

APPROVAL TO ADOPT THE SWPP UPDATE



PRESENTATION TO THE COMMISSION ON WATER RESOURCE MANAGEMENT

BY CWRM PLANNING BRANCH

MAY 18, 2021

INTRODUCTION

PREPARATION RESPONSIBILITY:

STATE AGENCY

DEPARTMENT OF LAND AND NATURAL RESOURCES
(DLNR), ENGINEERING DIVISION

CONSULTANT

FUKUNAGA & ASSOCIATES, INC.

INTRODUCTION

OBJECTIVE OF THE STATE WATER PROJECTS PLAN
(SWPP):

*“TO PROVIDE A FRAMEWORK FOR PLANNING
AND
IMPLEMENTATION OF WATER DEVELOPMENT
PROGRAMS TO MEET PROJECTED WATER
DEMANDS FOR STATE PROJECTS.”*

Introduction

- What the State Water Projects Plan IS:
 - A planning level guide that provides general estimates of water needs and conceptual water development options that could potentially meet those water needs
- What the State Water Projects Plan IS NOT:
 - A water management plan that holistically evaluates all water related issues within certain areas
 - A water master plan that identifies specific infrastructure planning and programming details

THE WATER RESOURCE PROTECTION PLAN

Prepared by the
Commission on Water Resource Management



THE WATER QUALITY PLAN

Prepared by the
Hawaii Department of Health

WHAT IS THE QUALITY AND QUANTITY OF HAWAII'S FRESHWATER RESOURCES AND HOW DO WE PROTECT IT?

THE STATE WATER PROJECTS PLAN
Prepared by the
DLNR Engineering Division

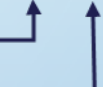
THE AGRICULTURAL WATER USE AND DEVELOPMENT PLAN
Prepared by the
Hawaii Department of Agriculture

HOW MUCH WATER DO WE NEED FOR STATE FACILITIES SUCH AS SCHOOLS, HOSPITALS AND AGRICULTURE?

THE COUNTY WATER USE AND DEVELOPMENT PLANS
Prepared by the
County Water Departments

COUNTY LAND USE PLANS
Prepared by the
County Planning Departments

HOW WILL OUR LAND USE POLICIES IMPACT OUR FRESH WATER RESOURCES?



HISTORY OF SWPP UPDATES

- THE SWPP WAS ADOPTED IN 1990.
- THE SWPP OCCURRED IN 2003 AND PROVIDED WATER DEMAND PROJECTION UNTIL 2020.
- IN 2017 THE CURRENT AND FUTURE WATER DEMANDS OF DHHL WERE DOCUMENTED THROUGH A PARTIAL UPDATE.

2017 SWPP UPDATE



2019 SWPP UPDATE

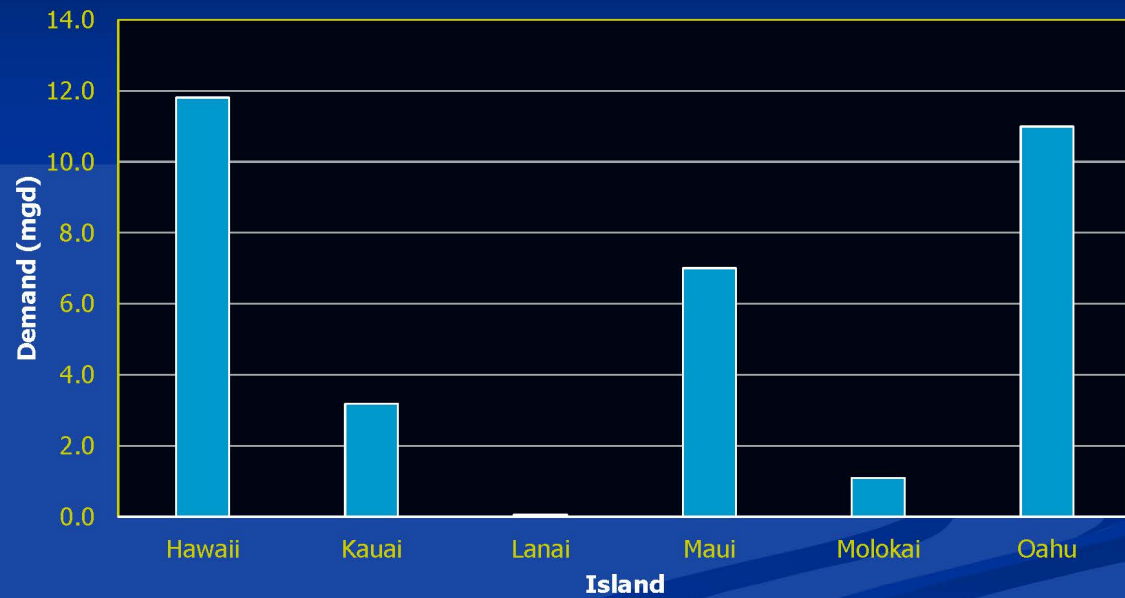
- THE 2019 SWPP UPDATE INVOLVED THE COMPILATION OF AVAILABLE INFORMATION FROM STATE AGENCIES ON FUTURE PROJECTS.
- FOR DHHL, DATA FROM THE 2017 SWPP UPDATE WAS USED.
- A 20-YEAR PLANNING HORIZON BETWEEN 2015 TO 2034 WAS ESTABLISHED FOR DATA COLLECTION AND DEMAND PROJECTIONS

2019 TASKS

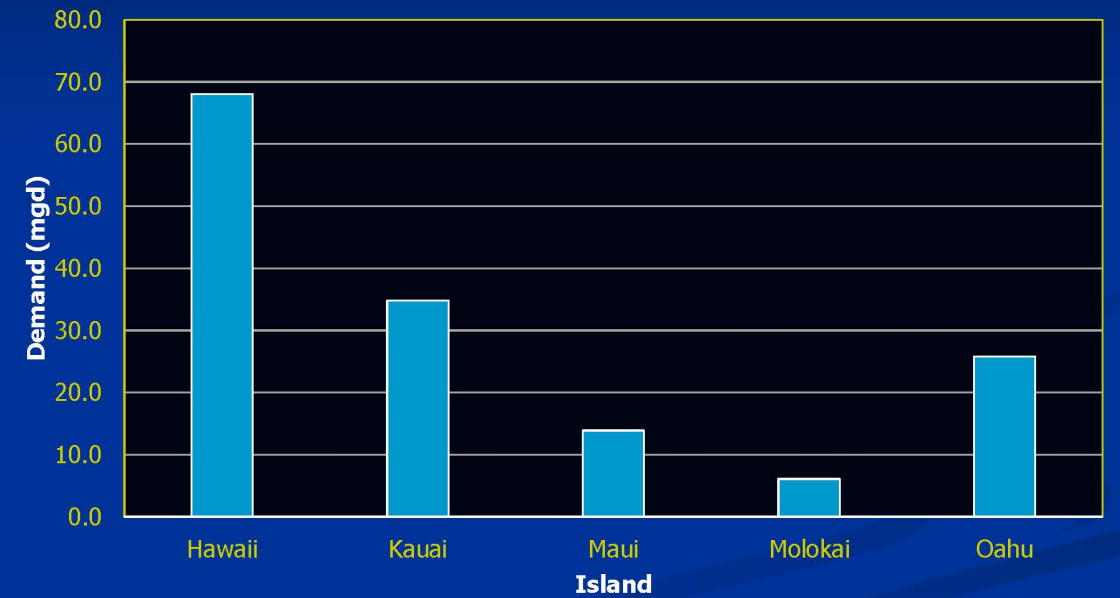
- INVENTORY OF EXISTING STATE SOURCES – WATER SYSTEMS, WELLS, STREAM DIVERSIONS
- IDENTIFICATION OF PROPOSED STATE PROJECTS/DEVELOPMENTS
- ASSESSMENT OF FUTURE WATER DEMAND PROJECTIONS ON A 20-YEAR TIMEFRAME
- WATER DEVELOPMENT STRATEGIES AND POTENTIAL IMPLEMENTATION PLANS TO MEET THE PROJECTED DEMANDS
- CONSISTENCY WITH OTHER HAWAI'I WATER PLAN COMPONENTS

CUMULATIVE 2034 WATER DEMANDS

Cumulative 2034 Potable Water Demands



Cumulative 2034 Non-Potable Water Demands

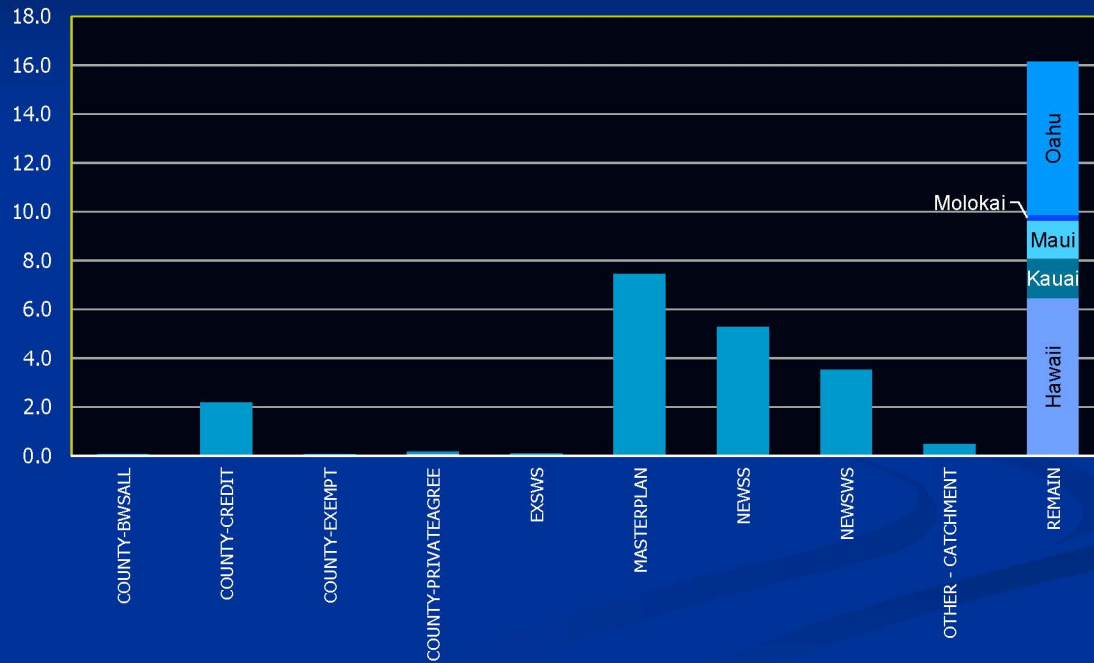


STRATEGY OPTIONS CONSIDERED FOR EACH ISLAND

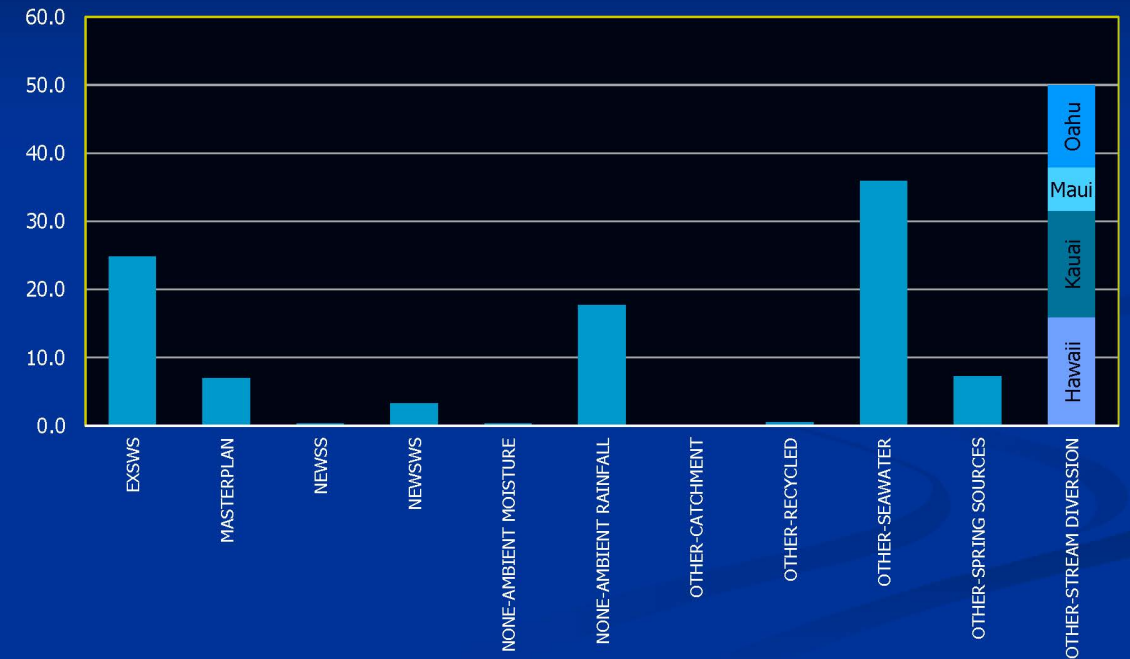
- EXISTING STATE WATER SYSTEMS (P/N-P)
- EXISTING STATE SOURCES (P/N-P)
- EXISTING AND PLANNED WATER MASTER PLANS (P/N-P)
- COUNTY AND PRIVATE WATER AGREEMENTS (P)
- NEW STATE WATER SYSTEMS (P/N-P)
- NEW/PLANNED STATE WELLS (P)
- PLANNED PRIVATE SOURCES (P)
- COORDINATION OF REMAINING SWPP WATER DEMAND AND COUNTY WATER DEPARTMENTS WATER SYSTEM DEVELOPMENT COST ESTIMATES (P)
- WATER CATCHMENT SYSTEMS (P/N-P)
- STREAM DIVERSIONS AND SPRING SOURCES (N-P)
- RECYCLED WATER / SEAWATER (N-P)

2034 WATER DEVELOPMENT STRATEGY

2034 Potable Water Development Strategy



2034 Non-Potable Water Development Strategy



- (REMAIN) The strategy is for the County systems to meet the 2034 Potable needs
- (STREAM DIVERSION) Surface Water will meet the projected Non-Potable needs for 2034 (Acronyms pg.5-2)

2019 SWPP CONCLUSIONS AND RECOMMENDATIONS

- INTEGRATE OF WATER DEMANDS AND DEVELOPMENT STRATEGIES WITH COUNTY WATER USE AND DEVELOPMENT PLANS
- COORDINATE WITH COUNTY WATER DEPARTMENTS TO ASSESS FEASIBILITY OF ACCOMMODATING STATE PROJECT DEMANDS AND PLAN NEW SOURCES AD NECESSARY
- REVIEW AND UPDATE EXISTING DATA IN COUNTY WATER MASTER PLANS AND STATE WATER RESOURCE DATABASES
- CONTINUE TO IMPLEMENT THE HAWAI'I WATER CONSERVATION PLAN, SEEK NON-POTABLE SOURCE STRATEGIES AND BEGIN TO DEVELOP METHODS TO UTILIZE RECYCLED WATER

DHHL FUTURE PROJECTS AND DEMAND REVISIONS

Kaua'i DHHL Projects

- Puu Opae Kuleana Agriculture Homestead Community, Waimea
- Hanapepe Residential and Agriculture Homestead Community, Hanapepe
- Anahola Kuleana Agriculture Homestead Community, Anahola
- Piilani Mai Ke Kai Residential Homestead Phase III, Anahola
- Wailua Homestead Community, Wailua

O'ahu DHHL Projects

- Kauluokahai, Increment II-C Residential Homestead Community, Kapolei
- Waimanalo Residential and Agriculture lots, Waimanalo
- 820 Isenberg Affordable Rental Apartments, Moiliili
- Ewa Beach Residential Homestead Community, Ewa Beach

Maui DHHL Projects

- Honokowai Homestead Community, Lahaina
- Lealii Residential Homestead Phase II, Lahaina
- Puunani Residential Homestead Community, Waikapu
- Pulehunui Agriculture Homestead Community, Central Maui
- East Maui Homestead Development, Keanae and Hana

Hawai'i Island DHHL Projects

- Villages of Laiopua Residential Homesteads – Villages 1 & 2, Kona
- Honomu Agriculture Homestead Community, Hilo

Molokai DHHL Projects

- Ualapue Kuleana Homestead Community, Ualapue
- Naiwa Agriculture Subdivision and Infrastructure Improvements, Hoolehua
- Hoolehua Agriculture Lot Subdivision, Hoolehua
- Kalamaula agriculture lot subdivision, Kalamaula

STAFF RECOMMENDATION

STAFF RECOMMENDS THAT THE COMMISSION ADOPT THE UPDATED STATE WATER PROJECTS PLAN. BY ADOPTING THE STATE WATER PROJECTS PLAN, THE COMMISSION IS NOT APPROVING OR ENDORSING ANY OF THE STATE PROJECTS LISTED IN THE SWPP, NOR DOES THIS ASSURE OR IMPLY THE AVAILABILITY OF WATER NEEDED FOR THESE STATE PROJECTS.

THANK YOU



COMMISSION ON WATER
RESOURCE MANAGEMENT

[HTTP://HAWAII.GOV/DLNR/C
WRM/](http://hawaii.gov/dlnr/cwrp/)