</b>													
QUEEN KAAHUMANU HWY WIDENING, KAILUA TO KEAHOLE	NONPOTABLE USING POTABLE	HAWAII	HUALALAI			0.24000	0.24000	0.24000	0.06000	0.06000	0.06000	NR	
MAMALAOHA HWY, EMERGENCY REPLACE OF PAAUUAU STR.BRIDGE, REALIGN.OF KAMANANI ST., ETC.	NONPOTABLE USING POTABLE	HAWAII	KILAUJA	0.03200	0.03200	0.00800	0.00800	0.00800	0.00800	0.00800	0.00800	9-6-23:43, 9-6-05:46, 9-6-12:12, 9-6-02:47, 9-6-13:05	
KAUMUALII HWY IMPROVEMENTS, LIHUE TO WEST OF MALUHIA	NONPOTABLE USING POTABLE	KAUAI	LIHUE			0.23200	0.23200	0.05800	0.05800	0.05800	0.05800	NR	
KUHIO HWY, HANAMAULU TO KAPAA	NONPOTABLE USING POTABLE	KAUAI	LIHUE					0.13600	0.03400	0.03400	0.03400	NR	
HALEAKALA HWY WIDENING, PUKALANI BYPASS TO HANA HWY	NONPOTABLE USING POTABLE	MAUI	CENTRAL				0.06600	0.06600	0.01700	0.01700	0.01700	NR	
HONOAPILANI HWY WIDENING, NORTH KIHEI ROAD TO MAALAEA HARBOR	NONPOTABLE USING POTABLE	MAUI	CENTRAL		0.01800	0.01800	0.00450	0.00450	0.00450	0.00450	0.00450	NR	
NORTH-SOUTH ROAD KAPOLEI PARKWAY TO FARRINGTON HWY, PHASE 1	NONPOTABLE USING POTABLE	OAHU	EWA CAPROCK						0.04500	0.01140	0.01140	NR	
NORTH-SOUTH ROAD, FARRINGTON HIGHWAY TO INTERSTATE RTE. H-1, PHASE 2	NONPOTABLE USING POTABLE	OAHU	EWA CAPROCK				0.24000	0.24000	0.06000	0.06000	0.06000	NR	
PUULOA ROAD IMPROVEMENTS, KAMEHAMEHA HWY TO SALT LAKE BLVD (LANDSCAPING)	NONPOTABLE USING POTABLE	OAHU	HONOLULU			0.02400	0.02400	0.00600	0.00600	0.00600	0.00600	NR	
FARRINGTON HWY IMPROVEMENTS, WAIPAHU DEPOT ROAD TO ANIANI STREET	NONPOTABLE USING POTABLE	OAHU	PEARL HARBOR				0.01600	0.01600	0.00400	0.00400	0.00400	9-4-01,10,11,14,25	
FARRINGTON HWY MEDIAL STRIP, KAMEHAMEHA HWY TO FORT WEAVER ROAD	NONPOTABLE USING POTABLE	OAHU	PEARL HARBOR		0.06000	0.06000	0.06000	0.03000	0.03000	0.03000	0.03000	NR	
ROUTE H3, HALAWA INTERCHANGE FINISH CONTRACT, UNIT VII	NONPOTABLE USING POTABLE	OAHU	PEARL HARBOR		0.00650	0.00325	0.00650	0.00325	0.00325	0.00325	0.00325	NR	
KAHEKILI HWY	NONPOTABLE USING POTABLE	OAHU	WINDWARD			0.05400	0.01350	0.01350	0.01350	0.01350	0.01350	NR	
<b>DOT SUBTOTAL=</b>				<b>0.23410</b>	<b>0.71200</b>	<b>1.32975</b>	<b>1.94400</b>	<b>1.97131</b>	<b>2.03021</b>	<b>2.25571</b>	<b>2.41671</b>		





STATE WATER PROJECTS PLAN  
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

PROJECT NAME	PRIMARY USE	ISLAND	SECTOR	YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)									TMK
				02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD		
<b>SWPP Statewide Project Demand Total=</b>				<b>12.19</b>	<b>18.10</b>	<b>25.22</b>	<b>26.59</b>	<b>33.20</b>	<b>69.42</b>	<b>76.55</b>	<b>80.87</b>		
HONOLULU COMMUNITY COLLEGE, HUMAN SERVICES LABORATORY FACILITY	POTABLE	OAHU	HONOLULU						0.01405	0.01405	0.01405	NR	
HONOLULU COMMUNITY COLLEGE, HUMAN SERVICES LABORATORY FACILITY	NONPOTABLE USING POTABLE	OAHU	HONOLULU						0.00029	0.00029	0.00029	NR	
<b>UNIVERSITY OF HAWAII CONT.</b>													
HONOLULU COMMUNITY COLLEGE, MARINE PROPULSION FACILITY	POTABLE	OAHU	HONOLULU						0.01072	0.01072	0.01072	1-5-41:6,130	
PEARL CITY URBAN GARDEN CENTER	NONPOTABLE USING POTABLE	OAHU	PEARL HARBOR	0.02000	0.02000	0.02000	0.02000	0.02000	0.02000	0.02000	0.02000	9-7-23:3	
LEEWARD COMMUNITY COLLEGE - BUILDING L SOCIAL SCIENCES	POTABLE	OAHU	PEARL HARBOR						0.01604	0.01604	0.01604	9-6-003-048	
LEEWARD COMMUNITY COLLEGE - BUILDING L SOCIAL SCIENCES	NONPOTABLE USING POTABLE	OAHU	PEARL HARBOR						0.00016	0.00016	0.00016	9-6-003-048	
LEEWARD COMMUNITY COLLEGE - NAO PRKG LOT	NONPOTABLE USING POTABLE	OAHU	PEARL HARBOR						0.00200	0.00200	0.00200	9-6-003-048	
LEEWARD COMMUNITY COLLEGE, FOOD SERVICES PROGRAM RENOVATION	POTABLE	OAHU	PEARL HARBOR			0.00088	0.00088	0.00088	0.00088	0.00088	0.00088	9-6-003: 048	
UNIVERSITY OF HAWAII AT MANOA, WAIMANALO, FOOD AND AGRICULTURE INNOVATION CENTER	POTABLE	OAHU	WINDWARD	0.01500	0.09000	0.18500	0.18500	0.18500	0.18500	0.18500	0.18500	4-1-08: 80, PORTION OF 5, PORTION OF 74	
UNIVERSITY OF HAWAII AT MANOA, WAIMANALO, FOOD AND AGRICULTURE INNOVATION CENTER	NONPOTABLE USING POTABLE	OAHU	WINDWARD	0.08800	0.51000	1.05000	1.05000	1.05000	1.05000	1.05000	1.05000	4-1-08: 80, PORTION OF 5, PORTION OF 74	
WINDWARD COMMUNITY COLLEGE - BUILDING D CAMPUS CENTER	POTABLE	OAHU	WINDWARD		0.05961	0.05961	0.05961	0.05961	0.05961	0.05961	0.05961	NR	
WINDWARD COMMUNITY COLLEGE - BUILDING D CAMPUS CENTER	NONPOTABLE USING POTABLE	OAHU	WINDWARD		0.00381	0.00381	0.00381	0.00381	0.00381	0.00381	0.00381	NR	
WINDWARD COMMUNITY COLLEGE - BUILDING H, LEARNING RESOURCE CENTER	POTABLE	OAHU	WINDWARD				0.00482	0.00482	0.00482	0.00482	0.00482	NR	
WINDWARD COMMUNITY COLLEGE - BUILDING H, LEARNING RESOURCE CENTER	NONPOTABLE USING POTABLE	OAHU	WINDWARD				0.00054	0.00054	0.00054	0.00054	0.00054	NR	
WINDWARD COMMUNITY COLLEGE - BUILDING J HUMANITIES	POTABLE	OAHU	WINDWARD	0.05815	0.05815	0.05815	0.05815	0.05815	0.05815	0.05815	0.05815	0.05874 NR	
WINDWARD COMMUNITY COLLEGE - BUILDING J HUMANITIES	NONPOTABLE USING POTABLE	OAHU	WINDWARD	0.00059	0.00059	0.00059	0.00059	0.00059	0.00059	0.00059	0.00059	NR	
WINDWARD COMMUNITY COLLEGE - BUILDING K-1, MULTI-MEDIA FACILITY	POTABLE	OAHU	WINDWARD	0.00479	0.00479	0.00479	0.00479	0.00479	0.00479	0.00479	0.00479	4-5-23: 2	
WINDWARD COMMUNITY COLLEGE - BUILDING K-1, MULTI-MEDIA FACILITY	NONPOTABLE USING POTABLE	OAHU	WINDWARD	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	4-5-23: 2	
WINDWARD COMMUNITY COLLEGE - PARKING LOT @ KUHINA	NONPOTABLE USING POTABLE	OAHU	WINDWARD				0.00160	0.00160	0.00160	0.00160	0.00160	4-5-023:002	
WINDWARD COMMUNITY COLLEGE - SCIEN ANNEX	POTABLE	OAHU	WINDWARD	0.00360	0.00360	0.00360	0.00360	0.00360	0.00360	0.00360	0.00360	4-5-23:2	
<b>UH SUBTOTAL=</b>				<b>0.66899</b>	<b>3.78301</b>	<b>4.46619</b>	<b>4.55429</b>	<b>4.62307</b>	<b>5.57939</b>	<b>6.03849</b>	<b>6.48598</b>		

**APPENDIX C**  
**SWPP DEMAND TABLE BY ISLAND**

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STATE WATER PROJECTS PLAN  
PROJECTED WATER REQUIREMENTS BY ISLAND

PROJECT NAME	PRIMARY USE	ISLAND	SECTOR	YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								TMK
				02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD	
<b>SWPP Statewide Project Demand Total=</b>				<b>12.19</b>	<b>18.10</b>	<b>25.22</b>	<b>26.59</b>	<b>33.20</b>	<b>69.42</b>	<b>76.55</b>	<b>80.87</b>	
<b>ISLAND OF OAHU</b>												
<b>DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES</b>												
<b>PLANNING BRANCH</b>												
WAHIAWA CIVIC CENTER	POTABLE	OAHU	CENTRAL						0.00949	0.00949	0.00949	7-4-06:12
WAHIAWA CIVIC CENTER	NONPOTABLE USING POTABLE	OAHU	CENTRAL						0.00426	0.00426	0.00426	7-4-06:12
KAPOLEI CIVIC CENTER, STATE OFC BLDG NO.2	POTABLE	OAHU	EWA CAPROCK		0.44240	0.44240	0.44240	0.44240	0.44240	0.44240	0.44240	POR,49,52,53,54,97,106,117; 9-1-88: 1 POR, 2-11,13
KAPOLEI CIVIC CENTER, STATE OFC BLDG NO.2	NONPOTABLE USING POTABLE	OAHU	EWA CAPROCK		0.03476	0.03476	0.03476	0.03476	0.03476	0.03476	0.03476	POR,49,52,53,54,97,106,117; 9-1-88: 1POR, 2-11,13
KAPOLEI PUBLIC LIBRARY	POTABLE	OAHU	EWA CAPROCK	0.01244	0.01244	0.01244	0.01244	0.01244	0.01244	0.01244	0.01244	9-1-16: 01
KAPOLEI PUBLIC LIBRARY	NONPOTABLE	OAHU	EWA CAPROCK	0.00796	0.00796	0.00796	0.00796	0.00796	0.00796	0.00796	0.00796	9-1-16: 01
KAMAMALU BUILDING RENOVATIONS	POTABLE	OAHU	HONOLULU								0.00250	2-1-17:10
LILIHA CIVIC CENTER	POTABLE	OAHU	HONOLULU						0.01007	0.01007	0.01007	NR
LILIHA CIVIC CENTER	NONPOTABLE USING POTABLE	OAHU	HONOLULU						0.00893	0.00893	0.00893	NR
MANOA PUBLIC LIBRARY	POTABLE	OAHU	HONOLULU	0.00067	0.00067	0.00067	0.00067	0.00067	0.00067	0.00067	0.00067	NR
MANOA PUBLIC LIBRARY	NONPOTABLE USING POTABLE	OAHU	HONOLULU	0.00143	0.00143	0.00143	0.00143	0.00143	0.00143	0.00143	0.00143	NR
QUEEN LILIUOKALANI BLDG. EXPANSION	POTABLE	OAHU	HONOLULU			0.00160	0.00160	0.00160	0.00160	0.00160	0.00160	2-1-18:16
STATE CAPITOL ANNEX (REPLACE DOH BUILDING)	POTABLE	OAHU	HONOLULU						0.00750	0.00750	0.00750	2-1-18: 46
MILILANI MAUKA II ELEM SCH, FIRST INCREMENT	POTABLE	OAHU	PEARL HARBOR			0.05160	0.05160	0.05160	0.05160	0.05160	0.05160	
PEARL CITY HIGHLANDS ELEMENTARY SCHOOL, BUILDING E, SHOWER AND TOILET	POTABLE	OAHU	PEARL HARBOR	0.00005	0.00010	0.00010	0.00010	0.00010	0.00010	0.00010	0.00010	9-7-36:122
WAIPAHU ELEM SCH, DRAINAGE IMPROVEMENTS	POTABLE	OAHU	PEARL HARBOR	0.00160	0.00160	0.00160	0.00160	0.00160	0.00160	0.00160	0.00160	9-4-29:01
NANAKULI ELEM SCHOOL, 8-CLASSROOM BLDG.	POTABLE	OAHU	WAIANAE	0.00129	0.00258	0.00258	0.00258	0.00258	0.00258	0.00258	0.00258	8-9-7:9
NANAKULI PUBLIC LIBRARY	POTABLE	OAHU	WAIANAE						0.00151	0.00151	0.00151	NR
NANAKULI PUBLIC LIBRARY	NONPOTABLE USING POTABLE	OAHU	WAIANAE						0.00643	0.00643	0.00643	NR
KANEOHE CIVIC CENTER	POTABLE	OAHU	WINDWARD						0.00065	0.00065	0.00065	NR
KANEOHE CIVIC CENTER	NONPOTABLE USING POTABLE	OAHU	WINDWARD						0.00112	0.00112	0.00112	NR
KANEOHE DISTRICT COURT	POTABLE	OAHU	WINDWARD		0.00099	0.00099	0.00099	0.00099	0.00099	0.00099	0.00099	NR
KANEOHE DISTRICT COURT	NONPOTABLE USING POTABLE	OAHU	WINDWARD		0.00201	0.00201	0.00201	0.00201	0.00201	0.00201	0.00402	NR



STATE WATER PROJECTS PLAN  
PROJECTED WATER REQUIREMENTS BY ISLAND

PROJECT NAME	PRIMARY USE	ISLAND	SECTOR	YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								TMK
				02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD	
<b>SWPP Statewide Project Demand Total=</b>				<b>12.19</b>	<b>18.10</b>	<b>25.22</b>	<b>26.59</b>	<b>33.20</b>	<b>69.42</b>	<b>76.55</b>	<b>80.87</b>	
<b>PROJECT MANAGEMENT BRANCH</b>												
EWA ELEMENTARY SCHOOL ADMIN/LIBRARY RENOVATION CLASSROOM	POTABLE	OAHU	EWA CAPROCK	0.00672	0.00672	0.00672	0.00672	0.00672	0.00672	0.00672	0.00672	9-1-117:02,37
KAPOLEI SPORTS RECREATIONAL COMPLEX	POTABLE	OAHU	EWA CAPROCK	PROJECT DEMAND ACCOUNTED FOR BY EAST KAPOLEI PROJECT								9-1-016:108
KAPOLEI SPORTS RECREATIONAL COMPLEX	NONPOTABLE	OAHU	EWA CAPROCK	PROJECT DEMAND ACCOUNTED FOR BY EAST KAPOLEI PROJECT								9-1-016:108
ROYAL ELEM SCHOOL, ADMIN & LIB BLDG	POTABLE	OAHU	HONOLULU	0.00107	0.00107	0.00107	0.00107	0.00107	0.00107	0.00107	0.00107	2-1-20:01
SALT LAKE ELEM BILD E INTERIOR IMPROVMTS.	POTABLE	OAHU	HONOLULU	0.00100	0.00100	0.00100	0.00100	0.00100	0.00100	0.00100	0.00100	NR
AIEA PUBLIC LIBRARY	POTABLE	OAHU	PEARL HARBOR								0.00216	9-9-5:25
AIEA PUBLIC LIBRARY	NONPOTABLE USING POTABLE	OAHU	PEARL HARBOR								0.02484	9-9-5:25
NANAKULI HI RESTROOM FACILITY	POTABLE	OAHU	WAIANAE	0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	NR
HYCF MAINTENANCE BLDG & RENOVATION HOOKIPA COTTAGE	POTABLE	OAHU	WINDWARD	0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	NR
HYCF RENOVATION MAKAI HOOKIPA COTTAGE	POTABLE	OAHU	WINDWARD	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	NR
HYCF RENOVATION MALUHIA COTTAGE	POTABLE	OAHU	WINDWARD	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	NR
<b>DAGS SUBTOTAL=</b>				<b>0.09923</b>	<b>0.58073</b>	<b>0.63393</b>	<b>0.63393</b>	<b>0.63393</b>	<b>0.68389</b>	<b>0.68389</b>	<b>0.71639</b>	
<b>DEPARTMENT OF AGRICULTURE</b>												
BARBERS POINT AGRICULTURAL PARK	POTABLE	OAHU	PEARL HARBOR								0.15500	9-1-31:01 POR, 25,26,37 POR
FUTURE SUBDIVISION IN WAIKELE	NONPOTABLE	OAHU	PEARL HARBOR						5.50000	5.50000	5.50000	VARIOUS
ROYAL KUNIA AGRICULTURAL PARK	POTABLE	OAHU	PEARL HARBOR			0.00999	0.00999	0.00999	0.00999	0.00999	0.00999	9-4-02
ROYAL KUNIA AGRICULTURAL PARK	NONPOTABLE	OAHU	PEARL HARBOR			0.74997	0.74997	0.74997	0.74997	0.74997	0.74997	9-4-02
WAIMANALO IRRIGATION SYSTEM	NONPOTABLE	OAHU	WINDWARD	0.75000	1.00000	1.25000	1.25000	1.25000	1.25000	1.25000	1.25000	NR
<b>DOA SUBTOTAL=</b>				<b>0.75000</b>	<b>1.00000</b>	<b>2.00996</b>	<b>2.00996</b>	<b>2.00996</b>	<b>7.50996</b>	<b>7.50996</b>	<b>7.66496</b>	
<b>DEPARTMENT OF BUSINESS ECONOMIC DEVELOPMENT &amp; TOURISM</b>												
<b>ALOHA TOWER DEVELOPMENT CORPORATION</b>												
ALOHA TOWER DEVELOPMENT	POTABLE	OAHU	HONOLULU		0.09300	0.09300	0.09300	0.09300	0.13400	0.13400	0.13400	NR

STATE WATER PROJECTS PLAN  
PROJECTED WATER REQUIREMENTS BY ISLAND

PROJECT NAME	PRIMARY USE	ISLAND	SECTOR	YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								TMK
				02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD	
<b>SWPP Statewide Project Demand Total=</b>				<b>12.19</b>	<b>18.10</b>	<b>25.22</b>	<b>26.59</b>	<b>33.20</b>	<b>69.42</b>	<b>76.55</b>	<b>80.87</b>	
<b>BARBERS POINT NAVAL AIR STATION REDEVELOPMENT COMMISSION</b>												
KALAELOA COMMUNITY DEVELOPMENT DISTRICT (NONPOTABLE)	NONPOTABLE	OAHU	EWA CAPROCK						1.21	1.21	1.21	NR
KALAELOA COMMUNITY DEVELOPMENT DISTRICT (POTABLE)	POTABLE	OAHU	EWA CAPROCK						0.431	0.431	0.431	NR
<b>CONVENTION CENTER AUTHORITY</b>												
HAWAII CONVENTION CENTER	POTABLE	OAHU	HONOLULU	0.10000	0.15000	0.20000	0.25000	0.30000	0.30000	0.30000	0.30000	NR
<b>HAWAII COMMUNITY DEVELOPMENT AUTHORITY</b>												
BISHOP LEARNING SCIENCE CENTER	POTABLE	OAHU	HONOLULU				0.01000	0.01000	0.01000	0.01000	0.01000	2-1-60: 2
BISHOP LEARNING SCIENCE CENTER	NONPOTABLE USING POTABLE	OAHU	HONOLULU				0.00918	0.00918	0.00918	0.00918	0.00918	2-1-60: 2
COMMERCIAL PROJECT (LOT 1)	POTABLE	OAHU	HONOLULU				0.01385	0.01385	0.01385	0.01385	0.01385	2-1-15: POR. 9
COMMERCIAL PROJECT (LOT 1)	NONPOTABLE USING POTABLE	OAHU	HONOLULU				0.00420	0.00420	0.00420	0.00420	0.00420	2-1-15: POR. 9
COMMERCIAL PROJECT (LOT 2)	POTABLE	OAHU	HONOLULU				0.03593	0.03593	0.03593	0.03593	0.03593	2-1-15: POR. 9
COMMERCIAL PROJECT (LOT 2)	NONPOTABLE USING POTABLE	OAHU	HONOLULU				0.00440	0.00440	0.00440	0.00440	0.00440	2-1-15: POR. 9
HISTORIC PUMP STATION (LOT 5)	POTABLE	OAHU	HONOLULU			0.05273	0.05273	0.05273	0.05273	0.05273	0.05273	2-1-15: 43,44, POR. 9
HISTORIC PUMP STATION (LOT 5)	NONPOTABLE USING POTABLE	OAHU	HONOLULU			0.00328	0.00328	0.00328	0.00328	0.00328	0.00328	2-1-15: 43,44, POR. 9
JOHN A. BURNS SCHOOL OF MEDICINE	POTABLE	OAHU	HONOLULU					0.06360	0.06360	0.06360	0.06360	2-1-60: 9, 10
JOHN A. BURNS SCHOOL OF MEDICINE	NONPOTABLE USING POTABLE	OAHU	HONOLULU					0.01550	0.01550	0.01550	0.01550	2-1-60: 9, 10
KAKAAKO MAUKA PARK (QUEEN STREET)	NONPOTABLE USING POTABLE	OAHU	HONOLULU			0.00608	0.00608	0.00608	0.00608	0.00608	0.00608	2-3-07: 2
KAKAAKO WATERFRONT PARK IMPROVEMENTS	NONPOTABLE USING POTABLE	OAHU	HONOLULU				0.00916	0.00916	0.00916	0.00916	0.00916	2-1-60: POR 8, 3
KEWALO BASIN RETAIL/MARKET	POTABLE	OAHU	HONOLULU				0.02000	0.02000	0.02000	0.02000	0.02000	2-1-58: 1, 95
KEWALO BASIN RETAIL/MARKET	NONPOTABLE USING POTABLE	OAHU	HONOLULU				0.00916	0.00916	0.00916	0.00916	0.00916	2-1-58: 1, 95
PARKING STRUCTURE	NONPOTABLE USING POTABLE	OAHU	HONOLULU					0.00680	0.00680	0.00680	0.00680	2-1-60: 5, 6







STATE WATER PROJECTS PLAN  
PROJECTED WATER REQUIREMENTS BY ISLAND

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				02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD	
<b>SWPP Statewide Project Demand Total=</b>				<b>12.19</b>	<b>18.10</b>	<b>25.22</b>	<b>26.59</b>	<b>33.20</b>	<b>69.42</b>	<b>76.55</b>	<b>80.87</b>	
NANAKULI HIGH SCHOOL NEW 8 CLASSROOM	POTABLE	OAHU	WAIANAE			0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	8-9-007: 009
NANAKULI III ELEMENTARY 1ST INCREMENT	POTABLE	OAHU	WAIANAE			0.00660	0.00660	0.00660	0.00660	0.00660	0.00660	NEW
NANAKULI III ELEMENTARY 2ND INCREMENT	POTABLE	OAHU	WAIANAE			0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	NEW
<b>DEPARTMENT OF EDUCATION CONT.</b>												
NANAKULI IV ELEMENTARY 1ST & 2ND INCREMENT	POTABLE	OAHU	WAIANAE	0.06300	0.06300	0.06300	0.06300	0.06300	0.06300	0.06300	0.06300	NEW
WAIANAE HIGH SCHOOL NEW 8 CLASSROOM	POTABLE	OAHU	WAIANAE		0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	8-5-015: 001
WAIANAE HIGH SCHOOL NEW ADMINISTRATION	POTABLE	OAHU	WAIANAE			0.00067	0.00067	0.00067	0.00067	0.00067	0.00067	8-5-015: 001
WAIANAE HIGH SCHOOL NEW CAFETERIA	POTABLE	OAHU	WAIANAE			0.00735	0.00735	0.00735	0.00735	0.00735	0.00735	8-5-015: 001
WAIANAE INTER SCHOOL NEW 4 CLASSROOM	POTABLE	OAHU	WAIANAE			0.00720	0.00720	0.00720	0.00720	0.00720	0.00720	8-5-015: 001
CASTLE HIGH SCHOOL NEW CAFETERIA	POTABLE	OAHU	WINDWARD	0.00600	0.00600	0.00600	0.00600	0.00600	0.00600	0.00600	0.00600	4-5-034: 008
KAAWA ELEM NEW LIBRARY/ADMINISTRATION	POTABLE	OAHU	WINDWARD			0.00111	0.00111	0.00111	0.00111	0.00111	0.00111	5-1-002: 018
KAAWA ELEMENTARY NEW CAFETERIA	POTABLE	OAHU	WINDWARD			0.00054	0.00054	0.00054	0.00054	0.00054	0.00054	5-1-002: 018
KAELEPULU ELEM SCH, NEW ADMIN BLDG.	POTABLE	OAHU	WINDWARD						0.00045	0.00045	0.00045	4-2-90: 74
KAHUKU HIGH SCHOOL - ATHLETIC FIELD	NONPOTABLE USING POTABLE	OAHU	WINDWARD		0.03800	0.03800	0.03800	0.03800	0.03800	0.03800	0.03800	5-6-006:3,9,10,25
KAHUKU HIGH/INT SCH NEW PE LOCKR SHOWR	POTABLE	OAHU	WINDWARD			0.00065	0.00065	0.00065	0.00065	0.00065	0.00065	5-6-006: 003,009,010,025
KAHUKU HIGH/INTER SCHOOL NEW CAFETERIA	POTABLE	OAHU	WINDWARD			0.00660	0.00660	0.00660	0.00660	0.00660	0.00660	5-6-006: 003,009,010,025
KAHUKU HIGH/INTER SCHOOL NEW GYMNASIUM	POTABLE	OAHU	WINDWARD			0.00400	0.00400	0.00400	0.00400	0.00400	0.00400	5-6-006: 003,009,010,025
KAILUA ELEMENTARY LIBRARY EXPANSION	POTABLE	OAHU	WINDWARD			0.00066	0.00066	0.00066	0.00066	0.00066	0.00066	4-3-056: 003, 009
KAINALU ELEMENTARY NEW ADMINISTRATION	POTABLE	OAHU	WINDWARD			0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	4-3-076: 015
KANEHOE ELEMENTARY NEW ADMINISTRATION	POTABLE	OAHU	WINDWARD	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	4-5-103: 011
LAIIE ELEMENTARY NEW CAFETERIA	POTABLE	OAHU	WINDWARD		0.00261	0.00261	0.00261	0.00261	0.00261	0.00261	0.00261	5-5-015: 023,033
PUOHALA ELEMENTARY SCHOOL EXPANSION OF LIBRARY & ADMINISTRATION	POTABLE	OAHU	WINDWARD			0.00111	0.00111	0.00111	0.00111	0.00111	0.00111	4-5-30:38
<b>DOE SUBTOTAL=</b>				<b>0.33590</b>	<b>0.50601</b>	<b>1.01756</b>	<b>1.01801</b>	<b>1.01801</b>	<b>1.16846</b>	<b>1.16846</b>	<b>1.16846</b>	
<b>DEPARTMENT OF HAWAIIAN HOME LANDS</b>												
EAST KAPOLEI	POTABLE	OAHU	EWA CAPROCK	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000	
KALAWAHINE	POTABLE	OAHU	HONOLULU			0.04350	0.04350	0.04350	0.04350	0.04350	0.04350	2-4-34:08,POR09,11,22, 2-4-39:1,2, 2-4-40:1
KAPALAMA	POTABLE	OAHU	HONOLULU						0.10000	0.10000	0.10000	1-5-20:06

STATE WATER PROJECTS PLAN  
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				02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD	
<b>SWPP Statewide Project Demand Total=</b>				<b>12.19</b>	<b>18.10</b>	<b>25.22</b>	<b>26.59</b>	<b>33.20</b>	<b>69.42</b>	<b>76.55</b>	<b>80.87</b>	
MOILILI	POTABLE	OAHU	HONOLULU						0.10000	0.10000	0.10000	2-7-08: 18,20
MOOREIRA	POTABLE	OAHU	HONOLULU						0.01150	0.01150	0.01150	2-2-53:07
PROSPECT STREET	POTABLE	OAHU	HONOLULU						0.12000	0.12000	0.12000	2-2-05:POR 05
AGENA/PINE	POTABLE	OAHU	WAIANAE						0.02750	0.02750	0.02750	8-6-01: POR 01, 51, 52
<b>DEPARTMENT OF HAWAIIAN HOME LANDS CONT.</b>												
CAMP ANDREWS	POTABLE	OAHU	WAIANAE						0.07800	0.07800	0.07800	8-9-02: 01
CARLOS DAIRY	NONPOTABLE	OAHU	WAIANAE			0.03800	0.03800	0.03800	0.03800	0.03800	0.03800	8-5-04: 52,59,107
FREITAS DAIRY	POTABLE	OAHU	WAIANAE	0.01600	0.01600	0.01600	0.01600	0.01600	0.01600	0.01600	0.01600	8-5-04: 01, 41, POR 58
HANOHANO LOT	POTABLE	OAHU	WAIANAE			0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	8-9-04: 61
MAILILI ROAD	POTABLE	OAHU	WAIANAE						0.01500	0.01500	0.01500	8-6-01: POR 01
NANAKULI RESIDENCE, ULEI ST.	POTABLE	OAHU	WAIANAE	0.00800	0.00800	0.00800	0.00800	0.00800	0.00800	0.00800	0.00800	
NANAKULI SCATTERED LOTS	POTABLE	OAHU	WAIANAE	0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	
NANAKULI SCATTERED SUBDIVISIONS	POTABLE	OAHU	WAIANAE			0.00250	0.00250	0.00250	0.00250	0.00250	0.00250	8-9-02: 36,38, 8-9-03:2,63, 8-9-04: 78
PAHEEHEE RIDGE	POTABLE	OAHU	WAIANAE	0.00950	0.00950	0.00950	0.00950	0.00950	0.00950	0.00950	0.00950	
PRINCESS KAHANU	POTABLE	OAHU	WAIANAE						0.14030	0.14030	0.14030	8-7-07:04, 8-7-33:14, 8-7-42, 8-7-43
PUU MAILILI	POTABLE	OAHU	WAIANAE						0.05000	0.05000	0.05000	8-6-01: 24, 25, 26, 27, 28
TAAMU LOT	POTABLE	OAHU	WAIANAE			0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	8-9-02: 42
UPPER NANAKULI	POTABLE	OAHU	WAIANAE								0.42500	8-9-08: 03
VOICE OF AMERICA	POTABLE	OAHU	WAIANAE						0.25000	0.25000	0.25000	8-7-10: 07
WAIANAE LOTS 2A-2	POTABLE	OAHU	WAIANAE			0.03100	0.03100	0.03100	0.03100	0.03100	0.03100	8-5-04: 02
KUPUNA HOUSING	POTABLE	OAHU	WINDWARD			0.04320	0.04320	0.04320	0.04320	0.04320	0.04320	4-1-19: 32
SOUKASEN	POTABLE	OAHU	WINDWARD						0.02500	0.02500	0.02500	4-1-08:11, 4-1-23:65
UNIT 9	POTABLE	OAHU	WINDWARD						0.02650	0.02650	0.02650	4-1-08: POR 08, 4-1-37: 68,69
WAIHOLE SCATTERED LOTS	POTABLE	OAHU	WINDWARD						0.01100	0.01100	0.01100	NR
WAIMANALO SCATTERED LOTS	POTABLE	OAHU	WINDWARD	0.00250	0.00250	0.00250	0.00250	0.00250	0.00250	0.00250	0.00250	4-1-37: 58-60
WAIMANALO, RESIDENTIAL LOTS ALA KOA STREET	POTABLE	OAHU	WINDWARD			0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	4-1-37:35
<b>DHHL SUBTOTAL=</b>				<b>0.14100</b>	<b>0.14100</b>	<b>0.30070</b>	<b>0.30070</b>	<b>0.30070</b>	<b>1.25550</b>	<b>1.25550</b>	<b>1.68050</b>	

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				02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD	
<b>SWPP Statewide Project Demand Total=</b>				<b>12.19</b>	<b>18.10</b>	<b>25.22</b>	<b>26.59</b>	<b>33.20</b>	<b>69.42</b>	<b>76.55</b>	<b>80.87</b>	
<b>DEPARTMENT OF HEALTH</b>												
MALUHIA EXPANSION DAY HOSPITAL	POTABLE	OAHU	HONOLULU	0.00014	0.00014	0.00014	0.00014	0.00014	0.00014	0.00014	0.00014	NR
NEW VECTOR CONTROL BUILDING	POTABLE	OAHU	HONOLULU	0.00226	0.00226	0.00226	0.00226	0.00226	0.00226	0.00226	0.00226	9-9-10:34
RESIDENCE CHILDREN FACILITIES - OAHU	POTABLE	OAHU	PEARL HARBOR	0.00470	0.00470	0.00470	0.00470	0.00470	0.00470	0.00470	0.00470	9-7-25:01
<b>DOH SUBTOTAL=</b>				<b>0.00710</b>	<b>0.00710</b>	<b>0.00710</b>	<b>0.00710</b>	<b>0.00710</b>	<b>0.00710</b>	<b>0.00710</b>	<b>0.00710</b>	
<b>DEPARTMENT OF HUMAN SERVICES</b>												
HYCF VOCATIONAL TRNG/MAINTENANCE FAC	POTABLE	OAHU	WINDWARD	0.00380	0.00380	0.00380	0.00380	0.00380	0.00380	0.00380	0.00380	4-2-3:2
<b>DPS SUBTOTAL=</b>				<b>0.00380</b>	<b>0.00380</b>	<b>0.00380</b>	<b>0.00380</b>	<b>0.00380</b>	<b>0.00380</b>	<b>0.00380</b>	<b>0.00380</b>	
<b>DEPARTMENT OF LAND AND NATURAL RESOURCES</b>												
<b>BOATING AND OCEAN RECREATION DIVISION</b>												
ALA WAI BOAT HARBOR COMFORT STATION	POTABLE	OAHU	HONOLULU		0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	2-6-10,2-3-37,2-1-58
KEEHI BOAT HARBOR	POTABLE	OAHU	HONOLULU			0.01008	0.01008	0.01008	0.01008	0.01008	0.01008	1-2-23, 1-5-41
KEEHI BOAT HARBOR	NONPOTABLE USING POTABLE	OAHU	HONOLULU			0.00543	0.00543	0.00543	0.00543	0.00543	0.00543	1-2-23, 1-5-41
MAUNALUA BAY COMFORT STATION	POTABLE	OAHU	HONOLULU			0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	2-9-2,3,4,7,16,17,33
<b>STATE PARKS DIVISION</b>												
KUKANILOKO HEIAU (NEAR WHITMORE VILLAGE)	POTABLE	OAHU	CENTRAL			0.00003	0.00004	0.00050	0.00051	0.00051	0.00099	7-1-01:4,8
KUKANILOKO HEIAU (NEAR WHITMORE VILLAGE)	NONPOTABLE USING POTABLE	OAHU	CENTRAL	0.00028	0.00037	0.00502	0.00511	0.00511	0.01003	0.01003	0.01003	7-1-01:4,8
DIAMOND HEAD STATE MONUMENT	POTABLE	OAHU	HONOLULU	0.02087	0.02087	0.02087	0.02087	0.02087	0.02087	0.02087	0.02087	3-1-42, 3-1-35
DIAMOND HEAD STATE MONUMENT	NONPOTABLE	OAHU	HONOLULU	0.27733	0.27733	0.27733	0.27733	0.27733	0.27733	0.27733	0.27733	3-1-42, 3-1-35
KAIWI SP	POTABLE	OAHU	HONOLULU			0.00164	0.00219	0.00274	0.00329	0.00384	0.00548	3-9-11,2,3,5,6,7,4-01-14:1
KALIHI VALLEY SP	POTABLE	OAHU	HONOLULU			0.00019	0.00025	0.00031	0.00037	0.00043	0.00062	1-3-24:2
KUULEI CLIFFS	POTABLE	OAHU	HONOLULU					0.00003	0.00005	0.00094	0.00095	3-1-42
KUULEI CLIFFS	NONPOTABLE USING POTABLE	OAHU	HONOLULU	0.00027	0.00037	0.00758	0.00767	0.00776	0.00803	0.00803	0.00803	3-1-42
MAKALEI PLACE	POTABLE	OAHU	HONOLULU			0.00000	0.00000	0.00040	0.00040	0.00040	0.00081	3-1-42
MAKALEI PLACE	NONPOTABLE USING POTABLE	OAHU	HONOLULU			0.00018	0.00024	0.03990	0.03997	0.04003	0.07981	3-1-42
MAKIKI TANTALUS STATE PARK	POTABLE	OAHU	HONOLULU	0.00141	0.00187	0.00994	0.01041	0.01088	0.01229	0.01229	0.01229	2-5-19





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				02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD	
<b>SWPP Statewide Project Demand Total=</b>				<b>12.19</b>	<b>18.10</b>	<b>25.22</b>	<b>26.59</b>	<b>33.20</b>	<b>69.42</b>	<b>76.55</b>	<b>80.87</b>	
NEW 84-BED HOUSING	POTABLE	OAHU	WINDWARD	0.01260	0.01260	0.01260	0.01260	0.01260	0.01260	0.01260	0.01260	4-2-3:04
<b>DPS SUBTOTAL=</b>				<b>0.04260</b>	<b>0.04260</b>	<b>0.04260</b>	<b>0.04260</b>	<b>0.04260</b>	<b>0.04260</b>	<b>0.04260</b>	<b>0.04260</b>	
<b>DEPARTMENT OF TRANSPORTATION</b>												
<b>AIRPORTS DIVISION</b>												
HONOLULU INTERNATIONAL AIRPORT	POTABLE	OAHU	HONOLULU						0.10000	0.10000	0.10000	1-1-03
DILLINGHAM FIELD - MOKULEIA	POTABLE	OAHU	NORTH	0.00200	0.00300	0.00400	0.00500	0.00600	0.01500	0.02500	0.03500	6-8-02
<b>HARBORS DIVISION</b>												
OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: DRY BULK CARGO YARD	POTABLE	OAHU	EWA CAPROCK		0.11000	0.11000	0.11000	0.11000	0.11000	0.11000	0.11000	9-1-14
OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: PETROLEUM PIER	POTABLE	OAHU	EWA CAPROCK					0.02000	0.02000	0.02000	0.02000	9-1-14
OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: SHIPYARD	POTABLE	OAHU	EWA CAPROCK				0.09000	0.09000	0.09000	0.09000	0.09000	9-1-14
OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: COMMERCIAL FISHING BERTHS	POTABLE	OAHU	HONOLULU					0.00003	0.00003	0.00003	0.00003	2-1-01
OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: EXCURSION VESSEL & FERRY TERMINAL	POTABLE	OAHU	HONOLULU		0.07000	0.07000	0.07000	0.07000	0.07000	0.07000	0.07000	1-5-38
OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: FOREIGN FISHING & OIL RESPONSE LAY BERTHS	POTABLE	OAHU	HONOLULU					0.00003	0.00003	0.00003	0.00003	1-1-76
OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: GENERAL/NEOBULK CARGO YARD	POTABLE	OAHU	HONOLULU		0.04000	0.08000	0.08000	0.08000	0.08000	0.08000	0.08000	1-5-36
OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: KAPALAMA MILITARY RESER.CONTAINER YD	POTABLE	OAHU	HONOLULU						0.27000	0.27000	0.27000	1-2-25
OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: KEEHI INDUSTRIAL PARK ASSOCIATION	POTABLE	OAHU	HONOLULU					0.05000	0.05000	0.05000	0.05000	1-2-23
OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: PASSENGER TERMINAL	POTABLE	OAHU	HONOLULU			0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	2-1-15
OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: PASSENGER TERMINAL & GENERAL CARGO YARD	POTABLE	OAHU	HONOLULU		0.03000	0.03000	0.06000	0.06000	0.06000	0.06000	0.06000	1-5-39
<b>HIGHWAYS DIVISION</b>												
NORTH-SOUTH ROAD KAPOLEI PARKWAY TO FARRINGTON HWY, PHASE 1	NONPOTABLE USING POTABLE	OAHU	EWA CAPROCK						0.04500	0.01140	0.01140	NR
NORTH-SOUTH ROAD, FARRINGTON HIGHWAY TO INTERSTATE RTE. H-1, PHASE 2	NONPOTABLE USING POTABLE	OAHU	EWA CAPROCK				0.24000	0.24000	0.06000	0.06000	0.06000	NR
PUULOA ROAD IMPROVEMENTS, KAMEHAMEHA HWY TO SALT LAKE BLVD (LANDSCAPING)	NONPOTABLE USING POTABLE	OAHU	HONOLULU			0.02400	0.02400	0.00600	0.00600	0.00600	0.00600	NR
FARRINGTON HWY IMPROVEMENTS, WAIPAHU DEPOT ROAD TO ANIANI STREET	NONPOTABLE USING POTABLE	OAHU	PEARL HARBOR				0.01600	0.01600	0.00400	0.00400	0.00400	9-4-01.10.11.14.25
FARRINGTON HWY MEDIAL STRIP, KAMEHAMEHA HWY TO FORT WEAVER ROAD	NONPOTABLE USING POTABLE	OAHU	PEARL HARBOR		0.06000	0.06000	0.06000	0.03000	0.03000	0.03000	0.03000	NR
ROUTE H3, HALAWA INTERCHANGE FINISH CONTRACT, UNIT VII	NONPOTABLE USING POTABLE	OAHU	PEARL HARBOR		0.00650	0.00325	0.00650	0.00325	0.00325	0.00325	0.00325	NR

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				02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD		
		SWPP Statewide Project Demand Total=		12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87		
KAHEKILI HWY	NONPOTABLE USING POTABLE	OAHU	WINDWARD		0.05400	0.01350	0.01350	0.01350	0.01350	0.01350	0.01350	0.01350	NR
			DOT SUBTOTAL=	0.00200	0.37350	0.45475	0.83500	0.85481	1.08681	1.06321	1.07321		



STATE WATER PROJECTS PLAN  
PROJECTED WATER REQUIREMENTS BY ISLAND

PROJECT NAME	PRIMARY USE	ISLAND	SECTOR	YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								TMK
				02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD	
<b>SWPP Statewide Project Demand Total=</b>				<b>12.19</b>	<b>18.10</b>	<b>25.22</b>	<b>26.59</b>	<b>33.20</b>	<b>69.42</b>	<b>76.55</b>	<b>80.87</b>	
LEEWARD COMMUNITY COLLEGE - BUILDING L SOCIAL SCIENCES	POTABLE	OAHU	PEARL HARBOR						0.01604	0.01604	0.01604	9-6-003-048
<b>UNIVERSITY OF HAWAII CONT.</b>												
LEEWARD COMMUNITY COLLEGE - BUILDING L SOCIAL SCIENCES	NONPOTABLE USING POTABLE	OAHU	PEARL HARBOR						0.00016	0.00016	0.00016	9-6-003-048
LEEWARD COMMUNITY COLLEGE - NAO PRKG LOT	NONPOTABLE USING POTABLE	OAHU	PEARL HARBOR						0.00200	0.00200	0.00200	9-6-003-048
LEEWARD COMMUNITY COLLEGE, FOOD SERVICES PROGRAM RENOVATION	POTABLE	OAHU	PEARL HARBOR			0.00088	0.00088	0.00088	0.00088	0.00088	0.00088	9-6-003: 048
PEARL CITY URBAN GARDEN CENTER	NONPOTABLE USING POTABLE	OAHU	PEARL HARBOR	0.02000	0.02000	0.02000	0.02000	0.02000	0.02000	0.02000	0.02000	9-7-23:3
UNIVERSITY OF HAWAII AT MANOA, WAIMANALO, FOOD AND AGRICULTURE INNOVATION CENTER	POTABLE	OAHU	WINDWARD	0.01500	0.09000	0.18500	0.18500	0.18500	0.18500	0.18500	0.18500	4-1-08: 80, PORTION OF 5, PORTION OF 74
UNIVERSITY OF HAWAII AT MANOA, WAIMANALO, FOOD AND AGRICULTURE INNOVATION CENTER	NONPOTABLE USING POTABLE	OAHU	WINDWARD	0.08800	0.51000	1.05000	1.05000	1.05000	1.05000	1.05000	1.05000	4-1-08: 80, PORTION OF 5, PORTION OF 74
WINDWARD COMMUNITY COLLEGE - BUILDING D CAMPUS CENTER	POTABLE	OAHU	WINDWARD		0.05961	0.05961	0.05961	0.05961	0.05961	0.05961	0.05961	NR
WINDWARD COMMUNITY COLLEGE - BUILDING D CAMPUS CENTER	NONPOTABLE USING POTABLE	OAHU	WINDWARD		0.00381	0.00381	0.00381	0.00381	0.00381	0.00381	0.00381	NR
WINDWARD COMMUNITY COLLEGE - BUILDING H, LEARNING RESOURCE CENTER	POTABLE	OAHU	WINDWARD				0.00482	0.00482	0.00482	0.00482	0.00482	NR
WINDWARD COMMUNITY COLLEGE - BUILDING H, LEARNING RESOURCE CENTER	NONPOTABLE USING POTABLE	OAHU	WINDWARD				0.00054	0.00054	0.00054	0.00054	0.00054	NR
WINDWARD COMMUNITY COLLEGE - BUILDING J HUMANITIES	POTABLE	OAHU	WINDWARD	0.05815	0.05815	0.05815	0.05815	0.05815	0.05815	0.05815	0.05874	NR
WINDWARD COMMUNITY COLLEGE - BUILDING J HUMANITIES	NONPOTABLE USING POTABLE	OAHU	WINDWARD	0.00059	0.00059	0.00059	0.00059	0.00059	0.00059	0.00059	0.00059	NR
WINDWARD COMMUNITY COLLEGE - BUILDING K-1, MULTI-MEDIA FACILITY	POTABLE	OAHU	WINDWARD	0.00479	0.00479	0.00479	0.00479	0.00479	0.00479	0.00479	0.00479	4-5-23: 2
WINDWARD COMMUNITY COLLEGE - BUILDING K-1, MULTI-MEDIA FACILITY	NONPOTABLE USING POTABLE	OAHU	WINDWARD	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	4-5-23: 2
WINDWARD COMMUNITY COLLEGE - PARKING LOT @ KUHINA	NONPOTABLE USING POTABLE	OAHU	WINDWARD				0.00160	0.00160	0.00160	0.00160	0.00160	4-5-023:002
WINDWARD COMMUNITY COLLEGE - SCIEN ANNEX	POTABLE	OAHU	WINDWARD	0.00360	0.00360	0.00360	0.00360	0.00360	0.00360	0.00360	0.00360	4-5-23:2
<b>UH SUBTOTAL=</b>				<b>0.24043</b>	<b>0.80085</b>	<b>1.47003</b>	<b>1.49376</b>	<b>1.52226</b>	<b>2.31002</b>	<b>2.69912</b>	<b>3.07661</b>	

**APPENDIX D**  
**SWPP DEMAND TABLE BY AQUIFER**

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STATE WATER PROJECTS PLAN  
PROJECTED WATER REQUIREMENTS BY AQUIFER SECTOR/SYSTEM

PROJECT NAME	PRIMARY USE	ISLAND	SECTOR	AQUIFER SYSTEM	02001		02002		02003		02004		02005		02010		02015		02020		TMK	
					MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD		
<b>SWPP Statewide Project Demand Total=</b>					<b>12.19</b>	<b>18.10</b>	<b>25.22</b>	<b>26.59</b>	<b>33.20</b>	<b>69.42</b>	<b>76.55</b>	<b>80.87</b>										
<b>ISLAND OF OAHU</b>																						
<b>HYDROLOGICAL SECTOR = CENTRAL 305</b>					<b>SECTOR 305 TOTAL=</b>		<b>0.00094</b>	<b>0.01543</b>	<b>0.02194</b>	<b>0.02204</b>	<b>0.02250</b>	<b>0.04118</b>	<b>0.04118</b>	<b>0.04118</b>	<b>0.04167</b>							
WAHIAWA CIVIC CENTER	POTABLE	OAHU	CENTRAL	WAHIAWA									0.00949	0.00949	0.00949	7-4-06:12						
WAHIAWA CIVIC CENTER	NONPOTABLE USING POTABLE	OAHU	CENTRAL	WAHIAWA									0.00426	0.00426	0.00426	7-4-06:12						
HALE KULA ELEMENTARY NEW ADMINISTRATION	POTABLE	OAHU	CENTRAL	WAHIAWA			0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	7-7-001: 003						
HALE KULA ELEMENTARY NEW LIBRARY	POTABLE	OAHU	CENTRAL	WAHIAWA			0.00066	0.00066	0.00066	0.00066	0.00066	0.00066	0.00066	0.00066	0.00066	7-7-001: 003						
HELEMANO ELEMENTARY NEW LIBRARY	POTABLE	OAHU	CENTRAL	WAHIAWA	0.00066	0.00066	0.00066	0.00066	0.00066	0.00066	0.00066	0.00066	0.00066	0.00066	0.00066	7-1-002: 017						
LEILEHUA HIGH SCHOOL NEW 8 CLASSROOM	POTABLE	OAHU	CENTRAL	WAHIAWA		0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	7-4-018: 001						
WHEELER ELEMENTARY 8-CLASSROOM BUILDING	POTABLE	OAHU	CENTRAL	WAHIAWA			0.00072	0.00072	0.00072	0.00072	0.00072	0.00072	0.00072	0.00072	0.00072	7-7-01:02						
KUKANILOKO HEIAU (NEAR WHITMORE VILLAGE)	POTABLE	OAHU	CENTRAL	WAHIAWA			0.00003	0.00004	0.00050	0.00051	0.00051	0.00051	0.00051	0.00051	0.00051	7-1-01:4,8						
KUKANILOKO HEIAU (NEAR WHITMORE VILLAGE)	NONPOTABLE USING POTABLE	OAHU	CENTRAL	WAHIAWA	0.00028	0.00037	0.00502	0.00511	0.00511	0.01003	0.01003	0.01003	0.01003	0.01003	0.01003	7-1-01:4,8						
<b>AQUIFER SECTOR = WAHIAWA 30501</b>					<b>0.00094</b>	<b>0.01543</b>	<b>0.02194</b>	<b>0.02204</b>	<b>0.02250</b>	<b>0.04118</b>	<b>0.04118</b>	<b>0.04118</b>	<b>0.04167</b>									
<b>HYDROLOGICAL SECTOR = EWA CAPROCK 302</b>																						
<b>SECTOR 302 TOTAL=</b>					<b>0.95877</b>	<b>1.78693</b>	<b>2.12273</b>	<b>2.46910</b>	<b>2.56410</b>	<b>5.36510</b>	<b>7.62060</b>	<b>9.40450</b>										
EWA ELEMENTARY SCHOOL ADMIN/LIBRARY RENOVATION CLASSROOM	POTABLE	OAHU	EWA CAPROCK	KAPOLEI	0.00672	0.00672	0.00672	0.00672	0.00672	0.00672	0.00672	0.00672	0.00672	0.00672	0.00672	9-1-117:02,37						
KAPOLEI SPORTS RECREATIONAL COMPLEX	POTABLE	OAHU	EWA CAPROCK	KAPOLEI	PROJECT DEMAND ACCOUNTED FOR BY EAST KAPOLEI PROJECT																	
KAPOLEI SPORTS RECREATIONAL COMPLEX	NONPOTABLE	OAHU	EWA CAPROCK	KAPOLEI	PROJECT DEMAND ACCOUNTED FOR BY EAST KAPOLEI PROJECT																	
KAPOLEI CIVIC CENTER, STATE OFC BLDG NO.2	POTABLE	OAHU	EWA CAPROCK	KAPOLEI		0.44240	0.44240	0.44240	0.44240	0.44240	0.44240	0.44240	0.44240	0.44240	0.44240	9-1-016:108						
KAPOLEI CIVIC CENTER, STATE OFC BLDG NO.2	NONPOTABLE USING POTABLE	OAHU	EWA CAPROCK	KAPOLEI		0.03476	0.03476	0.03476	0.03476	0.03476	0.03476	0.03476	0.03476	0.03476	0.03476	POR.49,52,53,54,97,106,117; 9-1-88: 1 POR. 2-11.13						
KAPOLEI CIVIC CENTER, STATE OFC BLDG NO.2	POTABLE	OAHU	EWA CAPROCK	KAPOLEI		0.03476	0.03476	0.03476	0.03476	0.03476	0.03476	0.03476	0.03476	0.03476	0.03476	POR.49,52,53,54,97,106,117; 9-1-88: 1POR. 2-11.13						
KAPOLEI PUBLIC LIBRARY	POTABLE	OAHU	EWA CAPROCK	KAPOLEI	0.01244	0.01244	0.01244	0.01244	0.01244	0.01244	0.01244	0.01244	0.01244	0.01244	0.01244	9-1-16: 01						
KAPOLEI PUBLIC LIBRARY	NONPOTABLE	OAHU	EWA CAPROCK	KAPOLEI	0.00796	0.00796	0.00796	0.00796	0.00796	0.00796	0.00796	0.00796	0.00796	0.00796	0.00796	9-1-16: 01						
EAST KAPOLEI	POTABLE	OAHU	EWA CAPROCK	KAPOLEI						0.07500	0.47500	2.39900	3.81300	9-1-16:108,109								
VILLAGES OF KAPOLEI	POTABLE	OAHU	EWA CAPROCK	KAPOLEI		0.19300	0.51800	0.53000	0.53000	0.68000	0.68000	0.68000	0.68000	9-1-16:23,25								
KALAELOA TRAINING FACILITY/ARMORY	POTABLE	OAHU	EWA CAPROCK	KAPOLEI	0.71710	0.71710	0.71710	0.71710	0.71710	0.71710	0.71710	0.71710	0.71710	NR								
KALAELOA TRAINING FACILITY/ARMORY	NONPOTABLE USING POTABLE	OAHU	EWA CAPROCK	KAPOLEI	0.01050	0.01050	0.01050	0.01050	0.01050	0.01050	0.01050	0.01050	0.01050	NR								
EAST KAPOLEI ELEMENTARY SCHOOL NEW SCH	POTABLE	OAHU	EWA CAPROCK	KAPOLEI	PROJECT DEMAND ACCOUNTED FOR BY EAST KAPOLEI PROJECT																	
EAST KAPOLEI HIGH SCHOOL	POTABLE	OAHU	EWA CAPROCK	KAPOLEI						0.06000	0.06000	0.06000	NR									
EAST KAPOLEI MIDDLE SCHOOL	POTABLE	OAHU	EWA CAPROCK	KAPOLEI	PROJECT DEMAND ACCOUNTED FOR BY EAST KAPOLEI PROJECT																	
KAPOLEI HIGH SCHOOL 1ST INCREMENT	POTABLE	OAHU	EWA CAPROCK	KAPOLEI	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	NEW						
KAPOLEI HIGH SCHOOL 2ND INCREMENT	POTABLE	OAHU	EWA CAPROCK	KAPOLEI	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	NEW						
KAPOLEI HIGH SCHOOL 3RD INCREMENT	POTABLE	OAHU	EWA CAPROCK	KAPOLEI		0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	NEW						

STATE WATER PROJECTS PLAN  
PROJECTED WATER REQUIREMENTS BY AQUIFER SECTOR/SYSTEM

PROJECT NAME	PRIMARY USE	ISLAND	SECTOR	AQUIFER SYSTEM	02001	02002	02003	02004	02005	02010	02015	02020	TMK
					MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	
<b>SWPP Statewide Project Demand Total=</b>					<b>12.19</b>	<b>18.10</b>	<b>25.22</b>	<b>26.59</b>	<b>33.20</b>	<b>69.42</b>	<b>76.55</b>	<b>80.87</b>	
EAST KAPOLEI	POTABLE	OAHU	EWA CAPROCK	KAPOLEI	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000	0.10000	
NORTH-SOUTH ROAD KAPOLEI PARKWAY TO FARRINGTON HWY, PHASE 1	NONPOTABLE USING POTABLE	OAHU	EWA CAPROCK	KAPOLEI						0.04500	0.01140	0.01140	NR
NORTH-SOUTH ROAD, FARRINGTON HIGHWAY TO INTERSTATE RTE. H-1, PHASE 2	NONPOTABLE USING POTABLE	OAHU	EWA CAPROCK	KAPOLEI				0.24000	0.24000	0.06000	0.06000	0.06000	NR
UNIVERSITY OF HAWAII - WEST OAHU CAMPUS	POTABLE	OAHU	EWA CAPROCK	KAPOLEI						0.32880	0.50400	0.68160	9-2-02:01,03,05
UNIVERSITY OF HAWAII - WEST OAHU CAMPUS	NONPOTABLE	OAHU	EWA CAPROCK	KAPOLEI						0.35620	0.54610	0.73840	9-2-02:01,03,05
<b>AQUIFER SECTOR = KAPOLEI 30208</b>					<b>0.95072</b>	<b>1.66888</b>	<b>1.99388</b>	<b>2.24588</b>	<b>2.32088</b>	<b>3.48088</b>	<b>5.73638</b>	<b>7.52028</b>	
KALAELOA COMMUNITY DEVELOPMENT DISTRICT (NONPOTABLE)	NONPOTABLE	OAHU	EWA CAPROCK	MALAKOLE						1.21	1.21	1.21	NR
KALAELOA COMMUNITY DEVELOPMENT DISTRICT (POTABLE)	POTABLE	OAHU	EWA CAPROCK	MALAKOLE						0.431	0.431	0.431	NR
OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: DRY BULK CARGO YARD	POTABLE	OAHU	EWA CAPROCK	MALAKOLE		0.11000	0.11000	0.11000	0.11000	0.11000	0.11000	0.11000	9-1-14
OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: PETROLEUM PIER	POTABLE	OAHU	EWA CAPROCK	MALAKOLE					0.02000	0.02000	0.02000	0.02000	9-1-14
OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: SHIPYARD	POTABLE	OAHU	EWA CAPROCK	MALAKOLE				0.09000	0.09000	0.09000	0.09000	0.09000	9-1-14
HANGER 111 (EXISTING)	POTABLE	OAHU	EWA CAPROCK	MALAKOLE	0.00805	0.00805	0.00805	0.00805	0.00805	0.00805	0.00805	0.00805	NR
RENOVATE BARRACK, BLDG. 36	POTABLE	OAHU	EWA CAPROCK	MALAKOLE				0.00432	0.00432	0.00432	0.00432	0.00432	NR
RENOVATE BARRACK, BLDG. 36	NONPOTABLE USING POTABLE	OAHU	EWA CAPROCK	MALAKOLE				0.00005	0.00005	0.00005	0.00005	0.00005	NR
<b>AQUIFER SECTOR = MALAKOLE 30207</b>					<b>0.00805</b>	<b>0.11805</b>	<b>0.11805</b>	<b>0.21242</b>	<b>0.23242</b>	<b>1.87342</b>	<b>1.87342</b>	<b>1.87342</b>	
EWA BEACH ELEMENTARY NEW 6 CLASSROOM	POTABLE	OAHU	EWA CAPROCK	PUULOA			0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	9-1-012: 019
<b>AQUIFER SECTOR = PUULOA 30209</b>					<b>0.00000</b>	<b>0.00000</b>	<b>0.01080</b>	<b>0.01080</b>	<b>0.01080</b>	<b>0.01080</b>	<b>0.01080</b>	<b>0.01080</b>	
<b>HYDROLOGICAL SECTOR = HONOLULU 301</b>													
<b>SECTOR 301 TOTAL=</b>					<b>0.53834</b>	<b>0.83661</b>	<b>1.51421</b>	<b>1.72502</b>	<b>2.02403</b>	<b>3.02133</b>	<b>3.04689</b>	<b>3.09841</b>	
CIVIC CENTER RENTAL HOUSING	POTABLE	OAHU	HONOLULU	KALIHI	0.05490	0.05490	0.05490	0.05490	0.05490	0.05490	0.05490	0.05490	1-5-7:1
ELDERLY RESIDENTIAL COMPLEX AT IWILEI	POTABLE	OAHU	HONOLULU	KALIHI					0.05100	0.05100	0.05100	0.05100	7-1,2,14,15,18,66,67,69,71,74,75,78-84
ELDERLY RESIDENTIAL COMPLEX AT IWILEI	POTABLE	OAHU	HONOLULU	KALIHI					0.00900	0.00900	0.00900	0.00900	7-1,2,14,15,18,66,67,69,71,74,75,78-84
KAM HOMES ELDERLY	POTABLE	OAHU	HONOLULU	KALIHI						0.02250	0.02250	0.02250	NR
KUHIIO PARK TERRACE COMMUNITY PARK CTR	POTABLE	OAHU	HONOLULU	KALIHI	0.00458	0.00458	0.00458	0.00458	0.00458	0.00458	0.00458	0.00458	1-3-39:01
ALOHA TOWER DEVELOPMENT	POTABLE	OAHU	HONOLULU	KALIHI		0.09300	0.09300	0.09300	0.09300	0.13400	0.13400	0.13400	NR
KALAKAUA MIDDLE SCHOOL - RENOVATE BLDGS G & H 3 CLASSROOM	POTABLE	OAHU	HONOLULU	KALIHI		0.00064	0.00064	0.00064	0.00064	0.00064	0.00064	0.00064	1-5-24: 29,40; 1-5-25: 1,2
KAULUWELA ELEMENTARY - NEW CAFETERIA	POTABLE	OAHU	HONOLULU	KALIHI		0.00173	0.00173	0.00173	0.00173	0.00173	0.00173	0.00173	1-7-023: 41,42
LINAPUNI ELEM SCH NEW ADMIN BUILDING	POTABLE	OAHU	HONOLULU	KALIHI			0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	1-3-39:5
KAPALAMA	POTABLE	OAHU	HONOLULU	KALIHI						0.10000	0.10000	0.10000	1-5-20:06
KALIHI VALLEY SP	POTABLE	OAHU	HONOLULU	KALIHI			0.00019	0.00025	0.00031	0.00037	0.00043	0.00062	1-3-24:2
SAND ISLAND SRA	POTABLE	OAHU	HONOLULU	KALIHI	0.00001	0.00001	0.00241	0.00242	0.00242	0.00243	0.00243	0.00243	1-5-41:6





STATE WATER PROJECTS PLAN  
PROJECTED WATER REQUIREMENTS BY AQUIFER SECTOR/SYSTEM

PROJECT NAME	PRIMARY USE	ISLAND	SECTOR	AQUIFER SYSTEM	SWPP Statewide Project Demand Total=										TMK
					02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD			
					12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87			
COMMERCIAL PROJECT (LOT 1)	NONPOTABLE USING POTABLE	OAHU	HONOLULU	NUUANU				0.00420	0.00420	0.00420	0.00420	0.00420	2-1-15: POR. 9		
COMMERCIAL PROJECT (LOT 2)	POTABLE	OAHU	HONOLULU	NUUANU				0.03593	0.03593	0.03593	0.03593	0.03593	2-1-15: POR. 9		
COMMERCIAL PROJECT (LOT 2)	NONPOTABLE USING POTABLE	OAHU	HONOLULU	NUUANU				0.00440	0.00440	0.00440	0.00440	0.00440	2-1-15: POR. 9		
HISTORIC PUMP STATION (LOT 5)	POTABLE	OAHU	HONOLULU	NUUANU			0.05273	0.05273	0.05273	0.05273	0.05273	0.05273	2-1-15: 43,44, POR. 9		
HISTORIC PUMP STATION (LOT 5)	NONPOTABLE USING POTABLE	OAHU	HONOLULU	NUUANU			0.00328	0.00328	0.00328	0.00328	0.00328	0.00328	2-1-15: 43,44, POR. 9		
JOHN A. BURNS SCHOOL OF MEDICINE	POTABLE	OAHU	HONOLULU	NUUANU					0.06360	0.06360	0.06360	0.06360	2-1-60: 9, 10		
JOHN A. BURNS SCHOOL OF MEDICINE	NONPOTABLE USING POTABLE	OAHU	HONOLULU	NUUANU					0.01550	0.01550	0.01550	0.01550	2-1-60: 9, 10		
KAKAAKO MAUKA PARK (QUEEN STREET)	NONPOTABLE USING POTABLE	OAHU	HONOLULU	NUUANU			0.00608	0.00608	0.00608	0.00608	0.00608	0.00608	2-3-07: 2		
KAKAAKO WATERFRONT PARK IMPROVEMENTS	NONPOTABLE USING POTABLE	OAHU	HONOLULU	NUUANU				0.00916	0.00916	0.00916	0.00916	0.00916	2-1-60: POR 8, 3		
KEWALO BASIN RETAIL/MARKET	POTABLE	OAHU	HONOLULU	NUUANU				0.02000	0.02000	0.02000	0.02000	0.02000	2-1-58: 1, 95		
KEWALO BASIN RETAIL/MARKET	NONPOTABLE USING POTABLE	OAHU	HONOLULU	NUUANU				0.00916	0.00916	0.00916	0.00916	0.00916	2-1-58: 1, 95		
PARKING STRUCTURE	NONPOTABLE USING POTABLE	OAHU	HONOLULU	NUUANU					0.00680	0.00680	0.00680	0.00680	2-1-60: 5, 6		
CENTRAL INTER - RENOV BLDG A PH 1 15 CLSRM	POTABLE	OAHU	HONOLULU	NUUANU		0.00166	0.00166	0.00166	0.00166	0.00166	0.00166	0.00166	2-1-005:1, 2, 2-1-009: 1,2,3		
CENTRAL INTER - RENOV BLDG C 16 CLASSROOM	POTABLE	OAHU	HONOLULU	NUUANU		0.00215	0.00215	0.00215	0.00215	0.00215	0.00215	0.00215	2-1-005:1, 2, 2-1-009: 1,2,3		
CENTRAL MIDDLE SCH - RENOVATE CAFETERIA	POTABLE	OAHU	HONOLULU	NUUANU		0.00225	0.00225	0.00225	0.00225	0.00225	0.00225	0.00225	2-1-005:1, 2, 2-1-009: 1,2,3		
KAKAAKO ELEM 1ST AND 2ND INCREMENTS	POTABLE	OAHU	HONOLULU	NUUANU			0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	NEW		
KAULUWELA ELEMENTARY 6 CLASSROOM BLDG	POTABLE	OAHU	HONOLULU	NUUANU			0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	1-7-23:41, 1-7-22:15		
McKINLEY HIGH SCHOOL - RENOVATE INDUSTRIAL ARTS EDUC BLDG 6 CLASSROOM	POTABLE	OAHU	HONOLULU	NUUANU	0.00190	0.00190	0.00190	0.00190	0.00190	0.00190	0.00190	0.00190	2-3-009: 001		
ROOSEVELT HIGH SCHOOL - RENOVATE BLDG A PHASE 1: ADMIN, LIB., CAFÉ., 43 CLASSROOM	POTABLE	OAHU	HONOLULU	NUUANU	0.00804	0.00804	0.00804	0.00804	0.00804	0.00804	0.00804	0.00804	2-4-34:08, POR09,11,22, 2-4-39:1,2, 2-4-40:1		
KALAWAHINE	POTABLE	OAHU	HONOLULU	NUUANU			0.04350	0.04350	0.04350	0.04350	0.04350	0.04350	2-4-34:08, POR09,11,22, 2-4-39:1,2, 2-4-40:1		
MOOREIRA	POTABLE	OAHU	HONOLULU	NUUANU						0.01150	0.01150	0.01150	2-2-53:07		
PROSPECT STREET	POTABLE	OAHU	HONOLULU	NUUANU						0.12000	0.12000	0.12000	2-2-05:POR 05		
MALUHIA EXPANSION DAY HOSPITAL	POTABLE	OAHU	HONOLULU	NUUANU	0.00014	0.00014	0.00014	0.00014	0.00014	0.00014	0.00014	0.00014	NR		
MAKIKI TANTALUS STATE PARK	POTABLE	OAHU	HONOLULU	NUUANU	0.00141	0.00187	0.00994	0.01041	0.01088	0.01229	0.01229	0.01229	2-5-19		
MAKIKI TANTALUS STATE PARK	NONPOTABLE USING POTABLE	OAHU	HONOLULU	NUUANU	0.00229	0.00306	0.01622	0.01699	0.01775	0.02004	0.02004	0.02004	2-5-19		
ROYAL MAUSOLEUM SM	POTABLE	OAHU	HONOLULU	NUUANU	0.00014	0.00019	0.00024	0.00029	0.00034	0.00048	0.00048	0.00048	2-2-20:14, 2-2-21:7,12		
WASHINGTON PLACE	POTABLE	OAHU	HONOLULU	NUUANU	0.00062	0.00082	0.00103	0.00123	0.00144	0.00206	0.00206	0.00206	2-1-18:46		
ALA WAI BOAT HARBOR COMFORT STATION	POTABLE	OAHU	HONOLULU	NUUANU		0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	2-6-10,2-3-37,2-1-58		
OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: COMMERCIAL FISHING BERTHS	POTABLE	OAHU	HONOLULU	NUUANU					0.00003	0.00003	0.00003	0.00003	2-1-01		
OAHU COMMERCIAL HARBORS 2020 MASTER PLAN: PASSENGER TERMINAL	POTABLE	OAHU	HONOLULU	NUUANU			0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	2-1-15		
UNIVERSITY OF HAWAII AT MANOA, SCHOOL OF MEDICINE AND CANCER RESEARCH CENTER	POTABLE	OAHU	HONOLULU	NUUANU				0.00900	0.01800	0.03600	0.03600	0.03600	2-1-60: 9 & 10		

STATE WATER PROJECTS PLAN  
PROJECTED WATER REQUIREMENTS BY AQUIFER SECTOR/SYSTEM

PROJECT NAME	PRIMARY USE	ISLAND	SECTOR	AQUIFER SYSTEM	02001	02002	02003	02004	02005	02010	02015	02020	TMK
					MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	
SWPP Statewide Project Demand Total=					12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
UNIVERSITY OF HAWAII AT MANOA, SCHOOL OF MEDICINE AND CANCER RESEARCH CENTER	NONPOTABLE USING POTABLE	OAHU	HONOLULU	NUUANU				0.00100	0.00200	0.00400	0.00400	0.00400	2-1-60: 9 & 10
<b>AQUIFER SECTOR = NUUANU 30102</b>					<b>0.03201</b>	<b>0.04455</b>	<b>0.30403</b>	<b>0.43140</b>	<b>0.52881</b>	<b>0.82627</b>	<b>0.82627</b>	<b>0.82877</b>	
MANOA PUBLIC LIBRARY	POTABLE	OAHU	HONOLULU	PALOLO	0.00067	0.00067	0.00067	0.00067	0.00067	0.00067	0.00067	0.00067	NR
MANOA PUBLIC LIBRARY	NONPOTABLE USING POTABLE	OAHU	HONOLULU	PALOLO	0.00143	0.00143	0.00143	0.00143	0.00143	0.00143	0.00143	0.00143	NR
HAWAII CONVENTION CENTER	POTABLE	OAHU	HONOLULU	PALOLO	0.10000	0.15000	0.20000	0.25000	0.30000	0.30000	0.30000	0.30000	NR
MOIILILI	POTABLE	OAHU	HONOLULU	PALOLO						0.10000	0.10000	0.10000	2-7-08: 18,20
DIAMOND HEAD STATE MONUMENT	POTABLE	OAHU	HONOLULU	PALOLO	0.02087	0.02087	0.02087	0.02087	0.02087	0.02087	0.02087	0.02087	3-1-42, 3-1-35
DIAMOND HEAD STATE MONUMENT	NONPOTABLE	OAHU	HONOLULU	PALOLO	0.27733	0.27733	0.27733	0.27733	0.27733	0.27733	0.27733	0.27733	3-1-42, 3-1-35
KUULEI CLIFFS	POTABLE	OAHU	HONOLULU	PALOLO					0.00003	0.00005	0.00094	0.00095	3-1-42
KUULEI CLIFFS	NONPOTABLE USING POTABLE	OAHU	HONOLULU	PALOLO	0.00027	0.00037	0.00758	0.00767	0.00776	0.00803	0.00803	0.00803	3-1-42
MAKALEI PLACE	POTABLE	OAHU	HONOLULU	PALOLO			0.00000	0.00000	0.00040	0.00040	0.00040	0.00040	3-1-42
MAKALEI PLACE	NONPOTABLE USING POTABLE	OAHU	HONOLULU	PALOLO			0.00018	0.00024	0.03990	0.03997	0.04003	0.07981	3-1-42
BIOMEDICAL SCIENCE BLDG RENOVATIONS	POTABLE	OAHU	HONOLULU	PALOLO						0.01850	0.01850	0.01850	2-8-26:4
CRAWFORD HALL RENOVATIONS	POTABLE	OAHU	HONOLULU	PALOLO	0.00250	0.00250	0.00250	0.00250	0.00250	0.00250	0.00250	0.00250	2-8-26:4
DEAN HALL RENOVATIONS	POTABLE	OAHU	HONOLULU	PALOLO					0.00190	0.00190	0.00190	0.00190	2-8-26:4
GARTLEY HALL RENOVATIONS	POTABLE	OAHU	HONOLULU	PALOLO				0.00240	0.00240	0.00240	0.00240	0.00240	2-8-26:4
HAWAII HALL RENOVATION	POTABLE	OAHU	HONOLULU	PALOLO	0.00350	0.00350	0.00350	0.00350	0.00350	0.00350	0.00350	0.00350	2-8-26:4
ITS (INFORMATION TECHNOLOGY SERVICES) FAC	POTABLE	OAHU	HONOLULU	PALOLO					0.00480	0.00480	0.00480	0.00480	2-8-26:4
SINCLAIR LIBRARY RENOVATION	POTABLE	OAHU	HONOLULU	PALOLO					0.01180	0.01180	0.01180	0.01180	2-8-26:4
UNIVERSITY OF HAWAII AT MANOA - AGRICULTURAL SCIENCE FACILITY, PHASE III	POTABLE	OAHU	HONOLULU	PALOLO	0.02494	0.02494	0.02494	0.02494	0.02494	0.02494	0.02494	0.02494	2-8-26:4
UNIVERSITY OF HAWAII AT MANOA - AGRICULTURAL SCIENCE FACILITY, PHASE III	NONPOTABLE USING POTABLE	OAHU	HONOLULU	PALOLO	0.00406	0.00406	0.00406	0.00406	0.00406	0.00406	0.00406	0.00406	2-8-26:4
UNIVERSITY OF HAWAII AT MANOA - HAMILTON LIBRARY, PHASE III	POTABLE	OAHU	HONOLULU	PALOLO	0.00022	0.00022	0.00022	0.00022	0.00022	0.00022	0.00022	0.00022	2-8-23:3
UNIVERSITY OF HAWAII AT MANOA, HAMILTON LIBRARY, PHASE III	NONPOTABLE USING POTABLE	OAHU	HONOLULU	PALOLO	0.00698	0.00698	0.00698	0.00698	0.00698	0.00698	0.00698	0.00698	2-8-23:3
YIAN CHINESE TEA HOUSE	POTABLE	OAHU	HONOLULU	PALOLO			0.00020	0.00020	0.00020	0.00020	0.00020	0.00020	2-8-26:4
<b>AQUIFER SECTOR = PALOLO 30101</b>					<b>0.44278</b>	<b>0.49287</b>	<b>0.55046</b>	<b>0.60302</b>	<b>0.71170</b>	<b>0.83055</b>	<b>0.83150</b>	<b>0.87170</b>	
KAIWI SP	POTABLE	OAHU	HONOLULU	WAIALAE EAST			0.00164	0.00219	0.00274	0.00329	0.00384	0.00548	3-9-11:2,3,5,6,7,4-01-14:1
MAUNALUA BAY COMFORT STATION	POTABLE	OAHU	HONOLULU	WAIALAE EAST			0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	2-9-2,3,4,7,16,17,33
<b>AQUIFER SECTOR = WAIALAE EAST 30106</b>					<b>0.00000</b>	<b>0.00000</b>	<b>0.00664</b>	<b>0.00719</b>	<b>0.00774</b>	<b>0.00829</b>	<b>0.00884</b>	<b>0.01048</b>	







STATE WATER PROJECTS PLAN  
PROJECTED WATER REQUIREMENTS BY AQUIFER SECTOR/SYSTEM

PROJECT NAME	PRIMARY USE	ISLAND	SECTOR	AQUIFER SYSTEM	02001	02002	02003	02004	02005	02010	02015	02020	TMK
					MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	
SWPP Statewide Project Demand Total=					12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
NANAKULI HI RESTROOM FACILITY	POTABLE	OAHU	WAIANAE	NANAKULI	0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	NR
NANAKULI ELEM SCHOOL, 8-CLASSROOM BLDG.	POTABLE	OAHU	WAIANAE	NANAKULI	0.00129	0.00258	0.00258	0.00258	0.00258	0.00258	0.00258	0.00258	8-9-7:9
NANAKULI PUBLIC LIBRARY	POTABLE	OAHU	WAIANAE	NANAKULI						0.00151	0.00151	0.00151	NR
NANAKULI PUBLIC LIBRARY	NONPOTABLE USING POTABLE	OAHU	WAIANAE	NANAKULI						0.00643	0.00643	0.00643	NR
NANAKULI HIGH SCHOOL NEW 8 CLASSROOM	POTABLE	OAHU	WAIANAE	NANAKULI			0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	8-9-007: 009
NANAKULI III ELEMENTARY 1ST INCREMENT	POTABLE	OAHU	WAIANAE	NANAKULI			0.00660	0.00660	0.00660	0.00660	0.00660	0.00660	NEW
NANAKULI III ELEMENTARY 2ND INCREMENT	POTABLE	OAHU	WAIANAE	NANAKULI			0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	NEW
NANAKULI IV ELEMENTARY 1ST & 2ND INCREMENT	POTABLE	OAHU	WAIANAE	NANAKULI	0.06300	0.06300	0.06300	0.06300	0.06300	0.06300	0.06300	0.06300	NEW
CAMP ANDREWS	POTABLE	OAHU	WAIANAE	NANAKULI						0.07800	0.07800	0.07800	8-9-02: 01
HANOHANO LOT	POTABLE	OAHU	WAIANAE	NANAKULI			0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	8-9-04: 61
NANAKULI RESIDENCE, ULEI ST.	POTABLE	OAHU	WAIANAE	NANAKULI	0.00800	0.00800	0.00800	0.00800	0.00800	0.00800	0.00800	0.00800	
NANAKULI SCATTERED LOTS	POTABLE	OAHU	WAIANAE	NANAKULI	0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	0.00500	
NANAKULI SCATTERED SUBDIVISIONS	POTABLE	OAHU	WAIANAE	NANAKULI			0.00250	0.00250	0.00250	0.00250	0.00250	0.00250	8-9-02: 36,38, 8-9-03:2,63, 8-9-04: 78
TAAMU LOT	POTABLE	OAHU	WAIANAE	NANAKULI			0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	8-9-02: 42
UPPER NANAKULI	POTABLE	OAHU	WAIANAE	NANAKULI								0.42500	8-9-08: 03
<b>AQUIFER SECTOR = NANAKULI 30301</b>					<b>0.08229</b>	<b>0.08358</b>	<b>0.13208</b>	<b>0.13208</b>	<b>0.13208</b>	<b>0.21802</b>	<b>0.21802</b>	<b>0.64302</b>	
WAIANAE LOW INCOME HOUSING	POTABLE	OAHU	WAIANAE	WAIANAE	0.03700	0.03700	0.03700	0.03700	0.03700	0.03700	0.03700	0.03700	8-5-28:POR42
KAMAILE ELEMENTARY SCH NEW 8 CLASSROOM	POTABLE	OAHU	WAIANAE	WAIANAE			0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	8-5-002: 039
LEIHOKU ELEM NEW LIBRARY/ADMINISTRATION	POTABLE	OAHU	WAIANAE	WAIANAE		0.00111	0.00111	0.00111	0.00111	0.00111	0.00111	0.00111	8-6-001: 054
LEIHOKU ELEMENTARY NEW 6 CLASSROOM	POTABLE	OAHU	WAIANAE	WAIANAE	0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	8-6-001: 054
WAIANAE HIGH SCHOOL NEW 8 CLASSROOM	POTABLE	OAHU	WAIANAE	WAIANAE		0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	8-5-015: 001
WAIANAE HIGH SCHOOL NEW ADMINISTRATION	POTABLE	OAHU	WAIANAE	WAIANAE			0.00067	0.00067	0.00067	0.00067	0.00067	0.00067	8-5-015: 001
WAIANAE HIGH SCHOOL NEW CAFETERIA	POTABLE	OAHU	WAIANAE	WAIANAE			0.00735	0.00735	0.00735	0.00735	0.00735	0.00735	8-5-015: 001
WAIANAE INTER SCHOOL NEW 4 CLASSROOM	POTABLE	OAHU	WAIANAE	WAIANAE			0.00720	0.00720	0.00720	0.00720	0.00720	0.00720	8-5-015: 001
AGENA/PINE	POTABLE	OAHU	WAIANAE	WAIANAE						0.02750	0.02750	0.02750	8-6-01: POR 01, 51, 52
FREITAS DAIRY	POTABLE	OAHU	WAIANAE	WAIANAE	0.01600	0.01600	0.01600	0.01600	0.01600	0.01600	0.01600	0.01600	8-5-04: 01, 41, POR 58
PAHEEHEE RIDGE	POTABLE	OAHU	WAIANAE	WAIANAE	0.00950	0.00950	0.00950	0.00950	0.00950	0.00950	0.00950	0.00950	
WAIANAE LOTS 2A-2	POTABLE	OAHU	WAIANAE	WAIANAE			0.03100	0.03100	0.03100	0.03100	0.03100	0.03100	8-5-04: 02
<b>AQUIFER SECTOR = WAIANAE 30303</b>					<b>0.07330</b>	<b>0.08881</b>	<b>0.14943</b>	<b>0.14943</b>	<b>0.14943</b>	<b>0.17693</b>	<b>0.17693</b>	<b>0.17693</b>	

STATE WATER PROJECTS PLAN  
PROJECTED WATER REQUIREMENTS BY AQUIFER SECTOR/SYSTEM

PROJECT NAME	PRIMARY USE	ISLAND	SECTOR	AQUIFER SYSTEM	02001	02002	02003	02004	02005	02010	02015	02020	TMK
					MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	
<b>SWPP Statewide Project Demand Total=</b>					<b>12.19</b>	<b>18.10</b>	<b>25.22</b>	<b>26.59</b>	<b>33.20</b>	<b>69.42</b>	<b>76.55</b>	<b>80.87</b>	
<b>HYDROLOGICAL SECTOR = WINDWARD 306</b>													
<b>SECTOR 306 TOTAL=</b>					<b>1.06866</b>	<b>1.97730</b>	<b>2.96203</b>	<b>2.97151</b>	<b>2.97494</b>	<b>3.12230</b>	<b>3.12311</b>	<b>3.12805</b>	
KAAWA ELEM NEW LIBRARY/ADMINISTRATION	POTABLE	OAHU	WINDWARD	KAHANA			0.00111	0.00111	0.00111	0.00111	0.00111	0.00111	5-1-002: 018
KAAWA ELEMENTARY NEW CAFETERIA	POTABLE	OAHU	WINDWARD	KAHANA			0.00054	0.00054	0.00054	0.00054	0.00054	0.00054	5-1-002: 018
KAHANA VALLEY SP	POTABLE	OAHU	WINDWARD	KAHANA	0.00026	0.00034	0.00043	0.00051	0.00060	0.00085	0.00085	0.00085	5-2-01:1, 5-2-02:1-8, 5-2-05:1,3,20,21
<b>AQUIFER SECTOR = KAHANA 30602</b>					<b>0.00026</b>	<b>0.00034</b>	<b>0.00208</b>	<b>0.00216</b>	<b>0.00225</b>	<b>0.00250</b>	<b>0.00250</b>	<b>0.00250</b>	
LAIE ELEMENTARY NEW CAFETERIA	POTABLE	OAHU	WINDWARD	KOOLAULO		0.00261	0.00261	0.00261	0.00261	0.00261	0.00261	0.00261	5-5-015: 023.033
KAHUKU HIGH SCHOOL - ATHLETIC FIELD	NONPOTABLE USING POTABLE	OAHU	WINDWARD	KOOLAULO		0.03800	0.03800	0.03800	0.03800	0.03800	0.03800	0.03800	5-6-006:3.9,10,25
KAHUKU HIGH/INT SCH NEW PE LOCKR SHOWR	POTABLE	OAHU	WINDWARD	KOOLAULO			0.00065	0.00065	0.00065	0.00065	0.00065	0.00065	5-6-006: 003.009,010,025
KAHUKU HIGH/INTER SCHOOL NEW CAFETERIA	POTABLE	OAHU	WINDWARD	KOOLAULO			0.00660	0.00660	0.00660	0.00660	0.00660	0.00660	5-6-006: 003.009,010,025
KAHUKU HIGH/INTER SCHOOL NEW GYMNASIUM	POTABLE	OAHU	WINDWARD	KOOLAULO			0.00400	0.00400	0.00400	0.00400	0.00400	0.00400	5-6-006: 003.009,010,025
LAIE POINT STATE WAYSIDE	POTABLE	OAHU	WINDWARD	KOOLAULO			0.00017	0.00022	0.00110	0.00116	0.00121	0.00138	5-5-10:2,3,22,29
LAIE POINT STATE WAYSIDE	NONPOTABLE USING POTABLE	OAHU	WINDWARD	KOOLAULO			0.00024	0.00032	0.00158	0.00166	0.00175	0.00199	5-5-10:2,3,22,29
MALAEKAHANA SRA (KAHUKU SECTION)	POTABLE	OAHU	WINDWARD	KOOLAULO			0.01000	0.01000	0.01000	0.02000	0.02000	0.02000	5-6-01:4,24,25,45,46,47,51,53-65
MALAEKAHANA SRA (KAHUKU SECTION)	NONPOTABLE	OAHU	WINDWARD	KOOLAULO			0.03000	0.03000	0.03000	0.06000	0.06000	0.06000	5-6-01:4,24,25,45,46,47,51,53-65
MALAEKAHANA SRA (KALANAI POINT SECTION)	POTABLE	OAHU	WINDWARD	KOOLAULO			0.01000	0.01000	0.01000	0.02000	0.02000	0.02000	5-6-01:4,24,25,45,46,47,49,51,53-65
MALAEKAHANA SRA (KALANAI POINT SECTION)	NONPOTABLE	OAHU	WINDWARD	KOOLAULO			0.03000	0.03000	0.03000	0.06000	0.06000	0.06000	5-6-01:4,24,25,45,46,47,49,51,53-65
SACRED FALLS STATE PARK	POTABLE	OAHU	WINDWARD	KOOLAULO	0.00154	0.00206	0.00257	0.00308	0.00360	0.00514	0.00514	0.00514	5-3-11:9
<b>AQUIFER SECTOR = KOOLAULO 30601</b>					<b>0.00154</b>	<b>0.04267</b>	<b>0.13484</b>	<b>0.13549</b>	<b>0.13814</b>	<b>0.21982</b>	<b>0.21996</b>	<b>0.22037</b>	
KANEOHE CIVIC CENTER	POTABLE	OAHU	WINDWARD	KOOLAUPOKO						0.00065	0.00065	0.00065	NR
KANEOHE CIVIC CENTER	NONPOTABLE USING POTABLE	OAHU	WINDWARD	KOOLAUPOKO						0.00112	0.00112	0.00112	NR
KANEOHE DISTRICT COURT	POTABLE	OAHU	WINDWARD	KOOLAUPOKO		0.00099	0.00099	0.00099	0.00099	0.00099	0.00099	0.00198	NR
KANEOHE DISTRICT COURT	NONPOTABLE USING POTABLE	OAHU	WINDWARD	KOOLAUPOKO		0.00201	0.00201	0.00201	0.00201	0.00201	0.00201	0.00402	NR
PUOHALA ELEMENTARY SCHOOL EXPANSION OF LIBRARY & ADMINISTRATION	POTABLE	OAHU	WINDWARD	KOOLAUPOKO			0.00111	0.00111	0.00111	0.00111	0.00111	0.00111	4-5-30:38
WAIHOLE SCATTERED LOTS	POTABLE	OAHU	WINDWARD	KOOLAUPOKO						0.01100	0.01100	0.01100	NR
HEEIA STATE PARK	POTABLE	OAHU	WINDWARD	KOOLAUPOKO	0.00003	0.00004	0.00006	0.00007	0.00008	0.00011	0.00011	0.00011	4-6-05:2,4,9
NUUANU PALI SW	POTABLE	OAHU	WINDWARD	KOOLAUPOKO				0.00164	0.00219	0.00274	0.00329	0.00384	1-9-07:1, 2-2-54:1
KAHEKILI HWY	NONPOTABLE USING POTABLE	OAHU	WINDWARD	KOOLAUPOKO		0.05400	0.01350	0.01350	0.01350	0.01350	0.01350	0.01350	NR
WINDWARD COMMUNITY COLLEGE - BUILDING D CAMPUS CENTER	POTABLE	OAHU	WINDWARD	KOOLAUPOKO		0.05961	0.05961	0.05961	0.05961	0.05961	0.05961	0.05961	NR
WINDWARD COMMUNITY COLLEGE - BUILDING D CAMPUS CENTER	NONPOTABLE USING POTABLE	OAHU	WINDWARD	KOOLAUPOKO		0.00381	0.00381	0.00381	0.00381	0.00381	0.00381	0.00381	NR
WINDWARD COMMUNITY COLLEGE - BUILDING H, LEARNING RESOURCE CENTER	POTABLE	OAHU	WINDWARD	KOOLAUPOKO				0.00482	0.00482	0.00482	0.00482	0.00482	NR
WINDWARD COMMUNITY COLLEGE - BUILDING H, LEARNING RESOURCE CENTER	NONPOTABLE USING POTABLE	OAHU	WINDWARD	KOOLAUPOKO				0.00054	0.00054	0.00054	0.00054	0.00054	NR



STATE WATER PROJECTS PLAN  
PROJECTED WATER REQUIREMENTS BY AQUIFER SECTOR/SYSTEM

PROJECT NAME	PRIMARY USE	ISLAND	SECTOR	AQUIFER SYSTEM	02001	02002	02003	02004	02005	02010	02015	02020	TMK
					MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	
<b>SWPP Statewide Project Demand Total=</b>					<b>12.19</b>	<b>18.10</b>	<b>25.22</b>	<b>26.59</b>	<b>33.20</b>	<b>69.42</b>	<b>76.55</b>	<b>80.87</b>	
WINDWARD COMMUNITY COLLEGE - BUILDING J HUMANITIES	POTABLE	OAHU	WINDWARD	KOOLAUPOKO	0.05815	0.05815	0.05815	0.05815	0.05815	0.05815	0.05815	0.05874	NR
WINDWARD COMMUNITY COLLEGE - BUILDING J HUMANITIES	NONPOTABLE USING POTABLE	OAHU	WINDWARD	KOOLAUPOKO	0.00059	0.00059	0.00059	0.00059	0.00059	0.00059	0.00059	0.00059	NR
WINDWARD COMMUNITY COLLEGE - BUILDING K-1, MULTI-MEDIA FACILITY	POTABLE	OAHU	WINDWARD	KOOLAUPOKO	0.00479	0.00479	0.00479	0.00479	0.00479	0.00479	0.00479	0.00479	4-5-23: 2
WINDWARD COMMUNITY COLLEGE - BUILDING K-1, MULTI-MEDIA FACILITY	NONPOTABLE USING POTABLE	OAHU	WINDWARD	KOOLAUPOKO	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	4-5-23: 2
WINDWARD COMMUNITY COLLEGE - PARKING LOT @ KUHINA	NONPOTABLE USING POTABLE	OAHU	WINDWARD	KOOLAUPOKO				0.00160	0.00160	0.00160	0.00160	0.00160	4-5-023:002
WINDWARD COMMUNITY COLLEGE - SCIEN ANNEX	POTABLE	OAHU	WINDWARD	KOOLAUPOKO	0.00360	0.00360	0.00360	0.00360	0.00360	0.00360	0.00360	0.00360	4-5-23:2
<b>AQUIFER SECTOR = KOOLAUPOKO 30603</b>					<b>0.06721</b>	<b>0.18764</b>	<b>0.14827</b>	<b>0.15688</b>	<b>0.15744</b>	<b>0.17079</b>	<b>0.17134</b>	<b>0.17548</b>	
HYCF MAINTENANCE BLDG & RENOVATION HOOKIPA COTTAGE	POTABLE	OAHU	WINDWARD	WAIMANALO	0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	NR
HYCF RENOVATION MAKAI HOOKIPA COTTAGE	POTABLE	OAHU	WINDWARD	WAIMANALO	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	NR
HYCF RENOVATION MALUHIA COTTAGE	POTABLE	OAHU	WINDWARD	WAIMANALO	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	NR
WAIMANALO IRRIGATION SYSTEM	NONPOTABLE	OAHU	WINDWARD	WAIMANALO	0.75000	1.00000	1.25000	1.25000	1.25000	1.25000	1.25000	1.25000	NR
REGIONAL TRAINING INSTITUTE	POTABLE	OAHU	WINDWARD	WAIMANALO	0.00184	0.00184	0.00184	0.00184	0.00184	0.00184	0.00184	0.00184	NR
REGIONAL TRAINING INSTITUTE	NONPOTABLE USING POTABLE	OAHU	WINDWARD	WAIMANALO	0.05946	0.05946	0.05946	0.05946	0.05946	0.05946	0.05946	0.05946	NR
CASTLE HIGH SCHOOL NEW CAFETERIA	POTABLE	OAHU	WINDWARD	WAIMANALO	0.00600	0.00600	0.00600	0.00600	0.00600	0.00600	0.00600	0.00600	4-5-034: 008
KAELEPULU ELEM SCH, NEW ADMIN BLDG.	POTABLE	OAHU	WINDWARD	WAIMANALO						0.00045	0.00045	0.00045	4-2-90: 74
KAILUA ELEMENTARY LIBRARY EXPANSION	POTABLE	OAHU	WINDWARD	WAIMANALO			0.00066	0.00066	0.00066	0.00066	0.00066	0.00066	4-3-056: 003, 009
KAINALU ELEMENTARY NEW ADMINISTRATION	POTABLE	OAHU	WINDWARD	WAIMANALO			0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	4-3-076: 015
KANEOHE ELEMENTARY NEW ADMINISTRATION	POTABLE	OAHU	WINDWARD	WAIMANALO	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	4-5-103: 011
KUPUNA HOUSING	POTABLE	OAHU	WINDWARD	WAIMANALO			0.04320	0.04320	0.04320	0.04320	0.04320	0.04320	4-1-19: 32
SOUKASEN	POTABLE	OAHU	WINDWARD	WAIMANALO						0.02500	0.02500	0.02500	4-1-08:11, 4-1-23:65
UNIT 9	POTABLE	OAHU	WINDWARD	WAIMANALO						0.02650	0.02650	0.02650	4-1-08: POR 08, 4-1-37: 68,69
WAIMANALO SCATTERED LOTS	POTABLE	OAHU	WINDWARD	WAIMANALO	0.00250	0.00250	0.00250	0.00250	0.00250	0.00250	0.00250	0.00250	4-1-37: 58-60
WAIMANALO, RESIDENTIAL LOTS ALA KOA STREET	POTABLE	OAHU	WINDWARD	WAIMANALO			0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	4-1-37:35
HYCF VOCATIONAL TRNG/MAINTENANCE FAC	POTABLE	OAHU	WINDWARD	WAIMANALO	0.00380	0.00380	0.00380	0.00380	0.00380	0.00380	0.00380	0.00380	4-2-3:2
ULUPO HEIAU STATE MONUMENT	POTABLE	OAHU	WINDWARD	WAIMANALO			0.00039	0.00052	0.00065	0.00078	0.00091	0.00130	4-2-13:2
NEW 84-BED HOUSING	POTABLE	OAHU	WINDWARD	WAIMANALO	0.01260	0.01260	0.01260	0.01260	0.01260	0.01260	0.01260	0.01260	4-2-3:04
UNIVERSITY OF HAWAII AT MANOA, WAIMANALO, FOOD AND AGRICULTURE INNOVATION CENTER	POTABLE	OAHU	WINDWARD	WAIMANALO	0.01500	0.09000	0.18500	0.18500	0.18500	0.18500	0.18500	0.18500	4-1-08: 80, PORTION OF 5, PORTION OF 74
UNIVERSITY OF HAWAII AT MANOA, WAIMANALO, FOOD AND AGRICULTURE INNOVATION CENTER	NONPOTABLE USING POTABLE	OAHU	WINDWARD	WAIMANALO	0.08800	0.51000	1.05000	1.05000	1.05000	1.05000	1.05000	1.05000	4-1-08: 80, PORTION OF 5, PORTION OF 74
<b>AQUIFER SECTOR = WAIMANALO 30604</b>					<b>0.99965</b>	<b>1.74665</b>	<b>2.67685</b>	<b>2.67698</b>	<b>2.67711</b>	<b>2.72919</b>	<b>2.72932</b>	<b>2.72971</b>	