STATE WATER PROJECTS PLAN

Hawaii Water Plan

VOLUME 4

SWPP for Islands of Lanai/Maui/Molokai

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

February 2003

FUKUNAGA AND ASSOCIATES, INC.
Consulting Engineers
1388 Kapiolani Boulevard, Second Floor
Honolulu, Hawaii 96814
(808) 944-1821

TABLE OF CONTENTS

		Page
1.	**INTRODUCTION**	
1.1	BACKGROUND	1-1
1.1.1	Legislative History	1-1
1.1.2	State Water Code	1-1
1.1.3	Hawaii Water Plan	1-1
1.2	OBJECTIVE OF THE SWPP	1-2
1.3	SWPP DOCUMENT FORMAT	1-3
1.4	ELEMENTS OF STUDY – Volume 4: SWPP Islands of Lanai/Maui/Molokai	1-3
1.4.1	Inventory of Existing Water Resources	1-3
1.4.2	Inventory of Proposed State Projects	1-3
1.4.3	Assessment of Future Water Requirements	1-3
1.4.4	SWPP Water Development Strategy	1-4
2.	**EXISTING STATE WATER RESOURCES**	
2.1	GENERAL	2-1
2.2	STATE WATER RESOURCES	2-1
2.2.1	Wells	2-1
2.2.2	Stream Diversions	2-1
2.2.3	State Owned and/or Operated Water Systems	2-2
2.3	WATER SYSTEMS OWNED AND/OR OPERATED BY THE STATE	2-15
2.3.1	Evaluation of Water System Source Capacity	2-15
2.3.1.1	Determine the Existing Average Day and Maximum Day Consumption	2-16
2.3.1.2	Determine the Source Capacity	2-16
2.3.1.3	Determine Surplus Source Capacity	2-17
2.3.1.4	Determine Irrigation System Source and Storage Capacity	2-17
2.3.1.5	Evaluation of Future Project Water Demand	2-17

2.4 DESCRIPTION AND EVALUATION OF STATE WATER SYSTEMS 2-17
2.4.1 Department of Agriculture Water Systems 2-17
2.4.1.1 Molokai Irrigation System 2-17
2.4.2 Department of Hawaiian Home Lands 2-19
2.4.2.1 Hoolehua Water System 2-19
2.4.3 Department of Land and Natural Resources 2-20
2.4.3.1 Kaumahina State Wayside Water System 2-20
2.4.3.2 Polipoli Springs State Recreation Area Water System 2-20
2.4.3.3 Puaa Kaa State Wayside Water System 2-21
2.4.3.4 Iao Valley State Park Water System 2-21
2.4.3.5 Waialala Water System 2-21

2.5 STATE WATER SYSTEMS WITH SURPLUS CAPACITY 2-22

3. PROPOSED WATER RELATED STATE PROJECTS

3.1 GENERAL 3-1

3.2 EVALUATION AND METHODOLOGY OF SWPP WATER DEMAND 3-1
3.2.1 Evaluation of SWPP Project Information 3-1
3.2.2 Project Water Demand Calculation Methodology 3-4
3.2.2.1 Non-Standard Guidelines and Methods 3-4

3.3 SWPP PROJECT WATER DEMAND 3-5
3.3.1 SWPP Project Water Demand for the Islands of Lanai/Maui/Molokai 3-5
3.3.2 Issues, Concerns and Uncertainties Related to Project Demands 3-17

4. SWPP STATE WATER DEVELOPMENT STRATEGY

4.1 WATER DEVELOPMENT STRATEGY – ISLAND OF LANAI 4-1

4.2 SWPP PROJECT DEMAND OVERVIEW 4-1

4.3 EVALUATION OF WATER DEVELOPMENT STRATEGY OPTIONS 4-4
4.3.1 Existing State Water Systems (EXSWS) 4-4
4.3.2 Existing Master Plan (MASTERPLAN) 4-4
4.3.3 Existing State or Private Sources (EXSS) 4-4
4.3.4 County and Private Water Agreements (COUNTY) 4-4
4.3.5 County and Private Water Agreements – Use of Water Allocation Credits (COUNTY-BWSWALL) 4-4
4.3.6 New/Planned State Wells (NEWSS) 4-4
4.3.7 New State Water Systems (NEWSWS) 4-4
4.3.8 Planned Private Sources (PLANPS) 4-5
4.3.9 Coordination of Unmet SWPP Project Demand w/ County Water Department 4-5
4.3.10 Other Strategy Considerations 4-5

4.4 RECOMMENDED WATER DEVELOPMENT STRATEGY ACTIONS 4-5

4.5 WATER DEVELOPMENT STRATEGY – ISLAND OF MAUI 4-5

4.6 SWPP PROJECT DEMAND OVERVIEW 4-6

4.7 EVALUATION OF WATER DEVELOPMENT STRATEGY OPTIONS 4-12
4.7.1 Existing State Water Systems (EXSWS) 4-12
4.7.2 Existing Master Plan (MASTERPLAN) 4-12
4.7.3 Existing State or Private Sources (EXSS) 4-12
4.7.4 County and Private Water Agreements (COUNTY) 4-12
4.7.5 County and Private Water Agreements – Use of Water Allocation Credits (COUNTY-BWSWALL) 4-12
4.7.6 New/Planned State Wells (NEWSS) 4-13
4.7.7 New State Water Systems (NEWSWS) 4-13
4.7.8 Planned Private Sources (PLANPS) 4-13
4.7.9 Coordination of Unmet SWPP Project Demand w/ County Water Department 4-13
4.7.10 Other Strategy Considerations 4-14

4.8 RECOMMENDED WATER DEVELOPMENT STRATEGY ACTIONS 4-14

4.9 WATER DEVELOPMENT STRATEGY – ISLAND OF MOLOKAI 4-17

4.10 SWPP PROJECT DEMAND OVERVIEW 4-17

4.11 EVALUATION OF WATER DEVELOPMENT STRATEGY OPTIONS 4-21

4. 11.1 Existing State Water Systems (EXSWS) 4-21
4. 11.1.1 Hoolehua Water Systems (EXSWS) 4-21
4. 11.1.2 Molokai Irrigation Systems (EXSWS) 4-21
4.11.2 Existing Master Plan (MASTERPLAN) 4-21
4.11.3 Existing State or Private Sources (EXSS) 4-22
4.11.4 County and Private Water Agreements (COUNTY) 4-22
4.11.5 County and Private Water Agreements
– Use of Water Allocation Credits (COUNTY-BWSWALL) 4-22
4.11.6 New/Planned State Wells (NEWSS) 4-22
4.11.7 New State Water Systems (NEWSWS) 4-22
4.11.8 Planned Private Sources (PLANPS) 4-22
4.11.9 Coordination of Unmet SWPP Project Demand w/ County Water Department 4-22
4.11.10 Other Strategy Considerations 4-22

4.12 RECOMMENDED WATER DEVELOPMENT STRATEGY ACTIONS 4-24

APPENDICES

APPENDIX A	WELLS; STREAM DIVERSIONS; STATE WATER SYSTEM DIAGRAMS
APPENDIX B	SWPP DEMAND TABLE BY DEPARTMENT
APPENDIX C	SWPP DEMAND TABLE BY ISLAND
APPENDIX D	SWPP DEMAND TABLE BY AQUIFER SECTOR/SYSTEM

LIST OF FIGURES

Figure 2.1	Existing Registered State Wells - Maui	2-3
Figure 2.2	Existing Registered State Wells - Molokai	2-5
Figure 2.3	Existing State Stream Diversions - Maui	2-7
Figure 2.4	Existing State Stream Diversions - Molokai	2-9
Figure 2.5	Existing State Water Systems - Maui	2-11
Figure 2.6	Existing State Water Systems - Molokai	2-13
Figure 3.1	Hydrologic Units –Lanai	3-11
Figure 3.2	Hydrologic Units –Maui	3-13
Figure 3.3	Hydrologic Units –Molokai	3-15
Figure 4.1	Total Yearly Cumulative Remaining Demand for Maui	4-11
Figure 4.2	Total Yearly Cumulative Remaining Demand for Molokai	4-20

LIST OF TABLES

Table 1.1	Scheduled Updates To the Hawaii Water Plan	1-2
Table 2.1	Water Systems Owned or Operated By The State	2-2
Table 2.2	State Irrigation Systems	2-19
Table 2.3	State Water Systems with Surplus Capacity	2-22
Table 3.1	Domestic Consumption Guideline Average Daily Demand	3-2
Table 3.2	Department Specific Unit Rates	3-3
Table 3.3	Total Projected Demands on the Island of Lanai by State Department	3-6
Table 3.4	Total Projected Demands on the Island of Maui by State Department	3-6
Table 3.5	Total Projected Demands on the Island of Molokai by State Department	3-7
Table 3.6	Summary of SWPP Projected Water Demands, Sustainable Yield, and Permitted Water Use by Aquifer System	3-8
Table 4.1	SWPP Update – Lanai Water Development Strategy	4-2
Table 4.2	Water Development Strategy Summary - Lanai	4-1
Table 4.3	SWPP Projects with Significant Water Demands (>0.10 mgd) - Lanai	4-4
Table 4.4	SWPP Update – Maui Water Development Strategy	4-7
Table 4.5	Water Development Strategy Summary - Maui	4-11
Table 4.6	SWPP Projects with Significant Water Demands (>0.10 mgd) - Maui	4-12
Table 4.7	Water Development Strategy Remaining of Unmet SWPP Project Demand - Hydrologic Sector Maui	4-15
Table 4.8	Recommended Water Development Strategy Actions - Maui	4-16
Table 4.9	SWPP Update – Maui Water Development Strategy	4-18
Table 4.10	Water Development Strategy Summary - Maui	4-20
Table 4.11	SWPP Projects with Significant Water Demands (>0.10 mgd) - Molokai	4-21
Table 4.12	Water Development Strategy Remaining of Unmet SWPP Project Demand - Hydrologic Sector Molokai	4-23
Table 4.13	Recommended Water Development Strategy Actions - Molokai	4-24

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

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 Section174-31, 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

Hawaii Water Plan	Scheduled Completion Date	Comments
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 4: SWPP Islands of Lanai/Maui/Molokai

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 islands of Lanai/Maui/Molokai 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 County of Maui, Department of Water 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.

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 23 existing State wells located on the island of Maui, and 17 existing State wells located on Molokai and no State wells on Lanai, shown on **Figures 2.1 and 2.2**. A listing of the State owned wells located on Maui and Molokai is 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 4 existing stream diversions located on Maui and 9 stream diversions on Molokai, shown in **Figures 2.3 and 2.4**. 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.

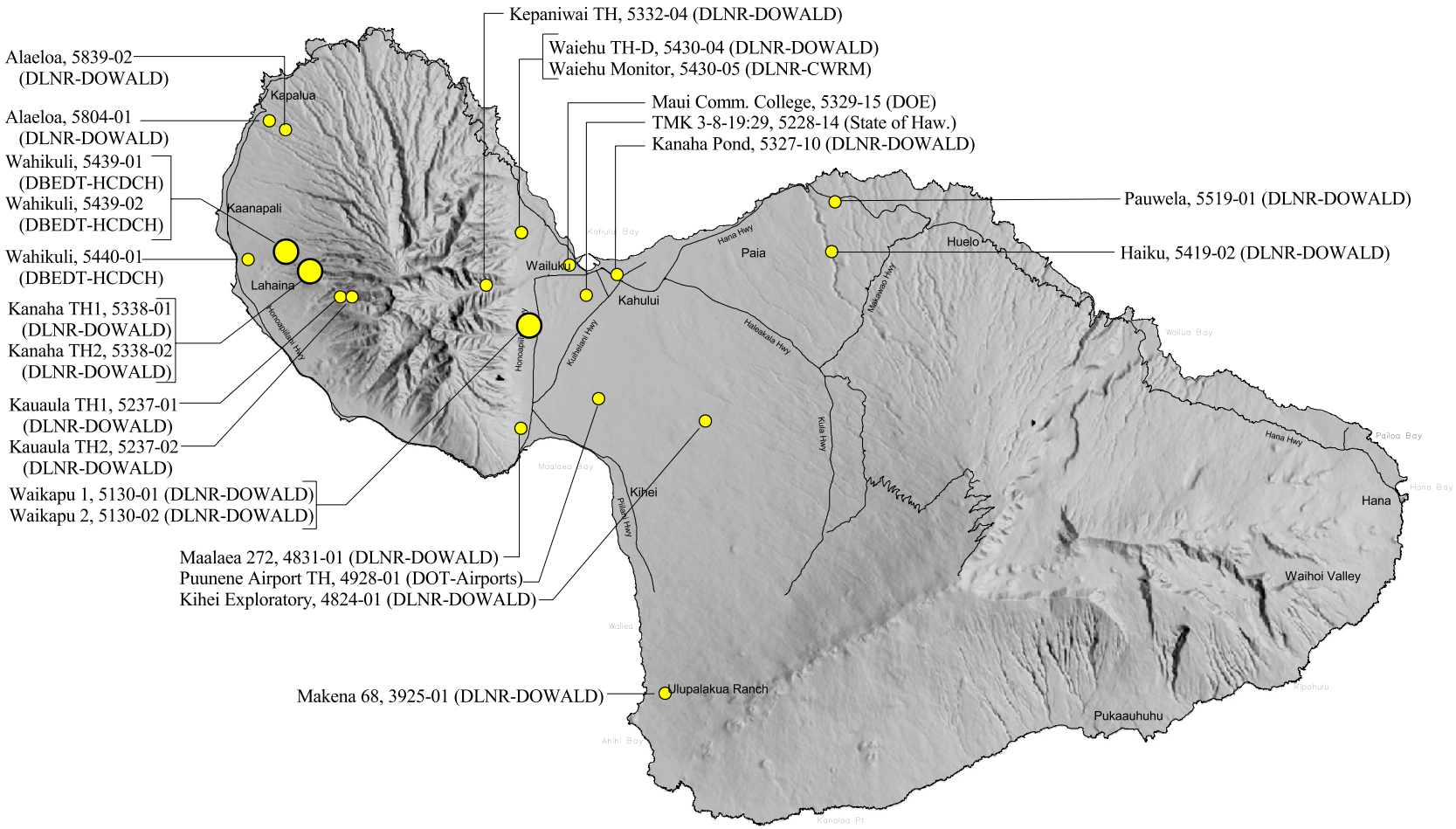
2.2.3. State Owned and/or Operated Water Systems

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 islands of Maui and Molokai shown in **Figures 2.5 and 2.6**. 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
Molokai Irrigation System	DOA	Molokai	Irrigation	Yes	Yes
Hoolehua Water System	DHHL	Molokai	Potable	Yes	Yes
Kaumahina SW	DLNR	Maui	Nonpotable	Yes	Yes
Polipoli Springs SRA	DLNR	Maui	Nonpotable	Yes	Yes
Puaa Kaa SW	DLNR	Maui	Nonpotable	Yes	Yes
Iao Valley SP	DLNR	Maui	Nonpotable	Yes	Yes
Waialala SP	DLNR	Molokai	Potable	Yes	Yes

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



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

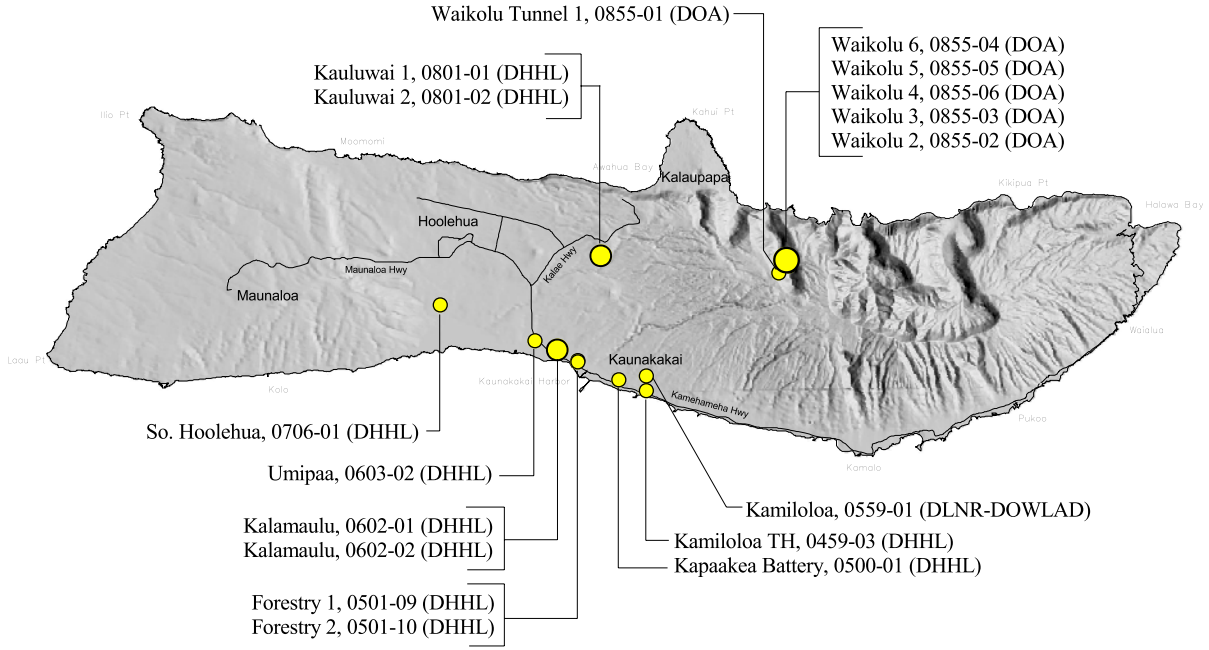
LEGEND:

- State Wells, State Well No., (State Dept.)
- Major Highways/Roads

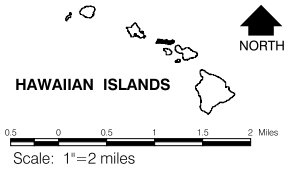
State Water Projects Plan
EXISTING REGISTERED STATE WELLS - MAUI
FIGURE 2.1

Date: February 2003

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



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



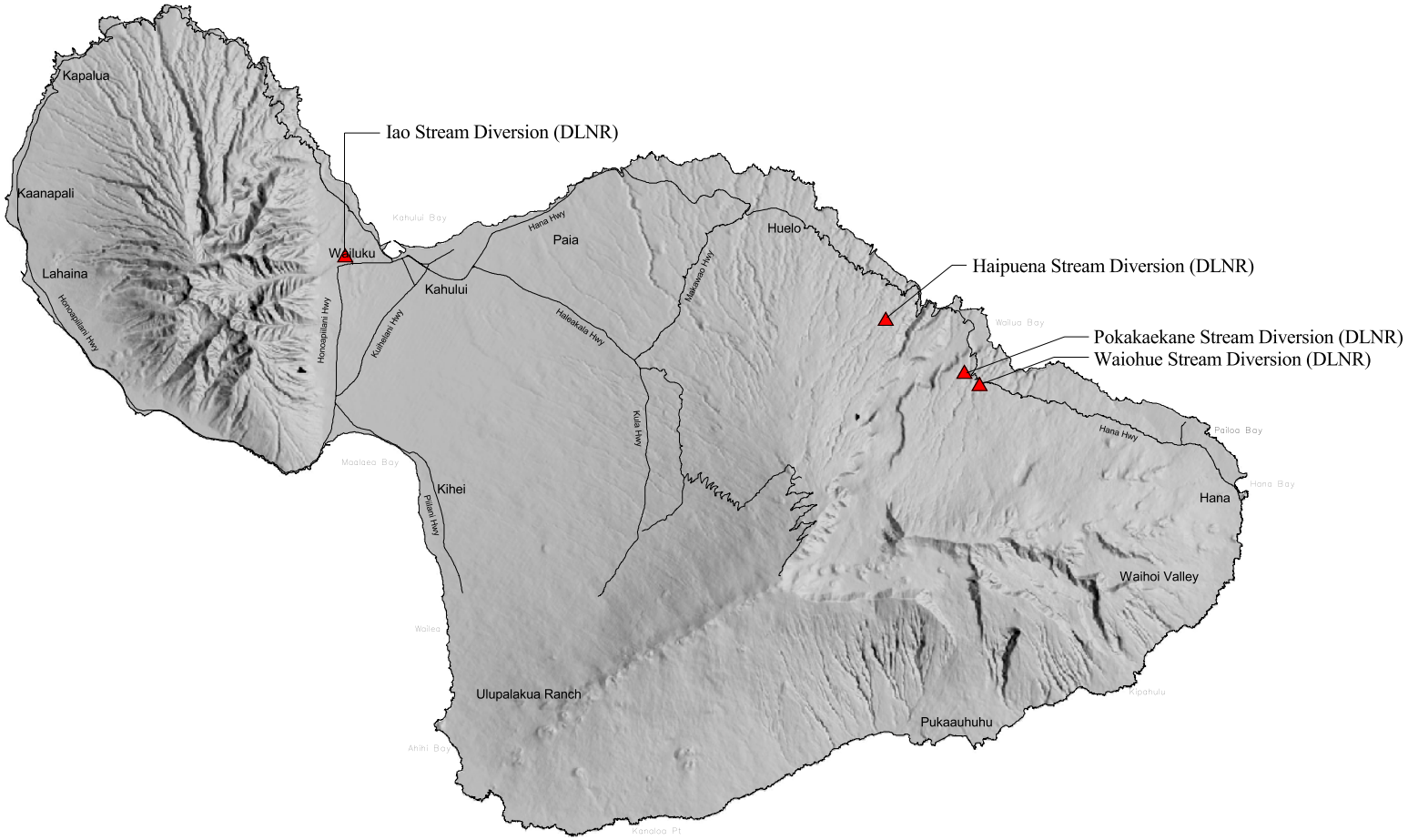
LEGEND:

- State Wells, State Well No., (State Dept.)
- Major Highways/Roads

State Water Projects Plan
EXISTING REGISTERED STATE WELLS - MOLOKAI
FIGURE 2.2

Date: February 2003

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



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

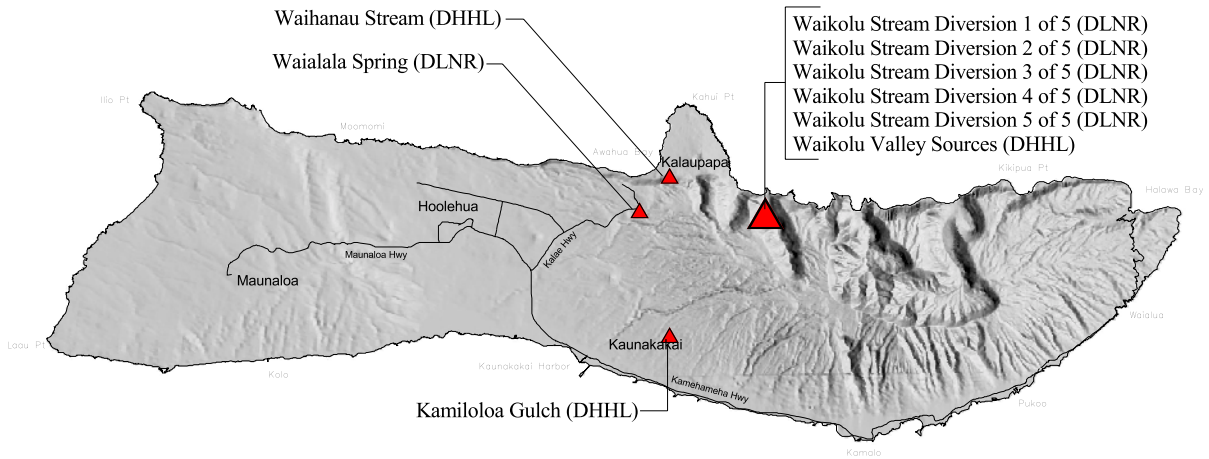
Scale: 1"=2 miles

LEGEND:
- State Stream Diversions (State Dept.)
- Major Highways/Roads

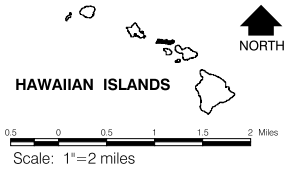
State Water Projects Plan
EXISTING STATE STREAM DIVERSIONS - MAUI
FIGURE 2.3

Date: February 2003

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



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



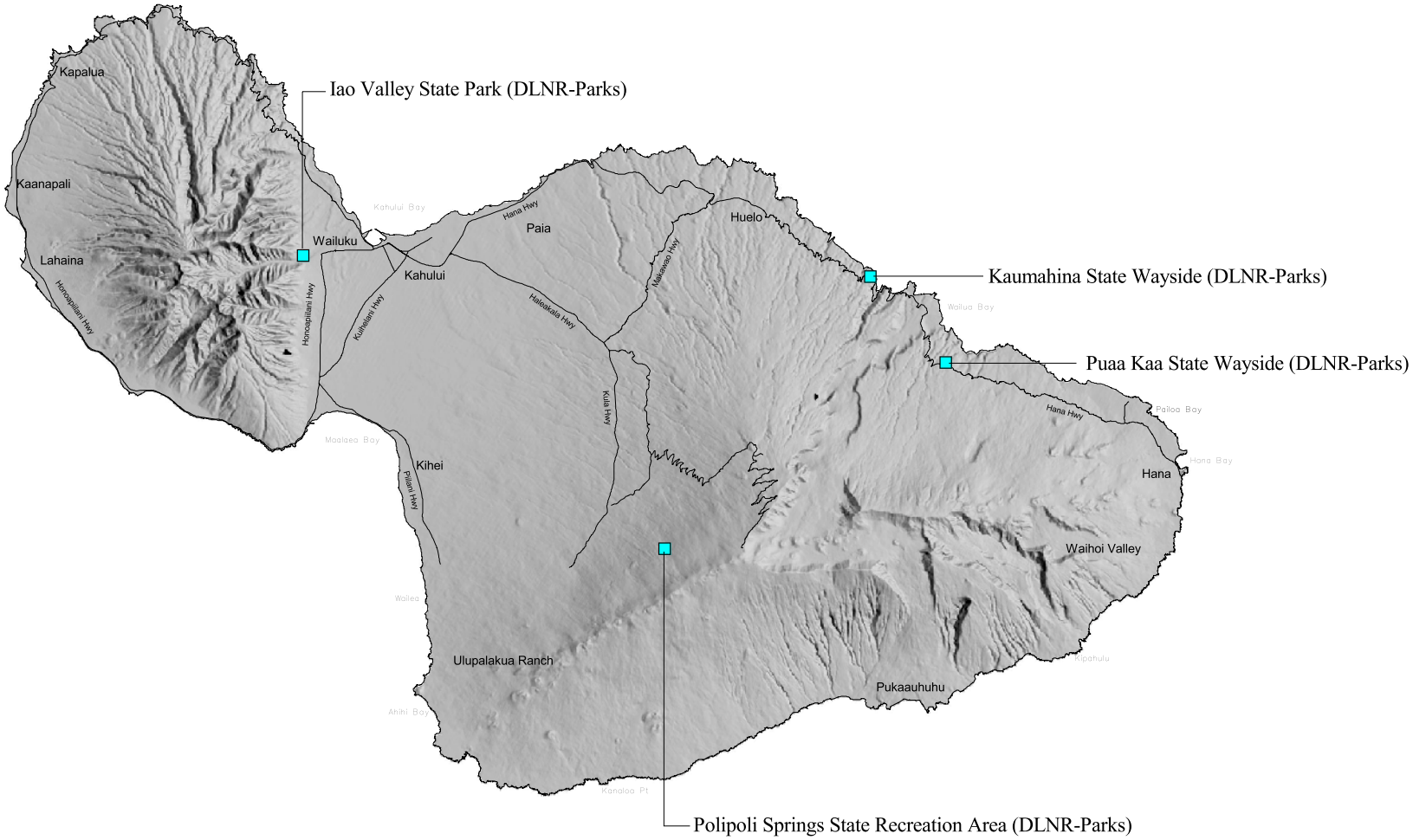
LEGEND:

- State Stream Diversions (State Dept.)
- Major Highways/Roads

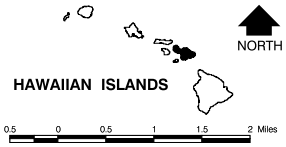
State Water Projects Plan
EXISTING STATE STREAM DIVERSIONS - MOLOKAI
FIGURE 2.4

Date: February 2003

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



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



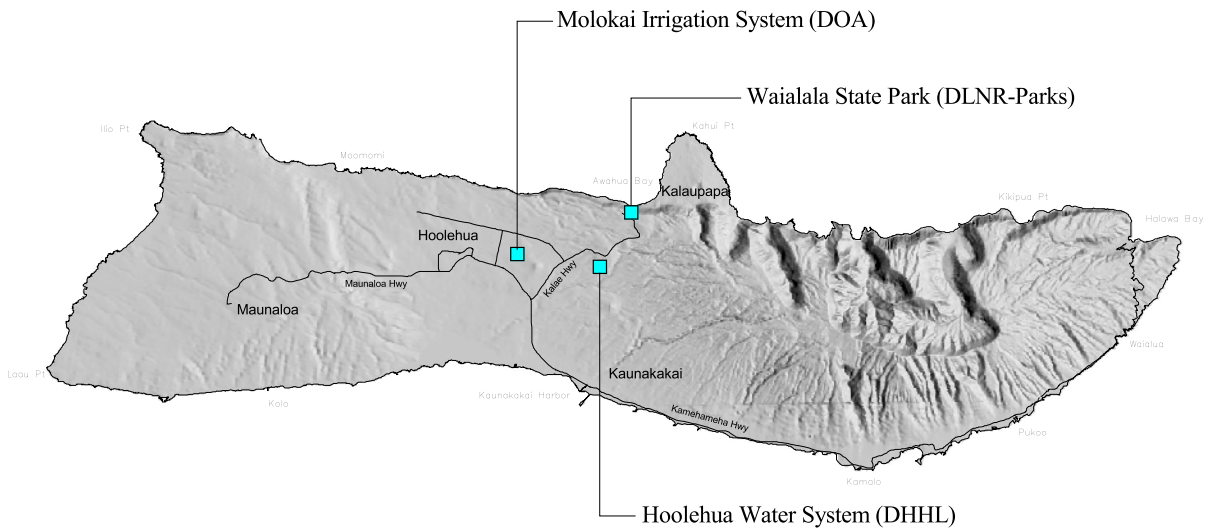
LEGEND:

- State Water Systems (State Dept.)
- Major Highways/Roads

State Water Projects Plan
EXISTING STATE WATER SYSTEMS - MAUI
FIGURE 2.5

Date: February 2003

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



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

LEGEND:

- State Water Systems (State Dept.)
- Major Highways/Roads

State Water Projects Plan
EXISTING STATE WATER SYSTEMS - MOLOKAI
FIGURE 2.6

Date: February 2003

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

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 one agricultural irrigation water system:

Molokai Irrigation System (Molokai)

2.4.1.1. Molokai Irrigation System

The Molokai Irrigation System is located in Waikolu and Hoolehua within the Kualapuu Sector on the island of Molokai. The system is located in the Northeast hydrological sector, and Waikolu system. The irrigation system is owned and operated by the State of Hawaii, Department of Agriculture, and Agricultural Resource Management Division. The sources for the Molokai Irrigation System include groundwater wells and stream

diversions. The Waikolu groundwater well battery includes: Waikolu Tunnel 122 (State Well No. 0855-01) with a pump capacity 1.15 mgd, Waikolu #23 (State Well No. 0855-02) with a pump capacity 1.44 mgd, Waikolu #24 (State Well No. 0855-03) with a pump capacity 1.44 mgd, Waikolu #6 (State Well No. 0855-04) with a pump capacity 0.58 mgd, Waikolu #5 (State Well No. 0855-05) with a pump capacity 1.15 mgd and Waikolu #4 (State Well No. 0855-06) with a pumping capacity 1.44 mgd. The Waikolu well battery has a permitted water allocation of 0.853 mgd. The stream diversions include: Diversion Dam from Waikolu Stream at elevation 700 with 3 pumps to pump water into the tunnel (pump capacities are 1.01 mgd, 1.01 mgd and 2.02 mgd); Dam No. 1 which diverts water from Waikolu Stream; and Dam No. 2 and No. 3 which divert water from Waikolu Valley at elevation 1,000. The rainfall pattern, environmental impacts to streams, energy costs and pump operations dictate the amount of source production into the system. The average day source intake into the reservoir is 4.5 mgd. The source from the various wells and stream diversions is transported to the 1.4 billion gallon Kualapuu Reservoir via an 8'x8' tunnel. The Kualapuu Reservoir loses 0.5 mgd due to evaporation. From the reservoir the irrigation water is transmitted and distributed through a network of 6-inch to 24-inch pipelines. The Molokai Irrigation System services the Molokai Agricultural Park, Molokai Ranch, DHHL Homestead Farmers, and private individual diversified farmers. There are 250 current service connections with a total acreage of 3,298 acres. The existing consumption identified by water sold (MG) and acreage served is shown on Table 2-2a. Future plans for the Molokai Irrigation System include: DHHL with 100 acres, Irrigation Technology Corporation with 100 acres and Cargill Incorporated with 150 acres. The estimated additional future irrigation demand is 1.32 mgd. The MIS will be expanded to support another DHHL future project, Subdivision in Palaau. The estimated average day demand is 1.50 mgd. The current system operation has adequate source capacity to support the existing consumption. The estimated future irrigation demand appears to exceed the source capacity. A water budget calculation is recommended to determine source and storage adequacy based on the planned expansions.

Table 2.2
State Irrigation Systems

	Molokai Irrigation System		Waimanalo Irrigation System		Kekaha Irrigation System	
Fiscal Year	**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 Hawaiian Home Lands

The Department of Hawaiian Home Lands (DHHL) owns one water system:

Hoolehua Water System (Molokai)

2.4.2.1. Hoolehua Water System

The Hoolehua water system is located on the island of Molokai. The system is located in the Central hydrological sector, and Kualapuu system. The water system is owned and operated by the State of Hawaii, Department of Hawaiian Home Lands. The Hoolehua water system is DOH public water system 230. The water is supplied by two groundwater wells, Kauluwai 1 and 2, State well numbers 0801-01 and 0801-02, with a pumping capacity of 0.864 mgd and 1.08 mgd respectively. The safe source capacity is 0.58 mgd. The Kualapuu well battery has a permitted water allocation of 0.367 mgd. The well water is stored in a 0.1 MG concrete reservoir at elevation 1015 feet and chlorinated with chorine gas before entering the reservoir. The water is then boosted by two 485-gpm booster pumps to a 1.0 MG concrete reservoir at an elevation of 1412 feet. The 1.0 MG reservoir supplies two 3.5 MG concrete reservoirs, which serves the Hoolehua area and non-DHHL customers including the Molokai Airport, Molokai High School and the Kualapuu Elementary School. The 1.0 MG reservoir also serves the County of Maui, Department of Water Supply water system, Molokai Ranch and the Meyer Estate. Well water is also delivered to a 0.2 MG reservoir, which serves the

Kaulamaula area. The total existing average day consumption from the Hoolehua water system is 0.42 mgd, with a maximum day consumption of 0.63 mgd. The existing consumption from service areas include: Hoolehua area, airport and schools, 0.30 mgd; Kaulamaula area, 0.08 mgd; DWS water system, 0.015 mgd; Molokai Ranch, 0.02 mgd; and Meyer Estate, 0.008 mgd. The safe source capacity is not adequate to meet the existing maximum day demand. The water system is projected to supply water to future DHHL projects. The projected water demand for future DHHL projects is 0.88 mgd. DHHL plans to drill a monitoring well to study the hydrologic condition of the aquifer and determine the location of a new well for the Hoolehua water system. The new well capacity will add sufficient source capacity to meet existing and future maximum day demands.

2.4.3. 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:

Kaumahina State Wayside Water System (Maui),
Polipoli Springs State Recreation Area Water System (Maui),
Puaa Kaa State Wayside Water System (Maui),
Iao Valley State Park Water System (Maui),
Waialala Water System (Molokai),

2.4.3.1. Kaumahina State Wayside Water System

The Kaumahina State Wayside water system is located between Kailua and Wailua along Hana Highway, 28 miles East of the Kahului Airport on the island of Maui. The system is located in the Koolau hydrological sector, and Waikamoi system. The water system is owned and operated by the State of Hawaii and managed by the DLNR-State Parks. The water system serves a comfort station within the Wayside. The non-potable source for the water system is a stream diversion from the Haipuaena Stream. Stream water is diverted through a 2-inch pipe and flows by gravity to the comfort station. The estimated water demand is 0.008 mgd. Information to determine the stream diversion capacity is not available and flow measurements are not recorded. System source capacity adequacy could not be determined. Future water demands for the park were not reported.

2.4.3.2. Polipoli Springs State Recreation Area Water System

The Polipoli Springs State Recreation Area water system is located in the Kahikinui Forest Reserve, 9.7 miles upland from Kula on Waipoli Road on the island of Maui. The system is located in the Central hydrological sector, and Kamaole system. The water system is owned and operated by the State of Hawaii and managed by the DLNR-State Parks. The water system serves a park cabin and campground area. The non-potable source for the water system is an unnamed spring. The spring water flows through a 1-1/2-inch pipe to the campground area. The estimated water demand is 0.002 mgd.

Information to determine the stream diversion capacity is not available and flow measurements are not recorded. System source capacity adequacy could not be determined. Future water demands for the park were not reported.

2.4.3.3. Puaa Kaa State Wayside Water System

The Puaa Kaa Wayside water system is located between Wailua and Nahiku along Hana Highway, 38 miles East of Kahului Airport on the island of Maui. The system is located in the Koolau hydrological sector, and Keanae system. The water system is owned and operated by the State of Hawaii and managed by the DLNR-State Parks. The water system serves a comfort station within the Wayside. The nonpotable source for the water system is a stream diversion from the Waiohue Stream. Stream water is diverted through a 2-inch pipe and stored in a 0.005 MG reservoir. The water gravity flows to the comfort station. The estimated water demand is 0.006 mgd. Information to determine the stream diversion capacity is not available and flow measurements are not recorded. System source capacity adequacy could not be determined. Future water demands for the park were not reported.

2.4.3.4. Iao Valley State Park Water System

The Iao Valley State Park water system is located at the end of Iao Valley Road, outside of Wailuku on the island of Maui. The system is located in the Wailuku hydrological sector, and Iao system. The water system is owned and operated by the State of Hawaii and managed by the DLNR-State Parks. The water system provides irrigation to a taro patch (1,500 SF) within the State Park. The nonpotable source for the water system is a stream diversion from the Iao Stream. Stream water is diverted through a 2-inch pipe and flows by gravity to the irrigation system. The estimated non potable water demand was not reported. Information to determine the stream diversion capacity is not available and flow measurements are not recorded. System source capacity adequacy could not be determined. The potable park consumption is supplied by the County of Maui, DWS water system. Future water demands for the park were not reported.

2.4.3.5. Waialala Water System

The Waialala water system is located at the end of Kalae Highway on the island of Molokai. The system is located in the Central hydrological sector, and Kualapuu system. The water system is owned and operated by the State of Hawaii and managed by the DLNR-State Parks. The Waialala water system is DOH public water system 246. Source for the system comes from the Waialala Tunnel (1000-03). Water from the Waialala Tunnel flows into a junction box and then into a 15,000 gallon steel tank. The water is boosted at a small pump station to another 5,000 gallon redwood tank, where sodium hypochlorite is directly added in the tank for disinfection. The recorded population served by the water system is 600 people. The water system serves the Molokai Mule Ride Stables, Resident Manager's Office, Palaau Park and Kalaupapa Lookout. The estimated water demand from the water system is 0.003 mgd. Tunnel source capacity

information is not available and flow measurements are not recorded. System source capacity adequacy could not be determined. Future water demands for the park were not reported.

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 Capacity in mgd)	Future Ave. Day Demand (mgd)
Molokai Irrigation System	DOA	a[2]	2.82
Hoolehua Water System	DHHL	No	0.880
Kaumahina SW	DLNR	a[1]	0.000
Polipoli Springs SRA	DLNR	a[1]	0.000
Puaa Kaa SW	DLNR	a[1]	0.000
Iao Valley SP	DLNR	a[1]	0.000
Waialala SP	DLNR	a[1]	0.000

a[1] Stream flow not gauged, unable to determine source capacity adequacy.
a[2] Updated water budget recommended. Water budget to determine source capacity adequacy.
a[3] Source obtained from County Water Department, source analysis to be performed in WUDP/OWMP.

CHAPTER 3
PROPOSED WATER-RELATED STATE PROJECTS

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*

Zone	Hawaii	Kauai	Maui	Oahu
RESIDENTIAL:				
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
COMMERCIAL:	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.
RESORT (To include hotel for Maui only):	400 gal/unit	350 gal/unit	350 gal/unit or 17000 gal/acre	350 gal/unit or 4000 gal/acre
LIGHT INDUSTRY:	4000 gal/acre	4000 gal/acre	6000 gal/acre	4000 gal/acre
SCHOOLS, PARKS:	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
HOSPITAL:			1800 gal/acre	
AGRICULTURAL:			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 Islands of Lanai, Maui and Molokai

The individual State projects and water demands located on the islands of Lanai, Maui and Molokai 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. **Tables 3.3 through 3.5** reports the projected water demand for SWPP projects by State department for each island. **Table 3.6** 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. **Figures 3.1 through 3.3** shows the maps Lanai, Maui and Molokai hydrological sectors and aquifer systems.

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

	Total Additional Yearly Projected Cumulative Average Day Demand (mgd)							
Department	**2001**	**2002**	**2003**	**2004**	**2005**	**2010**	**2015**	**2020**
DAGS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
DOA	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.500
DBEDT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
DOD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
DOE	0.000	0.000	0.000	0.014	0.014	0.014	0.014	0.014
DHHL	0.000	0.013	0.013	0.013	0.013	0.013	0.013	0.013
DOH	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
DHS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Judiciary	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
DLNR	0.002	0.005	0.005	0.005	0.005	0.005	0.005	0.005
DPS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
DOT	0.000	0.001	0.001	0.001	0.002	0.002	0.003	0.004
UH	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Lanai	**0.002**	**0.018**	**0.018**	**0.033**	**0.033**	**0.534**	**0.535**	**0.536**
State Totals	**12.194**	**18.089**	**25.221**	**26.586**	**33.204**	**69.421**	**76.554**	**80.874**

Table 3.4
Total Projected Demands on the Island of Maui by State Department

	Total Additional Yearly Projected Cumulative Average Day Demand (mgd)							
Department	**2001**	**2002**	**2003**	**2004**	**2005**	**2010**	**2015**	**2020**
DAGS	0.007	0.007	0.036	0.036	0.036	0.058	0.058	0.058
DOA	3.610	3.610	3.610	3.610	9.610	9.610	9.610	9.610
DBEDT	0.110	0.710	1.390	1.490	1.590	1.690	1.880	2.290
DOD	0.000	0.002	0.002	0.002	0.002	0.002	0.002	0.002
DOE	0.092	0.094	0.574	0.574	0.574	0.742	0.742	0.742
DHHL	0.133	0.133	0.483	0.483	0.483	4.151	6.448	6.448
DOH	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
DHS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Judiciary	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
DLNR	0.003	0.004	0.012	0.012	0.012	0.052	0.052	0.052
DPS	0.064	0.064	0.064	0.100	0.100	0.100	0.100	0.100
DOT	0.063	0.086	0.091	0.248	0.153	0.190	0.241	0.293
UH	0.025	0.118	0.118	0.120	0.120	0.120	0.120	0.120
Maui	**4.107**	**4.827**	**6.379**	**6.675**	**12.680**	**16.716**	**19.254**	**19.716**
State Totals	**12.194**	**18.089**	**25.221**	**26.586**	**33.204**	**69.421**	**76.554**	**80.874**

Table 3.5
Total Projected Demands on the Island of Molokai by State Department

	Total Additional Yearly Projected Cumulative Average Day Demand (mgd)							
Department	**2001**	**2002**	**2003**	**2004**	**2005**	**2010**	**2015**	**2020**
DAGS	0.000	0.000	0.000	0.000	0.000	0.005	0.005	0.005
DOA	1.320	1.320	1.320	1.320	1.320	2.820	2.820	2.820
DBEDT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
DOD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
DOE	0.015	0.015	0.029	0.029	0.029	0.029	0.029	0.029
DHHL	0.000	0.000	0.715	0.715	0.715	0.715	0.715	0.715
DOH	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
DHS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Judiciary	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
DLNR	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
DPS	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
DOT	0.000	0.000	0.000	0.001	0.001	0.001	0.038	0.039
UH	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Molokai	**1.336**	**1.336**	**2.064**	**2.064**	**2.064**	**3.570**	**3.607**	**3.608**
State Totals	**12.194**	**18.089**	**25.221**	**26.586**	**33.204**	**69.421**	**76.554**	**80.874**

Table 3.6
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)
MOLOKAI	**WEST**	**401**			**4**	**0**	**0.00000**	**0.00812**	**0.00812**
			KALUAKOI	40101	2	0	0.00000	0.00000	0.00000
			PUNAKOU	40102	2	0	0.00000	0.00812	0.00812
	CENTRAL	**402**			**9**	**6.262**	**3.36893**	**0.18698**	**3.55591**
			HOOLEHUA	40201	2	0	0.54893	0.07627	0.62520
			MANAWAINUI	40202	2	1.567	0.00000	0.09184	0.09184
			KUALAPUU	40203	5	4.842	2.82000	0.01887	2.83887
	SOUTH EAST	**403**			**24**	**2.342**	**0.00000**	**0.04418**	**0.04418**
			KAMILOLOA	40301	3	0.867	0.00000	0.04269	0.04269
			KAWELA	40302	5	0.8	0.00000	0.00000	0.00000
			UALAPUE	40303	8	0.238	0.00000	0.00149	0.00149
			WAIALUA	40304	8	0.437	0.00000	0.00000	0.00000
	NORTH EAST	**404**			**44**	**0.947**	**0.00000**	**0.00007**	**0.00007**
			KALAUPAPA	40401	2	0	0.00000	0.00007	0.00007
			KAHANUI	40402	3	0.094	0.00000	0.00000	0.00000
			WAIKOLU	40403	5	0.853	0.00000	0.00000	0.00000
			HAUPU	40404	2	0	0.00000	0.00000	0.00000
			PELEKUNU	40405	9	0	0.00000	0.00000	0.00000
			WAILAU	40406	15	0	0.00000	0.00000	0.00000
			HALAWA	40407	8	0	0.00000	0.00000	0.00000
LANAI	**CENTRAL**	**501**			**6**	**N/A**	**0.50000**	**0.03080**	**0.53080**
			WINDWARD	50101	3		0.00000	0.00000	0.00000
			LEEWARD	50102	3		0.50000	0.03080	0.53080

NOTE: Permitted Water Use as of September 2000.

Table 3.6 (cont'd)
Summary of SWPP Projected Water Demands, Sustainable Yield, and Permitted Water Use by Aquifer System

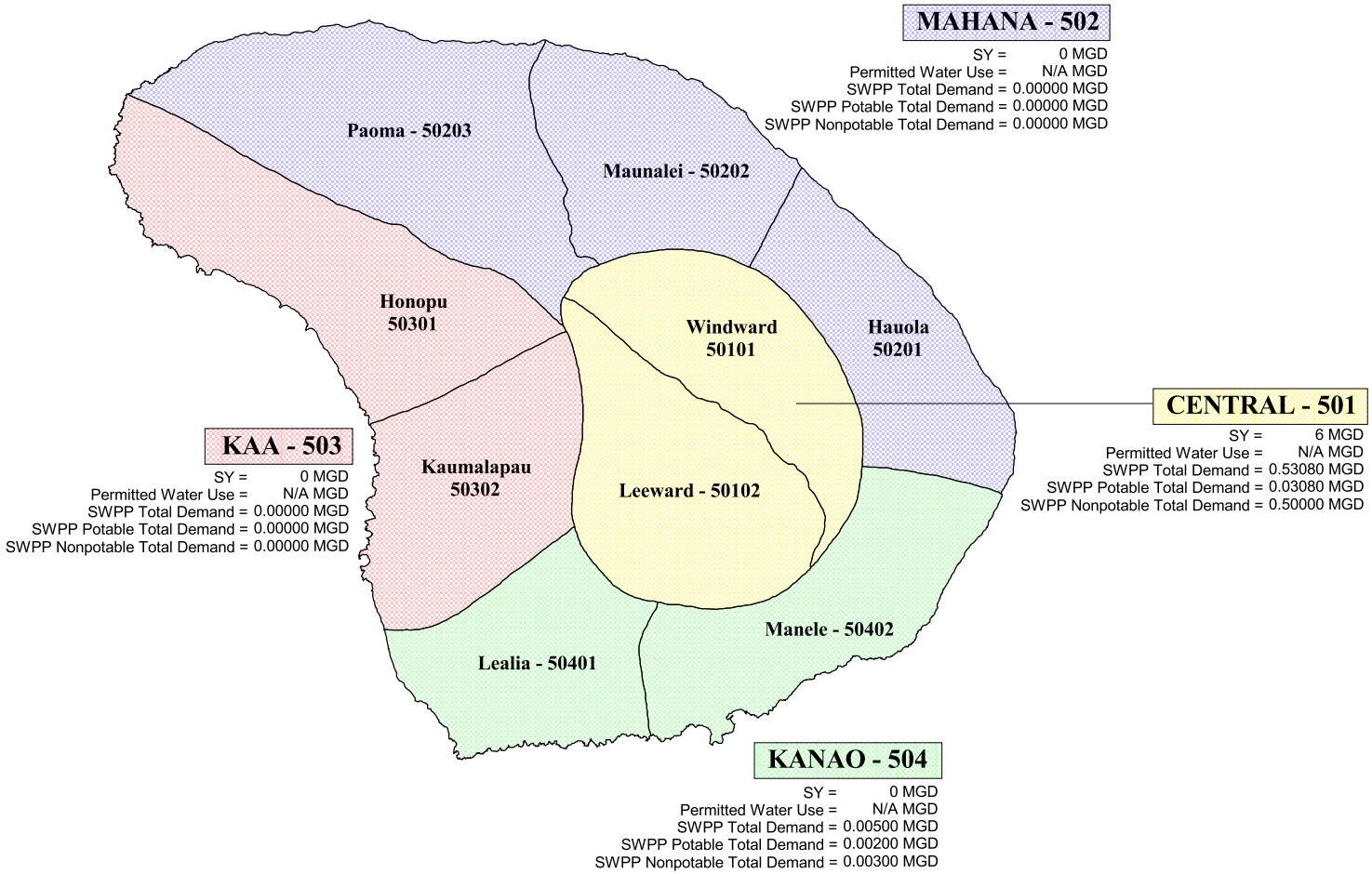
Island	Aquifer Sector	Sector No.	Aquifer System	System No.	Sus. Yield (MGD)	Permitted Water Use (MGD)	SWPP 2018 Nonpotable Demand (MGD)	SWPP 2018 Potable Demand (MGD)	SWPP 2018 Total Demand (MGD)
LANAI	**MAHANA**	**502**			**0**	**N/A**	**0.00000**	**0.00000**	**0.00000**
			HAUOLA	50201	0		0.00000	0.00000	0.00000
			MAUNALEI	50202	0		0.00000	0.00000	0.00000
			PUOMA	20203	0		0.00000	0.00000	0.00000
	KAA	**503**			**0**	**N/A**	**0.00000**	**0.00000**	**0.00000**
			HONOPU	50301	0		0.00000	0.00000	0.00000
			KAUMALAPAU	50302	0		0.00000	0.00000	0.00000
	KANAO	**504**			**0**	**N/A**	**0.00300**	**0.00200**	**0.00500**
			LEALIA	50401	0		0.00000	0.00000	0.00000
			MANELE	50402	0		0.00300	0.00200	0.00500
MAUI	**WAILUKU**	**601**			**38**	**N/A**	**0.02208**	**0.51712**	**0.53920**
			WAIKAPU	60101	2		0.00000	0.00860	0.00860
			IAO	60102	20		0.01698	0.49349	0.51047
			WAIHEE	60103	8		0.00510	0.01503	0.02013
			KAHAKULOA	60104	8		0.00000	0.00000	0.00000
	LAHAINA	**602**			**40**	**N/A**	**1.28920**	**1.15659**	**2.44579**
			HONOKOHAU	60201	10		0.00000	0.00000	0.00000
			HONOLUA	60202	8		0.00000	0.00000	0.00000
			HONOKOWAI	60203	8		0.00000	0.06000	0.06000
			LAUNIPOKO	60204	8		1.28920	1.09659	2.38579
			OLOWALU	60205	3		0.00000	0.00000	0.00000
			UKUMEHAME	60206	3		0.00000	0.00000	0.00000

NOTE: Permitted Water Use as of September 2000.

Table 3.6 (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)
MAUI	**CENTRAL**	**603**			**27**	**N/A**	**9.64374**	**7.05327**	**16.69701**
			KAHULUI	60301	1		0.01674	0.65599	0.67273
			PAIA	60302	8		0.01700	0.01559	0.03259
			MAKAWAO	60303	7		0.00000	6.07627	6.07627
			KAMAOLE	60304	11		9.61000	0.30543	9.91543
	KOOLAU	**604**			**202**	**N/A**	**0.00000**	**0.00796**	**0.00796**
			HAIKU	60401	31		0.00000	0.00796	0.00796
			HONOPOU	60402	29		0.00000	0.00000	0.00000
			WAIKAMOI	60403	46		0.00000	0.00000	0.00000
			KEANAE	60404	96		0.00000	0.00000	0.00000
	HANA	**605**			**133**	**N/A**	**0.00000**	**0.00568**	**0.00568**
			KUHIWA	60501	16		0.00000	0.00000	0.00000
			KAWAIPAPA	60502	48		0.00000	0.00568	0.00568
			WAIHOI	60503	20		0.00000	0.00000	0.00000
			KIPAHULU	60504	49		0.00000	0.00000	0.00000
	KAHIKINUI	**606**			**36**	**N/A**	**0.00000**	**0.02030**	**0.02030**
			KAUPO	60601	18		0.00000	0.00000	0.00000
			NAKULA	60602	7		0.00000	0.00000	0.00000
			LUALAILUA	60603	11		0.00000	0.02030	0.02030

NOTE: Permitted Water Use as of September 2000.



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

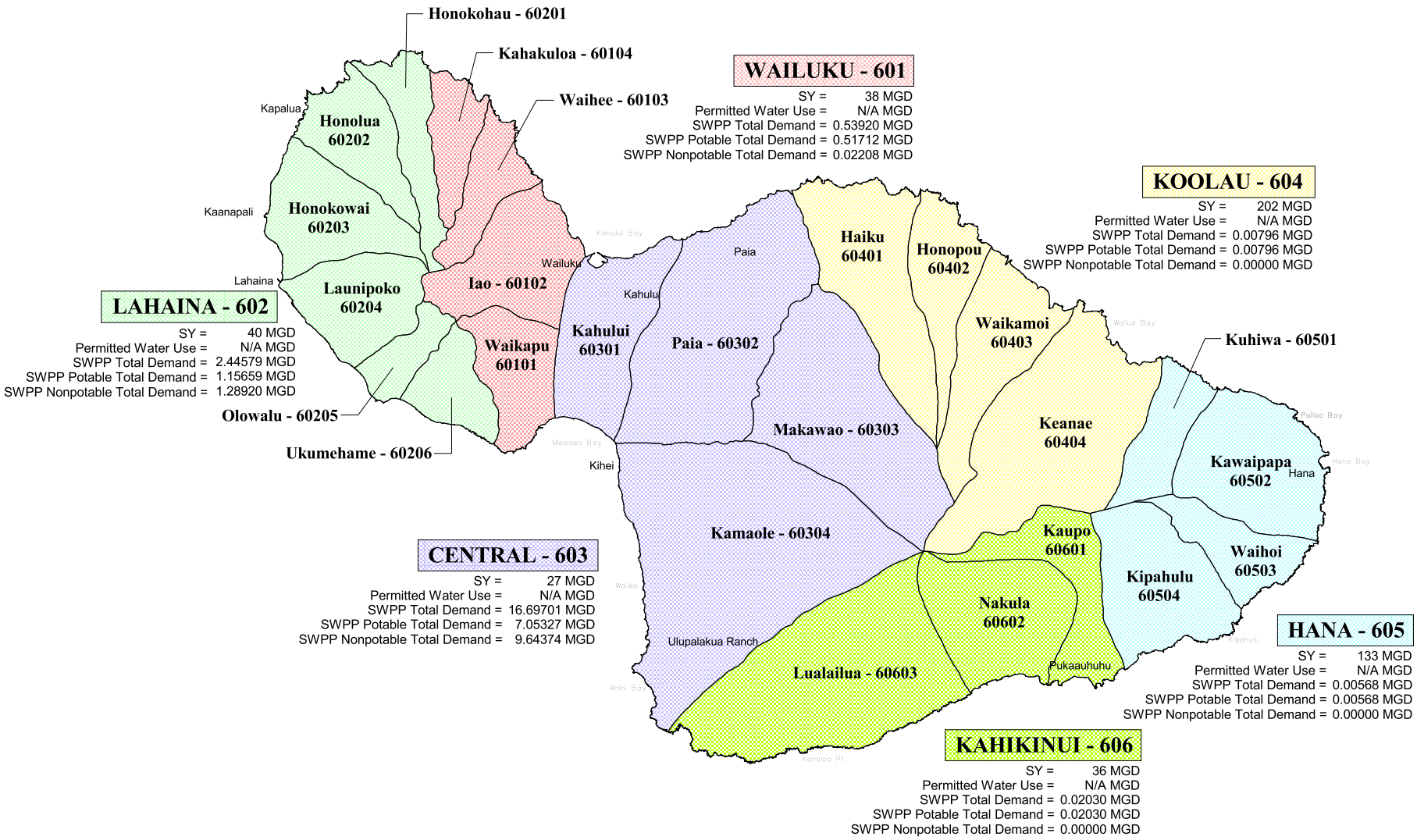
LEGEND:

CENTRAL - 501	Hydrological Sector - No.
Windward - 50101	Aquifer System - No.

State Water Projects Plan
HYDROLOGIC UNITS - LANAI
FIGURE 3.1

Date: February 2003

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



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

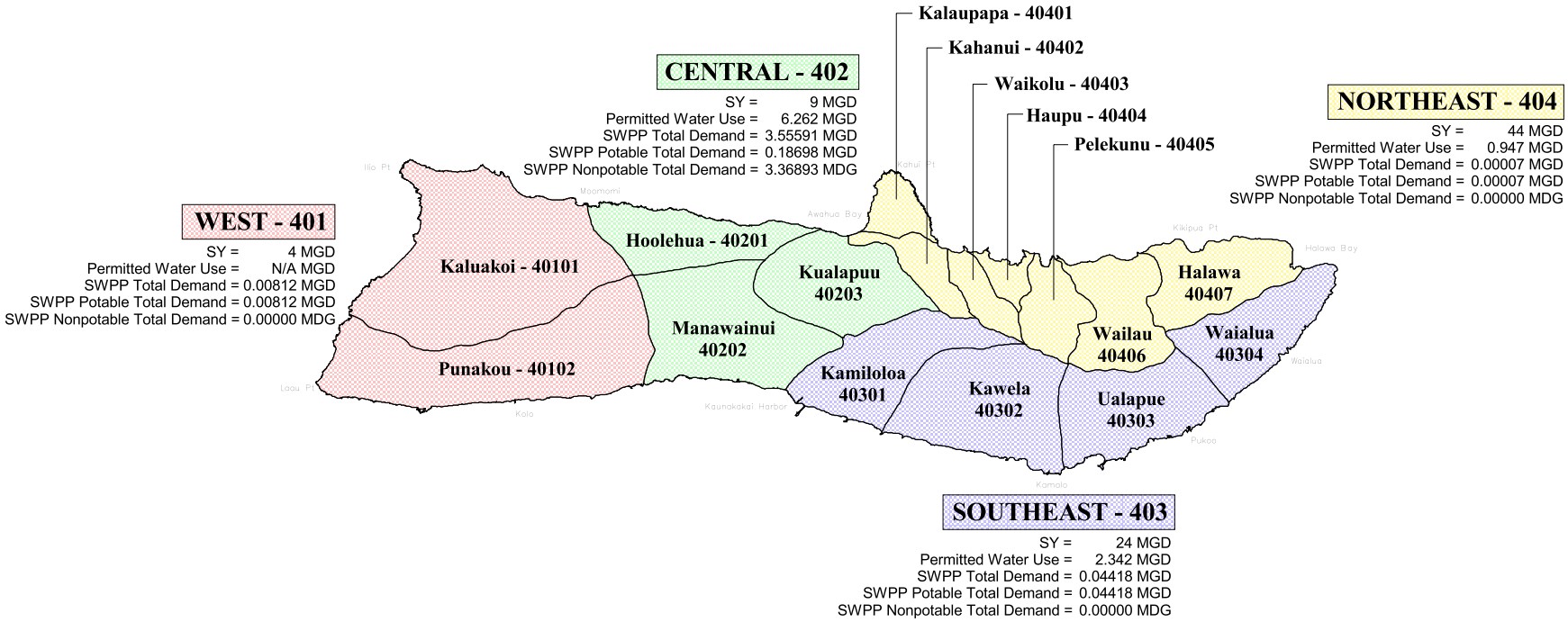
LEGEND:

WAILUKU - 601	Hydrological Sector - No.
Waikapu - 60101	Aquifer System - No.

State Water Projects Plan
HYDROLOGIC UNITS - MAUI
FIGURE 3.2

Date: February 2003

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



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

LEGEND:

WEST - 401	Hydrological Sector - No.
Kaluakoi - 40101	Aquifer System - No.

State Water Projects Plan
HYDROLOGIC UNITS - MOLOKAI
FIGURE 3.3

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.

4.1. WATER DEVELOPMENT STRATEGY – ISLAND OF LANAI

The source options were assigned to each SWPP project on the island of Lanai 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

The remaining balance of unmet project demand for the island of Lanai is shown on **Table 4.2**. The SWPP Water Development Strategy account for 100% of the total island of Lanai SWPP project demand. There are only three SWPP projects planned for the island of Lanai. Strategy options supplying projected demand include: private water agreements and planned private sources. The DOA SWPP project, Lanai Agricultural Park, is the only project with a significant water demand requirement (>0.10 mgd) and is shown on **Table 4.3**.

Table 4.2
Water Development Strategy Summary – Lanai

	SWPP Project (Potable and Nonpotable) Water Demands (mgd)							
State Water Demand Status	**2001**	**2002**	**2003**	**2004**	**2005**	**2010**	**2015**	**2020**
Total Water Demand for Lanai	0.00	0.02	0.02	0.03	0.03	0.53	0.53	0.54
Demand Accounted for by Water Development Strategy	0.00	0.02	0.02	0.03	0.03	0.53	0.53	0.54
Remaining Water Demand Balance to be Accommodated by Lanai Water Company or State Well Development	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 4.1

SWPP UPDATE - LANAI WATER DEVELOPMENT STRATEGY

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)									
		PRIMARY		SHORT-TERM						LONG-TERM			
DEPT	SWPP PROJECT NAME	USE	SECTOR	02001	02002	02003	02004	02005	02010	02015	02020	STRATEGY OPTION	SYSTEM OR SOURCE
	ISLAND OF LANAI			**0.00240**	**0.01810**	**0.01840**	**0.03310**	**0.03340**	**0.53380**	**0.53480**	**0.53580**	**SWPP Total Project Demand for Island of Lanai**	
	SWPP Projects Within Existing State Water Systems (#1)												
	No SWPP Projects												
	SWPP Projects Within Existing Master Plans (#2)												
	No SWPP Projects												
	SWPP Projects Within Existing State or Private Sources (#3)												
	No SWPP Projects												
	SWPP Projects with County Water Department and/or Private Water Agreements (#4)												
	No SWPP Projects												
	SWPP Projects with County Water Department Water Agreements - Use of Water Allocation Credits (#5)												
DHHL	LANAI	POTABLE	CENTRAL		0.01250	0.01250	0.01250	0.01250	0.01250	0.01250	0.01250	COUNTY-PRIVATEAGREE	PRIVATE
DOA	LANAI AGRICULTURAL PARK	NONPOTABLE	CENTRAL						0.50000	0.50000	0.50000	COUNTY-PRIVATEAGREE	PRIVATE
DOT-AIRPORTS	LANAI AIRPORT MASTER PLAN	POTABLE	CENTRAL	0.00040	0.00060	0.00090	0.00120	0.00150	0.00190	0.00290	0.00390	COUNTY-PRIVATEAGREE	PRIVATE
DOE	LANAI HIGH AND ELEM., NEW CLASSROOM BLDG.	POTABLE	CENTRAL				0.01440	0.01440	0.01440	0.01440	0.01440	COUNTY-PRIVATEAGREE	PRIVATE
DLNR-BOATING	MANELE BOAT HARBOR ELEC/TELE IMPROVEMTS.	NONPOTABLE USING POTABLE	KANAO	0.00100	0.00300	0.00300	0.00300	0.00300	0.00300	0.00300	0.00300	COUNTY-PRIVATEAGREE	PRIVATE
DLNR-BOATING	MANELE BOAT HARBOR ELEC/TELE IMPROVMTS.	POTABLE	KANAO	0.00100	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	COUNTY-PRIVATEAGREE	PRIVATE
				0.00240	**0.01810**	**0.01840**	**0.03310**	**0.03340**	**0.53380**	**0.53480**	**0.53580**	**Subtotal SWPP Projects with County Water Department Water Agreements - Use of Water Allocation Credits (#5)**	
	SWPP Projects Assigned to New/Planned State Wells (#6)												
	No SWPP Projects												
	SWPP Projects Within New State Water Systems (#7)												
	No SWPP Projects												
	SWPP Projects Assigned to Planned Private Sources (#8)												
	No SWPP Projects												
	Remaining Unmet SWPP Projects to be Supplied by DWS (#9)												
	No SWPP Projects												

TABLE 4.1

SWPP UPDATE - LANAI WATER DEVELOPMENT STRATEGY

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)									
		PRIMARY		SHORT-TERM						LONG-TERM			
DEPT	SWPP PROJECT NAME	USE	SECTOR	02001	02002	02003	02004	02005	02010	02015	02020	STRATEGY OPTION	SYSTEM OR SOURCE
	ISLAND OF LANAI			**0.00240**	**0.01810**	**0.01840**	**0.03310**	**0.03340**	**0.53380**	**0.53480**	**0.53580**	**SWPP Total Project Demand for Island of Lanai**	
	Other Strategy Consideration												
	Nonpotable Demand to be Met by Nonpotable Sources (by Hydrological Sector)												
	CENTRAL-501	NONPOTABLE		0.00000	0.00000	0.00000	0.00000	0.00000	0.50000	0.50000	0.50000		
	MAHANA-502	NONPOTABLE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
	KAA-503	NONPOTABLE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
	KANAO-504	NONPOTABLE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
		NONPOTABLE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
				0.00000	**0.00000**	**0.00000**	**0.00000**	**0.00000**	**0.50000**	**0.50000**	**0.50000**	**Subtotal Nonpotable Demand to be Met by Nonpotable Sources (by Hydrological Sector)**	
	Additional Nonpotable Demand to be Met by Potable Sources (by Hydrological Sector)												
	CENTRAL-501	NONPOTABLE USING POTABLE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
	MAHANA-502	NONPOTABLE USING POTABLE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
	KAA-503	NONPOTABLE USING POTABLE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
	KANAO-504	NONPOTABLE USING POTABLE		0.00100	0.00300	0.00300	0.00300	0.00300	0.00300	0.00300	0.00300		
		NONPOTABLE USING POTABLE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
				0.00100	**0.00300**	**0.00300**	**0.00300**	**0.00300**	**0.00300**	**0.00300**	**0.00300**	**Subtotal Additional Nonpotable Demand to be Met by Potable Sources (by Hydrological Sector)**	
		Total Nonpotable Demand Lanai=		**0.00100**	**0.00300**	**0.00300**	**0.00300**	**0.00300**	**0.50300**	**0.50300**	**0.50300**		

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

SWPP Project	Primary Use	2020 Demand (mgd)	Water Development Strategy
Lanai Agricultural Park	Nonpotable	0.50	COUNTY-PRIVATEAGREE

4.3. EVALUATION OF WATER DEVELOPMENT STRATEGY OPTIONS

4.3.1. Existing State Water Systems (EXSWS)

There are no existing State water systems serving SWPP projects.

4.3.2. Existing Master Plan (MASTERPLAN)

There are no existing master plans serving SWPP projects.

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-)

The State of Hawaii has a water service agreement (COUNTY-PRIVATEAGREE) with the Lanai Water Company to supply the all SWPP projects with water from their ground water wells and water systems.

<u>It is recommended that DLNR monitor the status of the water service agreements to insure State projects receive water service.</u>

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

The State currently does not own water allocation from the Lanai Water Company.

4.3.6. New/Planned State Wells (NEWSS)

There are no new State wells planned for development.

4.3.7. New State Water Systems (NEWSWS)

There are no new State water systems planned.

4.3.8. Planned Private Sources (PLANPS)
There are no new private sources planned.

4.3.9. Coordination of Unmet SWPP Project Demand with Lanai Water Company (REMAIN)

DLNR will initiate discussions with the Lanai Water Company to determine the availability and feasibility of integrating the project demand into the water system. It is anticipated that the water system is capable of supplying SWPP project demands.

4.3.10. Other Strategy Considerations

There were two SWPP projects with nonpotable water requirements. The Lanai Agricultural Park is scheduled to receive (0.50 mgd) water from the private water purveyor through a water service agreement. The Manele Boat Harbor project contains some landscaping irrigation demand (0.003 mgd) planned to be supply by the Lanai Water Company water system.

4.4. RECOMMENDED WATER DEVELOPMENT STRATEGY ACTIONS

It is anticipated that Lanai Water Company water system will be able supply the one remaining SWPP project demand. There are no recommended State source development actions.

Additional recommendations are listed below.

It is recommended that DLNR monitor the status of the water service agreements to insure State projects receive water service.

4.5. WATER DEVELOPMENT STRATEGY – ISLAND OF MAUI

The source options were assigned to each SWPP project on the island of Maui as described in the SWPP Water Development Strategy. Each SWPP project was categorized into a SWPP Water Development Strategy options, detailed in **Table 4.4**. 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.

4.6. SWPP PROJECT DEMAND OVERVIEW

The remaining balance of unmet project demand for the island of Maui is shown on **Table 4.5**. A graph of the remaining potable and nonpotable demands is shown on **Figure 4.1**. The SWPP Water Development Strategy accounts for 30% of SWPP project demand on the island of Maui. SWPP projects will be supported by the County water systems or new State water system. The remaining unmet project demand consists of a large number of smaller State projects involving renovations, additions and improvements to existing State facilities. However, within the remaining unmet project demands are State projects with projected demands large enough that alternative source and water service options should be considered. The projects and their primary water use types are (DHHL) Kula Keoke Agricultural Lots in the Central sector requiring potable water, (DOA) Upcountry Maui Irrigations Project in the Central sector requiring nonpotable water, (DHHL) Kula Master Plan Area in the Central sector requiring potable water and the (HCDCH) Lahaina Master Plan in the Lahaina sector requiring both potable and nonpotable water. The remaining unmet project demand balance in the Central and Lahaina sectors may impact the County water systems and require additional source development. A list of SWPP projects with significant demand requirements (>0.10 mgd) was compiled to identify projects with the greatest potential to impact existing water system components and require system improvements. These projects are shown on **Table 4.6**. The majority of these projects have identified strategy source options. Impacts on the County water systems and required source development appear limited to specific projects and the projects in the Central sector.

TABLE 4.4

SWPP UPDATE - MAUI WATER DEVELOPMENT STRATEGY

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)									
		PRIMARY		SHORT-TERM						LONG-TERM			
DEPT	SWPP PROJECT NAME	USE	SECTOR	02001	02002	02003	02004	02005	02010	02015	02020	STRATEGY OPTION	SYSTEM OR SOURCE
	ISLAND OF MAUI			**4.10658**	**4.82747**	**6.37929**	**6.67465**	**12.67988**	**16.71575**	**19.25394**	**19.71594**	**SWPP Total Project Demand for Island of MAUI**	
	SWPP Projects Within Existing State Water Systems (#1)												
	No SWPP Projects												
	SWPP Projects Within Existing Master Plans (#2)												
	No SWPP Projects												
	SWPP Projects Within Existing State or Private Sources (#3)												
	No SWPP Projects												
	SWPP Projects with County Water Department and/or Private Water Agreements (#4)												
	No SWPP Projects												
	SWPP Projects with County Water Department Water Agreements - Use of Water Allocation Credits (#5)												
	No SWPP Projects												
	SWPP Projects Assigned to New/Planned State Wells (#6)												
	No SWPP Projects												
	SWPP Projects Within New State Water Systems (#7)												
DOA	LOWER KULA WATERSHED PROJECT	NONPOTABLE	CENTRAL					6.00000	6.00000	6.00000	6.00000	NEWSWS - DOA WATER SYSTEM	STATE
				0.00000	**0.00000**	**0.00000**	**0.00000**	**6.00000**	**6.00000**	**6.00000**	**6.00000**	**Subtotal SWPP Projects Within New State Water Systems (#7)**	
	SWPP Projects Assigned to Planned Private Sources (#8)												
	No SWPP Projects												
	Remaining Unmet SWPP Projects to be Supplied by DWS (#9)												
DAGS-PL	KAHULUI CIVIC CENTER, PHASE 1	NONPOTABLE USING POTABLE	CENTRAL						0.00474	0.00474	0.00474	REMAIN-DAGS	COUNTY
DAGS-PL	KAHULUI CIVIC CENTER, PHASE 1	POTABLE	CENTRAL						0.01784	0.01784	0.01784	REMAIN-DAGS	COUNTY
DAGS-PL	KAHULUI CIVIC CTR (TEMPORARY OFFICE FAC.)	POTABLE	CENTRAL			0.01400	0.01400	0.01400	0.01400	0.01400	0.01400	REMAIN-DAGS	COUNTY
DAGS-PM	LAHAINALUNA HI LIBRARY & RENOVATION OF EXISTING LIBRARY INTO 3 CLASSROOMS	POTABLE	LAHAINA	0.00504	0.00504	0.00504	0.00504	0.00504	0.00504	0.00504	0.00504	REMAIN-DAGS	COUNTY
DAGS-PM	LOKELANI INT CAFETORIUM	POTABLE	CENTRAL	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	REMAIN-DAGS	COUNTY
DAGS-PM	MAUI ARMY NATIONAL GUARD, PUUNENE ARMORY	POTABLE	WAILUKU			0.00710	0.00710	0.00710	0.00710	0.00710	0.00710	REMAIN-DAGS	COUNTY
DAGS-PL	MAUI CCC BED EXPANSION	POTABLE	WAILUKU			0.00777	0.00777	0.00777	0.00777	0.00777	0.00777	REMAIN-DAGS	COUNTY
DHHL	KAHIKINUI - HOMESTEAD	POTABLE	KAHIKINUI							0.00720	0.00720	REMAIN-DHHL	COUNTY
DHHL	KAHIKINUI - LIVESTOCK	POTABLE	KAHIKINUI							0.01000	0.01000	REMAIN-DHHL	COUNTY
DHHL	KEOKEA AGRICULTURAL LOTS (RES.)	POTABLE	CENTRAL	0.04260	0.04260	0.04260	0.04260	0.04260	0.04260	0.04260	0.04260	REMAIN-DHHL	COUNTY

TABLE 4.4

SWPP UPDATE - MAUI WATER DEVELOPMENT STRATEGY

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)									
				SHORT-TERM						LONG-TERM			
DEPT	SWPP PROJECT NAME	PRIMARY USE	SECTOR	02001	02002	02003	02004	02005	02010	02015	02020	STRATEGY OPTION	SYSTEM OR SOURCE
	ISLAND OF MAUI			**4.10658**	**4.82747**	**6.37929**	**6.67465**	**12.67988**	**16.71575**	**19.25394**	**19.71594**	**SWPP Total Project Demand for Island of MAUI**	
	Remaining Unmet SWPP Projects to be Supplied by DWS (#9) CONTINUED												
DHHL	KULA - KEOKEA AG LOTS	POTABLE	CENTRAL						3.60000	3.60000	3.60000	REMAIN-DHHL	COUNTY
DHHL	KULA - KEOKEA RES. AG LOTS	POTABLE	CENTRAL						0.04000	0.04000	0.04000	REMAIN-DHHL	COUNTY
DHHL	KULA - MASTER PLAN AREA	POTABLE	CENTRAL							2.10000	2.10000	REMAIN-DHHL	COUNTY
DHHL	KULA - RESIDENCE LOTS WAIOHULI 1, 2	POTABLE	CENTRAL							0.18000	0.18000	REMAIN-DHHL	COUNTY
DHHL	KULA - RESIDENCE LOTS, UNIT 2	POTABLE	CENTRAL	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	REMAIN-DHHL	COUNTY
DHHL	PAUKUKALO - RESIDENCE LOTS UNIT 3 PHASE 3	POTABLE	WAILUKU						0.01980	0.01980	0.01980	REMAIN-DHHL	COUNTY
DHHL	PAUKUKALO - RESIDENCE LOTS UNIT 4	POTABLE	WAILUKU						0.00840	0.00840	0.00840	REMAIN-DHHL	COUNTY
DHHL	WAIEHU - RESIDENCE LOTS	POTABLE	WAILUKU			0.02000	0.02000	0.02000	0.02000	0.02000	0.02000	REMAIN-DHHL	COUNTY
DHHL	WAIEHU KOU	POTABLE	WAILUKU			0.10000	0.10000	0.10000	0.10000	0.10000	0.10000	REMAIN-DHHL	COUNTY
DHHL	WAIEHU KOU III	POTABLE	WAILUKU	0.04200	0.04200	0.04200	0.04200	0.04200	0.04200	0.04200	0.04200	REMAIN-DHHL	COUNTY
DHHL	WAIOHULI RES LOTS UNIT 1	POTABLE	CENTRAL			0.23040	0.23040	0.23040	0.23040	0.23040	0.23040	REMAIN-DHHL	COUNTY
DLNR-PARKS	HALEKII-PIHANA HEIAU SM	NONPOTABLE USING POTABLE	WAILUKU	0.00035	0.00047	0.00059	0.00070	0.00082	0.01698	0.01698	0.01698	REMAIN-DLNR	COUNTY
DLNR-PARKS	HALEKII-PIHANA HEIAU SM	POTABLE	WAILUKU	0.00003	0.00004	0.00004	0.00005	0.00006	0.00128	0.00128	0.00128	REMAIN-DLNR	COUNTY
DLNR-BOATING	KAHULUI BOAT HARBOR	NONPOTABLE USING POTABLE	CENTRAL			0.00096	0.00096	0.00096	0.00096	0.00096	0.00096	REMAIN-DLNR	COUNTY
DLNR-BOATING	KAHULUI BOAT HARBOR	POTABLE	CENTRAL			0.00504	0.00504	0.00504	0.00504	0.00504	0.00504	REMAIN-DLNR	COUNTY
DLNR-BOATING	MAALAEA BOAT HAR EAST MOLE IMPROVEMTS	POTABLE	CENTRAL						0.02300	0.02300	0.02300	REMAIN-DLNR	COUNTY
DLNR-BOATING	MAALAEA BOAT HARBOR ADMIN BLD AND BYD	NONPOTABLE USING POTABLE	CENTRAL			0.00170	0.00170	0.00170	0.00170	0.00170	0.00170	REMAIN-DLNR	COUNTY
DLNR-BOATING	MAALAEA BOAT HARBOR ADMIN BLD AND BYD	POTABLE	CENTRAL			0.00021	0.00021	0.00021	0.00021	0.00021	0.00021	REMAIN-DLNR	COUNTY
DLNR-PARKS	MAKENA STATE PARK - COMFORT STATIONS WITH COMPOSTING TOILETS	POTABLE	KAHIKINUI	0.00250	0.00250	0.00250	0.00250	0.00250	0.00250	0.00250	0.00250	REMAIN-DLNR	COUNTY
DLNR-PARKS	MAKENA STATE PARK - SECURITY RESIDENCE	POTABLE	KAHIKINUI	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	REMAIN-DLNR	COUNTY
DOA	UPCOUNTRY MAUI IRRIGATION PROJECT	NONPOTABLE	CENTRAL	3.61000	3.61000	3.61000	3.61000	3.61000	3.61000	3.61000	3.61000	REMAIN-DOA	COUNTY
DOD	MAUI CONSOLIDATED FACILITIES	POTABLE	WAILUKU		0.00150	0.00150	0.00150	0.00150	0.00150	0.00150	0.00150	REMAIN-DOD	COUNTY
DOE	BALDWIN HIGH SCHOOL GYMNASIUM	POTABLE	CENTRAL	0.00400	0.00400	0.00400	0.00400	0.00400	0.00400	0.00400	0.00400	REMAIN-DOE	COUNTY
DOE	BALDWIN HIGH SCHOOL NEW 8 CLASSROOM	POTABLE	WAILUKU			0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	REMAIN-DOE	COUNTY
DOE	BALDWIN HIGH SCHOOL NEW LIBRARY	POTABLE	WAILUKU			0.00178	0.00178	0.00178	0.00178	0.00178	0.00178	REMAIN-DOE	COUNTY
DOE	HAIKU ELEMENTARY NEW 6 CLASSROOM	POTABLE	KOOLAU			0.00076	0.00076	0.00076	0.00076	0.00076	0.00076	REMAIN-DOE	COUNTY
DOE	HANA HIGH/ELEM SCHOOL NEW 6 CLASSROOM	POTABLE	HANA			0.00076	0.00076	0.00076	0.00076	0.00076	0.00076	REMAIN-DOE	COUNTY
DOE	HANA HIGH/ELEM SCHOOL NEW ADMINISTRATION	POTABLE	HANA			0.00092	0.00092	0.00092	0.00092	0.00092	0.00092	REMAIN-DOE	COUNTY
DOE	HLIP SCHOOL NEW SCHOOL	POTABLE	WAILUKU			0.12000	0.12000	0.12000	0.12000	0.12000	0.12000	REMAIN-DOE	COUNTY
DOE	IAO INTER NEW 12 CLASSROOM (ARMORY)	POTABLE	WAILUKU	0.02160	0.02160	0.02160	0.02160	0.02160	0.02160	0.02160	0.02160	REMAIN-DOE	COUNTY
DOE	IAO INTERMEDIATE NEW 8 CLASSROOM	POTABLE	WAILUKU						0.01260	0.01260	0.01260	REMAIN-DOE	COUNTY
DOE	IAO INTERMEDIATE NEW CAFETERIA	POTABLE	WAILUKU	0.00326	0.00326	0.00326	0.00326	0.00326	0.00326	0.00326	0.00326	REMAIN-DOE	COUNTY
DOE	KALAMA INTER SCHOOL NEW ADMINISTRATION	POTABLE	CENTRAL		0.00087	0.00087	0.00087	0.00087	0.00087	0.00087	0.00087	REMAIN-DOE	COUNTY
DOE	KEKAULIKE HIGH SCH (BALANCE OF INCREMENTS)	POTABLE	CENTRAL	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	REMAIN-DOE	COUNTY
DOE	KIHEI ELEMENTARY NEW ADMINISTRATION	POTABLE	CENTRAL		0.00063	0.00063	0.00063	0.00063	0.00063	0.00063	0.00063	REMAIN-DOE	COUNTY
DOE	KIHEI HIGH SCHOOL	POTABLE	CENTRAL						0.06000	0.06000	0.06000	REMAIN-DOE	COUNTY

TABLE 4.4

SWPP UPDATE - MAUI WATER DEVELOPMENT STRATEGY

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)									
				SHORT-TERM						LONG-TERM			
DEPT	SWPP PROJECT NAME	PRIMARY USE	SECTOR	02001	02002	02003	02004	02005	02010	02015	02020	STRATEGY OPTION	SYSTEM OR SOURCE
	ISLAND OF MAUI			**4.10658**	**4.82747**	**6.37929**	**6.67465**	**12.67988**	**16.71575**	**19.25394**	**19.71594**	**SWPP Total Project Demand for Island of MAUI**	
	Remaining Unmet SWPP Projects to be Supplied by DWS (#9) CONTINUED												
DOE	KING KEKAULIKE HIGH SCHOOL NEW 6 CLSRM	POTABLE	CENTRAL			0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	REMAIN-DOE	COUNTY
DOE	LAHAINA III ELEMENTARY 1ST & 2ND INCREMENT	POTABLE	LAHAINA			0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	REMAIN-DOE	COUNTY
DOE	LAHAINA INTER LOCKR/SHOWR FAC & PLAYFLD	NONPOTABLE USING POTABLE	LAHAINA	0.00680	0.00680	0.00680	0.00680	0.00680	0.00680	0.00680	0.00680	REMAIN-DOE	COUNTY
DOE	LAHAINA INTER LOCKR/SHOWR FAC & PLAYFLD	POTABLE	LAHAINA	0.00086	0.00086	0.00086	0.00086	0.00086	0.00086	0.00086	0.00086	REMAIN-DOE	COUNTY
DOE	LAHAINA INTER SCHOOL NEW 8 CLASSROOM	POTABLE	LAHAINA			0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	REMAIN-DOE	COUNTY
DOE	LAHAINA INTERMEDIATE NEW ADMINISTRATION	POTABLE	LAHAINA			0.00087	0.00087	0.00087	0.00087	0.00087	0.00087	REMAIN-DOE	COUNTY
DOE	LAHAINA INTERMEDIATE SCHOOL NEW LIBRARY	POTABLE	LAHAINA			0.00087	0.00087	0.00087	0.00087	0.00087	0.00087	REMAIN-DOE	COUNTY
DOE	LAHAINALUNA HIGH SCHOOL NEW ATHLETIC LOCKER/SHOWER	POTABLE	LAHAINA			0.00120	0.00120	0.00120	0.00120	0.00120	0.00120	REMAIN-DOE	COUNTY
DOE	LAHAINALUNA HIGH SCHOOL NEW CAFETERIA	POTABLE	LAHAINA			0.00420	0.00420	0.00420	0.00420	0.00420	0.00420	REMAIN-DOE	COUNTY
DOE	LOKELANI INTER SCHOOL NEW 6 CLASSROOM	POTABLE	CENTRAL			0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	REMAIN-DOE	COUNTY
DOE	LOKELANI INTER SCHOOL NEW ADMINISTRATION	POTABLE	CENTRAL			0.00090	0.00090	0.00090	0.00090	0.00090	0.00090	REMAIN-DOE	COUNTY
DOE	LOKELANI INTERMEDIATE CAFETERIA	POTABLE	CENTRAL	0.00270	0.00270	0.00270	0.00270	0.00270	0.00270	0.00270	0.00270	REMAIN-DOE	COUNTY
DOE	MAKAWAO ELEM SCH 8-CLASSROOM BUILDING	POTABLE	CENTRAL			0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	REMAIN-DOE	COUNTY
DOE	MAKAWAO ELEMENTARY NEW 12 CLASSROOM	POTABLE	CENTRAL			0.02160	0.02160	0.02160	0.02160	0.02160	0.02160	REMAIN-DOE	COUNTY
DOE	MAUI LANI ELEMENTARY 1ST & 2ND INCREMENT	POTABLE	WAILUKU			0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	REMAIN-DOE	COUNTY
DOE	MAUI WAENA INTER SCHOOL NEW ADMINISTRATN	POTABLE	CENTRAL		0.00087	0.00087	0.00087	0.00087	0.00087	0.00087	0.00087	REMAIN-DOE	COUNTY
DOE	MAUI-WAENA INTER SCHOOL NEW 6 CLASSROOM	POTABLE	CENTRAL			0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	REMAIN-DOE	COUNTY
DOE	NAHIENAENA ELEM SCH NEW LIBRARY/ADMIN	POTABLE	LAHAINA			0.00155	0.00155	0.00155	0.00155	0.00155	0.00155	REMAIN-DOE	COUNTY
DOE	NEW MAUI INTERMEDIATE	POTABLE	CENTRAL						0.09600	0.09600	0.09600	REMAIN-DOE	COUNTY
DOE	PAIA ELEMENTARY NEW ADMINISTRATION	POTABLE	CENTRAL			0.00059	0.00059	0.00059	0.00059	0.00059	0.00059	REMAIN-DOE	COUNTY
DOE	PAIA ELEMENTARY NEW CAFETERIA	POTABLE	CENTRAL	0.01500	0.01500	0.01500	0.01500	0.01500	0.01500	0.01500	0.01500	REMAIN-DOE	COUNTY
DOE	PUAKALANI ELEMENTARY - ADMIN/LIBRARY/RENOVATE 4 CLASSROOMS	POTABLE	KOOLAU			0.00720	0.00720	0.00720	0.00720	0.00720	0.00720	REMAIN-DOE	COUNTY
DOE	PUUKOLII ELEMENTARY 1ST INCREMENT	POTABLE	LAHAINA			0.03600	0.03600	0.03600	0.03600	0.03600	0.03600	REMAIN-DOE	COUNTY
DOE	PUUKOLII ELEMENTARY 2ND INCREMENT	POTABLE	LAHAINA			0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	REMAIN-DOE	COUNTY
DOE	WAIHEE ELEM - PLAYFLD/WTR RETENTN BASIN	NONPOTABLE USING POTABLE	WAILUKU	0.00510	0.00510	0.00510	0.00510	0.00510	0.00510	0.00510	0.00510	REMAIN-DOE	COUNTY
DOE	WAIHEE ELEMENTARY NEW 8 CLASSROOM	POTABLE	WAILUKU	0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	REMAIN-DOE	COUNTY
DOE	WAIHEE ELEMENTARY NEW ADMINISTRATION	POTABLE	WAILUKU			0.00063	0.00063	0.00063	0.00063	0.00063	0.00063	REMAIN-DOE	COUNTY
DOE	WAILUKU II ELEM SCHOOL 1ST & 2ND INCREMENT	POTABLE	WAILUKU			0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	REMAIN-DOE	COUNTY
DOH	MAUI MEMORIAL HOSPITAL - DIET DEPT RENOV	POTABLE	WAILUKU	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	REMAIN-DOH	COUNTY
DOT-HIGHWAYS	HALEAKALA HWY WIDENING, PUKALANI BYPASS TO HANA HWY	NONPOTABLE USING POTABLE	CENTRAL				0.06600	0.06600	0.01700	0.01700	0.01700	REMAIN-DOT	COUNTY
DOT-AIRPORTS	HANA AIRPORT MASTER PLAN	POTABLE	HANA	0.00050	0.00060	0.00070	0.00080	0.00090	0.00100	0.00200	0.00400	REMAIN-DOT	COUNTY
DOT-HIGHWAYS	HONOAPIILANI HWY WIDENING, NORTH KIHEI ROAD TO MAALAEA HARBOR	NONPOTABLE USING POTABLE	CENTRAL		0.01800	0.01800	0.00450	0.00450	0.00450	0.00450	0.00450	REMAIN-DOT	COUNTY
DOT-AIRPORTS	KAHULUI AIRPORT ACCESS ROAD	POTABLE	CENTRAL				0.10000					REMAIN-DOT	COUNTY
DOT-AIRPORTS	KAHULUI AIRPORT MASTER PLAN	POTABLE	CENTRAL	0.01200	0.01700	0.02200	0.02700	0.03200	0.06700	0.11700	0.16700	REMAIN-DOT	COUNTY
DOT-HARBORS	KAHULUI COMMERCIAL HARBOR - 2025 MASTER PLAN: CARGO YARD	POTABLE	CENTRAL	0.05000	0.05000	0.05000	0.05000	0.05000	0.10000	0.10000	0.10000	REMAIN-DOT	COUNTY
DPS	MAUI COM CORRECT CTR, EXPAN&RENOVS	POTABLE	CENTRAL	0.06400	0.06400	0.06400	0.10000	0.10000	0.10000	0.10000	0.10000	REMAIN-DPS	COUNTY

TABLE 4.4

SWPP UPDATE - MAUI WATER DEVELOPMENT STRATEGY

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)									
				SHORT-TERM						LONG-TERM			
DEPT	SWPP PROJECT NAME	PRIMARY USE	SECTOR	02001	02002	02003	02004	02005	02010	02015	02020	STRATEGY OPTION	SYSTEM OR SOURCE
	ISLAND OF MAUI			**4.10658**	**4.82747**	**6.37929**	**6.67465**	**12.67988**	**16.71575**	**19.25394**	**19.71594**	**SWPP Total Project Demand for Island of MAUI**	
	Remaining Unmet SWPP Projects to be Supplied by DWS (#9) CONTINUED												
HCDCH	LAHAINA MASTER PLAN	NONPOTABLE USING POTABLE	LAHAINA	0.06160	0.39760	0.77840	0.83440	0.89040	0.94641	1.00440	1.28240	REMAIN-HCDCH	COUNTY
HCDCH	LAHAINA MASTER PLAN	POTABLE	LAHAINA	0.04840	0.31240	0.61160	0.65560	0.69960	0.74360	0.87560	1.00760	REMAIN-HCDCH	COUNTY
UH	MAUI COMMUNITY COLLEGE - BLDG N TELECOMMUNICATION/MEDIA CENTER	NONPOTABLE USING POTABLE	CENTRAL	0.00361	0.00361	0.00361	0.00361	0.00361	0.00361	0.00361	0.00361	REMAIN-UH	COUNTY
UH	MAUI COMMUNITY COLLEGE - BLDG N TELECOMMUNICATION/MEDIA CENTER	POTABLE	CENTRAL	0.01145	0.01145	0.01145	0.01145	0.01145	0.01145	0.01145	0.01145	REMAIN-UH	COUNTY
UH	MAUI COMMUNITY COLLEGE - BLDG P FOOD SERVICES	NONPOTABLE USING POTABLE	CENTRAL		0.00094	0.00094	0.00094	0.00094	0.00094	0.00094	0.00094	REMAIN-UH	COUNTY
UH	MAUI COMMUNITY COLLEGE - BLDG P FOOD SERVICES	POTABLE	CENTRAL		0.09286	0.09286	0.09286	0.09286	0.09286	0.09286	0.09286	REMAIN-UH	COUNTY
UH	MAUI COMMUNITY COLLEGE - BUILDING S COMMUNITY SERVICES	NONPOTABLE USING POTABLE	CENTRAL	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	REMAIN-UH	COUNTY
UH	MAUI COMMUNITY COLLEGE - BUILDING S COMMUNITY SERVICES	POTABLE	CENTRAL	0.00929	0.00929	0.00929	0.00929	0.00929	0.00929	0.00929	0.00929	REMAIN-UH	COUNTY
UH	MAUI COMMUNITY COLLEGE, RENOVATE BLDG. Q, STUDENT CENTER	POTABLE	CENTRAL				0.00163	0.00163	0.00163	0.00163	0.00163	REMAIN-UH	COUNTY
				4.10658	**4.82747**	**6.37929**	**6.67465**	**6.67988**	**10.71575**	**13.25394**	**13.71594**	**Subtotal Remaining Unmet SWPP Projects to be Supplied by DWS (#9)**	
	Other Strategy Consideration												
	Nonpotable Demand to be Met by Nonpotable Sources (by Hydrological Sector)												
	WAILUKU-601	NONPOTABLE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
	LAHAINA-602	NONPOTABLE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
	CENTRAL-603	NONPOTABLE		3.61000	3.61000	3.61000	3.61000	9.61000	9.61000	9.61000	9.61000		
	KOOLAU-604	NONPOTABLE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
	HANA-605	NONPOTABLE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
	KAHIKINUI-606	NONPOTABLE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
		NONPOTABLE		**3.61000**	**3.61000**	**3.61000**	**3.61000**	**9.61000**	**9.61000**	**9.61000**	**9.61000**	**Subtotal Nonpotable Demand to be Met by Nonpotable Sources (by Hydrological Sector)**	
	Additional Nonpotable Demand to be Met by Potable Sources (by Hydrological Sector)												
	WAILUKU-601	NONPOTABLE USING POTABLE		0.00545	0.00557	0.00569	0.00580	0.00592	0.02208	0.02208	0.02208		
	LAHAINA-602	NONPOTABLE USING POTABLE		0.06840	0.40440	0.78520	0.84120	0.89720	0.95321	1.01120	1.28920		
	CENTRAL-603	NONPOTABLE USING POTABLE		0.00390	0.02284	0.02550	0.07800	0.07800	0.03374	0.03374	0.03374		
	KOOLAU-604	NONPOTABLE USING POTABLE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
	HANA-605	NONPOTABLE USING POTABLE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
	KAHIKINUI-606	NONPOTABLE USING POTABLE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
		NONPOTABLE USING POTABLE		**0.07775**	**0.43281**	**0.81639**	**0.92500**	**0.98112**	**1.00903**	**1.06702**	**1.34502**	**Subtotal Additional Nonpotable Demand to be Met by Potable Sources (by Hydrological Sector)**	
		Total Nonpotable Demand Maui=		**3.68775**	**4.04281**	**4.42639**	**4.53500**	**10.59112**	**10.61903**	**10.67702**	**10.95502**		

Table 4.5
Water Development Strategy Summary – Maui

	SWPP Project (Potable and Nonpotable) Water Demands (mgd)							
State Water Demand Status	**2001**	**2002**	**2003**	**2004**	**2005**	**2010**	**2015**	**2020**
Total Water Demand for Maui	4.11	4.83	6.38	6.67	12.68	16.72	19.25	19.72
Demand Accounted for by Water Development Strategy	0.00	0.00	0.00	0.00	6.00	6.00	6.00	6.00
Remaining Water Demand Balance to be Accommodated by County Water System or State Well Development	4.11	4.83	6.38	6.67	6.68	10.72	13.25	13.72

Figure 4.1
Total Yearly Cumulative Remaining Demand for Maui

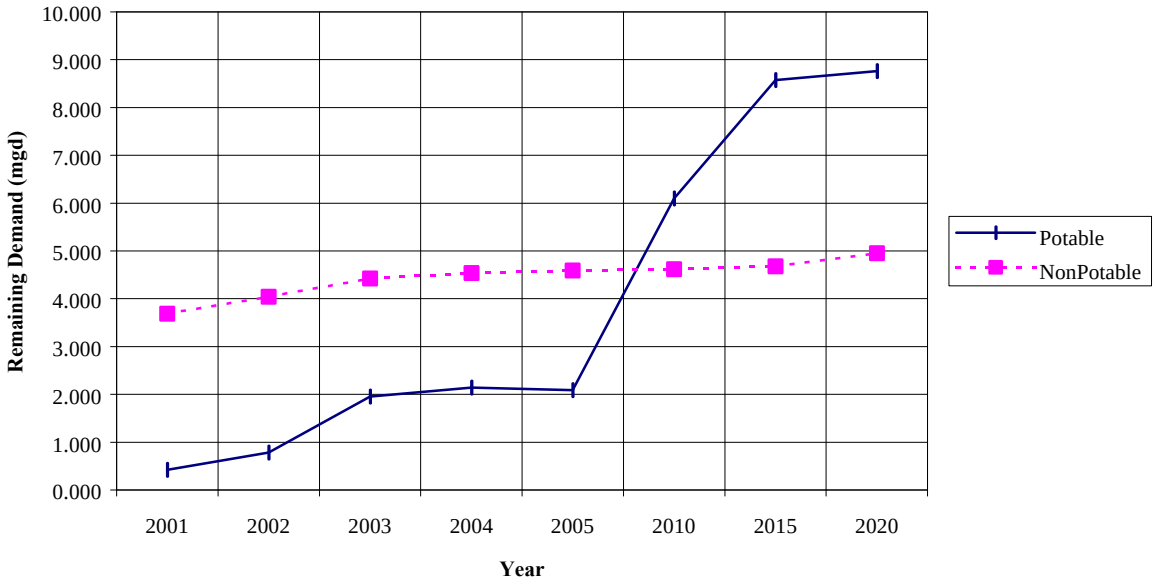


Table 4.6
SWPP Projects with Significant Water Demands (>0.10 mgd) - Maui

SWPP Project	Primary Use	2020 Demand (mgd)	Water Development Strategy
Lower Kula Watershed Project	Nonpotable	6.00	NEWSWS – DOA Water System
Upcountry Maui Irrigation Project	Nonpotable	3.61	REMAIN-DOA
Kula – Keokea Agricultural Lots	Potable	3.60	REMAIN-DHHL
Lahaina Master Plan	Potable Nonpotable	1.01 1.28	REMAIN-HCDCH
Kula – Master Plan Area	Potable	2.10	REMAIN-DHHL
Waiohuli Residence Lots Unit 1	Potable	0.23	REMAIN-DHHL
Kula – Residence Lots Waiohuli 1, 2	Potable	0.18	REMAIN-DHHL
Kahului Airport Master Plan	Potable	0.17	REMAIN-DOT Airports
HLIP School New School	Potable	0.12	REMAIN-DOE
Maui Com Correct Ctr, Expan & Renov	Potable	0.10	REMAIN-DLNR (DPS)
Kahului Harbor – 2010 Master Plan: Cargo Yard	Potable	0.10	REMAIN-DOT Harbors
Waiehu Kou	Potable	0.10	REMAIN-DHHL

4.7. EVALUATION OF WATER DEVELOPMENT STRATEGY OPTIONS

4.7.1. Existing State Water Systems (EXSWS)

There are no existing State water systems serving SWPP projects.

4.7.2. Existing Master Plan (MASTERPLAN)

There are no existing master plans serving SWPP projects.

4.7.3. Existing State or Private Sources (EXSS)

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

4.7.4. County and Private Water Agreements (COUNTY-)

There are no existing water agreements to serve State projects between the State and County or private water purveyors.

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

The State currently does not own water allocation from the County of Maui, Department of Water Supply.

4.7.6. New/Planned State Wells (NEWSS)

There are no new State wells planned for development.

4.7.7. New State Water Systems (NEWSWS)

A new State DOA irrigation system is proposed to support agricultural demand from the Lower Kula Watershed project. The project has a demand projection of 6.0 mgd and is scheduled for 2005. The new irrigation system includes; source exploration, storage and distribution system. A preliminary engineering report is recommended to evaluate system components.

4.7.8. Planned Private Sources (PLANPS)

There were no reported planned private sources available for SWPP projects.

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

The remaining balances of unmet potable and nonpotable project demands are summarized by hydrological sector in **Table 4.7**. The remaining balance of SWPP project demands will be integrated into the County's overall water demand. DLNR will coordinate with the County on the availability and feasibility of accommodating unmet SWPP water demands. Hydrological sectors with significant projected demands were highlighted to identify potential impacts on County water systems and/or required source development. Hydrological sectors with unmet SWPP water demands of 1.0 mgd or greater will be recommended for State source development. Additional State sponsored source development in the Central and Lahaina sectors will be required if the County water systems are unable to meet project demands. It is anticipated that County water systems will be able to supply the balance of State water demands in the remaining hydrological sectors.

Four major State projects without source strategies and planned for County water systems were identified: Kula Keoke Agricultural Lots (3.60 mgd potable demand) in the Central sector, Upcountry Maui Irrigation Project (3.61 mgd nonpotable demand) in the Central sector, Kula Master Plan Area (2.10 mgd potable demand) in the Central sector; and Lahaina Master Plan (2.29 mgd potable and nonpotable demands) in the Lahaina sector. For these projects, a planning assessment report or preliminary engineering report is recommended to identify and evaluate source development options for individual project water needs.

4.7.10. Other Strategy Considerations

The nonpotable project demand is approximately 39% of the total overall SWPP project water demand on the island of Maui. Nearly all of the nonpotable demand remains in the Hana and Lahaina hydrological sectors. There are no nonpotable sources identified to meet the project nonpotable demands. DLNR should coordinate with the County of Maui to determine if existing County nonpotable resources may accommodate SWPP project nonpotable demands.

4.8. RECOMMENDED WATER DEVELOPMENT STRATEGY ACTIONS

It is anticipated that County water systems will be able to supply unmet remaining SWPP project demands, which are less than 1.0 mgd within a given hydrological sector. State projects with large demands may require development of State sponsored sources to meet individual project requirements. County water systems remain the first strategy option to serve unmet SWPP project water. The State will assist and coordinate with the County in developing additional source capacity to meet State demands. **Table 4.8** outlines recommended strategy actions for State sponsored source development. The estimated cost is a planning level estimate for budgeting purposes only. The installation schedule is based on project schedules.

Additional recommendations are listed below.

A preliminary engineering report is recommended for the Lower Kula Watershed project to evaluate irrigation system components.

Preliminary engineering reports to study alternatives for source exploration, storage requirements and water system distribution is recommended for four major SWPP projects. These projects have water demands > than 1.0 mgd. The projects include: Kula Keoke Agricultural Lots; Upcountry Maui Irrigation Project; Kula Master Plan Area and Lahaina Master Plan.

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

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	0.27	0.38	0.70	0.85	0.75	**4.67**	**7.00**	**7.05**	**3.61**	**3.63**	**3.64**	**3.69**	**3.69**	**3.64**	**3.64**	**3.64**
Hana								0.01								
Kahikinui							0.02	0.02								
Koolau			0.01	0.01	0.01	0.01	0.01	0.01								
Lahaina		0.01	0.05	0.32	0.76	0.89	**1.02**	**1.16**	0.01	0.40	0.79	0.84	0.90	0.95	**1.01**	**1.29**
Wailuku	0.08	0.08	0.48	0.48	0.48	0.52	0.52	0.52	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02
TOTAL	**0.35**	**0.47**	**1.24**	**1.66**	**2.00**	**6.09**	**8.56**	**8.77**	**3.63**	**4.04**	**4.44**	**4.54**	**4.60**	**4.61**	**4.67**	**4.95**

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

Project Description	Hydrologic Sector	SWPP Project (Potable and Nonpotable) Water Demand (mgd)	Installation Schedule	Estimated Cost
Short-term Actions (2001 – 2010):				
Source Development for SWPP Projects with nonpotable demands (Including DOA-Upcountry Maui Irrigation project)	Central	3.64	2001	$3,930,000
Source Development for SWPP Projects with potable demands (Including DHHL-Kula Keoke Agricultural Lots project)	Central	4.67	2010	$5,040,000
Long-term Actions (2011 – 2020):				
Source Development for SWPP Projects with potable demands (Including HCDCH-Lahaina Master Plan project)	Lahaina	1.16	2015	$1,250,000
Source Development for SWPP Projects with nonpotable demands (Including HCDCH- Lahaina Master Plan project)	Lahaina	1.29	2015	$1,390,000
Source Development for SWPP Projects with potable demands (Including DHHL-Kula Master Plan project)	Central	2.38	2011	$2,570,000

Notes: Unit cost of $1,080,000 per mgd of average (Maui) exploratory and production well development is referenced from CIP estimates and construction bid tabulations. The unit cost is a preliminary planning cost estimate.
The unmet SWPP project demands are referenced from Table 4-4.

4.9. WATER DEVELOPMENT STRATEGY – ISLAND OF MOLOKAI

The source options were assigned to each SWPP project on the island of Molokai as described in the SWPP Water Development Strategy. Each SWPP project was categorized into a SWPP Water Development Strategy options, detailed in **Table 4.9**. 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.

4.10. SWPP PROJECT DEMAND OVERVIEW

The remaining balance of unmet project demand for the island of Molokai is shown on **Table 4.10**. A graph of the remaining potable and nonpotable demands is shown on **Figure 4.2**. The SWPP Water development strategy account for nearly 98% of the total island of Molokai SWPP project demand. Existing State water systems is the strategy option supplying the majority of the projected demand. The remaining unmet project demand consists of smaller State projects involving renovations, additions and improvements to existing State facilities. The demands are relatively small in total and should not impact County water systems. A list of SWPP projects with significant demand requirements (>0.10 mgd) was compiled to identify projects with the greatest potential to impact existing water system components and require system improvements. These projects are shown on **Table 4.11**. All of these projects have identified strategy source options.

TABLE 4.9

SWPP UPDATE - MOLOKAI WATER DEVELOPMENT STRATEGY

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)									
				SHORT-TERM						LONG-TERM			
DEPT	SWPP PROJECT NAME	PRIMARY USE	SECTOR	02001	02002	02003	02004	02005	02010	02015	02020	STRATEGY OPTION	SYSTEM OR SOURCE
	ISLAND OF MOLOKAI			**1.33581**	**1.33591**	**2.06418**	**2.06428**	**2.06438**	**3.57018**	**3.60728**	**3.60828**	**SWPP Total Project Demand for Island of Molokai**	
	SWPP Projects Within Existing State Water Systems (#1)												
DHHL	HOOLEHUA, AGRICULTURAL LOTS	NONPOTABLE	CENTRAL			0.54893	0.54893	0.54893	0.54893	0.54893	0.54893	EXSWS-HOOLEHUA WATER SYSTEM	STATE
DHHL	HOOLEHUA, AGRICULTURAL LOTS	POTABLE	CENTRAL			0.02287	0.02287	0.02287	0.02287	0.02287	0.02287	EXSWS-HOOLEHUA WATER SYSTEM	STATE
DHHL	HOOLEHUA, OTHER	POTABLE	CENTRAL			0.00540	0.00540	0.00540	0.00540	0.00540	0.00540	EXSWS-HOOLEHUA WATER SYSTEM	STATE
DHHL	HOOLEHUA, RESIDENTIAL LOTS UNIT 1	POTABLE	CENTRAL			0.01200	0.01200	0.01200	0.01200	0.01200	0.01200	EXSWS-HOOLEHUA WATER SYSTEM	STATE
DHHL	HOOLEHUA, RESIDENTIAL LOTS UNIT 2	POTABLE	CENTRAL			0.03600	0.03600	0.03600	0.03600	0.03600	0.03600	EXSWS-HOOLEHUA WATER SYSTEM	STATE
DHHL	DEPT. OF EDUCATION	POTABLE	CENTRAL			0.00270	0.00270	0.00270	0.00270	0.00270	0.00270	EXSWS-HOOLEHUA WATER SYSTEM	STATE
DHHL	KALAMAULA	POTABLE	CENTRAL			0.00840	0.00840	0.00840	0.00840	0.00840	0.00840	EXSWS-HOOLEHUA WATER SYSTEM	STATE
DHHL	KALAMAULA, COMMERCIAL	POTABLE	CENTRAL			0.00384	0.00384	0.00384	0.00384	0.00384	0.00384	EXSWS-HOOLEHUA WATER SYSTEM	STATE
DHHL	KALAMAULA,RESIDENTIAL LOTS PHASE 1	POTABLE	CENTRAL			0.07440	0.07440	0.07440	0.07440	0.07440	0.07440	EXSWS-HOOLEHUA WATER SYSTEM	STATE
DOA	FUTURE SUBDIVISION IN PALAAU	NONPOTABLE	CENTRAL						1.50000	1.50000	1.50000	EXSWS-MOLOKAI IRRIGATION SYSTEM	STATE
DOA	MOLOKAI AGRICULTURAL PARK	NONPOTABLE	CENTRAL	1.32000	1.32000	1.32000	1.32000	1.32000	1.32000	1.32000	1.32000	EXSWS-MOLOKAI IRRIGATION SYSTEM	STATE
				1.32000	**1.32000**	**2.03454**	**2.03454**	**2.03454**	**3.53454**	**3.53454**	**3.53454**	**Subtotal SWPP Projects Within Existing State Water Systems (#1)**	
	SWPP Projects Within Existing Master Plans (#2)												
	No SWPP Projects												
	SWPP Projects Within Existing State or Private Sources (#3)												
	No SWPP Projects												
	SWPP Projects with County Water Department and/or Private Water Agreements (#4)												
	No SWPP Projects												
	SWPP Projects with County Water Department Water Agreements - Use of Water Allocation Credits (#5)												
	No Credits Available												
	SWPP Projects Assigned to New/Planned State Wells (#6)												
	No SWPP Projects												
	SWPP Projects Within New State Water Systems (#7)												
	No SWPP Projects												
	SWPP Projects Assigned to Planned Private Sources (#8)												
	No SWPP Projects												

TABLE 4.9

SWPP UPDATE - MOLOKAI WATER DEVELOPMENT STRATEGY

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)									
				SHORT-TERM						LONG-TERM			
DEPT	SWPP PROJECT NAME	PRIMARY USE	SECTOR	02001	02002	02003	02004	02005	02010	02015	02020	STRATEGY OPTION	SYSTEM OR SOURCE
	ISLAND OF MOLOKAI			**1.33581**	**1.33591**	**2.06418**	**2.06428**	**2.06438**	**3.57018**	**3.60728**	**3.60828**	**SWPP Total Project Demand for Island of Molokai**	
	Remaining Unmet SWPP Projects to be Supplied by DWS (#9)												
DAGS-PL	MOLOKAI DISTRICT COURT	POTABLE	SOUTH EAST						0.00238	0.00238	0.00238	REMAIN-DAGS PL	COUNTY
DAGS-PL	MOLOKAI MULTI-AGENCY MAINTENANCE FAC, PH I	POTABLE	SOUTH EAST						0.00210	0.00210	0.00210	REMAIN-DAGS PL	COUNTY
DAGS-PM	KALAUPAPA MEDICAL FACILITY INFECTIOUS WASTE CONTROL STERILIZER	POTABLE	NORTH EAST	0.00007	0.00007	0.00007	0.00007	0.00007	0.00007	0.00007	0.00007	REMAIN-DAGS PM	COUNTY
DOE	KUALAPUU ELEM SCH 6-CLASSROOM BLD	POTABLE	CENTRAL	0.00054	0.00054	0.00054	0.00054	0.00054	0.00054	0.00054	0.00054	REMAIN-DOE	COUNTY
DOE	MOLOKAI HIGH SCHOOL 8-CLASSROOM BUILDING	POTABLE	CENTRAL	0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	REMAIN-DOE	COUNTY
DOE	MOLOKAI HIGH SCHOOL CAFETERIA	POTABLE	CENTRAL			0.00300	0.00300	0.00300	0.00300	0.00300	0.00300	REMAIN-DOE	COUNTY
DOE	MOLOKAI HIGH SCHOOL NEW ADMINISTRATION	POTABLE	CENTRAL			0.00093	0.00093	0.00093	0.00093	0.00093	0.00093	REMAIN-DOE	COUNTY
DOE	KAUNAKAKAI ELEMENTARY NEW 8 CLASSROOM	POTABLE	SOUTH EAST			0.00101	0.00101	0.00101	0.00101	0.00101	0.00101	REMAIN-DOE	COUNTY
DOE	KILOHANA ELEMENTARY NEW CAFETERIA	POTABLE	SOUTH EAST			0.00057	0.00057	0.00057	0.00057	0.00057	0.00057	REMAIN-DOE	COUNTY
DOE	KILOHANA ELEMENTARY NEW LIBRARY	POTABLE	SOUTH EAST			0.00092	0.00092	0.00092	0.00092	0.00092	0.00092	REMAIN-DOE	COUNTY
DOE	MAUNALOA ELEMENTARY NEW LIBRARY	POTABLE	WEST						0.00092	0.00092	0.00092	REMAIN-DOE	COUNTY
DOE	MAUNALOA ELEM SCHOOL NEW 4 CLASSROOM	POTABLE	WEST			0.00720	0.00720	0.00720	0.00720	0.00720	0.00720	REMAIN-DOE	COUNTY
DOT-AIRPORTS	MOLOKAI AIRPORT MASTER PLAN	POTABLE	CENTRAL	0.00020	0.00030	0.00040	0.00050	0.00060	0.00100	0.00150	0.00250	REMAIN-DOT AIRPORTS	COUNTY
DOT-HARBORS	KAUNAKAKAI HARBOR - 2010 MASTER PLAN	POTABLE	SOUTH EAST							0.03660	0.03660	REMAIN-DOT HARBORS	COUNTY
UH	MOLOKAI EDUCATION CENTER	POTABLE	SOUTH EAST	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	REMAIN-UH	COUNTY
				0.01581	**0.01591**	**0.02964**	**0.02974**	**0.02984**	**0.03564**	**0.07274**	**0.07374**	**Subtotal Remaining Unmet SWPP Projects to be Supplied by DWS (#9)**	
	Other Strategy Consideration												
	Nonpotable Demand to be Met by Nonpotable Sources (by Hydrological Sector)												
	WEST-401	NONPOTABLE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
	CENTRAL-402	NONPOTABLE		1.32000	1.32000	1.86893	1.86893	1.86893	3.36893	3.36893	3.36893		
	SOUTHEAST-403	NONPOTABLE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
	NORTHEAST-404	NONPOTABLE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
		NONPOTABLE		**1.32000**	**1.32000**	**1.86893**	**1.86893**	**1.86893**	**3.36893**	**3.36893**	**3.36893**	**Subtotal Nonpotable Demand to be Met by Nonpotable Sources (by Hydrological Sector)**	
	Additional Nonpotable Demand to be Met by Potable Sources (by Hydrological Sector)												
	WEST-401	NONPOTABLE USING POTABLE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
	CENTRAL-402	NONPOTABLE USING POTABLE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
	SOUTHEAST-403	NONPOTABLE USING POTABLE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
	NORTHEAST-404	NONPOTABLE USING POTABLE		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
		NONPOTABLE USING POTABLE		**0.00000**	**0.00000**	**0.00000**	**0.00000**	**0.00000**	**0.00000**	**0.00000**	**0.00000**	**Subtotal Additional Nonpotable Demand to be Met by Potable Sources (by Hydrological Sector)**	
		Total Nonpotable Demand Molokai=		**1.32000**	**1.32000**	**1.86893**	**1.86893**	**1.86893**	**3.36893**	**3.36893**	**3.36893**		

Table 4.10
Water Development Strategy Summary – Molokai

	SWPP Project (Potable and Nonpotable) Water Demands (mgd)							
State Water Demand Status	**2001**	**2002**	**2003**	**2004**	**2005**	**2010**	**2015**	**2020**
Total Water Demand for Molokai	1.34	1.34	2.06	2.06	2.06	3.57	3.61	3.61
Demand Accounted for by Water Development Strategy	1.32	1.32	2.03	2.03	2.03	3.53	3.53	3.53
Remaining Water Demand Balance to be Accommodated by County Water System or State Well Development	0.02	0.02	0.03	0.03	0.03	0.04	0.07	0.07

Figure 4.2
Total Yearly Cumulative Remaining Demand for Molokai

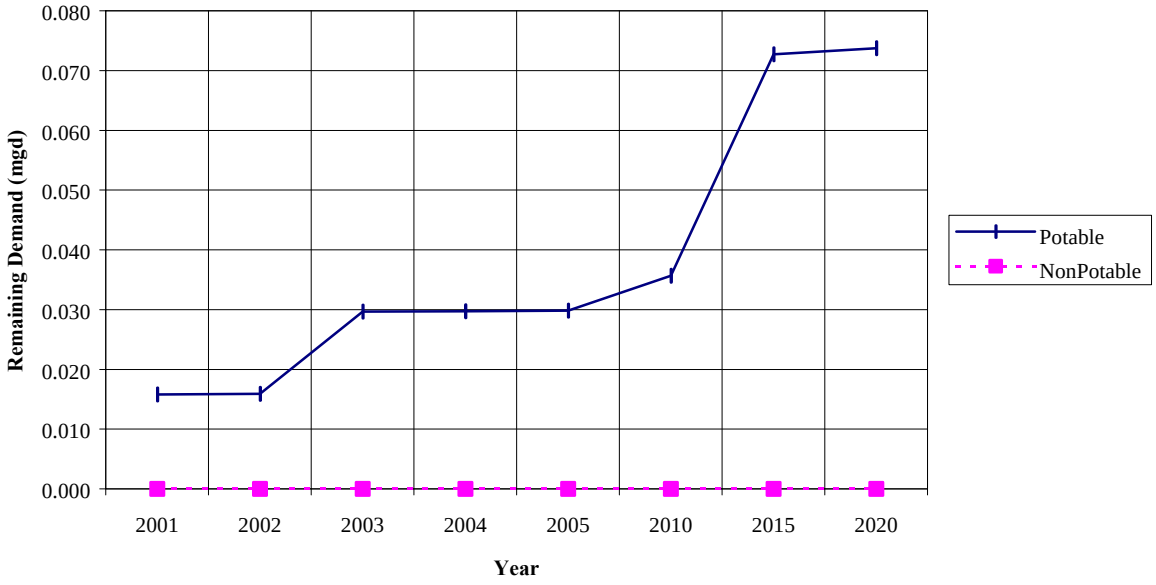


Table 4.11
SWPP Projects with Significant Water Demands (>0.10 mgd) - Molokai

SWPP Project	Primary Use	2018 Demand (mgd)	Water Development Strategy
Future Subdivision in Palaau	Nonpotable	1.50	EXSWS – Molokai Irrigation System
Molokai Agricultural Park	Nonpotable	1.32	EXSWS – Molokai Irrigation System
Hoolehua Agricultural Lots	Combined	0.55	EXSWS – Hoolehua Water System

4.11. EVALUATION OF WATER DEVELOPMENT STRATEGY OPTIONS

4.11.1. Existing State Water Systems (EXSWS)

4.11.1.1. Hoolehua Water System (EXSWS- Hoolehua Water System)

The Hoolehua water system is planned to support nine DHHL SWPP projects. The projected demand is estimated at 0.71 mgd. The Hoolehua water system owned and operated by DHHL. The existing source pumping capacity is 1.94 mgd and a safe source capacity of 0.58 mgd. The existing average day water consumption is 0.42 mgd. The total existing and future average day demand is 1.13 mgd and a maximum day demand of 1.70 mgd. The water system source capacity is inadequate to support the future increase in demand. An additional 1.12 mgd of source capacity is required to meet the projected maximum day demand. DHHL operator has indicated preliminary plans to develop a new well for additional source capacity. CIP project and funding information for the new well is not available. DHHL operators acknowledge storage and transmission capacities are adequate for projected SWPP demands.

4.11.1.2. Molokai Irrigation System (EXSWS- Molokai Irrigation System)

The Molokai Irrigation System is planned to support two DOA SWPP projects that will expand the existing irrigation system. The total projected demand is estimated at 2.82 mgd, which includes irrigation system expansion and new agricultural subdivisions. The Molokai Irrigation System is owned and operated by DOA. The existing water sold by the irrigation system was 4.46 mgd. A water budget to calculate the current and future water requirements and source/storage availability is recommended. DOA is planning to develop new sources to provide additional capacity to the system. The new sources include: divert surface water from Waihunui and Kawela streams; and conversion of existing brackish wells into production wells.

4.11.2. Existing Master Plan (MASTERPLAN)

There are no existing master plans serving SWPP projects.

4.11.3. Existing State or Private Sources (EXSS)

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

4.11.4. County and Private Water Agreements (COUNTY-)

There were no existing water agreements available for SWPP projects.

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

The State currently does not own water allocation from the County of Maui, Department of Water Supply.

4.11.6. New/Planned State Wells (NEWSS)

There are no new State wells planned for development.

4.11.7. New State Water Systems (NEWSWS)

There are no new State water systems planned.

4.11.8. Planned Private Sources (PLANPS)

There were no reported planned private sources available for SWPP projects.

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

The remaining balances of unmet potable and nonpotable project demands are summarized by hydrological sector in **Table 4.12**. It is anticipated that County water systems will be able to supply the balance of State water demands in all hydrological sectors. DLNR will initiate discussions with the County of Maui, Department of Water Supply to determine the availability and feasibility of integrating State project demands into County water systems.

4.11.10. Other Strategy Considerations

The nonpotable project demand is approximately 93% of the total overall SWPP project water demand for the island of Molokai. All of the nonpotable demand is located in the Central hydrological sector. The Molokai Irrigation System and Hoolehua water system is planned to accommodate proposed nonpotable demands; however, further system capacity analysis is required.

Table 4.12
Water Development Strategy Remaining Balance of Unmet SWPP Project Demand - Hydrologic Sector Molokai

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	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02								
South East						0.01	0.04	0.04								
West			0.01	0.01	0.01	0.01	0.01	0.01								
North East																
TOTAL	**0.02**	**0.02**	**0.03**	**0.03**	**0.03**	**0.04**	**0.07**	**0.07**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

4.12. RECOMMENDED WATER DEVELOPMENT STRATEGY ACTIONS

County water systems remain the first strategy option to serve unmet SWPP project water. The Hoolehua water system will require additional source development to support the increase demand from future expansion. The recommended State sponsored source development actions for the island of Molokai is shown on **Table 4.13**.

Table 4.13
Recommended Water Development Strategy Actions – Molokai
(To meet unmet SWPP project demands)

Project Description	Hydrologic Sector	SWPP Project (Potable and Nonpotable) Water Demand (mgd)	Installation Schedule	Estimated Cost
Short-term Actions (1999 – 2008):				
Potable Source Development for Hoolehua Water System (DHHL)	Central	1.12*	2003	$1,210,000
Long-term Actions (2009 – 2018):				
No Strategy Recommendations				

Notes: Unit cost of $1,080,000 per mgd of average (Molokai) exploratory and production well development is referenced from CIP estimates and construction bid tabulations. The unit cost is a preliminary planning cost estimate.

* The projected additional source capacity for the Hoolehua Water System is based on the difference between the projected existing and future SWPP demand and the water system safe source capacity. The estimated cost for additional source development is based on the projected additional source capacity required for the system multiplied by the unit cost per mgd for well development on Molokai (DLNR to assist DHHL).

APPENDICES

APPENDIX A
WELLS; STREAM DIVERSIONS, STATE WATER SYSTEM DIAGRAMS

State Water Projects Plan
Inventory of State Wells

DEPARTMENT	WELL NAME	STATE WELL NO.	ISLAND	USE	YR DRILLED
LAND & NATURAL RESOURCES	MAKENA 68	3925-01	MAUI	OBS	1964
LAND & NATURAL RESOURCES	KIHEI EXPL	4824-01	MAUI	UNU	1971
LAND & NATURAL RESOURCES	MAALAEA 272	4831-01	MAUI	OBS	1965
TRANSPORTATION	PUUNENE AIRP TH	4928-01	MAUI	UNU	1942
MAUI DWS (FORMER DLNR OWNERSHIP)	WAIKAPU 1	5130-01	MAUI	UNU	1961
MAUI DWS (FORMER DLNR OWNERSHIP)	WAIKAPU 2	5130-02	MAUI	UNU	1974
NO STATE DEPARTMENT LISTED	TMK 3-8-19-29	5228-14	MAUI	IRR	1969
LAND & NATURAL RESOURCES	KAUAULA TH 1	5237-01	MAUI	OBS	1970
LAND & NATURAL RESOURCES	KAUAULA TH 2	5237-02	MAUI	OBS	1970
LAND & NATURAL RESOURCES	KANAHA POND	5327-10	MAUI	UNU	1962
ACCOUNTING & GENERAL SERVICES	MAUI COMM COL	5329-15	MAUI	IRR	1970
LAND & NATURAL RESOURCES	KEPANIWAI TH	5332-04	MAUI	OBS	1973
LAND & NATURAL RESOURCES	KANAHA TH 1	5338-01	MAUI	OBS	1970
LAND & NATURAL RESOURCES	KANAHA TH 2	5338-02	MAUI	OBS	1970
LAND & NATURAL RESOURCES	HAIKU	5419-01	MAUI	UNU	1979
LAND & NATURAL RESOURCES	WAIEHU TH-D	5430-04	MAUI	OBS	1975
LAND & NATURAL RESOURCES	WAIEHU MONITOR	5430-05	MAUI	OBS	1982
MAUI DWS	WAHIKULI	5439-01	MAUI	MUN	1992
BUSINESS ECONOMIC DEVELOPMENT & TOURISM	WAHIKULI 2	5439-02	MAUI	UNU	1993
BUSINESS ECONOMIC DEVELOPMENT & TOURISM	WAHIKULI	5440-01	MAUI	IRR	1993
LAND & NATURAL RESOURCES	PAUWELA	5519-01	MAUI	UNU	1967
LAND & NATURAL RESOURCES	ALAELOA	5839-02	MAUI	UNU	1967
LAND & NATURAL RESOURCES	ALAELOA	5840-01	MAUI	OBS	1964

DEPARTMENT	WELL NAME	STATE WELL NO.	ISLAND	USE	YR DRILLED
HAWAIIAN HOME LANDS	KAMILOLOA TH	0459-03	MOLOKAI	UNU	0
HAWAIIAN HOME LANDS	KAPAAKEA BATTERY	0500-01	MOLOKAI	LOS	0
HAWAIIAN HOME LANDS	FORESTRY 1	0501-09	MOLOKAI	UNU	0
HAWAIIAN HOME LANDS	FORESTRY 2	0501-10	MOLOKAI	UNU	0
LAND & NATURAL RESOURCES	KAMILOLOA	0559-01	MOLOKAI	UNU	1962
HAWAIIAN HOME LANDS	KALAMAULA	0602-01	MOLOKAI	LOS	0
HAWAIIAN HOME LANDS	KALAMAULA	0602-02	MOLOKAI	LOS	0
HAWAIIAN HOME LANDS	UMIPAA	0603-02	MOLOKAI	LOS	0
HAWAIIAN HOME LANDS	SO HOOLEHUA	0706-01	MOLOKAI	LOS	0
HAWAIIAN HOME LANDS	KAULUWAI 1	0801-01	MOLOKAI	MUN	1948
HAWAIIAN HOME LANDS	KAULUWAI 2	0801-02	MOLOKAI	MUN	1979
AGRICULTURE	WAIKOLU TUN 1	0855-01	MOLOKAI	IRR	1961
AGRICULTURE	WAIKOLU 2	0855-02	MOLOKAI	IRR	1961
AGRICULTURE	WAIKOLU 3	0855-03	MOLOKAI	IRR	1961
AGRICULTURE	WAIKOLU 6	0855-04	MOLOKAI	UNU	1988
AGRICULTURE	WAIKOLU 5	0855-05	MOLOKAI	UNU	1988
AGRICULTURE	WAIKOLU 4	0855-06	MOLOKAI	UNU	1988

STREAM NAME/DIVERSION STRUCTURE	DEPT.	ISLAND	USETYPE	DIVERSION OWNER	DIVERSION OPERATOR	DIVERSION SYSTEM NAME	DIVERSION STRUCTURE NAME	TMK
HAIPUENA STREAM	DLNR	MAUI	POTABLE	DLNR-PARKS		KAUMAHINA STATE PARK		1-1-01
IAO STREAM	DLNR	MAUI	MIXED	DLNR	DIVISION OF STATE PARKS	IAO VALLEY STATE MONUMENT - TARO PATCH		3-3-03:12
POKAKAEKANE STREAM	DLNR	MAUI	IRRIGATION	STATE OF HAWAII	DIVISION OF FORESTRY & WILDLIFE	KEANAE ARBORETUM AUWAI	KEANAE ARBORTEUM INTAKE	1-1-02-2
WAIOHUE STREAM	DLNR	MAUI	POTABLE	DLNR-PARKS		PUAA KAA STATE PARK		1-2-04

STREAM NAME/DIVERSION STRUCTURE	DEPT.	ISLAND	USETYPE	DIVERSION OWNER	DIVERSION OPERATOR	DIVERSION SYSTEM NAME	DIVERSION STRUCTURE NAME	TMK
KAMILOLOA GULCH	DHHL	MOLOKAI	DOMESTIC	DHHL	HAWAIIAN HOME LANDS	DHHL WATER SYSTEM	INTAKE	2-5-4-03
WAIALALA SPRING	DLNR	MOLOKAI		R.W. MEYER, LTD.	DIVISION OF STATE PARKS	WAIALALA WATER SYSTEM	WAIALALA WATER TUNNEL	5-2-14:02
WAIHANAU STREAM	DHHL	MOLOKAI	DOMESTIC	DHHL	HAWAIIAN HOME LANDS	DHHL WATER SYSTEM	INTAKE	2-5-2-14
WAIKOLU STREAM	DLNR	MOLOKAI	POTABLE	DLNR	DIVISION OF FORESTRY & WILDLIFE	HANALILOLILO PIPELINE	HANALILOLILO INTAKE	2-6-01-2
WAIKOLU STREAM	DLNR	MOLOKAI	IRRIGATION	STATE OF HAWAII	DIVISION OF FORESTRY & WILDLIFE	HANALILOLILO PIPELINE	HANALILOLILO INTAKE	2-6-01-2
WAIKOLU STREAM	DLNR	MOLOKAI	IRRIGATION					
WAIKOLU STREAM	DLNR	MOLOKAI	IRRIGATION					
WAIKOLU STREAM	DLNR	MOLOKAI	IRRIGATION					
WAIKOLU VALLEY SOURCES	DHHL	MOLOKAI	IRRIGATION	DLNR	LAND & NATURAL RESOURCES	MOLOKAI IRRIGATION SYSTEM	VARIOUS STRUCTURES	

State Water System Diagrams
have been removed for security reasons.

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

APPENDIX B
SWPP DEMAND TABLE BY DEPARTMENT

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES												
PROJECT MANAGEMENT BRANCH												
HOLUALOA ELEM SCHOOL REPLACEMENT OF CAFÉ AND RELOCATION OF PORTABLE P-12	POTABLE	HAWAII	HUALALAI	0.00263	0.00263	0.00263	0.00263	0.00263	0.00263	0.00263	0.00263	7-6-04:02, 37; 7-6-05:15
HOLUALOA ELEM SCHOOL REPLACEMENT OF FIRE-DAMAGED PORTABLE CLASSROOMS	POTABLE	HAWAII	HUALALAI	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	7-6-04: 02,37; 7-6-05:15
KAHAKAI ELEM ADMIN BUILDING/LIBRARY	POTABLE	HAWAII	HUALALAI	0.00442	0.00442	0.00442	0.00442	0.00442	0.00442	0.00442	0.00442	7-5-20:77
DE SILVA ELEM ARCHITECTRL BARRIER REMOV	POTABLE	HAWAII	NORTH EAST MAUNA LOA	0.00743	0.00743	0.00743	0.00743	0.00743	0.00743	0.00743	0.00743	2-5-08:13
NORTH SHORE KAUAI - PRINCEVILLE PUBLIC LIBRARY	POTABLE	KAUAI	HANALEI	0.00139	0.00139	0.00139	0.00139	0.00139	0.00139	0.00139	0.00139	5-3-10:2
NORTH SHORE KAUAI - PRINCEVILLE PUBLIC LIBRARY	NONPOTABLE USING POTABLE	KAUAI	HANALEI	0.00101	0.00101	0.00101	0.00101	0.00101	0.00101	0.00101	0.00101	5-3-10:2
LOKELANI INT CAFETORIUM	POTABLE	MAUI	CENTRAL	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	NR
LAHAINALUNA HI LIBRARY & RENOVATION OF EXISTING LIBRARY INTO 3 CLASSROOMS	POTABLE	MAUI	LAHAINA	0.00504	0.00504	0.00504	0.00504	0.00504	0.00504	0.00504	0.00504	NR
KALAUPAPA MEDICAL FACILITY INFECTIOUS WASTE CONTROL STERILIZER	POTABLE	MOLOKAI	NORTH EAST	0.00007	0.00007	0.00007	0.00007	0.00007	0.00007	0.00007	0.00007	6-1-01: 01
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

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
PLANNING BRANCH												
NEW KONA MULTI-AGENCY MAINTENANCE FAC	POTABLE	HAWAII	HUALALAI	0.00083	0.00083	0.00083	0.00083	0.00083	0.00083	0.00083	0.00083	NR
KOHALA PUBLIC LIBRARY	POTABLE	HAWAII	KOHALA						0.00057	0.00057	0.00057	NR
KOHALA PUBLIC LIBRARY	NONPOTABLE USING POTABLE	HAWAII	KOHALA						0.00073	0.00073	0.00073	NR
HILO DAGS BASEYARD	POTABLE	HAWAII	NORTH EAST MAUNA LOA			0.00179	0.00179	0.00179	0.00179	0.00179	0.00179	2-1-12: LOT 7 (APPROXIMATE)
HILO JUDICIARY COMPLEX	POTABLE	HAWAII	NORTH EAST MAUNA LOA						0.01718	0.01718	0.01718	2-2-15:33
HILO JUDICIARY COMPLEX	NONPOTABLE USING POTABLE	HAWAII	NORTH EAST MAUNA LOA						0.00682	0.00682	0.00682	2-2-15:33
KONA CIVIC CENTER	POTABLE	HAWAII	SOUTH WEST MAUNA LOA						0.00800	0.00800	0.00800	NR
KONA CIVIC CENTER	NONPOTABLE USING POTABLE	HAWAII	SOUTH WEST MAUNA LOA						0.01200	0.01200	0.02000	NR
WAIMEA CIVIC CENTER, STATE OFC BLDG NO.3	POTABLE	HAWAII	WEST MAUNA KEA						0.00059	0.00059	0.00059	NR
WAIMEA CIVIC CENTER, STATE OFC BLDG NO.3	NONPOTABLE USING POTABLE	HAWAII	WEST MAUNA KEA						0.05881	0.05881	0.05881	NR
KAUAI JUDICIARY COMPLEX	POTABLE	KAUAI	LIHUE				0.07644	0.07644	0.07644	0.07644	0.07644	3-6-2: POR. 01
LIHUE MMSF, PHASE 2D AND 3	POTABLE	KAUAI	LIHUE			0.00044	0.00044	0.00044	0.00044	0.00044	0.00044	NR
KAUAI JUDICIARY COMPLEX	NONPOTABLE USING POTABLE	KAUAI	LIHUE				0.00799	0.00799	0.00799	0.00799	0.00799	3-6-02: POR 01
LIHUE MULTI-AGENCY MAINTENANCE FACILITY, PHASE II	POTABLE	KAUAI	LIHUE		0.00041	0.00041	0.00041	0.00041	0.00041	0.00041	0.00041	NR
KAHULUI CIVIC CENTER, PHASE 1	POTABLE	MAUI	CENTRAL						0.01784	0.01784	0.01784	NR
KAHULUI CIVIC CENTER, PHASE 1	NONPOTABLE USING POTABLE	MAUI	CENTRAL						0.00474	0.00474	0.00474	NR
KAHULUI CIVIC CTR (TEMPORARY OFFICE FAC.)	POTABLE	MAUI	CENTRAL			0.01400	0.01400	0.01400	0.01400	0.01400	0.01400	3-7-04: 3
MAUI CCC BED EXPANSION	POTABLE	MAUI	WAILUKU			0.00777	0.00777	0.00777	0.00777	0.00777	0.00777	3-8-46:5
MAUI ARMY NATIONAL GUARD, PUUNENE ARMORY	POTABLE	MAUI	WAILUKU			0.00710	0.00710	0.00710	0.00710	0.00710	0.00710	3-8-08:POR. 01
MOLOKAI DISTRICT COURT	POTABLE	MOLOKAI	SOUTH EAST						0.00238	0.00238	0.00238	5-3-05:12,13,14
MOLOKAI MULTI-AGENCY MAINTENANCE FAC, PH I	POTABLE	MOLOKAI	SOUTH EAST						0.00210	0.00210	0.00210	5-3-05: 13, 14
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

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
KAMAMALU BUILDING RENOVATIONS	POTABLE	OAHU	HONOLULU								0.00250	2-1-17:10
PLANNING BRANCH CONT.												
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	0.00198	NR
KANEOHE DISTRICT COURT	NONPOTABLE USING POTABLE	OAHU	WINDWARD		0.00201	0.00201	0.00201	0.00201	0.00201	0.00201	0.00402	NR
			DAGS SUBTOTAL=	**0.12449**	**0.60640**	**0.69071**	**0.77514**	**0.77514**	**0.95686**	**0.95686**	**0.99736**	

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
DEPARTMENT OF AGRICULTURE												
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
			DOA SUBTOTAL=	7.50500	7.75500	8.76496	8.76496	14.76496	35.31496	35.31496	35.46996	

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
DEPARTMENT OF BUSINESS ECONOMIC DEVELOPMENT & TOURISM												
ALOHA TOWER DEVELOPMENT CORPORATION												
ALOHA TOWER DEVELOPMENT	POTABLE	OAHU	HONOLULU		0.09300	0.09300	0.09300	0.09300	0.13400	0.13400	0.13400	NR
BARBERS POINT NAVAL AIR STATION REDEVELOPMENT COMMISION												
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
CONVENTION CENTER AUTHORITY												
HAWAII CONVENTION CENTER	POTABLE	OAHU	HONOLULU	0.10000	0.15000	0.20000	0.25000	0.30000	0.30000	0.30000	0.30000	NR
HAWAII COMMUNITY DEVELOPMENT AUTHORITY												
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

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
HOUSING AND COMMUNITY & DEVELOPMENT CORPORATION OF HAWAII												
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
WAIANAE LOW INCOME HOUSING	POTABLE	OAHU	WAIANAE	0.03700	0.03700	0.03700	0.03700	0.03700	0.03700	0.03700	0.03700	8-5-28:POR42
NATURAL ENERGY LABORATORY OF HAWAII AUTHORITY												
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
			DBEDT SUBTOTAL=	1.02288	2.25888	3.67597	4.15385	4.62475	8.07506	10.78905	13.83305	

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
DEPARTMENT OF DEFENSE												
WAIMEA READINESS CENTER	POTABLE	HAWAII	KOHALA			0.00115	0.00115	0.00115	0.00115	0.00115	0.00115	6-6-03
MAUI CONSOLIDATED FACILITIES	POTABLE	MAUI	WAILUKU		0.00150	0.00150	0.00150	0.00150	0.00150	0.00150	0.00150	3-8-8
KALAELOA TRAINING FACILITY/ARMORY	POTABLE	OAHU	EWA CAPROCK	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	0.01050	0.01050	0.01050	0.01050	0.01050	0.01050	0.01050	0.01050	NR
HAWAII VETERANS CENTER	POTABLE	OAHU	PEARL HARBOR	0.00180	0.00180	0.00180	0.00180	0.00180	0.00180	0.00180	0.00180	9-9-03
REGIONAL TRAINING INSTITUTE	POTABLE	OAHU	WINDWARD	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	0.05946	0.05946	0.05946	0.05946	0.05946	0.05946	0.05946	0.05946	NR
			DOD SUBTOTAL=	0.79070	0.79220	0.79335	0.79335	0.79335	0.79335	0.79335	0.79335	

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
DEPARTMENT OF EDUCATION												
HAAHEO ELEMENTARY NEW 4 CLASSROOM	POTABLE	HAWAII	EAST MAUNA KEA			0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	2-6-020:038
HAAHEO ELEMENTARY NEW CAFETERIA	POTABLE	HAWAII	EAST MAUNA KEA						0.00060	0.00060	0.00060	2-6-020: 038
HAAHEO ELEMENTARY NEW LIBRARY	POTABLE	HAWAII	EAST MAUNA KEA			0.00046	0.00046	0.00046	0.00046	0.00046	0.00046	2-6-020: 038
HONOKAA ELEMENTARY NEW 4 CLASSROOM	POTABLE	HAWAII	EAST MAUNA KEA			0.00720	0.00720	0.00720	0.00720	0.00720	0.00720	4-5-003: 020
HONOKAA ELEMENTARY NEW ADMINISTRATION	POTABLE	HAWAII	EAST MAUNA KEA			0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	4-5-003: 020
HONOKAA HIGH SCHOOL NEW 15 CLASSROOM	POTABLE	HAWAII	EAST MAUNA KEA			0.00093	0.00093	0.00093	0.00093	0.00093	0.00093	4-5-003: 020
HONOKAA HIGH SCHOOL NEW 6 CLASSROOM	POTABLE	HAWAII	EAST MAUNA KEA			0.00037	0.00037	0.00037	0.00037	0.00037	0.00037	4-5-003: 020
KALANIANIOLE ELEM 8-CLASSROOM BUILDING	POTABLE	HAWAII	EAST MAUNA KEA						0.00050	0.00050	0.00050	2-7-22:2,3, 2-7-25:4
LAPAHOEHOE HIGH/ELEM NEW BAND/CHORUS	POTABLE	HAWAII	EAST MAUNA KEA	0.00043	0.00043	0.00043	0.00043	0.00043	0.00043	0.00043	0.00043	3-5-004: 059
HOLUALOA ELEM NEW LIBRARY/ADMINISTRATION	POTABLE	HAWAII	HUALALAI	0.00076	0.00076	0.00076	0.00076	0.00076	0.00076	0.00076	0.00076	7-6-004: 002
HOLUALOA ELEMENTARY NEW 6 CLASSROOM	POTABLE	HAWAII	HUALALAI			0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	7-6-004: 002
KEALAKEHE ELEM - PLAYFIELD/RETENTION BASIN	NONPOTABLE USING POTABLE	HAWAII	HUALALAI		0.01200	0.01200	0.01200	0.01200	0.01200	0.01200	0.01200	7-4-019:044
KEALAKEHE ELEM NEW LIBRARY/ADMIN	POTABLE	HAWAII	HUALALAI			0.00076	0.00076	0.00076	0.00076	0.00076	0.00076	7-4-008: 015
KEALAKEHE ELEMENTARY NEW 6 CLASSROOM	POTABLE	HAWAII	HUALALAI		0.00037	0.00037	0.00037	0.00037	0.00037	0.00037	0.00037	7-4-008: 015
KEALAKEHE HIGH SCHOOL NEW 13 CLASSROOM	POTABLE	HAWAII	HUALALAI	0.00081	0.00081	0.00081	0.00081	0.00081	0.00081	0.00081	0.00081	7-4-20: 8
KEALAKEHE II ELEM 1ST & 2ND INCRE	POTABLE	HAWAII	HUALALAI			0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	NEW
KEALAKEHE INTER SCH NEW LIBRARY/ADMIN	POTABLE	HAWAII	HUALALAI	0.00102	0.00102	0.00102	0.00102	0.00102	0.00102	0.00102	0.00102	7-4-008: 015
KEALAKEHE INTER SCHOOL NEW 8 CLASSROOM	POTABLE	HAWAII	HUALALAI			0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	7-4-008: 015
HAWAIIAN PARADISE PARK ELEMENTARY SCHOOL	POTABLE	HAWAII	KILAUEA			0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	NEW
KAU HIGH SCH&PAHALA ELEM SCH 10-CLSRM BLD	POTABLE	HAWAII	KILAUEA			0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	9-6-5:8,9
KAU HIGH SCH&PAHALA ELEM SCH 3-CLSRM BLD	POTABLE	HAWAII	KILAUEA			0.00019	0.00019	0.00019	0.00019	0.00019	0.00019	9-6-5:8,9
KAU HIGH SCHOOL PAHALA NEW 12 CLASSROOM	POTABLE	HAWAII	KILAUEA			0.00074	0.00074	0.00074	0.00074	0.00074	0.00074	9-6-005: 008
KEAAU HIGH SCHOOL 2ND INCREMENT	POTABLE	HAWAII	KILAUEA	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	NEW
KEAAU HIGH SCHOOL 3RD INCREMENT	POTABLE	HAWAII	KILAUEA	0.01200	0.01200	0.01200	0.01200	0.01200	0.01200	0.01200	0.01200	NEW
KEAAU HIGH SCHOOL 4TH INCREMENT	POTABLE	HAWAII	KILAUEA	0.00960	0.00960	0.00960	0.00960	0.00960	0.00960	0.00960	0.00960	NEW
KEAAU INTERMEDIATE NEW 8 CLASSROOM	POTABLE	HAWAII	KILAUEA			0.00050	0.00043	0.00043	0.00043	0.00043	0.00043	7-6-3: 59
KEAAU INTERMEDIATE NEW ADMINISTRATION	POTABLE	HAWAII	KILAUEA			0.00043	0.00043	0.00043	0.00043	0.00043	0.00043	7-6-3: 59

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
KEAAU INTERMEDIATE SCHOOL NEW BAND BLDG	POTABLE	HAWAII	KILAUEA	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	7-6-3: 59
DEPARTMENT OF EDUCATION CONT.												
KEONEPOKO ELEM NEW LIBRARY/ADMINISTRATN	POTABLE	HAWAII	KILAUEA	0.00076	0.00076	0.00076	0.00076	0.00076	0.00076	0.00076	0.00076	1-5-009: 009
KEONEPOKO ELEM SCHOOL NEW 4 CLASSROOM	POTABLE	HAWAII	KILAUEA			0.00720	0.00720	0.00720	0.00720	0.00720	0.00720	1-5-009: 009
MOUNTAIN VIEW ELEM NEW 12 CLASSROOM	POTABLE	HAWAII	KILAUEA			0.00074	0.00074	0.00074	0.00074	0.00074	0.00074	1-8-001: 007
MOUNTAIN VIEW ELEM NEW ADMINISTRATION	POTABLE	HAWAII	KILAUEA			0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	1-8-001: 007
PAHOA ELEMENTARY NEW 10 CLASSROOM	POTABLE	HAWAII	KILAUEA			0.00062	0.00062	0.00062	0.00062	0.00062	0.00062	1-5-114: 025
PAHOA ELEMENTARY NEW ADMINISTRATION	POTABLE	HAWAII	KILAUEA	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	1-5-114: 025
PAHOA HIGH SCHOOL NEW ADMINISTRATION	POTABLE	HAWAII	KILAUEA			0.00046	0.00046	0.00046	0.00046	0.00046	0.00046	2-4-001: 015
PAHOA HIGH SCHOOL NEW GYMNASIUM	POTABLE	HAWAII	KILAUEA			0.00400	0.00400	0.00400	0.00400	0.00400	0.00400	2-4-001: 015
KOHALA ELEM NEW LIBRARY/ADMINISTRATION	POTABLE	HAWAII	KOHALA			0.00076	0.00076	0.00076	0.00076	0.00076	0.00076	5-4-007: 014
KOHALA ELEMENTARY NEW 4 CLASSROOM	POTABLE	HAWAII	KOHALA			0.00720	0.00720	0.00720	0.00720	0.00720	0.00720	5-4-007: 014
KOHALA HIGH SCHOOL NEW 4 CLASSROOM	POTABLE	HAWAII	KOHALA			0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	5-4-007: 014
KOHALA HIGH SCHOOL NEW AUTO/TECH SHOP	POTABLE	HAWAII	KOHALA			0.00041	0.00041	0.00041	0.00041	0.00041	0.00041	5-4-007: 014
KOHALA HIGH SCHOOL NEW MUSIC BUILDING	POTABLE	HAWAII	KOHALA			0.00043	0.00043	0.00043	0.00043	0.00043	0.00043	5-4-007: 014
CHIEFESS KAPIOLANI ELEM 4-CLASSROOM BLDG	POTABLE	HAWAII	NORTH EAST MAUNA LOA						0.00025	0.00025	0.00025	2-2-20:1
DESILVA ELEM SCHOOL 4-CLASSROOM BUILDING	POTABLE	HAWAII	NORTH EAST MAUNA LOA						0.00025	0.00025	0.00025	2-5-8:13
DeSILVA ELEMENTARY NEW ADMINISTRATION	POTABLE	HAWAII	NORTH EAST MAUNA LOA			0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	2-5-008:013
HILO HIGH SCHOOL 4-CLASSROOM BUILDING	POTABLE	HAWAII	NORTH EAST MAUNA LOA			0.00720	0.00720	0.00720	0.00720	0.00720	0.00720	2-3-15:1,26
HILO HIGH SCHOOL NEW ADMINISTRATION	POTABLE	HAWAII	NORTH EAST MAUNA LOA			0.00046	0.00046	0.00046	0.00046	0.00046	0.00046	2-3-015: 001
HILO HIGH SCHOOL NEW GYMNASIUM	POTABLE	HAWAII	NORTH EAST MAUNA LOA			0.00400	0.00400	0.00400	0.00400	0.00400	0.00400	2-3-015: 001
HILO INTERMEDIATE - RENOVATE BLDG A PHASE 1 & 2 ADMIN, LIBRARY, 35 CLASSROOMS	POTABLE	HAWAII	NORTH EAST MAUNA LOA			0.00317	0.00317	0.00317	0.00317	0.00317	0.00317	2-3-021: 058
HILO UNION NEW 6 CLASSROOM	POTABLE	HAWAII	NORTH EAST MAUNA LOA			0.00037	0.00037	0.00037	0.00037	0.00037	0.00037	2-3-016: 037
KALANIANIOLE ELEMENTARY NEW LIBRARY	POTABLE	HAWAII	NORTH EAST MAUNA LOA			0.00046	0.00046	0.00046	0.00046	0.00046	0.00046	2-7-022: 002
KAUMANA ELEMENTARY NEW 4 CLASSROOM	POTABLE	HAWAII	NORTH EAST MAUNA LOA			0.00720	0.00720	0.00720	0.00720	0.00720	0.00720	2-5-005: 084
KEAAU HIGH SCHOOL (1ST INCREMENT)	POTABLE	HAWAII	NORTH EAST MAUNA LOA	0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	1-6-003:003
KEAAU II ELEMENTARY SCHOOL 2ND INCREMENT	POTABLE	HAWAII	NORTH EAST MAUNA LOA	0.02700	0.02700	0.02700	0.02700	0.02700	0.02700	0.02700	0.02700	1-6-003: 008
KEAUKAHA ELEM NEW LIBRARY/ADMINISTRATION	POTABLE	HAWAII	NORTH EAST MAUNA LOA			0.00076	0.00076	0.00076	0.00076	0.00076	0.00076	2-1-020: 001

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
KEAUKAHA ELEMENTARY NEW CAFETERIA	POTABLE	HAWAII	NORTH EAST MAUNA LOA	0.00108	0.00108	0.00108	0.00108	0.00108	0.00108	0.00108	0.00108	2-1-020: 001
WAIAKEA ELEM NEW LIBRARY/ADMINISTRATION	POTABLE	HAWAII	NORTH EAST MAUNA LOA		0.00076	0.00076	0.00076	0.00076	0.00076	0.00076	0.00076	2-4-001: 015
DEPARTMENT OF EDUCATION CONT.												
WAIAKEA INTER NEW PE LOCKER/SHOWER	POTABLE	HAWAII	NORTH EAST MAUNA LOA			0.00042	0.00042	0.00042	0.00042	0.00042	0.00042	2-4-001: 015
WAIAKEAWAENA ELEMENTARY NEW CAFETERIA	POTABLE	HAWAII	NORTH EAST MAUNA LOA	0.00285	0.00285	0.00285	0.00285	0.00285	0.00285	0.00285	0.00285	2-2-042: 017
MOUNTAIN VIEW ELEMENTARY SCH CAFETERIA	POTABLE	HAWAII	SOUTH EAST MAUNA LOA	0.00285	0.00285	0.00285	0.00285	0.00285	0.00285	0.00285	0.00285	1-8-01:07
NAALEHU ELEMENTARY NEW 6 CLASSROOM	POTABLE	HAWAII	SOUTH EAST MAUNA LOA			0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	9-5-009: 006
NAALEHU ELEMENTARY NEW LIBRARY	POTABLE	HAWAII	SOUTH EAST MAUNA LOA			0.00046	0.00046	0.00046	0.00046	0.00046	0.00046	9-5-009: 006
HONAUNAU ELEM NEW LIBRARY/ADMINISTRATION	POTABLE	HAWAII	SOUTH WEST MAUNA LOA			0.00076	0.00076	0.00076	0.00076	0.00076	0.00076	8-3-013: 021
HONAUNAU ELEMENTARY NEW CAFETERIA	POTABLE	HAWAII	SOUTH WEST MAUNA LOA			0.00090	0.00090	0.00090	0.00090	0.00090	0.00090	8-3-013: 021
HOOKENA ELEMENTARY NEW 8 CLASSROOM	POTABLE	HAWAII	SOUTH WEST MAUNA LOA	0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	8-6-010: 009
HOOKENA ELEMENTARY NEW ADMINISTRATION	POTABLE	HAWAII	SOUTH WEST MAUNA LOA			0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	8-6-010: 009
HOOKENA ELEMENTARY NEW LIBRARY	POTABLE	HAWAII	SOUTH WEST MAUNA LOA		0.00151	0.00151	0.00151	0.00151	0.00151	0.00151	0.00151	8-6-010: 009
HOOKENA ELEMENTARY SCHOOL CAFETERIA	POTABLE	HAWAII	SOUTH WEST MAUNA LOA		0.00093	0.00093	0.00093	0.00093	0.00093	0.00093	0.00093	8-6-10:9,12
KONAWAENA HIGH SCHOOL NEW LIBRARY	POTABLE	HAWAII	SOUTH WEST MAUNA LOA			0.00088	0.00088	0.00088	0.00088	0.00088	0.00088	8-1-002: 038
KONAWAENA INTER - RENOVATE 12 CLASSROOMS	POTABLE	HAWAII	SOUTH WEST MAUNA LOA	0.00074	0.00074	0.00074	0.00074	0.00074	0.00074	0.00074	0.00074	8-1-002:038,068
KONAWAENA INTER SCHOOL NEW ADMINISTRATN	POTABLE	HAWAII	SOUTH WEST MAUNA LOA			0.00043	0.00043	0.00043	0.00043	0.00043	0.00043	8-1-002: 038
KONAWAENA MIDDLE SCH - RENOV 17 CLASSRMS	POTABLE	HAWAII	SOUTH WEST MAUNA LOA		0.00153	0.00153	0.00153	0.00153	0.00153	0.00153	0.00153	NR
KONAWAENA MID SCH, NEW PE LOCKR&SHOWR	POTABLE	HAWAII	SOUTH WEST MAUNA LOA				0.00120	0.00120	0.00120	0.00120	0.00120	8-1-2: 38
WAIKOLOA ELEM SCH 3RD INCR 8 CLSRM/LIBRY	POTABLE	HAWAII	WEST MAUNA KEA	0.00095	0.00095	0.00095	0.00095	0.00095	0.00095	0.00095	0.00095	6-8-2:31
WAIMEA ELEMENTARY 1ST INCREMENT	POTABLE	HAWAII	WEST MAUNA KEA			0.03600	0.03600	0.03600	0.03600	0.03600	0.03600	6-7-002: 015
WAIMEA ELEMENTARY 2ND INCREMENT	POTABLE	HAWAII	WEST MAUNA KEA			0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	6-7-002: 015
WAIMEA INTER NEW PE LOCKER/SHOWER	POTABLE	HAWAII	WEST MAUNA KEA			0.00042	0.00042	0.00042	0.00042	0.00042	0.00042	6-7-002: 015
WAIMEA INTERMEDIATE NEW 8 CLASSROOM	POTABLE	HAWAII	WEST MAUNA KEA		0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	6-7-002: 015
WAIMEA INTERMEDIATE NEW MUSIC BUILDING	POTABLE	HAWAII	WEST MAUNA KEA			0.00040	0.00040	0.00040	0.00040	0.00040	0.00040	6-7-002: 015
KALAHEO ELEMENTARY NEW ADMININISTRATION	POTABLE	KAUAI	LIHUE	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	2-3-002: 005
KAPAA ELEMENTARY NEW ADMINISTRATION	POTABLE	KAUAI	LIHUE			0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	4-6-014: 031
KAPAA ELEMENTARY NEW LIBRARY	POTABLE	KAUAI	LIHUE			0.00046	0.00046	0.00046	0.00046	0.00046	0.00046	4-6-014: 031

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
KAPAA HIGH SCHOOL NEW ADMINISTRATION	POTABLE	KAUAI	LIHUE			0.00046	0.00046	0.00046	0.00046	0.00046	0.00046	4-6-014: 031
KAPAA II ELEM SCH IST & 2ND INCREMENT	POTABLE	KAUAI	LIHUE			0.02000	0.02000	0.02000	0.02000	0.02000	0.02000	NEW
KAPAA II ELEM SCH IST & 2ND INCREMENT	NONPOTABLE USING POTABLE	KAUAI	LIHUE			0.03000	0.03000	0.03000	0.03000	0.03000	0.03000	NEW
DEPARTMENT OF EDUCATION CONT.												
KAUAI INTERMEDIATE (BALANCE OF INCREMENTS)	POTABLE	KAUAI	LIHUE	0.04200	0.04200	0.04200	0.04200	0.04200	0.04200	0.04200	0.04200	NR
KILAUEA ELEMENTARY NEW ADMINISTRATION	POTABLE	KAUAI	LIHUE	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	5-2-009: 006
KILAUEA ELEMENTARY NEW CAFETERIA	POTABLE	KAUAI	LIHUE			0.00150	0.00150	0.00150	0.00150	0.00150	0.00150	5-2-009: 006
KILAUEA ELEMENTARY NEW LIBRARY	POTABLE	KAUAI	LIHUE			0.00046	0.00046	0.00046	0.00046	0.00046	0.00046	5-2-009: 006
KING KAUMUALII ELEM ADMIN BUILDING	POTABLE	KAUAI	LIHUE	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031	3-7-03:06, POR 20
KOLOA ELEMENTARY NEW 6 CLASSROOM	POTABLE	KAUAI	LIHUE			0.00360	0.00360	0.00360	0.00360	0.00360	0.00360	2-8-010: 011
KOLOA ELEMENTARY NEW 6 CLASSROOM	NONPOTABLE USING POTABLE	KAUAI	LIHUE			0.00750	0.00750	0.00750	0.00750	0.00750	0.00750	2-8-010: 011
KUKUIULA ELEMENTARY SCHOOL	POTABLE	KAUAI	LIHUE						0.03300	0.03300	0.03300	NR
LIHUE/PUHI ELEM SCHOOL IST & 2ND INCREMENT	POTABLE	KAUAI	LIHUE			0.02000	0.02000	0.02000	0.02000	0.02000	0.02000	NEW
LIHUE/PUHI ELEM SCHOOL IST & 2ND INCREMENT	NONPOTABLE USING POTABLE	KAUAI	LIHUE			0.03000	0.03000	0.03000	0.03000	0.03000	0.03000	NEW
WAIMEA HIGH SCHOOL NEW LIBRARY	POTABLE	KAUAI	WAIMEA			0.00088	0.00088	0.00088	0.00088	0.00088	0.00088	1-6-010: 004
WAIMEA HS - RENOV BLDGS C & H 7 CLSRM	POTABLE	KAUAI	WAIMEA		0.00063	0.00063	0.00063	0.00063	0.00063	0.00063	0.00063	1-6-009:23; 1-6-10:4,10
LANAI HIGH AND ELEM., NEW CLASSROOM BLDG.	POTABLE	LANAI	CENTRAL				0.01440	0.01440	0.01440	0.01440	0.01440	4-9-14: 3
BALDWIN HIGH SCHOOL GYMNASIUM	POTABLE	MAUI	CENTRAL	0.00400	0.00400	0.00400	0.00400	0.00400	0.00400	0.00400	0.00400	3-8-07:4
KALAMA INTER SCHOOL NEW ADMINISTRATION	POTABLE	MAUI	CENTRAL		0.00087	0.00087	0.00087	0.00087	0.00087	0.00087	0.00087	2-4-032: 098
KEKAULIKE HIGH SCH (BALANCE OF INCREMENTS)	POTABLE	MAUI	CENTRAL	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	2-3-7:01
KIHEI ELEMENTARY NEW ADMINISTRATION	POTABLE	MAUI	CENTRAL		0.00063	0.00063	0.00063	0.00063	0.00063	0.00063	0.00063	2-2-002: 043
KIHEI HIGH SCHOOL	POTABLE	MAUI	CENTRAL						0.06000	0.06000	0.06000	NR
KING KEKAULIKE HIGH SCHOOL NEW 6 CLSRM	POTABLE	MAUI	CENTRAL			0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	2-3-007: 001
LOKELANI INTER SCHOOL NEW 6 CLASSROOM	POTABLE	MAUI	CENTRAL			0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	2-2-002: 043
LOKELANI INTER SCHOOL NEW ADMINISTRATION	POTABLE	MAUI	CENTRAL			0.00090	0.00090	0.00090	0.00090	0.00090	0.00090	2-2-002: 043
LOKELANI INTERMEDIATE CAFETERIA	POTABLE	MAUI	CENTRAL	0.00270	0.00270	0.00270	0.00270	0.00270	0.00270	0.00270	0.00270	2-2-2:43
MAKAWAO ELEM SCH 8-CLASSROOM BUILDING	POTABLE	MAUI	CENTRAL			0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	2-4-5:10
MAKAWAO ELEMENTARY NEW 12 CLASSROOM	POTABLE	MAUI	CENTRAL			0.02160	0.02160	0.02160	0.02160	0.02160	0.02160	2-4-005: 010

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
MAUI WAENA INTER SCHOOL NEW ADMINISTRATN	POTABLE	MAUI	CENTRAL		0.00087	0.00087	0.00087	0.00087	0.00087	0.00087	0.00087	3-8-007: 002
MAUI-WAENA INTER SCHOOL NEW 6 CLASSROOM	POTABLE	MAUI	CENTRAL			0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	3-8-007: 002
NEW MAUI INTERMEDIATE	POTABLE	MAUI	CENTRAL						0.09600	0.09600	0.09600	NEW
PAIA ELEMENTARY NEW ADMINISTRATION	POTABLE	MAUI	CENTRAL			0.00059	0.00059	0.00059	0.00059	0.00059	0.00059	2-5-005: 004
DEPARTMENT OF EDUCATION CONT.												
PAIA ELEMENTARY NEW CAFETERIA	POTABLE	MAUI	CENTRAL	0.01500	0.01500	0.01500	0.01500	0.01500	0.01500	0.01500	0.01500	2-5-005: 004
HANA HIGH/ELEM SCHOOL NEW 6 CLASSROOM	POTABLE	MAUI	HANA			0.00076	0.00076	0.00076	0.00076	0.00076	0.00076	1-3-006: 008
HANA HIGH/ELEM SCHOOL NEW ADMINISTRATION	POTABLE	MAUI	HANA			0.00092	0.00092	0.00092	0.00092	0.00092	0.00092	1-3-006: 008
HAIKU ELEMENTARY NEW 6 CLASSROOM	POTABLE	MAUI	KOOLAU			0.00076	0.00076	0.00076	0.00076	0.00076	0.00076	2-7-008: 097
PUAKALANI ELEMENTARY - ADMIN/LIBRARY/RENOVATE 4 CLASSROOMS	POTABLE	MAUI	KOOLAU			0.00720	0.00720	0.00720	0.00720	0.00720	0.00720	2-3-009:035
LAHAINA III ELEMENTARY 1ST & 2ND INCREMENT	POTABLE	MAUI	LAHAINA			0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	NEW
LAHAINA INTER LOCKR/SHOWR FAC & PLAYFLD	POTABLE	MAUI	LAHAINA	0.00086	0.00086	0.00086	0.00086	0.00086	0.00086	0.00086	0.00086	4-6-18:13
LAHAINA INTER LOCKR/SHOWR FAC & PLAYFLD	NONPOTABLE USING POTABLE	MAUI	LAHAINA	0.00680	0.00680	0.00680	0.00680	0.00680	0.00680	0.00680	0.00680	4-6-18:13
LAHAINA INTER SCHOOL NEW 8 CLASSROOM	POTABLE	MAUI	LAHAINA			0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	4-6-018: 013
LAHAINA INTERMEDIATE NEW ADMINISTRATION	POTABLE	MAUI	LAHAINA			0.00087	0.00087	0.00087	0.00087	0.00087	0.00087	4-6-018: 013
LAHAINA INTERMEDIATE SCHOOL NEW LIBRARY	POTABLE	MAUI	LAHAINA			0.00087	0.00087	0.00087	0.00087	0.00087	0.00087	4-6-018:013
LAHAINALUNA HIGH SCHOOL NEW ATHLETIC LOCKER/SHOWER	POTABLE	MAUI	LAHAINA			0.00120	0.00120	0.00120	0.00120	0.00120	0.00120	4-6-018: 007
LAHAINALUNA HIGH SCHOOL NEW CAFETERIA	POTABLE	MAUI	LAHAINA			0.00420	0.00420	0.00420	0.00420	0.00420	0.00420	4-6-018: 017
NAHIENAENA ELEM SCH NEW LIBRARY/ADMIN	POTABLE	MAUI	LAHAINA			0.00155	0.00155	0.00155	0.00155	0.00155	0.00155	4-6-018: 013
PUUKOLII ELEMENTARY 1ST INCREMENT	POTABLE	MAUI	LAHAINA			0.03600	0.03600	0.03600	0.03600	0.03600	0.03600	NEW
PUUKOLII ELEMENTARY 2ND INCREMENT	POTABLE	MAUI	LAHAINA			0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	NEW
BALDWIN HIGH SCHOOL NEW 8 CLASSROOM	POTABLE	MAUI	WAILUKU			0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	3-8-007: 004
BALDWIN HIGH SCHOOL NEW LIBRARY	POTABLE	MAUI	WAILUKU			0.00178	0.00178	0.00178	0.00178	0.00178	0.00178	3-8-007: 004
HLIP SCHOOL NEW SCHOOL	POTABLE	MAUI	WAILUKU			0.12000	0.12000	0.12000	0.12000	0.12000	0.12000	NEW
IAO INTER NEW 12 CLASSROOM (ARMORY)	POTABLE	MAUI	WAILUKU	0.02160	0.02160	0.02160	0.02160	0.02160	0.02160	0.02160	0.02160	NR
IAO INTERMEDIATE NEW 8 CLASSROOM	POTABLE	MAUI	WAILUKU						0.01260	0.01260	0.01260	NR
IAO INTERMEDIATE NEW CAFETERIA	POTABLE	MAUI	WAILUKU	0.00326	0.00326	0.00326	0.00326	0.00326	0.00326	0.00326	0.00326	NR
MAUI LANI ELEMENTARY 1ST & 2ND INCREMENT	POTABLE	MAUI	WAILUKU			0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	NEW

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
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
DEPARTMENT OF EDUCATION CONT.												
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

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
CENTRAL MIDDLE SCH - RENOVATE CAFETERIA	POTABLE	OAHU	HONOLULU		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			0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	NEW
KALAKAUA MIDDLE SCHOOL - RENOVATE BLDGS G & H 3 CLASSROOM	POTABLE	OAHU	HONOLULU		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		0.00173	0.00173	0.00173	0.00173	0.00173	0.00173	0.00173	1-7-023: 41,42
KAULUWELA ELEMENTARY 6 CLASSROOM BLDG	POTABLE	OAHU	HONOLULU			0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	1-7-23:41, 1-7-22:15
LINAPUNI ELEM SCH NEW ADMIN BUILDING	POTABLE	OAHU	HONOLULU			0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	1-3-39:5
DEPARTMENT OF EDUCATION CONT.												
McKINLEY HIGH SCHOOL - RENOVATE INDUSTRIAL ARTS EDUC BLDG 6 CLASSROOM	POTABLE	OAHU	HONOLULU	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	0.00804	0.00804	0.00804	0.00804	0.00804	0.00804	0.00804	0.00804	2-4-032: 001
PEARL HARBOR ELEM SCH NEW 4 CLASSRM BLD	POTABLE	OAHU	HONOLULU			0.00036	0.00036	0.00036	0.00036	0.00036	0.00036	1-1-010: 027
SUNSET BEACH ELEM NEW ADMINISTRATION	POTABLE	OAHU	NORTH			0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	5-9-005: 018
WAIALUA ELEM SCHOOL NEW ADMINISTRATION	POTABLE	OAHU	NORTH	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	6-7-001: 010
AHRENS ELEMENTARY SCH NEW 8 CLASSROOM	POTABLE	OAHU	PEARL HARBOR			0.00072	0.00072	0.00072	0.00072	0.00072	0.00072	9-4-059: 073
AIEA HIGH SCHOOL LIBRARY EXPANSION	POTABLE	OAHU	PEARL HARBOR	0.00127	0.00127	0.00127	0.00127	0.00127	0.00127	0.00127	0.00127	9-8-31: 17
CENTRAL OAHU HIGH SCHOOL	POTABLE	OAHU	PEARL HARBOR						0.06000	0.06000	0.06000	NR
EWA ELEM NEW LIBRARY & ADMINISTRATION	POTABLE	OAHU	PEARL HARBOR	0.00076	0.00076	0.00076	0.00076	0.00076	0.00076	0.00076	0.00076	1-9-17:2, 37
EWA MARINA ELEM SCHOOL NEW SCHOOL	POTABLE	OAHU	PEARL HARBOR			0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	NEW
HICKAM ELEM NEW CAFETERIA & LIBRY EXPAN	POTABLE	OAHU	PEARL HARBOR			0.00329	0.00329	0.00329	0.00329	0.00329	0.00329	9-9-01:13
HICKAM ELEM SCHOOL, NEW ADMIN. BLDG.	POTABLE	OAHU	PEARL HARBOR				0.00045	0.00045	0.00045	0.00045	0.00045	9-9-01: 13 (POR.)
HLIP	POTABLE	OAHU	PEARL HARBOR						0.03000	0.03000	0.03000	
KAPOLEI II ELEMENTARY SCHOOL NEW SCHOOL	POTABLE	OAHU	PEARL HARBOR	0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	NEW
MAKALAPA ELEM SCH RENOV/EXPAN OF CAFÉ	POTABLE	OAHU	PEARL HARBOR			0.00195	0.00195	0.00195	0.00195	0.00195	0.00195	9-9-75: 28
ROYAL KUNIA ELEMENTARY 1ST INCREMENT	POTABLE	OAHU	PEARL HARBOR	0.03600	0.03600	0.03600	0.03600	0.03600	0.03600	0.03600	0.03600	NEW
ROYAL KUNIA ELEMENTARY 2ND INCREMENT	POTABLE	OAHU	PEARL HARBOR		0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	NEW
WAIAU ELEMENTARY SCHOOL ADMIN/LIBRARY	POTABLE	OAHU	PEARL HARBOR	0.00111	0.00111	0.00111	0.00111	0.00111	0.00111	0.00111	0.00111	9-8-50:71
WAIAWA I ELEMENTARY SCHOOL IST INCREMENT	POTABLE	OAHU	PEARL HARBOR			0.03600	0.03600	0.03600	0.03600	0.03600	0.03600	NEW
WAIAWA INTER SCHOOL 1ST INCRE	POTABLE	OAHU	PEARL HARBOR			0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	NEW
WAIAWA INTERMEDIATE 2ND INCREMENT	POTABLE	OAHU	PEARL HARBOR			0.03600	0.03600	0.03600	0.03600	0.03600	0.03600	NEW

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
WAIPAHU HIGH SCHOOL NEW 8 CLASSROOM	POTABLE	OAHU	PEARL HARBOR		0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	9-4-008: 020
WAIPAHU HIGH SCHOOL NEW CAFETERIA	POTABLE	OAHU	PEARL HARBOR			0.00771	0.00771	0.00771	0.00771	0.00771	0.00771	9-4-008: 020
WAIPAHU INTERMEDIATE - NEW CAFETERIA	POTABLE	OAHU	PEARL HARBOR		0.00456	0.00456	0.00456	0.00456	0.00456	0.00456	0.00456	9-4-001:29,30
LAULANI ELEMENTARY SCHOOL NEW SCHOOL	POTABLE	OAHU	PEARL HARBOR			0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	NEW
MAKALAPA ELEM ADMIN AND RENOVATION	POTABLE	OAHU	PEARL HARBOR	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	9-9-075:028
MILILANI HIGH SCHOOL NEW 6 CLASSROOM	POTABLE	OAHU	PEARL HARBOR			0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	9-5-001: 055 & 054
MILILANI INTER (BALANCE OF INCRE) NEW SCH	POTABLE	OAHU	PEARL HARBOR	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	NEW
DEPARTMENT OF EDUCATION CONT.												
MILILANI MAUKA II ELEM SCHOOL 1ST INCREMENT	POTABLE	OAHU	PEARL HARBOR			0.03600	0.03600	0.03600	0.03600	0.03600	0.03600	NEW
MILILANI MAUKA II ELEM SCHOOL 2ND INCREMENT	POTABLE	OAHU	PEARL HARBOR			0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	NEW
PEARL HARBOR KAI ELEMENTARY BLDG "F" RENOVATION 2 CLASSROOM	POTABLE	OAHU	PEARL HARBOR		0.00020	0.00020	0.00020	0.00020	0.00020	0.00020	0.00020	9-9-001: 012
PEARL RIDGE ELEM SCH ADMINISTRATION BLDG	POTABLE	OAHU	PEARL HARBOR	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	9-8-13:28
WAIMALU ELEM - RENOVATE BLDG A 6 CLASSRM	POTABLE	OAHU	PEARL HARBOR	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	0.00056	9-8-008: 007
KAMAILE ELEMENTARY SCH NEW 8 CLASSROOM	POTABLE	OAHU	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		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	0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	8-6-001: 054
MAKAHA ELEMENTARY NEW LIBRARY	POTABLE	OAHU	WAIANAE			0.00066	0.00066	0.00066	0.00066	0.00066	0.00066	8-4-025: 010
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
NANAKULI IV ELEMENTARY IST & 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
LAIE 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
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

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
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
DEPARTMENT OF EDUCATION CONT.												
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
			DOE SUBTOTAL=	0.61955	0.81025	2.22742	2.24340	2.24340	2.59797	2.59797	2.59797	

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
DEPARTMENT OF HAWAIIAN HOME LANDS												
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
PANAEWA - FARM LOTS (AUWAE ST)	POTABLE	HAWAII	NORTH EAST MAUNA LOA						0.03000	0.03000	0.03000	NR
PANAEWA - FARM LOTS (AUWAE ST) (IRRIG)	NONPOTABLE	HAWAII	NORTH EAST MAUNA LOA						0.64000	0.64000	0.64000	NR
PANAEWA - 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
PANAEWA - FARM LOTS PUNA PAPAYA (IRRIG)	NONPOTABLE	HAWAII	NORTH EAST MAUNA LOA						0.30000	0.30000	0.30000	NR
PANAEWA RESIDENCE LOTS	POTABLE	HAWAII	NORTH EAST MAUNA LOA	0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	
WAIAKEA - 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

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			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	NR
DEPARTMENT OF HAWAIIAN HOME LANDS CONT.												
ANAHOLA - RESIDENCE LOTS J & K	POTABLE	KAUAI	LIHUE						0.01100	0.01100	0.01100	NR
ANAHOLA - RESIDENCE LOTS M	POTABLE	KAUAI	LIHUE						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	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	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	NR
ANAHOLA UNIT 6	POTABLE	KAUAI	LIHUE			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	
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	
LANAI	POTABLE	LANAI	CENTRAL		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	
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	
WAIOHULI RES LOTS UNIT 1	POTABLE	MAUI	CENTRAL			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
WAIEHU - RESIDENCE LOTS	POTABLE	MAUI	WAILUKU			0.02000	0.02000	0.02000	0.02000	0.02000	0.02000	3-2-13:18
WAIEHU KOU	POTABLE	MAUI	WAILUKU			0.10000	0.10000	0.10000	0.10000	0.10000	0.10000	NR
WAIEHU KOU III	POTABLE	MAUI	WAILUKU	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	5-2-13:27, 5-2-15:46

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
HOOLEHUA, AGRICULTURAL LOTS	POTABLE	MOLOKAI	CENTRAL			0.02287	0.02287	0.02287	0.02287	0.02287	0.02287	2-3:1, 5-2-4:1,2,7,26,28,34-36,49,96,98,105, 5-2-
HOOLEHUA, AGRICULTURAL LOTS	NONPOTABLE	MOLOKAI	CENTRAL			0.54893	0.54893	0.54893	0.54893	0.54893	0.54893	2-3:1, 5-2-4:1,2,7,26,28,34-36,49,96,98,105, 5-2-
DEPARTMENT OF HAWAIIAN HOME LANDS CONT.												
HOOLEHUA, OTHER	POTABLE	MOLOKAI	CENTRAL			0.00540	0.00540	0.00540	0.00540	0.00540	0.00540	5-2-04:15,16,46,84, 5-2-23:9
HOOLEHUA, RESIDENTIAL LOTS UNIT 1	POTABLE	MOLOKAI	CENTRAL			0.01200	0.01200	0.01200	0.01200	0.01200	0.01200	5-2-17: 1,2
HOOLEHUA, RESIDENTIAL LOTS UNIT 2	POTABLE	MOLOKAI	CENTRAL			0.03600	0.03600	0.03600	0.03600	0.03600	0.03600	5-2-15: POR 1, 2, 56
KALAMAULA	POTABLE	MOLOKAI	CENTRAL			0.00840	0.00840	0.00840	0.00840	0.00840	0.00840	5-2-08:57,109-110,118
KALAMAULA, COMMERCIAL	POTABLE	MOLOKAI	CENTRAL			0.00384	0.00384	0.00384	0.00384	0.00384	0.00384	5-2-9:12,30
KALAMAULA,RESIDENTIAL LOTS PHASE 1	POTABLE	MOLOKAI	CENTRAL			0.07440	0.07440	0.07440	0.07440	0.07440	0.07440	09:POR14,15,22-23,28, 5-2-10:POR1
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
MOILIILI	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
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
MAILIILI 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 MAILIILI	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

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
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
DEPARTMENT OF HAWAIIAN HOME LANDS CONT.												
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
WAIAHOLE 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
			DHHL SUBTOTAL=	0.64760	0.66010	2.02474	2.02474	2.02474	11.65914	15.39034	15.81534	

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
DEPARTMENT OF HEALTH												
MAUI MEMORIAL HOSPITAL - DIET DEPT RENOV	POTABLE	MAUI	WAILUKU	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	3-8-7:3
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
			DOH SUBTOTAL=	0.00770	0.00770	0.00770	0.00770	0.00770	0.00770	0.00770	0.00770	

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
DEPARTMENT OF HUMAN SERVICES												
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
			DHS SUBTOTAL=	0.00380	0.00380	0.00380	0.00380	0.00380	0.00380	0.00380	0.00380	

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
JUDICIARY												
NAALEHU DIST COURT AND MULTI-PURPOSE BLD	POTABLE	HAWAII	SOUTH EAST MAUNA LOA			0.00099	0.00099	0.00099	0.00099	0.00099	0.00099	NR
NAALEHU DIST COURT AND MULTI-PURPOSE BLD	NONPOTABLE USING POTABLE	HAWAII	SOUTH EAST MAUNA LOA			0.00727	0.00727	0.00727	0.00727	0.00727	0.00727	NR
			JUD SUBTOTAL=	0.00000	0.00000	0.00826	0.00826	0.00826	0.00826	0.00826	0.00826	

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
DEPARTMENT OF LAND AND NATURAL RESOURCES												
BOATING AND OCEAN RECREATION DIVISION												
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
STATE PARKS DIVISION												
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
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
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
STATE PARKS DIVISION CONT.												
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

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
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
STATE PARKS DIVISION CONT.												
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
			DLNR SUBTOTAL=	**0.46241**	**0.60201**	**1.12148**	**1.17029**	**1.22051**	**2.25145**	**2.25476**	**2.30154**	

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
DEPARTMENT OF PUBLIC SAFETY												
MAUI COM CORRECT CTR, EXPAN&RENOVS	POTABLE	MAUI	CENTRAL	0.06400	0.06400	0.06400	0.10000	0.10000	0.10000	0.10000	0.10000	3-8-46: 5 & 6
NEW 200-BED ADDITION	POTABLE	OAHU	PEARL HARBOR	0.03000	0.03000	0.03000	0.03000	0.03000	0.03000	0.03000	0.03000	9-6-05:11,12
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
			DPS SUBTOTAL=	0.10660	0.10660	0.10660	0.14260	0.14260	0.14260	0.14260	0.14260	

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
DEPARTMENT OF TRANSPORTATION												
AIRPORTS DIVISION												
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
HARBORS DIVISION												
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	3-6-1:03
HAWAII COMMERCIAL HARBORS 2020 MASTER PLAN: OCEAN RESEARCH STATION	POTABLE	HAWAII	NORTH EAST MAUNA LOA							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	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	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

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
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
HARBORS DIVISION CONT.												
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
DIVISION OF HIGHWAYS												
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
MAMALAHOA HWY, EMERGENCY REPLACE.OF PAAUAU STR.BRIDGE, REALIGN.OF KAMANI ST., ETC.	NONPOTABLE USING POTABLE	HAWAII	KILAUEA	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
HONOAPIILANI 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 SALTLAKE 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	0.01350	NR
			DOT SUBTOTAL=	0.23410	0.71200	1.32975	1.94400	1.97131	2.03021	2.25571	2.41671	

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
UNIVERSITY OF HAWAII												
UNIVERSITY OF HAWAII CENTER AT WEST HAWAII - EXTERIOR IMPROVEMENTS PHASE I	NONPOTABLE USING POTABLE	HAWAII	HUALALAI				0.03600	0.03600	0.03600	0.03600	0.03600	7-3-10:33
UNIVERSITY OF HAWAII CENTER AT WEST HAWAII - FOOD SERVICES FACILITY	POTABLE	HAWAII	HUALALAI				0.00695	0.00695	0.00695	0.00695	0.00695	7-3-10:33
UNIVERSITY OF HAWAII CENTER AT WEST HAWAII - FOOD SERVICES FACILITY	NONPOTABLE USING POTABLE	HAWAII	HUALALAI				0.00029	0.00029	0.00029	0.00029	0.00029	7-3-10:33
UNIVERSITY OF HAWAII CENTER AT WEST HAWAII - LEARNING RESOURCE CENTER	POTABLE	HAWAII	HUALALAI				0.00978	0.00978	0.00978	0.00978	0.00978	7-3-10:33
UNIVERSITY OF HAWAII CENTER AT WEST HAWAII - LEARNING RESOURCE CENTER	NONPOTABLE USING POTABLE	HAWAII	HUALALAI				0.00010	0.00010	0.00010	0.00010	0.00010	7-3-10:33
UNIVERSITY OF HAWAII CENTER AT WEST HAWAII - OPERATIONS & MAINTENANCE PHASE I	POTABLE	HAWAII	HUALALAI					0.00024	0.00024	0.00024	0.00024	7-3-10:33
UNIVERSITY OF HAWAII CENTER AT WEST HAWAII - OPERATIONS & MAINTENANCE PHASE I	NONPOTABLE USING POTABLE	HAWAII	HUALALAI					0.00004	0.00004	0.00004	0.00004	7-3-10:33
PACIFIC AQUACULT&COASTAL RESOURCS CTR	NONPOTABLE	HAWAII	N.E. MAUNA LOA		1.65000	1.65000	1.65000	1.65000	1.65000	1.65000	1.65000	2-1-9: 1 & 41, 2-1-11: 4
PACIFIC AQUACULTURE AND COASTAL RESOURCES CENTER, UHH FARM @ PANAEWA	NONPOTABLE	HAWAII	N.E. MAUNA LOA		0.75000	0.75000	0.75000	0.75000	0.75000	0.75000	0.75000	2-1-56: 56
INSTITUTE FOR ASTRONOMY FACILITY-HILO	POTABLE	HAWAII	NORTH EAST MAUNA LOA	0.00100	0.00100	0.00100	0.00100	0.00100	0.00100	0.00100	0.00100	2-4-01:07
PANAEWA FARM WELL AND PUMP	NONPOTABLE	HAWAII	NORTH EAST MAUNA LOA	0.35000	0.35000	0.35000	0.35000	0.35000	0.35000	0.35000	0.35000	2-2-56:56
UNIVERSITY OF HAWAII AT HILO CAMPUS DEV	POTABLE	HAWAII	NORTH EAST MAUNA LOA	0.04200	0.05600	0.07000	0.07000	0.07000	0.14000	0.21000	0.28000	2-4-57:25,26
HAWAII COMMUNITY COLLEGE HILO - EXTERIOR IMPROVEMENTS PHASE I	NONPOTABLE USING POTABLE	HAWAII	NORTH EAST MAUNA LOA					0.04000	0.04000	0.04000	0.04000	NR
HAWAII COMMUNITY COLLEGE HILO - LEARNING RESOURCE CENTER	POTABLE	HAWAII	NORTH EAST MAUNA LOA						0.00958	0.00958	0.00958	NR
HAWAII COMMUNITY COLLEGE HILO - LEARNING RESOURCE CENTER	NONPOTABLE USING POTABLE	HAWAII	NORTH EAST MAUNA LOA						0.00050	0.00050	0.00050	NR
HAWAII COMMUNITY COLLEGE HILO - OPERATIONS & MAINTENANCE, PHASE I	POTABLE	HAWAII	NORTH EAST MAUNA LOA						0.00024	0.00024	0.00024	NR
HAWAII COMMUNITY COLLEGE HILO - OPERATIONS & MAINTENANCE, PHASE I	NONPOTABLE USING POTABLE	HAWAII	NORTH EAST MAUNA LOA						0.00004	0.00004	0.00004	NR
U.S. CHINA CENTER	POTABLE	HAWAII	NORTH EAST MAUNA LOA		0.04580	0.04580	0.04580	0.04580	0.13400	0.13400	0.13400	2-4-01:05 (POR.)
KAUAI COMMUNITY COLLEGE - OCET FACILITIES	POTABLE	KAUAI	LIHUE				0.00760	0.00760	0.00760	0.00760	0.00760	3-4-005;006,009
KAUAI COMMUNITY COLLEGE - OCET FACILITIES	NONPOTABLE USING POTABLE	KAUAI	LIHUE				0.00202	0.00202	0.00202	0.00202	0.00202	3-4-005;006,009
KAUAI COMMUNITY COLLEGE - RENOV. CAMPUS CENTER FOR CULINARY ARTS	POTABLE	KAUAI	LIHUE	0.00432	0.00432	0.00432	0.00432	0.00432	0.00432	0.00432	0.00432	3-4-005;006,009
KAUAI COMMUNITY COLLEGE - ADDITION TO BLDG 4463C ELECT TECH	POTABLE	KAUAI	LIHUE	0.00600	0.00600	0.00600	0.00600	0.00600	0.00600	0.00600	0.00600	3-4-005;006,009
MAUI COMMUNITY COLLEGE - BLDG N TELECOMMUNICATION/MEDIA CENTER	POTABLE	MAUI	CENTRAL	0.01145	0.01145	0.01145	0.01145	0.01145	0.01145	0.01145	0.01145	3-7-002-011
MAUI COMMUNITY COLLEGE - BLDG N TELECOMMUNICATION/MEDIA CENTER	NONPOTABLE USING POTABLE	MAUI	CENTRAL	0.00361	0.00361	0.00361	0.00361	0.00361	0.00361	0.00361	0.00361	3-7-002-011
MAUI COMMUNITY COLLEGE - BLDG P FOOD SERVICES	POTABLE	MAUI	CENTRAL		0.09286	0.09286	0.09286	0.09286	0.09286	0.09286	0.09286	3-7-002-011
MAUI COMMUNITY COLLEGE - BLDG P FOOD SERVICES	NONPOTABLE USING POTABLE	MAUI	CENTRAL		0.00094	0.00094	0.00094	0.00094	0.00094	0.00094	0.00094	3-7-002-011
MAUI COMMUNITY COLLEGE - BUILDING S COMMUNITY SERVICES	POTABLE	MAUI	CENTRAL	0.00929	0.00929	0.00929	0.00929	0.00929	0.00929	0.00929	0.00929	3-7-002-011

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
MAUI COMMUNITY COLLEGE - BUILDING S COMMUNITY SERVICES	NONPOTABLE USING POTABLE	MAUI	CENTRAL	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	3-7-002-011
UNIVERSITY OF HAWAII CONT.												
MAUI COMMUNITY COLLEGE, RENOVATE BLDG. Q, STUDENT CENTER	POTABLE	MAUI	CENTRAL				0.00163	0.00163	0.00163	0.00163	0.00163	3-7-2: 11
MOLOKAI EDUCATION CENTER	POTABLE	MOLOKAI	SOUTH EAST	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	5-3-03:POR:01
HANGER 111 (EXISTING)	POTABLE	OAHU	EWA CAPROCK	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				0.00432	0.00432	0.00432	0.00432	0.00432	NR
RENOVATE BARRACK, BLDG. 36	NONPOTABLE USING POTABLE	OAHU	EWA CAPROCK				0.00005	0.00005	0.00005	0.00005	0.00005	NR
UNIVERSITY OF HAWAII - WEST OAHU CAMPUS	POTABLE	OAHU	EWA CAPROCK						0.32880	0.50400	0.68160	9-2-02:01,03,05
UNIVERSITY OF HAWAII - WEST OAHU CAMPUS	NONPOTABLE	OAHU	EWA CAPROCK						0.35620	0.54610	0.73840	9-2-02:01,03,05
BIOMEDICAL SCIENCE BLDG RENOVATIONS	POTABLE	OAHU	HONOLULU						0.01850	0.01850	0.01850	2-8-26:4
CRAWFORD HALL RENOVATIONS	POTABLE	OAHU	HONOLULU	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					0.00190	0.00190	0.00190	0.00190	2-8-26:4
DIAMOND HEAD HEALTH SCIENCE CAMPUS DEV	POTABLE	OAHU	HONOLULU						0.01900	0.04300	0.05000	3-2-30:2,3-2-31:1,15, 3-2-32:1, 3-2-33:1,3
GARTLEY HALL RENOVATIONS	POTABLE	OAHU	HONOLULU				0.00240	0.00240	0.00240	0.00240	0.00240	2-8-26:4
HAWAII HALL RENOVATION	POTABLE	OAHU	HONOLULU	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					0.00480	0.00480	0.00480	0.00480	2-8-26:4
SINCLAIR LIBRARY RENOVATION	POTABLE	OAHU	HONOLULU					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	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	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	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	0.00698	0.00698	0.00698	0.00698	0.00698	0.00698	0.00698	0.00698	2-8-23:3
UNIVERSITY OF HAWAII AT MANOA, SCHOOL OF MEDICINE AND CANCER RESEARCH CENTER	POTABLE	OAHU	HONOLULU				0.00900	0.01800	0.03600	0.03600	0.03600	2-1-60: 9 & 10
UNIVERSITY OF HAWAII AT MANOA, SCHOOL OF MEDICINE AND CANCER RESEARCH CENTER	NONPOTABLE USING POTABLE	OAHU	HONOLULU				0.00100	0.00200	0.00400	0.00400	0.00400	2-1-60: 9 & 10
YIAN CHINESE TEA HOUSE	POTABLE	OAHU	HONOLULU			0.00020	0.00020	0.00020	0.00020	0.00020	0.00020	2-8-26:4
KAPIOLANI COMMUNITY COLLEGE, CULINARY INSTITUTE OF PACIFIC EXPANSION	POTABLE	OAHU	HONOLULU			0.01200	0.01200	0.01200	0.01200	0.01200	0.01200	
KAPIOLANI COMMUNITY COLLEGE, CULINARY INSTITUTE OF PACIFIC EXPANSION	NONPOTABLE USING POTABLE	OAHU	HONOLULU			0.01600	0.01600	0.01600	0.01600	0.01600	0.01600	
KAPIOLANI COMMUNITY COLLEGE, PARKING IMPROVEMENTS 18TH AVE.	NONPOTABLE USING POTABLE	OAHU	HONOLULU						0.00200	0.00200	0.00200	3-1-42:009-0000
HONOLULU COMMUNITY COLLEGE, HIGH TECHNOLOGY PROGRAM RENOVATION	POTABLE	OAHU	HONOLULU			0.00510	0.00510	0.00510	0.00510	0.00510	0.00510	NR

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY DEPARTMENT

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
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
UNIVERSITY OF HAWAII CONT.												
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	0.05874	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
			UH SUBTOTAL=	**0.66899**	**3.78301**	**4.46619**	**4.55429**	**4.62307**	**5.57939**	**6.03849**	**6.48598**	

APPENDIX C
SWPP DEMAND TABLE BY ISLAND

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY ISLAND

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	**12.19**	**18.10**	**25.22**	**26.59**	**33.20**	**69.42**	**76.55**	**80.87**	
ISLAND OF LANAI												
DEPARTMENT OF AGRICULTURE												
LANAI AGRICULTURAL PARK	NONPOTABLE	LANAI	CENTRAL						0.50000	0.50000	0.50000	4-9
			DOA SUBTOTAL=	**0.00000**	**0.00000**	**0.00000**	**0.00000**	**0.00000**	**0.50000**	**0.50000**	**0.50000**	
DEPARTMENT OF EDUCATION												
LANAI HIGH AND ELEM., NEW CLASSROOM BLDG.	POTABLE	LANAI	CENTRAL				0.01440	0.01440	0.01440	0.01440	0.01440	4-9-14: 3
			DOE SUBTOTAL=	**0.00000**	**0.00000**	**0.00000**	**0.01440**	**0.01440**	**0.01440**	**0.01440**	**0.01440**	
DEPARTMENT OF HAWAIIAN HOME LANDS												
LANAI	POTABLE	LANAI	CENTRAL		0.01250	0.01250	0.01250	0.01250	0.01250	0.01250	0.01250	
			DHHL SUBTOTAL=	**0.00000**	**0.01250**	**0.01250**	**0.01250**	**0.01250**	**0.01250**	**0.01250**	**0.01250**	
DEPARTMENT OF LAND AND NATURAL RESOURCES												
BOATING AND OCEAN RECREATION DIVISION												
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
			DLNR SUBTOTAL=	**0.00200**	**0.00500**	**0.00500**	**0.00500**	**0.00500**	**0.00500**	**0.00500**	**0.00500**	
DEPARTMENT OF TRANSPORTATION												
AIRPORTS DIVISION												
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
			DOT SUBTOTAL=	**0.00040**	**0.00060**	**0.00090**	**0.00120**	**0.00150**	**0.00190**	**0.00290**	**0.00390**	

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY ISLAND

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
ISLAND OF MAUI												
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES												
PLANNING BRANCH												
KAHULUI CIVIC CENTER, PHASE 1	POTABLE	MAUI	CENTRAL						0.01784	0.01784	0.01784	NR
KAHULUI CIVIC CENTER, PHASE 1	NONPOTABLE USING POTABLE	MAUI	CENTRAL						0.00474	0.00474	0.00474	NR
KAHULUI CIVIC CTR (TEMPORARY OFFICE FAC.)	POTABLE	MAUI	CENTRAL			0.01400	0.01400	0.01400	0.01400	0.01400	0.01400	3-7-04: 3
MAUI ARMY NATIONAL GUARD, PUUNENE ARMORY	POTABLE	MAUI	WAILUKU			0.00710	0.00710	0.00710	0.00710	0.00710	0.00710	3-8-08:POR. 01
MAUI CCC BED EXPANSION	POTABLE	MAUI	WAILUKU			0.00777	0.00777	0.00777	0.00777	0.00777	0.00777	3-8-46:5
PROJECT MANAGEMENT BRANCH												
LOKELANI INT CAFETORIUM	POTABLE	MAUI	CENTRAL	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	NR
LAHAINALUNA HI LIBRARY & RENOVATION OF EXISTING LIBRARY INTO 3 CLASSROOMS	POTABLE	MAUI	LAHAINA	0.00504	0.00504	0.00504	0.00504	0.00504	0.00504	0.00504	0.00504	NR
			DAGS SUBTOTAL=	**0.00704**	**0.00704**	**0.03591**	**0.03591**	**0.03591**	**0.05849**	**0.05849**	**0.05849**	
DEPARTMENT OF AGRICULTURE												
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
			DOA SUBTOTAL=	**3.61000**	**3.61000**	**3.61000**	**3.61000**	**9.61000**	**9.61000**	**9.61000**	**9.61000**	
DEPARTMENT OF BUSINESS ECONOMIC DEVELOPMENT & TOURISM												
HOUSING AND COMMUNITY & DEVELOPMENT CORPORATION OF HAWAII												
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
			DBEDT SUBTOTAL=	**0.11000**	**0.71000**	**1.39000**	**1.49000**	**1.59000**	**1.69001**	**1.88000**	**2.29000**	
DEPARTMENT OF DEFENSE												
MAUI CONSOLIDATED FACILITIES	POTABLE	MAUI	WAILUKU		0.00150	0.00150	0.00150	0.00150	0.00150	0.00150	0.00150	3-8-8
			DOD SUBTOTAL=	**0.00000**	**0.00150**	**0.00150**	**0.00150**	**0.00150**	**0.00150**	**0.00150**	**0.00150**	

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY ISLAND

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
DEPARTMENT OF EDUCATION												
BALDWIN HIGH SCHOOL GYMNASIUM	POTABLE	MAUI	CENTRAL	0.00400	0.00400	0.00400	0.00400	0.00400	0.00400	0.00400	0.00400	3-8-07:4
KALAMA INTER SCHOOL NEW ADMINISTRATION	POTABLE	MAUI	CENTRAL		0.00087	0.00087	0.00087	0.00087	0.00087	0.00087	0.00087	2-4-032: 098
KEKAULIKE HIGH SCH (BALANCE OF INCREMENTS)	POTABLE	MAUI	CENTRAL	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	2-3-7:01
KIHEI ELEMENTARY NEW ADMINISTRATION	POTABLE	MAUI	CENTRAL		0.00063	0.00063	0.00063	0.00063	0.00063	0.00063	0.00063	2-2-002: 043
KIHEI HIGH SCHOOL	POTABLE	MAUI	CENTRAL						0.06000	0.06000	0.06000	NR
KING KEKAULIKE HIGH SCHOOL NEW 6 CLSRM	POTABLE	MAUI	CENTRAL			0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	2-3-007: 001
LOKELANI INTER SCHOOL NEW 6 CLASSROOM	POTABLE	MAUI	CENTRAL			0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	2-2-002: 043
LOKELANI INTER SCHOOL NEW ADMINISTRATION	POTABLE	MAUI	CENTRAL			0.00090	0.00090	0.00090	0.00090	0.00090	0.00090	2-2-002: 043
LOKELANI INTERMEDIATE CAFETERIA	POTABLE	MAUI	CENTRAL	0.00270	0.00270	0.00270	0.00270	0.00270	0.00270	0.00270	0.00270	2-2-2:43
MAKAWAO ELEM SCH 8-CLASSROOM BUILDING	POTABLE	MAUI	CENTRAL			0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	2-4-5:10
MAKAWAO ELEMENTARY NEW 12 CLASSROOM	POTABLE	MAUI	CENTRAL			0.02160	0.02160	0.02160	0.02160	0.02160	0.02160	2-4-005: 010
MAUI WAENA INTER SCHOOL NEW ADMINISTRATN	POTABLE	MAUI	CENTRAL		0.00087	0.00087	0.00087	0.00087	0.00087	0.00087	0.00087	3-8-007: 002
MAUI-WAENA INTER SCHOOL NEW 6 CLASSROOM	POTABLE	MAUI	CENTRAL			0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	3-8-007: 002
NEW MAUI INTERMEDIATE	POTABLE	MAUI	CENTRAL						0.09600	0.09600	0.09600	NEW
PAIA ELEMENTARY NEW ADMINISTRATION	POTABLE	MAUI	CENTRAL			0.00059	0.00059	0.00059	0.00059	0.00059	0.00059	2-5-005: 004
PAIA ELEMENTARY NEW CAFETERIA	POTABLE	MAUI	CENTRAL	0.01500	0.01500	0.01500	0.01500	0.01500	0.01500	0.01500	0.01500	2-5-005: 004
HANA HIGH/ELEM SCHOOL NEW 6 CLASSROOM	POTABLE	MAUI	HANA			0.00076	0.00076	0.00076	0.00076	0.00076	0.00076	1-3-006: 008
HANA HIGH/ELEM SCHOOL NEW ADMINISTRATION	POTABLE	MAUI	HANA			0.00092	0.00092	0.00092	0.00092	0.00092	0.00092	1-3-006: 008
HAIKU ELEMENTARY NEW 6 CLASSROOM	POTABLE	MAUI	KOOLAU			0.00076	0.00076	0.00076	0.00076	0.00076	0.00076	2-7-008: 097
PUAKALANI ELEMENTARY - ADMIN/LIBRARY/RENOVATE 4 CLASSROOMS	POTABLE	MAUI	KOOLAU			0.00720	0.00720	0.00720	0.00720	0.00720	0.00720	2-3-009:035
LAHAINA III ELEMENTARY 1ST & 2ND INCREMENT	POTABLE	MAUI	LAHAINA			0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	NEW
LAHAINA INTER LOCKR/SHOWR FAC & PLAYFLD	POTABLE	MAUI	LAHAINA	0.00086	0.00086	0.00086	0.00086	0.00086	0.00086	0.00086	0.00086	4-6-18:13
LAHAINA INTER LOCKR/SHOWR FAC & PLAYFLD	NONPOTABLE USING POTABLE	MAUI	LAHAINA	0.00680	0.00680	0.00680	0.00680	0.00680	0.00680	0.00680	0.00680	4-6-18:13
LAHAINA INTER SCHOOL NEW 8 CLASSROOM	POTABLE	MAUI	LAHAINA			0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	4-6-018: 013
LAHAINA INTERMEDIATE NEW ADMINISTRATION	POTABLE	MAUI	LAHAINA			0.00087	0.00087	0.00087	0.00087	0.00087	0.00087	4-6-018: 013
LAHAINA INTERMEDIATE SCHOOL NEW LIBRARY	POTABLE	MAUI	LAHAINA			0.00087	0.00087	0.00087	0.00087	0.00087	0.00087	4-6-018:013

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY ISLAND

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87	
LAHAINALUNA HIGH SCHOOL NEW ATHLETIC LOCKER/SHOWER	POTABLE	MAUI	LAHAINA			0.00120	0.00120	0.00120	0.00120	0.00120	0.00120	4-6-018: 007
LAHAINALUNA HIGH SCHOOL NEW CAFETERIA	POTABLE	MAUI	LAHAINA			0.00420	0.00420	0.00420	0.00420	0.00420	0.00420	4-6-018: 017
DEPARTMENT OF EDUCATION CONT.												
NAHIENAENA ELEM SCH NEW LIBRARY/ADMIN	POTABLE	MAUI	LAHAINA			0.00155	0.00155	0.00155	0.00155	0.00155	0.00155	4-6-018: 013
PUUKOLII ELEMENTARY 1ST INCREMENT	POTABLE	MAUI	LAHAINA			0.03600	0.03600	0.03600	0.03600	0.03600	0.03600	NEW
PUUKOLII ELEMENTARY 2ND INCREMENT	POTABLE	MAUI	LAHAINA			0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	NEW
BALDWIN HIGH SCHOOL NEW 8 CLASSROOM	POTABLE	MAUI	WAILUKU			0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	3-8-007: 004
BALDWIN HIGH SCHOOL NEW LIBRARY	POTABLE	MAUI	WAILUKU			0.00178	0.00178	0.00178	0.00178	0.00178	0.00178	3-8-007: 004
HLIP SCHOOL NEW SCHOOL	POTABLE	MAUI	WAILUKU			0.12000	0.12000	0.12000	0.12000	0.12000	0.12000	NEW
IAO INTER NEW 12 CLASSROOM (ARMORY)	POTABLE	MAUI	WAILUKU	0.02160	0.02160	0.02160	0.02160	0.02160	0.02160	0.02160	0.02160	NR
IAO INTERMEDIATE NEW 8 CLASSROOM	POTABLE	MAUI	WAILUKU						0.01260	0.01260	0.01260	NR
IAO INTERMEDIATE NEW CAFETERIA	POTABLE	MAUI	WAILUKU	0.00326	0.00326	0.00326	0.00326	0.00326	0.00326	0.00326	0.00326	NR
MAUI LANI ELEMENTARY 1ST & 2ND INCREMENT	POTABLE	MAUI	WAILUKU			0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	NEW
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
			DOE SUBTOTAL=	**0.09172**	**0.09409**	**0.57350**	**0.57350**	**0.57350**	**0.74210**	**0.74210**	**0.74210**	
DEPARTMENT OF HAWAIIAN HOME LANDS												
KEOKEA AGRICULTURAL LOTS (RES.)	POTABLE	MAUI	CENTRAL	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	
WAIOHULI RES LOTS UNIT 1	POTABLE	MAUI	CENTRAL			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

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY ISLAND

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	**12.19**	**18.10**	**25.22**	**26.59**	**33.20**	**69.42**	**76.55**	**80.87**	
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
DEPARTMENT OF HAWAIIAN HOME LANDS CONT.												
WAIEHU - RESIDENCE LOTS	POTABLE	MAUI	WAILUKU			0.02000	0.02000	0.02000	0.02000	0.02000	0.02000	3-2-13:18
WAIEHU KOU	POTABLE	MAUI	WAILUKU			0.10000	0.10000	0.10000	0.10000	0.10000	0.10000	NR
WAIEHU KOU III	POTABLE	MAUI	WAILUKU	0.04200	0.04200	0.04200	0.04200	0.04200	0.04200	0.04200	0.04200	
			DHHL SUBTOTAL=	**0.13260**	**0.13260**	**0.48300**	**0.48300**	**0.48300**	**4.15120**	**6.44840**	**6.44840**	
DEPARTMENT OF HEALTH												
MAUI MEMORIAL HOSPITAL - DIET DEPT RENOV	POTABLE	MAUI	WAILUKU	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	3-8-7:3
			DOH SUBTOTAL=	**0.00060**	**0.00060**	**0.00060**	**0.00060**	**0.00060**	**0.00060**	**0.00060**	**0.00060**	
DEPARTMENT OF LAND AND NATURAL RESOURCES												
BOATING AND OCEAN RECREATION DIVISION												
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
STATE PARKS DIVISION												
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
			DLNR SUBTOTAL=	**0.00348**	**0.00360**	**0.01164**	**0.01177**	**0.01189**	**0.05227**	**0.05227**	**0.05227**	

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY ISLAND

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
PROJECT NAME	PRIMARY USE	ISLAND	SECTOR	02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD	TMK
			SWPP Statewide Project Demand Total=	**12.19**	**18.10**	**25.22**	**26.59**	**33.20**	**69.42**	**76.55**	**80.87**	
DEPARTMENT OF PUBLIC SAFETY												
MAUI COM CORRECT CTR, EXPAN&RENOVS	POTABLE	MAUI	CENTRAL	0.06400	0.06400	0.06400	0.10000	0.10000	0.10000	0.10000	0.10000	3-8-46: 5 & 6
			DPS SUBTOTAL=	**0.06400**	**0.06400**	**0.06400**	**0.10000**	**0.10000**	**0.10000**	**0.10000**	**0.10000**	
DEPARTMENT OF TRANSPORTATION												
AIRPORTS DIVISION												
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
HARBORS DIVISION												
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
HIGHWAYS DIVISION												
HALEAKALA HWY WIDENING, PUKALANI BYPASS TO HANA HWY	NONPOTABLE USING POTABLE	MAUI	CENTRAL				0.06600	0.06600	0.01700	0.01700	0.01700	NR
HONOAPIILANI 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
			DOT SUBTOTAL=	**0.06250**	**0.08560**	**0.09070**	**0.24830**	**0.15340**	**0.18950**	**0.24050**	**0.29250**	
UNIVERSITY OF HAWAII												
MAUI COMMUNITY COLLEGE - BLDG N TELECOMMUNICATION/MEDIA CENTER	POTABLE	MAUI	CENTRAL	0.01145	0.01145	0.01145	0.01145	0.01145	0.01145	0.01145	0.01145	3-7-002-011
MAUI COMMUNITY COLLEGE - BLDG N TELECOMMUNICATION/MEDIA CENTER	NONPOTABLE USING POTABLE	MAUI	CENTRAL	0.00361	0.00361	0.00361	0.00361	0.00361	0.00361	0.00361	0.00361	3-7-002-011
MAUI COMMUNITY COLLEGE - BLDG P FOOD SERVICES	POTABLE	MAUI	CENTRAL		0.09286	0.09286	0.09286	0.09286	0.09286	0.09286	0.09286	3-7-002-011
MAUI COMMUNITY COLLEGE - BLDG P FOOD SERVICES	NONPOTABLE USING POTABLE	MAUI	CENTRAL		0.00094	0.00094	0.00094	0.00094	0.00094	0.00094	0.00094	3-7-002-011
MAUI COMMUNITY COLLEGE - BUILDING S COMMUNITY SERVICES	POTABLE	MAUI	CENTRAL	0.00929	0.00929	0.00929	0.00929	0.00929	0.00929	0.00929	0.00929	3-7-002-011
MAUI COMMUNITY COLLEGE - BUILDING S COMMUNITY SERVICES	NONPOTABLE USING POTABLE	MAUI	CENTRAL	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	3-7-002-011
MAUI COMMUNITY COLLEGE, RENOVATE BLDG. Q, STUDENT CENTER	POTABLE	MAUI	CENTRAL				0.00163	0.00163	0.00163	0.00163	0.00163	3-7-2: 11
			UH SUBTOTAL=	**0.02464**	**0.11844**	**0.11844**	**0.12007**	**0.12007**	**0.12007**	**0.12007**	**0.12007**	

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY ISLAND

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	**12.19**	**18.10**	**25.22**	**26.59**	**33.20**	**69.42**	**76.55**	**80.87**	
ISLAND OF MOLOKAI												
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES												
PLANNING BRANCH												
MOLOKAI DISTRICT COURT	POTABLE	MOLOKAI	SOUTH EAST						0.00238	0.00238	0.00238	5-3-05:12,13,14
MOLOKAI MULTI-AGENCY MAINTENANCE FAC, PH I	POTABLE	MOLOKAI	SOUTH EAST						0.00210	0.00210	0.00210	5-3-05: 13, 14
PROJECT MANAGEMENT BRANCH												
KALAUPAPA MEDICAL FACILITY INFECTIOUS WASTE CONTROL STERILIZER	POTABLE	MOLOKAI	NORTH EAST	0.00007	0.00007	0.00007	0.00007	0.00007	0.00007	0.00007	0.00007	6-1-01: 01
			DAGS SUBTOTAL=	**0.00007**	**0.00007**	**0.00007**	**0.00007**	**0.00007**	**0.00455**	**0.00455**	**0.00455**	
DEPARTMENT OF AGRICULTURE												
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
			DOA SUBTOTAL=	**1.32000**	**1.32000**	**1.32000**	**1.32000**	**1.32000**	**2.82000**	**2.82000**	**2.82000**	
DEPARTMENT OF EDUCATION												
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
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
			DOE SUBTOTAL=	**0.01494**	**0.01494**	**0.02857**	**0.02857**	**0.02857**	**0.02949**	**0.02949**	**0.02949**	

STATE WATER PROJECTS PLAN
PROJECTED WATER REQUIREMENTS BY ISLAND

				YEARLY PROJECTED CUMULATIVE AVERAGE DAY DEMAND (MGD)								
	PRIMARY			02001	02002	02003	02004	02005	02010	02015	02020	
PROJECT NAME	USE	ISLAND	SECTOR	MGD	MGD	MGD	MGD	MGD	MGD	MGD	MGD	TMK
			SWPP Statewide Project Demand Total=	**12.19**	**18.10**	**25.22**	**26.59**	**33.20**	**69.42**	**76.55**	**80.87**	
DEPARTMENT OF HAWAIIAN HOME LANDS												
DEPT. OF EDUCATION	POTABLE	MOLOKAI	CENTRAL			0.00270	0.00270	0.00270	0.00270	0.00270	0.00270	5-2-13:27, 5-2-15:46
HOOLEHUA, AGRICULTURAL LOTS	POTABLE	MOLOKAI	CENTRAL			0.02287	0.02287	0.02287	0.02287	0.02287	0.02287	2-3:1, 5-2-4:1,2,7,26,28,34-36,49,96,98,105, 5-2-
HOOLEHUA, AGRICULTURAL LOTS	NONPOTABLE	MOLOKAI	CENTRAL			0.54893	0.54893	0.54893	0.54893	0.54893	0.54893	2-3:1, 5-2-4:1,2,7,26,28,34-36,49,96,98,105, 5-2-
HOOLEHUA, OTHER	POTABLE	MOLOKAI	CENTRAL			0.00540	0.00540	0.00540	0.00540	0.00540	0.00540	5-2-04:15,16,46,84, 5-2-23:9
HOOLEHUA, RESIDENTIAL LOTS UNIT 1	POTABLE	MOLOKAI	CENTRAL			0.01200	0.01200	0.01200	0.01200	0.01200	0.01200	5-2-17: 1,2
HOOLEHUA, RESIDENTIAL LOTS UNIT 2	POTABLE	MOLOKAI	CENTRAL			0.03600	0.03600	0.03600	0.03600	0.03600	0.03600	5-2-15: POR 1, 2, 56
KALAMAULA	POTABLE	MOLOKAI	CENTRAL			0.00840	0.00840	0.00840	0.00840	0.00840	0.00840	5-2-08:57,109-110,118
KALAMAULA, COMMERCIAL	POTABLE	MOLOKAI	CENTRAL			0.00384	0.00384	0.00384	0.00384	0.00384	0.00384	5-2-9:12,30
KALAMAULA,RESIDENTIAL LOTS PHASE 1	POTABLE	MOLOKAI	CENTRAL			0.07440	0.07440	0.07440	0.07440	0.07440	0.07440	09:POR14,15,22-23,28, 5-2-10:POR1
			DHHL SUBTOTAL=	**0.00000**	**0.00000**	**0.71454**	**0.71454**	**0.71454**	**0.71454**	**0.71454**	**0.71454**	
DEPARTMENT OF TRANSPORTATION												
AIRPORTS DIVISION												
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
HARBORS DIVISION												
KAUNAKAKAI HARBOR - 2010 MASTER PLAN	POTABLE	MOLOKAI	SOUTH EAST							0.03660	0.03660	NR
			DOT SUBTOTAL=	**0.00020**	**0.00030**	**0.00040**	**0.00050**	**0.00060**	**0.00100**	**0.03810**	**0.03910**	
UNIVERSITY OF HAWAII												
MOLOKAI EDUCATION CENTER	POTABLE	MOLOKAI	SOUTH EAST	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	5-3-03:POR:01
			UH SUBTOTAL=	**0.00060**	**0.00060**	**0.00060**	**0.00060**	**0.00060**	**0.00060**	**0.00060**	**0.00060**	

APPENDIX D
SWPP DEMAND TABLE BY AQUIFER

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

PROJECT NAME	PRIMARY USE	ISLAND	SECTOR	AQUIFER SYSTEM	02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD	TMK
				SWPP Statewide Project Demand Total=	**12.19**	**18.10**	**25.22**	**26.59**	**33.20**	**69.42**	**76.55**	**80.87**	
ISLAND OF LANAI													
HYDROLOGICAL SECTOR = CENTRAL 501				**SECTOR 501 TOTAL=**	**0.00040**	**0.01310**	**0.01340**	**0.02810**	**0.02840**	**0.52880**	**0.52980**	**0.53080**	
LANAI AGRICULTURAL PARK	NONPOTABLE	LANAI	CENTRAL	LEEWARD						0.50000	0.50000	0.50000	4-9
LANAI HIGH AND ELEM., NEW CLASSROOM BLDG.	POTABLE	LANAI	CENTRAL	LEEWARD				0.01440	0.01440	0.01440	0.01440	0.01440	4-9-14: 3
LANAI	POTABLE	LANAI	CENTRAL	LEEWARD		0.01250	0.01250	0.01250	0.01250	0.01250	0.01250	0.01250	
LANAI AIRPORT MASTER PLAN	POTABLE	LANAI	CENTRAL	LEEWARD	0.00040	0.00060	0.00090	0.00120	0.00150	0.00190	0.00290	0.00390	4-9-02
				AQUIFER SECTOR = LEEWARD 50102	**0.00040**	**0.01310**	**0.01340**	**0.02810**	**0.02840**	**0.52880**	**0.52980**	**0.53080**	
HYDROLOGICAL SECTOR = KANAO 504				**SECTOR 504 TOTAL=**	**0.00200**	**0.00500**	**0.00500**	**0.00500**	**0.00500**	**0.00500**	**0.00500**	**0.00500**	
MANELE BOAT HARBOR ELEC/TELE IMPROVEMTS.	NONPOTABLE USING POTABLE	LANAI	KANAO	MANELE	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	MANELE	0.00100	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	4-9-17:06
				AQUIFER SECTOR = MANELE 50402	**0.00200**	**0.00500**	**0.00500**	**0.00500**	**0.00500**	**0.00500**	**0.00500**	**0.00500**	

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

PROJECT NAME	PRIMARY USE	ISLAND	SECTOR	AQUIFER SYSTEM	02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD	TMK
				SWPP Statewide Project Demand Total=	**12.19**	**18.10**	**25.22**	**26.59**	**33.20**	**69.42**	**76.55**	**80.87**	
ISLAND OF MAUI													
HYDROLOGICAL SECTOR = CENTRAL 603				**SECTOR 603 TOTAL=**	**3.89294**	**4.01211**	**4.33930**	**4.53443**	**10.43943**	**14.31701**	**16.64701**	**16.69701**	
LOKELANI INT CAFETORIUM	POTABLE	MAUI	CENTRAL	KAHULUI	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	0.00200	NR
KAHULUI CIVIC CENTER, PHASE 1	POTABLE	MAUI	CENTRAL	KAHULUI						0.01784	0.01784	0.01784	NR
KAHULUI CIVIC CENTER, PHASE 1	NONPOTABLE USING POTABLE	MAUI	CENTRAL	KAHULUI						0.00474	0.00474	0.00474	NR
KAHULUI CIVIC CTR (TEMPORARY OFFICE FAC.)	POTABLE	MAUI	CENTRAL	KAHULUI			0.01400	0.01400	0.01400	0.01400	0.01400	0.01400	3-7-04: 3
BALDWIN HIGH SCHOOL GYMNASIUM	POTABLE	MAUI	CENTRAL	KAHULUI	0.00400	0.00400	0.00400	0.00400	0.00400	0.00400	0.00400	0.00400	3-8-07:4
MAUI WAENA INTER SCHOOL NEW ADMINISTRATN	POTABLE	MAUI	CENTRAL	KAHULUI		0.00087	0.00087	0.00087	0.00087	0.00087	0.00087	0.00087	3-8-007: 002
MAUI-WAENA INTER SCHOOL NEW 6 CLASSROOM	POTABLE	MAUI	CENTRAL	KAHULUI			0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	3-8-007: 002
NEW MAUI INTERMEDIATE	POTABLE	MAUI	CENTRAL	KAHULUI						0.09600	0.09600	0.09600	NEW
KAHULUI BOAT HARBOR	POTABLE	MAUI	CENTRAL	KAHULUI			0.00504	0.00504	0.00504	0.00504	0.00504	0.00504	3-7-01
KAHULUI BOAT HARBOR	NONPOTABLE USING POTABLE	MAUI	CENTRAL	KAHULUI			0.00096	0.00096	0.00096	0.00096	0.00096	0.00096	3-7-01
MAALAEA BOAT HAR EAST MOLE IMPROVEMTS	POTABLE	MAUI	CENTRAL	KAHULUI						0.02300	0.02300	0.02300	3-6-01, 3-8-14
MAALAEA BOAT HARBOR ADMIN BLD AND BYD	POTABLE	MAUI	CENTRAL	KAHULUI			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	KAHULUI			0.00170	0.00170	0.00170	0.00170	0.00170	0.00170	3-6-01, 3-8-14
MAUI COM CORRECT CTR, EXPAN&RENOVS	POTABLE	MAUI	CENTRAL	KAHULUI	0.06400	0.06400	0.06400	0.10000	0.10000	0.10000	0.10000	0.10000	3-8-46: 5 & 6
HONOAPIILANI HWY WIDENING, NORTH KIHEI ROAD TO MAALAEA HARBOR	NONPOTABLE USING POTABLE	MAUI	CENTRAL	KAHULUI		0.01800	0.01800	0.00450	0.00450	0.00450	0.00450	0.00450	NR
KAHULUI COMMERCIAL HARBOR - 2025 MASTER PLAN: CARGO YARD	POTABLE	MAUI	CENTRAL	KAHULUI	0.05000	0.05000	0.05000	0.05000	0.05000	0.10000	0.10000	0.10000	2-3-7:8,10
KAHULUI AIRPORT ACCESS ROAD	POTABLE	MAUI	CENTRAL	KAHULUI				0.10000					3-8-01
KAHULUI AIRPORT MASTER PLAN	POTABLE	MAUI	CENTRAL	KAHULUI	0.01200	0.01700	0.02200	0.02700	0.03200	0.06700	0.11700	0.16700	3-8-01
MAUI COMMUNITY COLLEGE - BLDG N TELECOMMUNICATION/MEDIA CENTER	POTABLE	MAUI	CENTRAL	KAHULUI	0.01145	0.01145	0.01145	0.01145	0.01145	0.01145	0.01145	0.01145	3-7-002-011
MAUI COMMUNITY COLLEGE - BLDG N TELECOMMUNICATION/MEDIA CENTER	NONPOTABLE USING POTABLE	MAUI	CENTRAL	KAHULUI	0.00361	0.00361	0.00361	0.00361	0.00361	0.00361	0.00361	0.00361	3-7-002-011
MAUI COMMUNITY COLLEGE - BLDG P FOOD SERVICES	POTABLE	MAUI	CENTRAL	KAHULUI		0.09286	0.09286	0.09286	0.09286	0.09286	0.09286	0.09286	3-7-002-011
MAUI COMMUNITY COLLEGE - BLDG P FOOD SERVICES	NONPOTABLE USING POTABLE	MAUI	CENTRAL	KAHULUI		0.00094	0.00094	0.00094	0.00094	0.00094	0.00094	0.00094	3-7-002-011
MAUI COMMUNITY COLLEGE - BUILDING S COMMUNITY SERVICES	POTABLE	MAUI	CENTRAL	KAHULUI	0.00929	0.00929	0.00929	0.00929	0.00929	0.00929	0.00929	0.00929	3-7-002-011
MAUI COMMUNITY COLLEGE - BUILDING S COMMUNITY SERVICES	NONPOTABLE USING POTABLE	MAUI	CENTRAL	KAHULUI	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029	3-7-002-011
MAUI COMMUNITY COLLEGE, RENOVATE BLDG. Q, STUDENT CENTER	POTABLE	MAUI	CENTRAL	KAHULUI				0.00163	0.00163	0.00163	0.00163	0.00163	3-7-2: 11
				AQUIFER SECTOR = KAHULUI 60301	**0.15664**	**0.27431**	**0.31202**	**0.44115**	**0.34615**	**0.57273**	**0.62273**	**0.67273**	

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

PROJECT NAME	PRIMARY USE	ISLAND	SECTOR	AQUIFER SYSTEM	02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD	TMK
				SWPP Statewide Project Demand Total=	**12.19**	**18.10**	**25.22**	**26.59**	**33.20**	**69.42**	**76.55**	**80.87**	
LOWER KULA WATERSHED PROJECT	NONPOTABLE	MAUI	CENTRAL	KAMAOLE					6.00000	6.00000	6.00000	6.00000	
UPCOUNTRY MAUI IRRIGATION PROJECT	NONPOTABLE	MAUI	CENTRAL	KAMAOLE	3.61000	3.61000	3.61000	3.61000	3.61000	3.61000	3.61000	3.61000	2-2, 2-3
KIHEI ELEMENTARY NEW ADMINISTRATION	POTABLE	MAUI	CENTRAL	KAMAOLE		0.00063	0.00063	0.00063	0.00063	0.00063	0.00063	0.00063	2-2-002: 043
KIHEI HIGH SCHOOL	POTABLE	MAUI	CENTRAL	KAMAOLE						0.06000	0.06000	0.06000	NR
LOKELANI INTER SCHOOL NEW 6 CLASSROOM	POTABLE	MAUI	CENTRAL	KAMAOLE			0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	2-2-002: 043
LOKELANI INTER SCHOOL NEW ADMINISTRATION	POTABLE	MAUI	CENTRAL	KAMAOLE			0.00090	0.00090	0.00090	0.00090	0.00090	0.00090	2-2-002: 043
LOKELANI INTERMEDIATE CAFETERIA	POTABLE	MAUI	CENTRAL	KAMAOLE	0.00270	0.00270	0.00270	0.00270	0.00270	0.00270	0.00270	0.00270	2-2-2:43
WAIOHULI RES LOTS UNIT 1	POTABLE	MAUI	CENTRAL	KAMAOLE			0.23040	0.23040	0.23040	0.23040	0.23040	0.23040	2-2-02:56
				AQUIFER SECTOR = KAMAOLE 60304	**3.61270**	**3.61333**	**3.85543**	**3.85543**	**9.85543**	**9.91543**	**9.91543**	**9.91543**	
KALAMA INTER SCHOOL NEW ADMINISTRATION	POTABLE	MAUI	CENTRAL	MAKAWAO		0.00087	0.00087	0.00087	0.00087	0.00087	0.00087	0.00087	2-4-032: 098
KEKAULIKE HIGH SCH (BALANCE OF INCREMENTS)	POTABLE	MAUI	CENTRAL	MAKAWAO	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	0.01800	2-3-7:01
KING KEKAULIKE HIGH SCHOOL NEW 6 CLSRM	POTABLE	MAUI	CENTRAL	MAKAWAO			0.01080	0.01080	0.01080	0.01080	0.01080	0.01080	2-3-007: 001
MAKAWAO ELEM SCH 8-CLASSROOM BUILDING	POTABLE	MAUI	CENTRAL	MAKAWAO			0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	2-4-5:10
MAKAWAO ELEMENTARY NEW 12 CLASSROOM	POTABLE	MAUI	CENTRAL	MAKAWAO			0.02160	0.02160	0.02160	0.02160	0.02160	0.02160	2-4-005: 010
KEOKEA AGRICULTURAL LOTS (RES.)	POTABLE	MAUI	CENTRAL	MAKAWAO	0.04260	0.04260	0.04260	0.04260	0.04260	0.04260	0.04260	0.04260	
KULA - KEOKEA AG LOTS	POTABLE	MAUI	CENTRAL	MAKAWAO						3.60000	3.60000	3.60000	NR
KULA - KEOKEA RES. AG LOTS	POTABLE	MAUI	CENTRAL	MAKAWAO						0.04000	0.04000	0.04000	NR
KULA - MASTER PLAN AREA	POTABLE	MAUI	CENTRAL	MAKAWAO							2.10000	2.10000	NR
KULA - RESIDENCE LOTS WAIOHULI 1, 2	POTABLE	MAUI	CENTRAL	MAKAWAO							0.18000	0.18000	NR
KULA - RESIDENCE LOTS, UNIT 2	POTABLE	MAUI	CENTRAL	MAKAWAO	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	0.04800	
				AQUIFER SECTOR = MAKAWAO 60303	**0.10860**	**0.10947**	**0.15627**	**0.15627**	**0.15627**	**3.79627**	**6.07627**	**6.07627**	
PAIA ELEMENTARY NEW ADMINISTRATION	POTABLE	MAUI	CENTRAL	PAIA			0.00059	0.00059	0.00059	0.00059	0.00059	0.00059	2-5-005: 004
PAIA ELEMENTARY NEW CAFETERIA	POTABLE	MAUI	CENTRAL	PAIA	0.01500	0.01500	0.01500	0.01500	0.01500	0.01500	0.01500	0.01500	2-5-005: 004
HALEAKALA HWY WIDENING, PUKALANI BYPASS TO HANA HWY	NONPOTABLE USING POTABLE	MAUI	CENTRAL	PAIA				0.06600	0.06600	0.01700	0.01700	0.01700	NR
				AQUIFER SECTOR = PAIA 60302	**0.01500**	**0.01500**	**0.01559**	**0.08159**	**0.08159**	**0.03259**	**0.03259**	**0.03259**	
HYDROLOGICAL SECTOR = HANA 605				**SECTOR 605 TOTAL=**	**0.00050**	**0.00060**	**0.00238**	**0.00248**	**0.00258**	**0.00268**	**0.00368**	**0.00568**	
HANA HIGH/ELEM SCHOOL NEW 6 CLASSROOM	POTABLE	MAUI	HANA	KAWAIPAPA			0.00076	0.00076	0.00076	0.00076	0.00076	0.00076	1-3-006: 008
HANA HIGH/ELEM SCHOOL NEW ADMINISTRATION	POTABLE	MAUI	HANA	KAWAIPAPA			0.00092	0.00092	0.00092	0.00092	0.00092	0.00092	1-3-006: 008
HANA AIRPORT MASTER PLAN	POTABLE	MAUI	HANA	KAWAIPAPA	0.00050	0.00060	0.00070	0.00080	0.00090	0.00100	0.00200	0.00400	NR
				AQUIFER SECTOR = KAWAIPAPA 60502	**0.00050**	**0.00060**	**0.00238**	**0.00248**	**0.00258**	**0.00268**	**0.00368**	**0.00568**	

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

PROJECT NAME	PRIMARY USE	ISLAND	SECTOR	AQUIFER SYSTEM	02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD	TMK
				SWPP Statewide Project Demand Total=	**12.19**	**18.10**	**25.22**	**26.59**	**33.20**	**69.42**	**76.55**	**80.87**	
HYDROLOGICAL SECTOR = KAHIKINUI 606				**SECTOR 606 TOTAL=**	**0.00310**	**0.00310**	**0.00310**	**0.00310**	**0.00310**	**0.00310**	**0.02030**	**0.02030**	
KAHIKINUI - HOMESTEAD	POTABLE	MAUI	KAHIKINUI	LUALAILUA							0.00720	0.00720	1-9-01
KAHIKINUI - LIVESTOCK	POTABLE	MAUI	KAHIKINUI	LUALAILUA							0.01000	0.01000	NR
MAKENA STATE PARK - COMFORT STATIONS WITH COMPOSTING TOILETS	POTABLE	MAUI	KAHIKINUI	LUALAILUA	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	LUALAILUA	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	2-1-06: 28 & POR. 53
				AQUIFER SECTOR = LUALAILUA 60603									
HYDROLOGICAL SECTOR = KOOLAU 604				**SECTOR 604 TOTAL=**	**0.00000**	**0.00000**	**0.00796**	**0.00796**	**0.00796**	**0.00796**	**0.00796**	**0.00796**	
HAIKU ELEMENTARY NEW 6 CLASSROOM	POTABLE	MAUI	KOOLAU	HAIKU			0.00076	0.00076	0.00076	0.00076	0.00076	0.00076	2-7-008: 097
PUAKALANI ELEMENTARY - ADMIN/LIBRARY/RENOVATE 4 CLASSROOMS	POTABLE	MAUI	KOOLAU	HAIKU			0.00720	0.00720	0.00720	0.00720	0.00720	0.00720	2-3-009:035
				AQUIFER SECTOR = HAIKU 60401	0.00000	0.00000	0.00796	0.00796	0.00796	0.00796	0.00796	0.00796	
HYDROLOGICAL SECTOR = LAHAINA 602				**SECTOR 602 TOTAL=**	**0.12270**	**0.72270**	**1.54579**	**1.64579**	**1.74579**	**1.84580**	**2.03579**	**2.44579**	
PUUKOLII ELEMENTARY 1ST INCREMENT	POTABLE	MAUI	LAHAINA	HONOKOWAI			0.03600	0.03600	0.03600	0.03600	0.03600	0.03600	NEW
PUUKOLII ELEMENTARY 2ND INCREMENT	POTABLE	MAUI	LAHAINA	HONOKOWAI			0.02400	0.02400	0.02400	0.02400	0.02400	0.02400	NEW
				AQUIFER SECTOR = HONOKOWAI 60203	**0.00000**	**0.00000**	**0.06000**	**0.06000**	**0.06000**	**0.06000**	**0.06000**	**0.06000**	
LAHAINALUNA HI LIBRARY & RENOVATION OF EXISTING LIBRARY INTO 3 CLASSROOMS	POTABLE	MAUI	LAHAINA	LAUNIPOKO	0.00504	0.00504	0.00504	0.00504	0.00504	0.00504	0.00504	0.00504	NR
LAHAINA MASTER PLAN	POTABLE	MAUI	LAHAINA	LAUNIPOKO	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	LAUNIPOKO	0.06160	0.39760	0.77840	0.83440	0.89040	0.94641	1.00440	1.28240	4-5-21:03
LAHAINA III ELEMENTARY 1ST & 2ND INCREMENT	POTABLE	MAUI	LAHAINA	LAUNIPOKO			0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	NEW
LAHAINA INTER LOCKR/SHOWR FAC & PLAYFLD	POTABLE	MAUI	LAHAINA	LAUNIPOKO	0.00086	0.00086	0.00086	0.00086	0.00086	0.00086	0.00086	0.00086	4-6-18:13
LAHAINA INTER LOCKR/SHOWR FAC & PLAYFLD	NONPOTABLE USING POTABLE	MAUI	LAHAINA	LAUNIPOKO	0.00680	0.00680	0.00680	0.00680	0.00680	0.00680	0.00680	0.00680	4-6-18:13
LAHAINA INTER SCHOOL NEW 8 CLASSROOM	POTABLE	MAUI	LAHAINA	LAUNIPOKO			0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	4-6-018: 013
LAHAINA INTERMEDIATE NEW ADMINISTRATION	POTABLE	MAUI	LAHAINA	LAUNIPOKO			0.00087	0.00087	0.00087	0.00087	0.00087	0.00087	4-6-018: 013
LAHAINA INTERMEDIATE SCHOOL NEW LIBRARY	POTABLE	MAUI	LAHAINA	LAUNIPOKO			0.00087	0.00087	0.00087	0.00087	0.00087	0.00087	4-6-018:013
LAHAINALUNA HIGH SCHOOL NEW ATHLETIC LOCKER/SHOWER	POTABLE	MAUI	LAHAINA	LAUNIPOKO			0.00120	0.00120	0.00120	0.00120	0.00120	0.00120	4-6-018: 007
LAHAINALUNA HIGH SCHOOL NEW CAFETERIA	POTABLE	MAUI	LAHAINA	LAUNIPOKO			0.00420	0.00420	0.00420	0.00420	0.00420	0.00420	4-6-018: 017
NAHIENAENA ELEM SCH NEW LIBRARY/ADMIN	POTABLE	MAUI	LAHAINA	LAUNIPOKO			0.00155	0.00155	0.00155	0.00155	0.00155	0.00155	4-6-018: 013
				AQUIFER SECTOR = LAUNIPOKO 60204	**0.12270**	**0.72270**	**1.48579**	**1.58579**	**1.68579**	**1.78580**	**1.97579**	**2.38579**	

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

PROJECT NAME	PRIMARY USE	ISLAND	SECTOR	AQUIFER SYSTEM	02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD	TMK
				SWPP Statewide Project Demand Total=	**12.19**	**18.10**	**25.22**	**26.59**	**33.20**	**69.42**	**76.55**	**80.87**	
HYDROLOGICAL SECTOR = WAILUKU 601				**SECTOR 601 TOTAL=**	**0.08734**	**0.08897**	**0.48077**	**0.48090**	**0.48102**	**0.53920**	**0.53920**	**0.53920**	
MAUI CCC BED EXPANSION	POTABLE	MAUI	WAILUKU	IAO			0.00777	0.00777	0.00777	0.00777	0.00777	0.00777	3-8-46:5
BALDWIN HIGH SCHOOL NEW 8 CLASSROOM	POTABLE	MAUI	WAILUKU	IAO			0.01440	0.01440	0.01440	0.01440	0.01440	0.01440	3-8-007: 004
BALDWIN HIGH SCHOOL NEW LIBRARY	POTABLE	MAUI	WAILUKU	IAO			0.00178	0.00178	0.00178	0.00178	0.00178	0.00178	3-8-007: 004
HLIP SCHOOL NEW SCHOOL	POTABLE	MAUI	WAILUKU	IAO			0.12000	0.12000	0.12000	0.12000	0.12000	0.12000	NEW
IAO INTER NEW 12 CLASSROOM (ARMORY)	POTABLE	MAUI	WAILUKU	IAO	0.02160	0.02160	0.02160	0.02160	0.02160	0.02160	0.02160	0.02160	NR
IAO INTERMEDIATE NEW 8 CLASSROOM	POTABLE	MAUI	WAILUKU	IAO						0.01260	0.01260	0.01260	NR
IAO INTERMEDIATE NEW CAFETERIA	POTABLE	MAUI	WAILUKU	IAO	0.00326	0.00326	0.00326	0.00326	0.00326	0.00326	0.00326	0.00326	NR
MAUI LANI ELEMENTARY 1ST & 2ND INCREMENT	POTABLE	MAUI	WAILUKU	IAO			0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	NEW
WAILUKU II ELEM SCHOOL 1ST & 2ND INCREMENT	POTABLE	MAUI	WAILUKU	IAO			0.06000	0.06000	0.06000	0.06000	0.06000	0.06000	NEW
PAUKUKALO - RESIDENCE LOTS UNIT 3 PHASE 3	POTABLE	MAUI	WAILUKU	IAO						0.01980	0.01980	0.01980	NR
PAUKUKALO - RESIDENCE LOTS UNIT 4	POTABLE	MAUI	WAILUKU	IAO						0.00840	0.00840	0.00840	NR
WAIEHU - RESIDENCE LOTS	POTABLE	MAUI	WAILUKU	IAO			0.02000	0.02000	0.02000	0.02000	0.02000	0.02000	3-2-13:18
WAIEHU KOU	POTABLE	MAUI	WAILUKU	IAO			0.10000	0.10000	0.10000	0.10000	0.10000	0.10000	NR
WAIEHU KOU III	POTABLE	MAUI	WAILUKU	IAO	0.04200	0.04200	0.04200	0.04200	0.04200	0.04200	0.04200	0.04200	
MAUI MEMORIAL HOSPITAL - DIET DEPT RENOV	POTABLE	MAUI	WAILUKU	IAO	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	3-8-7:3
HALEKII-PIHANA HEIAU SM	POTABLE	MAUI	WAILUKU	IAO	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	IAO	0.00035	0.00047	0.00059	0.00070	0.00082	0.01698	0.01698	0.01698	3-4-30:4
				AQUIFER SECTOR = IAO 60102	**0.06784**	**0.06797**	**0.45204**	**0.45217**	**0.45229**	**0.51047**	**0.51047**	**0.51047**	
WAIHEE ELEM - PLAYFLD/WTR RETENTN BASIN	NONPOTABLE USING POTABLE	MAUI	WAILUKU	WAIHEE	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	WAIHEE	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	WAIHEE			0.00063	0.00063	0.00063	0.00063	0.00063	0.00063	3-2-007: 021
				AQUIFER SECTOR = WAIHEE 60103	**0.01950**	**0.01950**	**0.02013**	**0.02013**	**0.02013**	**0.02013**	**0.02013**	**0.02013**	
MAUI ARMY NATIONAL GUARD, PUUNENE ARMORY	POTABLE	MAUI	WAILUKU	WAIKAPU			0.00710	0.00710	0.00710	0.00710	0.00710	0.00710	3-8-08:POR. 01
MAUI CONSOLIDATED FACILITIES	POTABLE	MAUI	WAILUKU	WAIKAPU		0.00150	0.00150	0.00150	0.00150	0.00150	0.00150	0.00150	3-8-8
				AQUIFER SECTOR = WAIKAPU 60101	**0.00000**	**0.00150**	**0.00860**	**0.00860**	**0.00860**	**0.00860**	**0.00860**	**0.00860**	

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

PROJECT NAME	PRIMARY USE	ISLAND	SECTOR	AQUIFER SYSTEM	02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD	TMK
				SWPP Statewide Project Demand Total=	**12.19**	**18.10**	**25.22**	**26.59**	**33.20**	**69.42**	**76.55**	**80.87**	
ISLAND OF MOLOKAI													
HYDROLOGICAL SECTOR = CENTRAL 402				**SECTOR 402 TOTAL=**	**1.33514**	**1.33524**	**2.05381**	**2.05391**	**2.05401**	**3.55441**	**3.55491**	**3.55591**	
HOOLEHUA, AGRICULTURAL LOTS	POTABLE	MOLOKAI	CENTRAL	HOOLEHUA			0.02287	0.02287	0.02287	0.02287	0.02287	0.02287	2-3:1, 5-2-4:1,2,7,26,28,34-36,49,96,98,105, 5-2-
HOOLEHUA, AGRICULTURAL LOTS	NONPOTABLE	MOLOKAI	CENTRAL	HOOLEHUA			0.54893	0.54893	0.54893	0.54893	0.54893	0.54893	2-3:1, 5-2-4:1,2,7,26,28,34-36,49,96,98,105, 5-2-
HOOLEHUA, OTHER	POTABLE	MOLOKAI	CENTRAL	HOOLEHUA			0.00540	0.00540	0.00540	0.00540	0.00540	0.00540	5-2-04:15,16,46,84, 5-2-23:9
HOOLEHUA, RESIDENTIAL LOTS UNIT 1	POTABLE	MOLOKAI	CENTRAL	HOOLEHUA			0.01200	0.01200	0.01200	0.01200	0.01200	0.01200	5-2-17: 1,2
HOOLEHUA, RESIDENTIAL LOTS UNIT 2	POTABLE	MOLOKAI	CENTRAL	HOOLEHUA			0.03600	0.03600	0.03600	0.03600	0.03600	0.03600	5-2-15: POR 1, 2, 56
				AQUIFER SECTOR = HOOLEHUA 40201	**0.00000**	**0.00000**	**0.62520**	**0.62520**	**0.62520**	**0.62520**	**0.62520**	**0.62520**	
FUTURE SUBDIVISION IN PALAAU	NONPOTABLE	MOLOKAI	CENTRAL	KUALAPUU						1.50000	1.50000	1.50000	5-2-1
MOLOKAI AGRICULTURAL PARK	NONPOTABLE	MOLOKAI	CENTRAL	KUALAPUU	1.32000	1.32000	1.32000	1.32000	1.32000	1.32000	1.32000	1.32000	5-2-1
KUALAPUU ELEM SCH 6-CLASSROOM BLD	POTABLE	MOLOKAI	CENTRAL	KUALAPUU	0.00054	0.00054	0.00054	0.00054	0.00054	0.00054	0.00054	0.00054	5-2-13:27
MOLOKAI HIGH SCHOOL 8-CLASSROOM BUILDING	POTABLE	MOLOKAI	CENTRAL	KUALAPUU	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	KUALAPUU			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	KUALAPUU			0.00093	0.00093	0.00093	0.00093	0.00093	0.00093	5-2-015: 046
				AQUIFER SECTOR = KUALAPUU 40203	**1.33494**	**1.33494**	**1.33887**	**1.33887**	**1.33887**	**2.83887**	**2.83887**	**2.83887**	
DEPT. OF EDUCATION	POTABLE	MOLOKAI	CENTRAL	MANAWAINUI			0.00270	0.00270	0.00270	0.00270	0.00270	0.00270	5-2-13:27, 5-2-15:46
KALAMAULA	POTABLE	MOLOKAI	CENTRAL	MANAWAINUI			0.00840	0.00840	0.00840	0.00840	0.00840	0.00840	5-2-08:57,109-110,118
KALAMAULA, COMMERCIAL	POTABLE	MOLOKAI	CENTRAL	MANAWAINUI			0.00384	0.00384	0.00384	0.00384	0.00384	0.00384	5-2-9:12,30
KALAMAULA,RESIDENTIAL LOTS PHASE 1	POTABLE	MOLOKAI	CENTRAL	MANAWAINUI			0.07440	0.07440	0.07440	0.07440	0.07440	0.07440	09:POR14,15,22-23,28, 5-2-10:POR1
MOLOKAI AIRPORT MASTER PLAN	POTABLE	MOLOKAI	CENTRAL	MANAWAINUI	0.00020	0.00030	0.00040	0.00050	0.00060	0.00100	0.00150	0.00250	5-2-04
				AQUIFER SECTOR = MANAWAINUI 40202	**0.00020**	**0.00030**	**0.08974**	**0.08984**	**0.08994**	**0.09034**	**0.09084**	**0.09184**	
HYDROLOGICAL SECTOR = NORTHEAST 404				**SECTOR 404 TOTAL=**	**0.00007**	**0.00007**	**0.00007**	**0.00007**	**0.00007**	**0.00007**	**0.00007**	**0.00007**	
KALAUPAPA MEDICAL FACILITY INFECTIOUS WASTE CONTROL STERILIZER	POTABLE	MOLOKAI	NORTH EAST	KALAUPAPA	0.00007	0.00007	0.00007	0.00007	0.00007	0.00007	0.00007	0.00007	6-1-01: 01
				AQUIFER SECTOR = KALAUPAPA 40401	**0.00007**	**0.00007**	**0.00007**	**0.00007**	**0.00007**	**0.00007**	**0.00007**	**0.00007**	

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

PROJECT NAME	PRIMARY USE	ISLAND	SECTOR	AQUIFER SYSTEM	02001 MGD	02002 MGD	02003 MGD	02004 MGD	02005 MGD	02010 MGD	02015 MGD	02020 MGD	TMK
				SWPP Statewide Project Demand Total=	**12.19**	**18.10**	**25.22**	**26.59**	**33.20**	**69.42**	**76.55**	**80.87**	
HYDROLOGICAL SECTOR = SOUTHEAST 403				**SECTOR 403 TOTAL=**	**0.00060**	**0.00060**	**0.00310**	**0.00310**	**0.00310**	**0.00758**	**0.04418**	**0.04418**	
MOLOKAI DISTRICT COURT	POTABLE	MOLOKAI	SOUTH EAST	KAMILOLOA						0.00238	0.00238	0.00238	5-3-05:12,13,14
MOLOKAI MULTI-AGENCY MAINTENANCE FAC, PH I	POTABLE	MOLOKAI	SOUTH EAST	KAMILOLOA						0.00210	0.00210	0.00210	5-3-05: 13, 14
KAUNAKAKAI ELEMENTARY NEW 8 CLASSROOM	POTABLE	MOLOKAI	SOUTH EAST	KAMILOLOA			0.00101	0.00101	0.00101	0.00101	0.00101	0.00101	5-3-002: 052
KAUNAKAKAI HARBOR - 2010 MASTER PLAN	POTABLE	MOLOKAI	SOUTH EAST	KAMILOLOA							0.03660	0.03660	NR
MOLOKAI EDUCATION CENTER	POTABLE	MOLOKAI	SOUTH EAST	KAMILOLOA	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	0.00060	5-3-03:POR:01
				AQUIFER SECTOR = KAMILOLOA 40301	**0.00060**	**0.00060**	**0.00161**	**0.00161**	**0.00161**	**0.00609**	**0.04269**	**0.04269**	
KILOHANA ELEMENTARY NEW CAFETERIA	POTABLE	MOLOKAI	SOUTH EAST	UALAPUE			0.00057	0.00057	0.00057	0.00057	0.00057	0.00057	5-6-002: 008
KILOHANA ELEMENTARY NEW LIBRARY	POTABLE	MOLOKAI	SOUTH EAST	UALAPUE			0.00092	0.00092	0.00092	0.00092	0.00092	0.00092	5-6-002: 008
				AQUIFER SECTOR = UALAPUA 40303	**0.00000**	**0.00000**	**0.00149**	**0.00149**	**0.00149**	**0.00149**	**0.00149**	**0.00149**	
HYDROLOGICAL SECTOR = WEST 401				**SECTOR 401 TOTAL=**	**0.00000**	**0.00000**	**0.00720**	**0.00720**	**0.00720**	**0.00812**	**0.00812**	**0.00812**	
MAUNALOA ELEM SCHOOL NEW 4 CLASSROOM	POTABLE	MOLOKAI	WEST	PUNAKOU			0.00720	0.00720	0.00720	0.00720	0.00720	0.00720	5-1-002: 003
MAUNALOA ELEMENTARY NEW LIBRARY	POTABLE	MOLOKAI	WEST	PUNAKOU						0.00092	0.00092	0.00092	5-1-002: 003
				AQUIFER SECTOR = PUNAKOU 40102	**0.00000**	**0.00000**	**0.00720**	**0.00720**	**0.00720**	**0.00812**	**0.00812**	**0.00812**	