

Overview of the Hawaii Water Plan

June 24, 2015

**Commission on Water Resource Management
Agenda Item C.1.**



State Water Code



*There is a need for a program of **comprehensive water resources planning** to address the problems of supply and conservation of water. The **Hawaii water plan**, with such future amendments, supplements, and additions as may be necessary, is accepted as the guide for developing and implementing this policy. (§174C-2(b) HRS)*



Hawaii Water Plan Objectives

- Set water resource policies
- Proper conservation and development of water
- Reasonable and beneficial use of water
- Ensure adequate water quality
- Control water for public purposes
- Provide for DHHL needs
- Recognize county home rule



Hawaii Water Plan Components

Water Resource
Protection Plan

Water Quality
Plan

State Water
Projects Plan

Agricultural
Water Use and
Development
Plan

County
Water Use and
Development
Plans



Water Resource Protection Plan

- Prepared by the Water Commission
- Protect and sustain statewide ground and surface water resources, watersheds, and natural stream environments through a comprehensive study of occurrence, sustainability, conservation, augmentation, and other resource management measures



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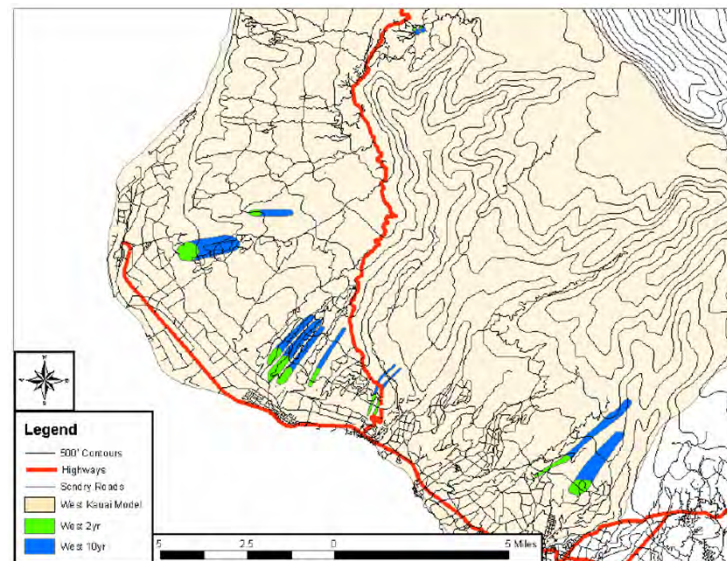
Water Quality Plan

- Prepared by the Department of Health
- Protect the public health and sensitive ecological systems by preserving, protecting, restoring and enhancing the quality of ground and surface waters throughout the State
- Governed by the Safe Drinking Water Act & Clean Water Act



Water Quality Protection

- Water Quality Standards
- Polluted Runoff Control
- Total Maximum Daily Loads
- Source Water Assessment
- Ground Water Contamination
- Underground Injection Control
- Underground Storage Tanks
- Wastewater Treatment & Recycling



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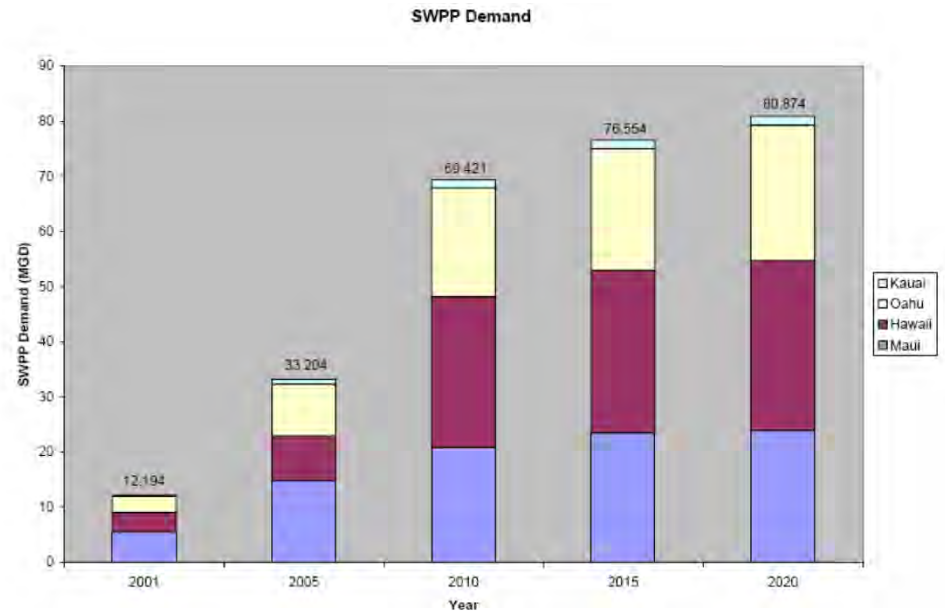
State Water Projects Plan

- Prepared by the DLNR Engineering Division
- Provide a framework for planning and implementation of water development programs to meet projected water demands for state projects



State Water Projects

- Existing State Water Resources (Wells, Stream Diversions, Water Systems)
- Proposed State Projects
- Future Demands
- Water Development Strategy



State Water Demand Status	Remaining Balance of SWPP Water Demands (mgd)							
	2001	2002	2003	2004	2005	2010	2015	2020
Total SWPP Project Demand Statewide	12.19	18.10	25.22	26.59	33.20	69.42	76.55	80.87
Demand Accounted for by Water Development Strategy	5.99	7.59	10.66	11.26	17.49	39.17	42.07	45.17
Remaining Balance of Unmet Demand								
Island of Hawaii	0.80	3.36	4.06	4.16	4.33	12.89	14.47	14.55
Island of Kauai	0.09	0.13	0.52	0.62	0.59	0.58	0.64	0.69
Island of Lanai	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Island of Maui	4.11	4.83	6.38	6.67	6.68	10.72	13.25	13.72
Island of Molokai	0.02	0.02	0.03	0.03	0.03	0.04	0.07	0.07
Island of Oahu	1.19	2.17	3.58	3.84	4.09	6.03	6.05	6.67
Statewide Remaining Balance Total	6.20	10.51	14.56	15.33	15.72	30.25	34.48	35.71



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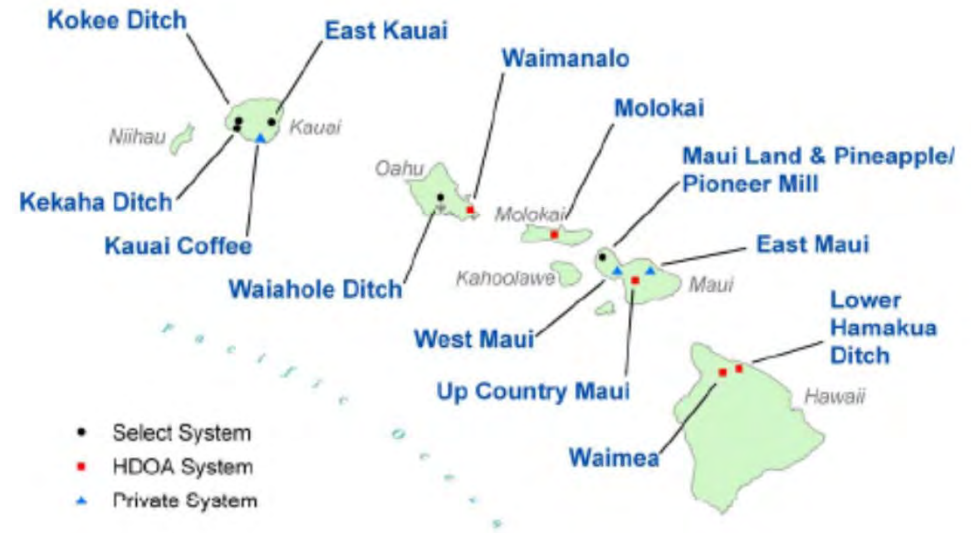
Agricultural Water Use and Development Plan

- Prepared by the Department of Agriculture
- Develop a long-range management plan that assesses state and private agricultural water use, supply, and irrigation water systems



Agricultural Systems

- 13 Systems Studied
- Existing Condition
- Concerns/Needs
 - Capital Improvements
 - Maintenance Improvements
- Rehabilitation Costs
 - 10 Systems: ~ \$100.5 Million
- Water Duty for Diversified Ag
 - 3,400 gpd/ac



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County Water Use and Development Plans

- Prepared by each of the four counties
- Set forth the allocation of water to land use through the development of policies and strategies to guide the County in its planning, management, and development of water resources to meet projected demands



WUDP Requirements & Guidelines

- Status of water and related land development & inventory of existing uses
- Future land uses and related water needs
- Regional water development plans
- Consistent with WRPP & WQP
- Incorporation of AWUDP and SWPP (including DHHL)
- Consistent with State and county land use plans & policies
- 20-year projection period



Chronology

- 1987 Water Code – requires HWP to be adopted within 3 years and provides funding
- 1990 HWP and constituent parts adopted
- 1992 HWP revisions submitted but not adopted



Issues with the 1992 Draft Updates

- Fragmented and too narrowly focused
- Inadequate consideration of uncertainties
- Single-point future water demand projection vs. a range of scenarios
- Static
- Tradeoffs not addressed





STATEWIDE FRAMEWORK FOR UPDATING THE HAWAII WATER PLAN

February 2000



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



Statewide Framework for Updating the Hawaii Water Plan

- Established recommended plan elements
- 20-year planning horizon with 5 year updates
- Integrated resource planning approach
- Integration at the county level
- Living Document
- Submittal of WUDP project description

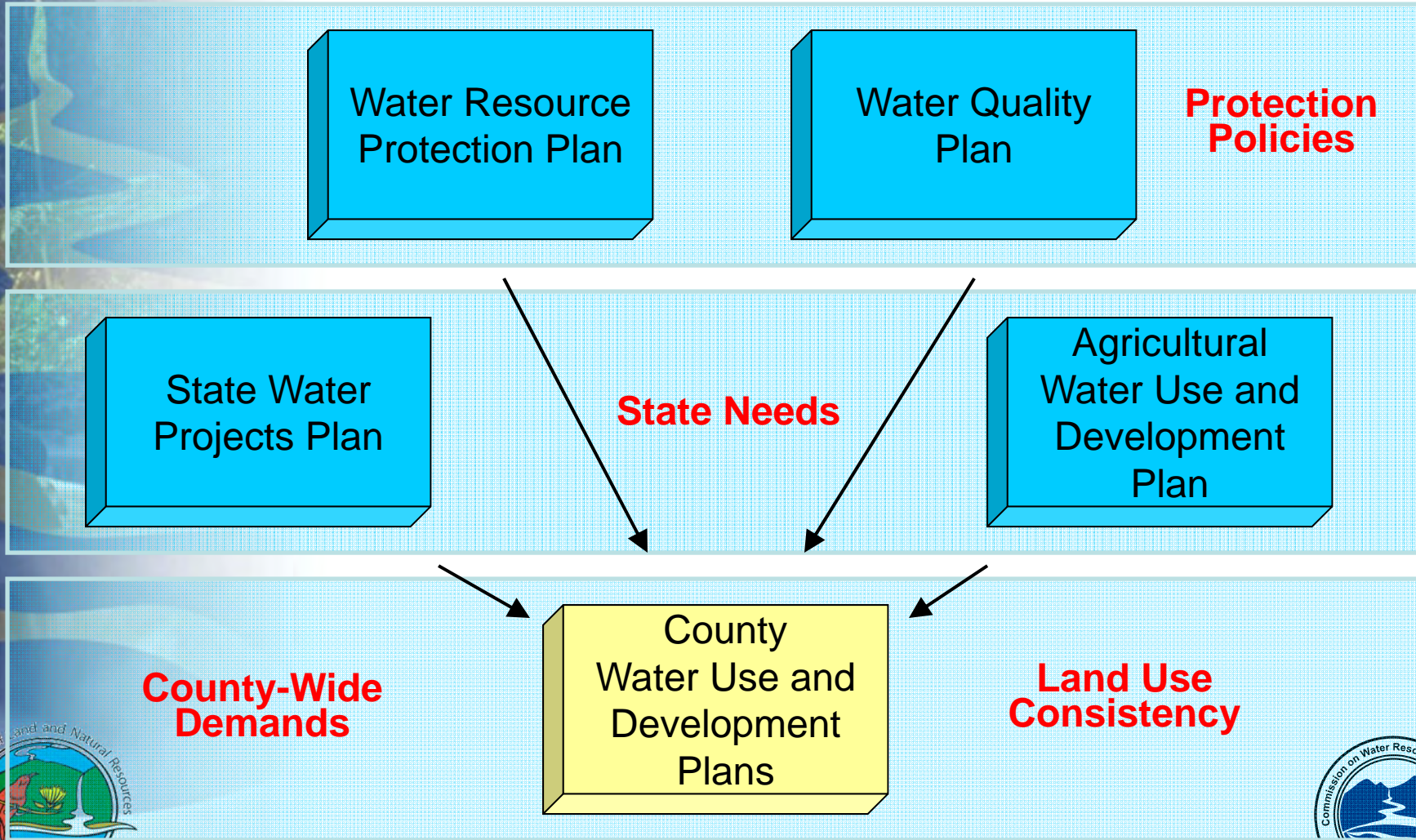


Need for Flexibility

- Institutional constraints
- Funding constraints
- Encourage innovation
- Accommodate unique county-specific concerns



Integration at the County Level

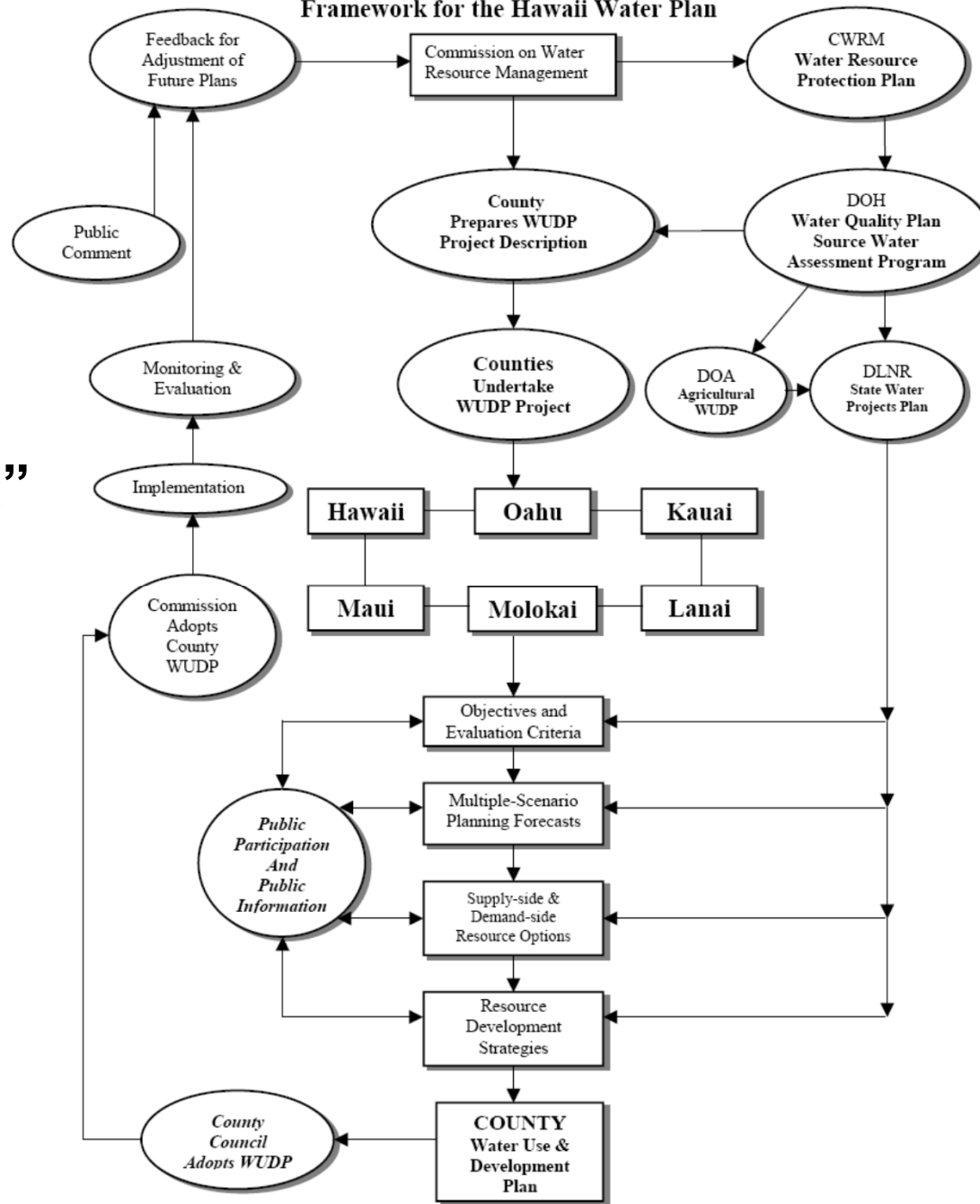




“Living Document”



**Figure 2-1
Framework for the Hawaii Water Plan**





Land Use Plans



**Water Use and
Development Plans**



Status of Hawaii Water Plan Component Updates

HWP Component Plan	Status
WRPP	1 st Update in 2008, 2 nd Update in Progress.
WQP	1 st Update in Progress.
SWPP	1 st Update in 2003, 2 nd Update in Progress.
AWUDP	1 st Update in 2003, 2 nd Update in 2004, 3 rd Update in Progress.
WUDP	1 st Update in Progress for Oahu, Kauai, Maui. 1 st Update for Hawaii County WUDP in 2011, 2 nd Update for Selected Aquifers in Progress.

Note: 1990 - Initial Adoption of all HWP Components.

1992 – Revisions were not adopted.



Mahalo!

Commission on Water Resource Management
<http://hawaii.gov/dlnr/cwrp/>

http://dlnr.hawaii.gov/cwrp/

Commission on Water Resource Management

State of Hawaii, Department of Land and Natural Resources
Commission on Water Resource Management

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Keauhou Aquifer System Area

PETITION FOR GROUND WATER MANAGEMENT AREA DESIGNATION, KEAUHOU
AQUIFER SYSTEM AREA, NORTH KONA, HAWAII
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Commission Meetings

Applications & Forms

Hawaii Water Plan

Contact Us

WEBSITE UPDATES

As of June 15, 2015

- Public Notice: Application for Water Use Permit, Mokuleia Ground water Management Area, Oahu
- June Commission Meeting rescheduled to 6/24/2015
- Palauhulu Surface Water Monitoring Data for 2013 and 2014 Available
- New: Surface Water Monitoring Page

