



Water Quality Plan

FINAL
3.29.2019

Hawaii Department of Health Water Quality Plan Update

2019 Joint Government Water Conference

- 08/06/2019:** Kauai
- 08/12/2019:** Oahu
- 08/20/2019:** Hilo
- 08/27/2019:** Kona
- 08/29/2019:** Maui



Presentation Agenda

- **Water Quality Plan Outline**
- **Proposed Schedule for Presenting the Final Water Quality Plan to the Water Industry**
- **DOH Priorities: Activities to implement selected Plan Activities**



Water Quality Plan Outline

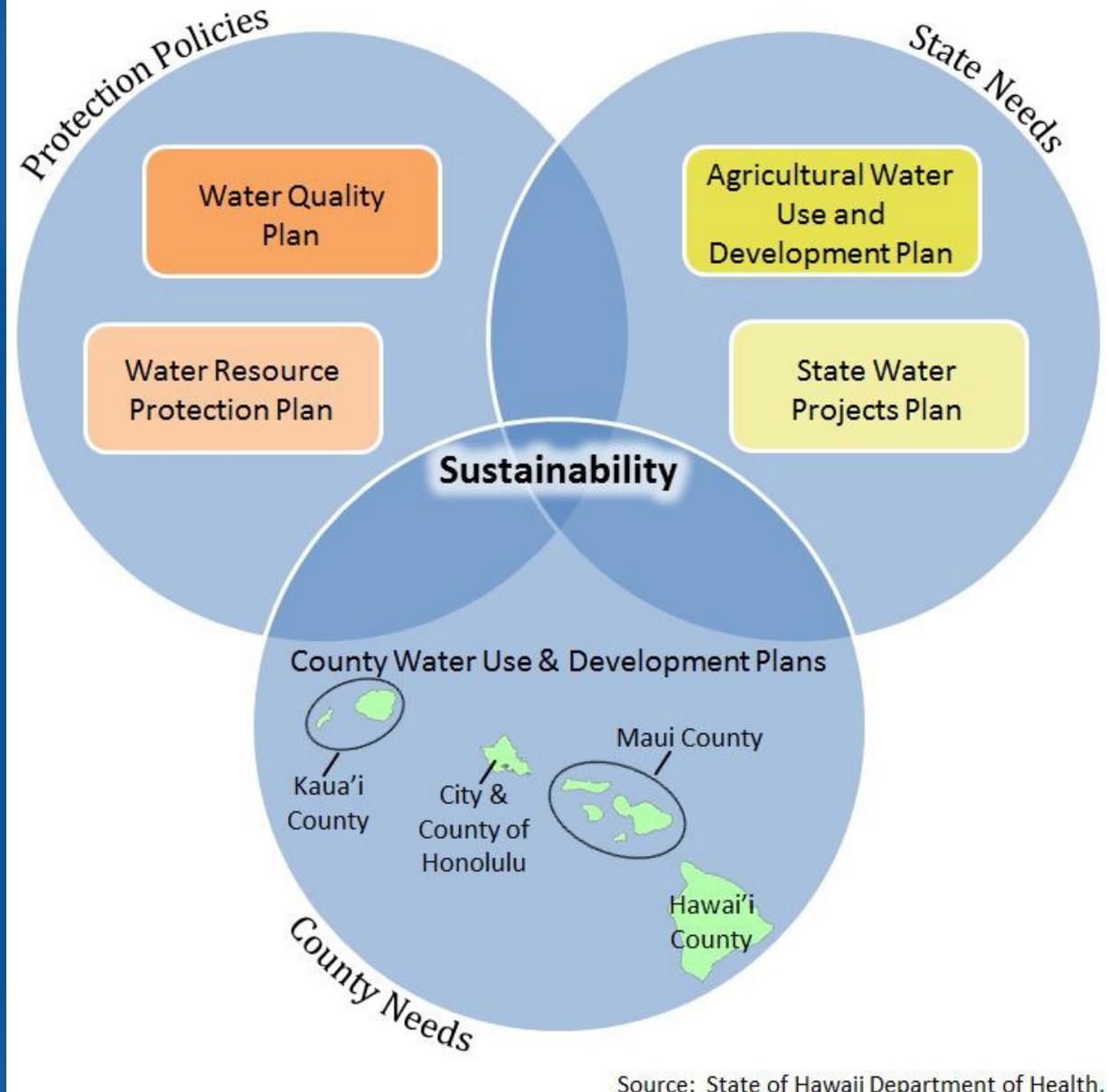
- **Section I: Background**
 - Hawaii Water Plan
 - Statewide Framework for Updating the Hawaii Water Plan
- **Section II: Water Quality Programs and Initiatives**
 - Surface Water Quality
 - Ground Water Quality
 - Drinking Water and Clean Water State Revolving Funds
 - Challenges and New Initiatives
- **Section III: Supporting DOH Water Quality Work**
- **Section IV-VII: Relevant Statutes and Rules; Information Sources; Organization Charts; and Water Quality Maps**



Section I: Background

- Developing Effective Linkages Between Inter-Agency Programs
- Recommended Water Quality Plan (WQP) Guidelines

Hawaii Water Plan Components:



Source: State of Hawaii Department of Health,



Water Quality Plan Outline

- **Section II: Water Quality Programs and Initiatives**
 - Surface Water Quality
 - Ground Water Quality
 - Drinking Water and Clean Water State Revolving Funds
 - Challenges and New Initiatives



Surface Water Quality

CLEAN WATER BRANCH

Monitoring & Analysis Section

Polluted Runoff Control Program

Engineering Section

Environmental Indicators



<http://health.hawaii.gov/cwb/>

Monitoring & Analysis Section



Goals: Maintain Surface Waters for the Health & Safety of people, plants, and animals.

- Identify sources of surface water pollution through surveillance, Water Quality Monitoring, and analysis of Statewide Water Quality data;
- Protect Hawaii's aquatic and marine resources;
- Protect Hawaii's Water Recreational Community; and
- Generate, collect, and evaluate data for Total Maximum Daily Load (TMDL), Impaired Waters Report, and Water Quality Standards revisions.

Program Activities:

- Hawaii's Beach Monitoring Program;
- Hawaii Water Quality Monitoring and Assessment Report;
- Water Quality Standards;
- Total Maximum Daily Load;
- Monitoring Initiatives and Partnerships.



Mission:

- Protect and improve the quality of Hawaii's water resources by preventing environmental degradation due to nonpoint source pollution;
- Increase the amount of resources devoted to the control of polluted runoff and focus on collaborative efforts to utilize limited resources; and
- Provide outreach and education to the community in partnership with other agencies.

Actions:

- Increase the amount of funding devoted to the control of polluted runoff through best management practices;
- Obtain federal approval of Coastal Zone Nonpoint Pollution Control Program.
- Issue Request for Proposals for the Watershed Implementation Projects on an annual basis
- **Creation of a Branch-level program for PRC. (Act 005, 2019 HSL authorized 6 new positions)**

Polluted Runoff Control



Engineering Section

National Pollutant Discharge Elimination System (NPDES) Program

Goals: Regulate point source discharges through permitting and enforcement.

Actions: NPDES permit includes water quality-based effluent limits that are based on the State's WQS in HAR, Chapter 11-54 and effluent limits based on technology available to treat pollutant. General (rule) and individual (specific discharger at specific location) permits are issued.

Water Quality Certification Program (CWA Section 401 WQC)

Goals: Certifies that a proposed discharge/activity will not violate applicable State Water Quality Standards. WQC is required if a project/activity requires a federal permit, license, certification, approval, or exemption; and may result in a water pollutant discharge into State waters.

- A statement that asserts that a proposed discharge/activity will not violate applicable State WQSs in 11-54 and applicable provisions of the CWA
- Provides a tool to protect water quality from potential adverse impacts resulting from activities/projects with federally issued permits and licenses
- Ensure that a polluter will not be able to hide behind a federal license and use it as an excuse for violating state WQSs



Environmental Indicators

Provides a way to measure or keep track of a particular condition in the environment. Identifies where we are, where we are going and how far we are from the goal.

- **Brown Water Advisories:** Heavy storm water runoff events.
- **Sewage Spill Advisories:** Wastewater or chemical spills and other pollutant releases restrict the public enjoyment and use of the shoreline and negatively affect aquatic life. Requires posting of warning and water sampling.



Surface Water Quality

SAFE DRINKING WATER BRANCH

- **Surface Water supplies about five percent (5%) of the State's drinking water supply. The Safe Drinking Water Branch's primary function related to surface water is to ensure that it meets Federal and State standards for drinking water.**
- **Source Water Assessments Data useful to other Surface Water Quality programs (TMDL & PRC)**
- **Drinking Water State Revolving Fund**



<http://health.hawaii.gov/sdwb/>



WASTEWATER BRANCH

Water Reuse

- **Goal:** Increase water reuse statewide.
- **Proposed Actions:**
 - Completed revisions to the Guidelines in January 2016.
 - In 2018, convened task force to identify barriers and solutions to expanding water reuse.
 - Recommendations provided in 2019 Legislature Report.

WWTP Operation & Maintenance Compliance

- **Purpose:**
 - Performs annual operation and maintenance inspections of wastewater treatment plants to ensure compliance with HAR Chapter 11-62, Wastewater System,
- **Actions:**
 - Inspections are conducted to ensure that WWTPs are operated and maintained properly to prevent groundwater and surface water contamination.

<https://health.hawaii.gov/wastewater/>



Ground Water Quality

SAFE DRINKING WATER BRANCH

- Underground Injection Control
- Source Water Assessment and Protection Program
- Hawaii Groundwater Protection Strategy and Protection Program
- Groundwater Contamination Viewer
- Drinking Water State Revolving Fund

<http://health.hawaii.gov/sdwb/>



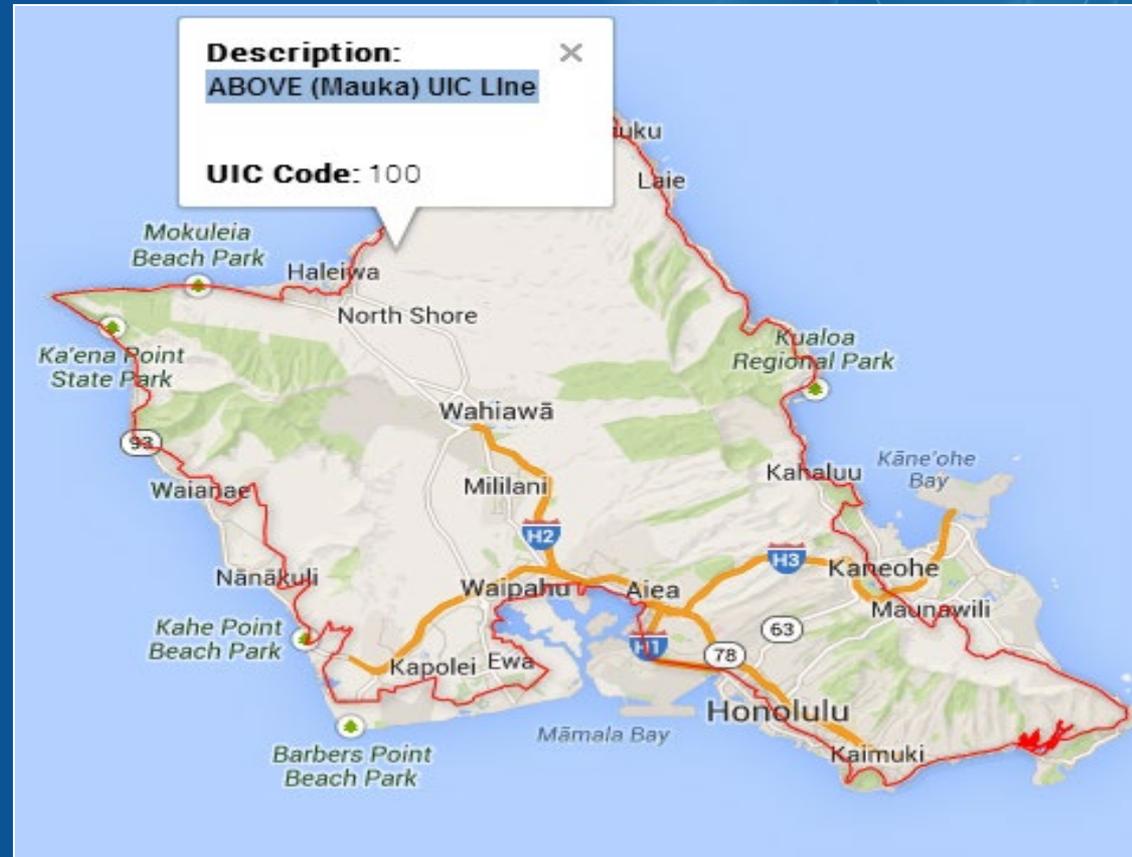
Underground Injection Control

Goal:

- Reduce the number of unpermitted UIC well facilities
- Assure proper abandonment of UIC wells

Proposed Action:

- Improve the UIC database system
- Continue to utilize and improve the Environmental Health Administration online e-Permitting System



- **Maui lawsuit may result in possible development of State Groundwater Quality Standards**



Ground Water Quality

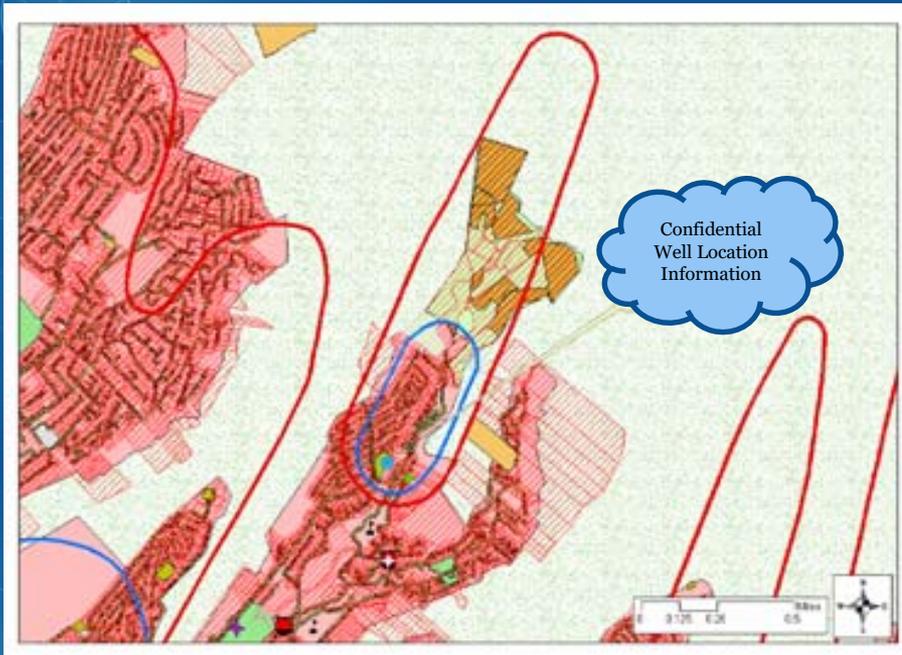
Source Water Assessment and Protection (SWAP) Program

Goals:

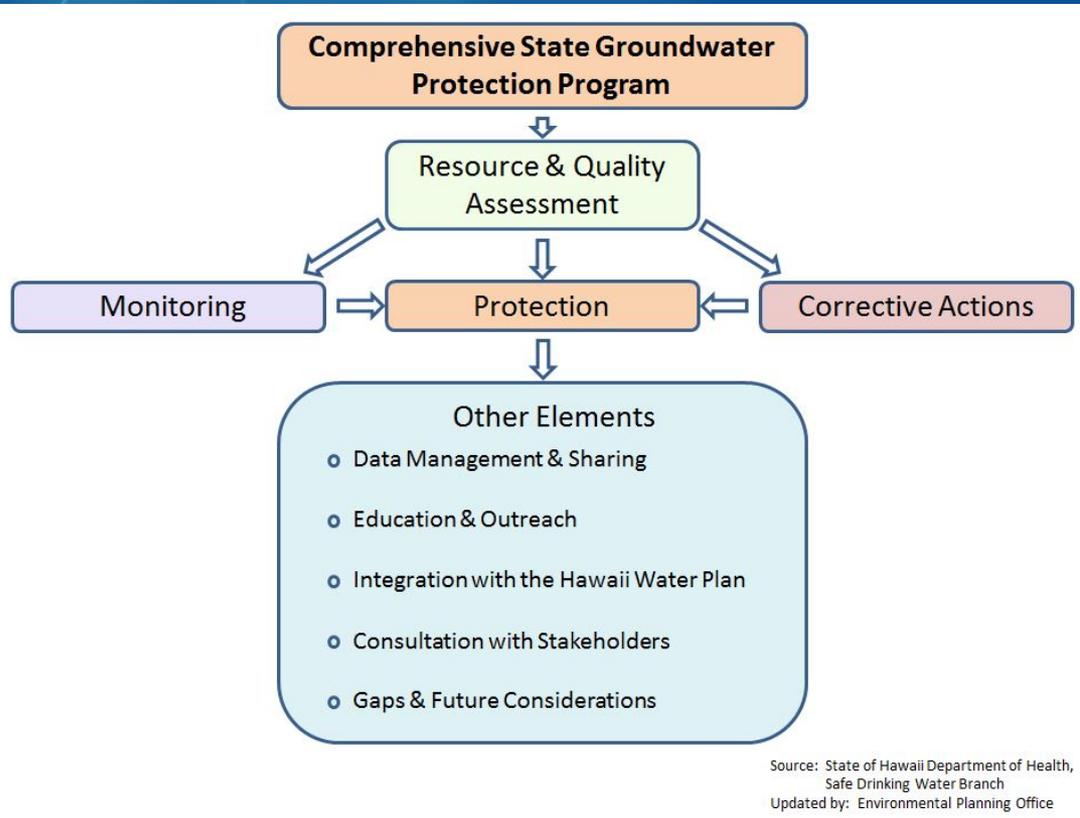
- Assess the susceptibility of public drinking water sources to contamination;
- Protect public drinking water sources from contamination; and
- Use source water assessment information to meet drinking water requirements.

Proposed Actions:

- Assess all existing and proposed drinking water sources;
- Create state and local source water protection workgroups; and
- Redevelop and implement the Wellhead Protection Financial Assistance Program.



Hawaii Groundwater Protection Strategy and Protection Program



Goals:

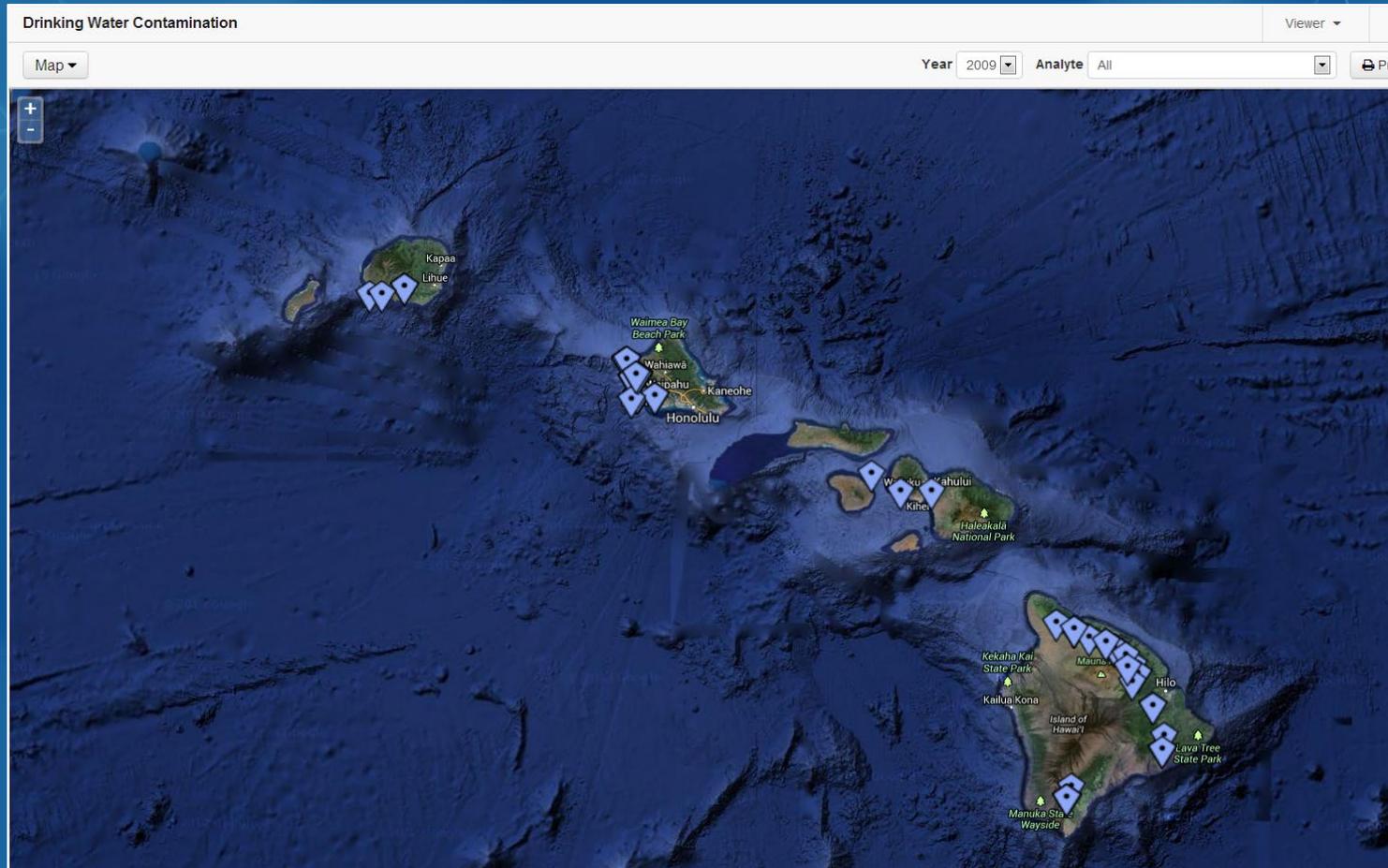
- Establish a mechanism for better understanding of relationships between ground water quantity and quality concerns;
- Demonstrate the State's proactive approach to ground water protection, justifying increased funding for program development & additional flexibility from the EPA and other federal agencies; and
- Improve public understanding of ground water protection concerns within the State, and provide a broader context for public participation.

Proposed Actions:

- Implementation of a Hawaii Groundwater Protection Strategy to guide the relevant federal, state, and local programs operating within the State. Strategy will monitor and assess groundwater quality, identify and prioritize groundwater contamination threats, and mitigate priority contamination threats and prevent contamination (through cooperation and collaboration).



Groundwater Contamination Viewer



Drinking Water State Revolving Fund



Waikamoi Flume Repair/Replacement
Upper Kula Water System, Maui
\$8,362,760 DWSRF project

Beginning in SFY 2019, DWSRF program will be able to provide low interest loans to non-county water system.

In cooperation with CWRM, funded \$600,000 of the Water Loss Audit Program for counties and certain small water systems, under Act 169, 2016 SLH using DWSRF Set-Aside funds.

- Over \$344 million in low-interest loans issued since SFY 1997
 - Loans are provided to Hawaii's four Counties for drinking water infrastructure projects
- Total Loan Rates of 1.75-2.75% will be offered beginning in SFY 2020.

SFY	# Final Loan Agreements Executed	\$ Committed
2012	5	5,856,911.00
2013	10	27,692,905.65
2014	10	32,924,850.00
2015	8	48,638,387.31
2016	12	55,591,357.45
2017	4	46,889,784.00
2018	2	15,960,611.00
2019	6 (estimated)	34,460,611.00 (estimated)



Ground Water Quality

WASTEWATER WATER BRANCH

- **Upgrading and Eliminating Cesspools**
- **Clean Water State Revolving Fund**



Upgrading and Eliminating Cesspools

Goal:

- Eliminate cesspool pollution.

Current Action:

2016, Update HAR, Chapter 11-62 to:

- Prohibit the construction of new cesspools.
- Implement the temporary income tax credit for the cost of upgrading or converting a qualified cesspool (HB1140 HD1 SD2 CD1 was signed into law on June 12, 2015, as Act 120 affecting Hawaii Revised Statutes, Chapter 235).
- 2017, Act 125 mandated all cesspools not granted an exemption shall be upgraded or converted to a higher level of disposal by 2050.
- 2018, Act 132, established a Cesspool Conversion Working Group to develop a long-range, comprehensive plan for cesspool conversions statewide.



Clean Water State Revolving Fund

New UV Banks at
West Maui
Recycled Water –
Phase 1 – UV
Expansion
Lahaina
Treatment Plant,
Maui
\$10,946,000
CWSRF Project



- Over \$916 million in low-interest loans provided since SFY 1991
- Loans provided to the Counties for construction of publicly-owned wastewater treatment facility infrastructure.
- The current interest rate is 1%.

SFY	# Loans Agreements Executed	\$ Committed
2014	6	19,285,186.69
2015	10	61,202,149.87
2016	10	29,240,925.01
2017	11	38,092,251.77
2018	10	49,048,811.52

CWSRF has also provided funding assistance to Counties for replacement of large capacity cesspools and water reuse projects.



Challenges

Intra-agency
collaboration

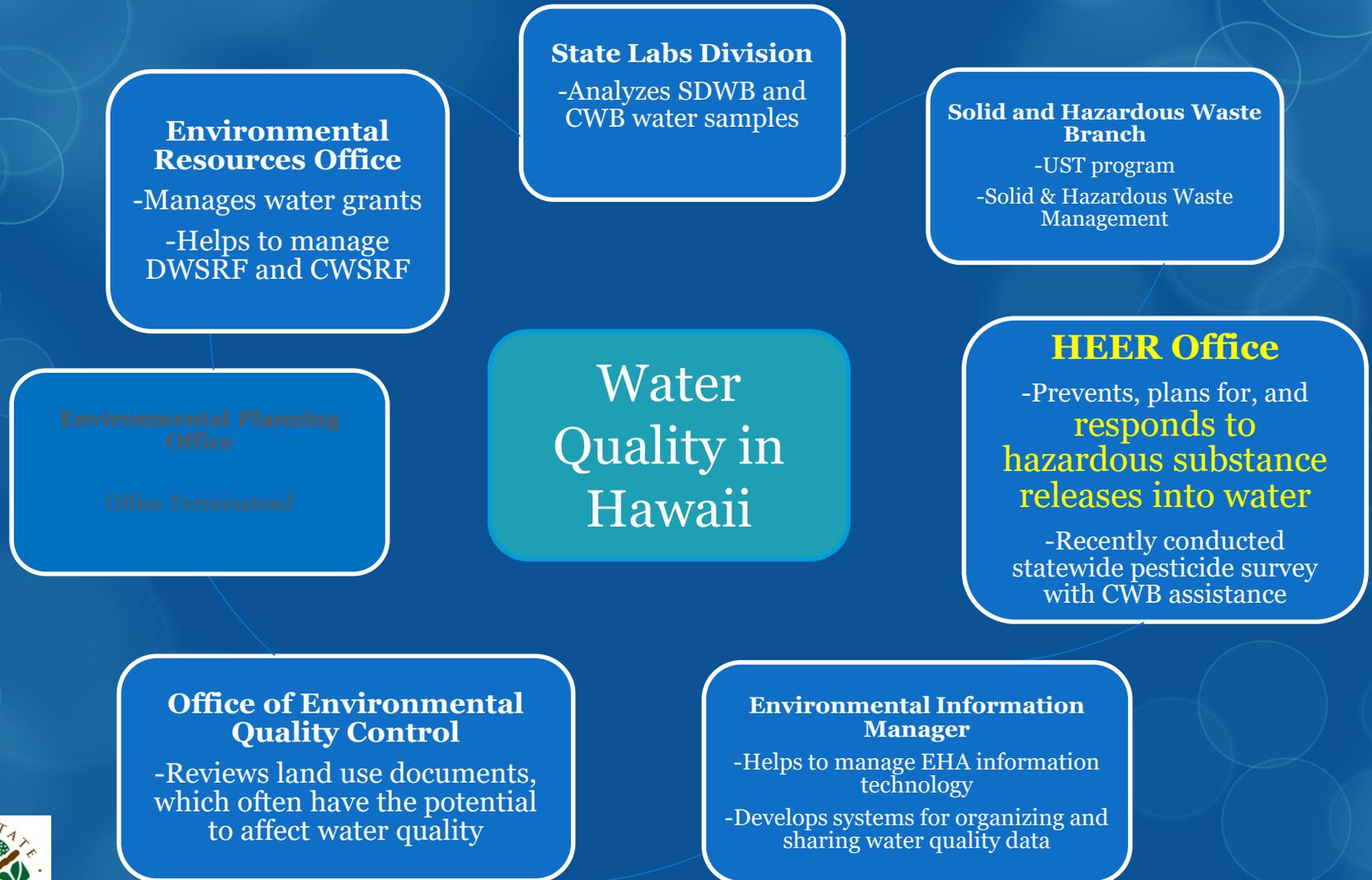
Inter-agency
collaboration

Funding
Issues

Climate
Change



Section III: Supporting DOH Water Quality Work



State Department of Health
 Safe Drinking Water Branch
 Clean Water Branch
 Wastewater Branch
 Support Programs

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

State Department of Agriculture
Pesticides Program

Federal Agencies
 Environmental Protection Agency
 USDA – RD, **NRCS**, Others
 USGS

WATER QUALITY

County Agencies
 Water Departments
 County Planning
 Public Works (Wastewater & Stormwater)
 Finance

Stakeholders
 Public/Community Homeowners
 Private Well Owners
 Legislators
 Regulated Community
 Environmental Organizations

Academia



Schedule for DOH Final Water Quality Plan Presentation to the Water Industry

Plan Presented to
CWRM

2019 Joint
Government
Water Conference

HWWA
CONFERENCE

2020 Pacific
Water Conference

- **May 21, 2019**
Final 2019
Water Quality
Plan presented
to Commission
on Water
Resources
Management
(CWRM)

- **August 2019**
Final Water
Quality Plan
Presentation
to Water
Industry at the
5th Joint
Government
Water
Conference on
Kauai, Oahu,
Maui, Hilo and
Kona

- **October 9-11, 2019**
Final Water Quality
Plan Presented to
Water Industry at
HWWA Annual
Conference.
- **Begin working with
Hawaii Water Plan
Agencies to coordinate
and implement WQP
activities.**

- **February 4-6, 2020**
Final Water Quality Plan
Presented to the Water
Industry at the Pacific
Water Conference



Integrated Resource Planning Approach

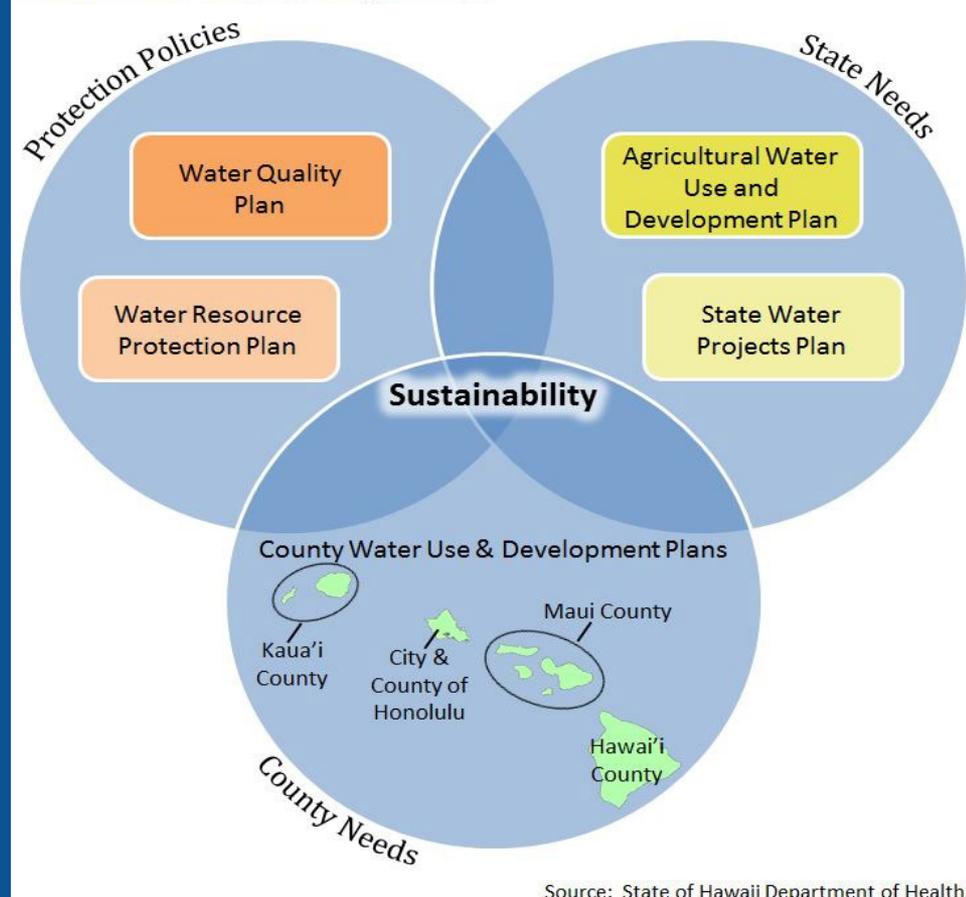
Identified the required interaction and linkages between plan components.

Recognized unique circumstances of each county.

All WUDPs (including AWDP & SWPP) provided the space for dialogue, joint planning efforts, and relationship building. Allows for WQP input.

Participation on concerted public Participation (education and outreach) Program.

Hawaii Water Plan Components:



Source: State of Hawaii Department of Health,



Current DOH Priorities

- **Red Hill Bulk Fuel Storage Facility**
- **Upgrade & Replacement of Cesspools**
- **Water Reuse**
- **Establishment of a Polluted Runoff Control (Non-Point Source) Branch**
- **Active Participation with NRCS to implement Agriculture-Related Source Water Protection Activities.**



For more information on the Final 2019 Plan or
DOH's Water Quality work, please contact:

Safe Drinking Water Branch

(808) 586-4258

sdwb@doh.hawaii.gov

Clean Water Branch

(808) 586-4309

cleanwaterbranch@doh.hawaii.gov

Wastewater Branch

(808) 586-4294

wwb@doh.hawaii.gov

Review the Final 2019 Water Quality Plan at:

<http://health.hawaii.gov/water/>

