



OVERVIEW OF THE HAWAI'I COMMISSION ON WATER RESOURCE MANAGEMENT

Presentation to the Land Use Commission

July 10, 2024



PRESENTATION OVERVIEW

- Who is the Commission on Water Resource Management (“CWRM”)?
- Overview of CWRM Programs
- Water Law in Hawai‘i
- Water Management and Permitting
- The Hawai‘i Water Plan
- CWRM and LUC Engagement

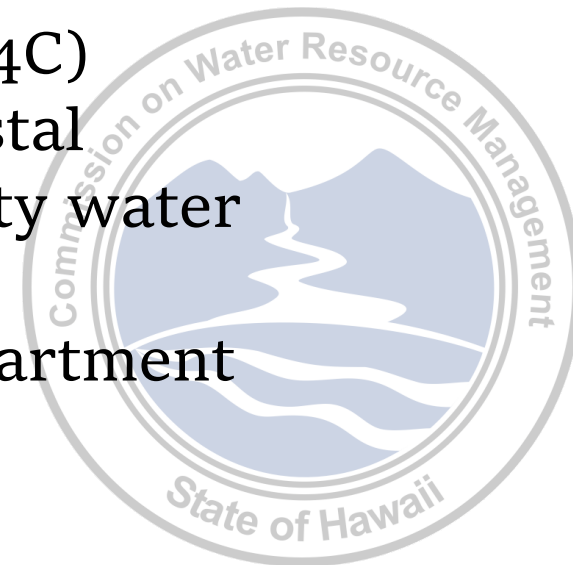


WHO IS THE COMMISSION ON WATER RESOURCE MANAGEMENT (CWRM)?



CWRM IN A NUTSHELL

- 1978 constitutional amendment in article XI section 7 mandates a water resource agency
- Created in 1987 & administratively attached to DLNR
- Staff and 7 member Commission
- Primary guardian of the Public Trust that imposes a dual mandate of:
 - 1) protection; and
 - 2) maximum reasonable beneficial use
- Administers the State Water Code (HRS Chapter 174C)
 - Regulates *all* waters of the State (excluding coastal waters) and *all* water users (including the County water boards/departments)
 - CWRM manages water quantity vs. quality (Department of Health)



CWRM IN A NUTSHELL (CONT.)

- 7 members of the Commission
 - Chairperson of BLNR (Chair of Water Commission)
 - Director, State DOH (ex-officio voting member)
 - 5 members are appointed by the Governor and approved by the State Senate
 - 1 member must have “substantial experience or expertise in **traditional Hawaiian water resource management techniques** and in traditional Hawaiian riparian usage such as those preserved by 174C-101”
 - Each member must have “substantial experience in the area of water resource management”



Dawn N.S. Chang



Kathleen Ho
(DOH designee)



Lawrence H. Miike



Aurora Kagawa-
Viviani



Wayne Katayama



Paul Meyer



Vacant

MISSION

- To protect and manage the water resources of the State and provide for the maximum beneficial use of water by present and future generations

VISION

- Flowing streams, sustainable aquifers, and functioning watersheds for the use, enjoyment, and benefit of all

COMMISSION ON WATER RESOURCE MANAGEMENT

Ke Kahuwai Pono

“The trustee who oversees the rightful sharing of water.”

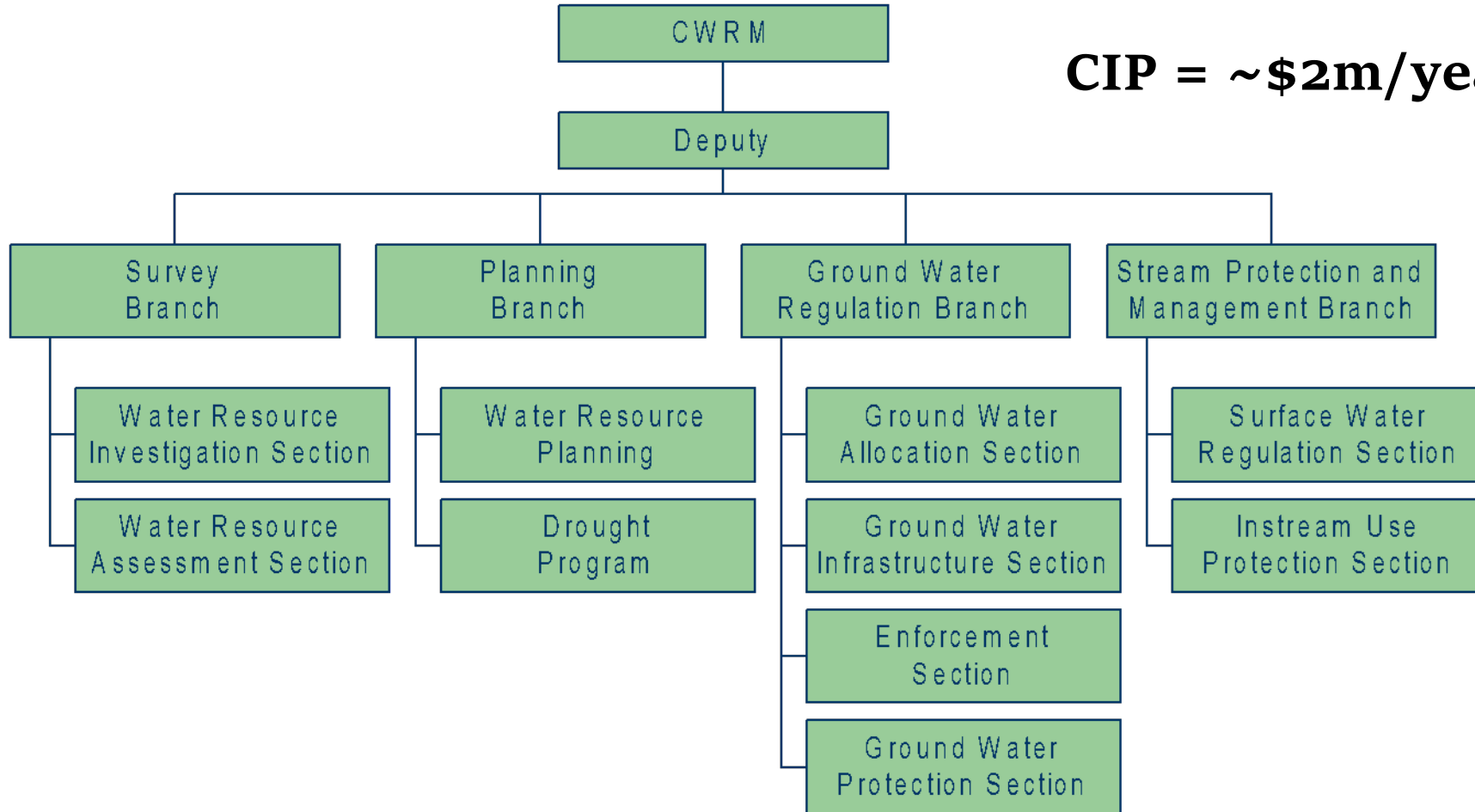


ORGANIZATIONAL CHART

Commission staff = 28+ positions

Budget = ~\$4m/year
operating

CIP = ~\$2m/year



OVERVIEW OF CWRM PROGRAMS



CWRM PROGRAM OVERVIEW

- Planning

- Develops comprehensive, long-range plans for the protection, conservation, and management of the State's water resources.

- Ground Water Regulation

- Issues ground water permits, monitors aquifer health, and establishes sustainable yields.

- Stream Water Protection and Management

- Issues surface water permits, establishes interim instream flow standards, and conducts surface water resource assessments, including historical and present flow measurement, and stream characteristics.

- Survey

- Collects and analyzes hydrologic data and assesses water resource availability and use.

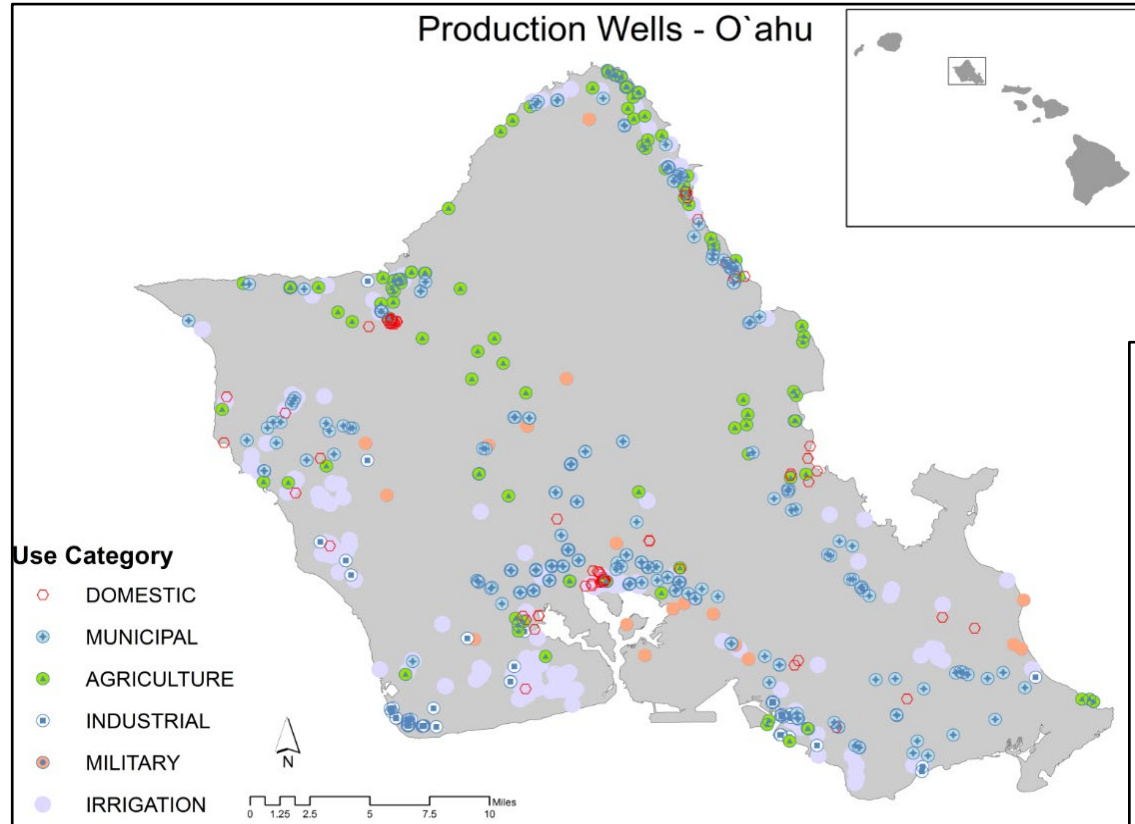


PLANNING

- Implement the State Water Code through long-range planning and agency coordination
- Develop and update the Hawai‘i Water Plan (HWP)
- Water conservation, shortage and drought planning

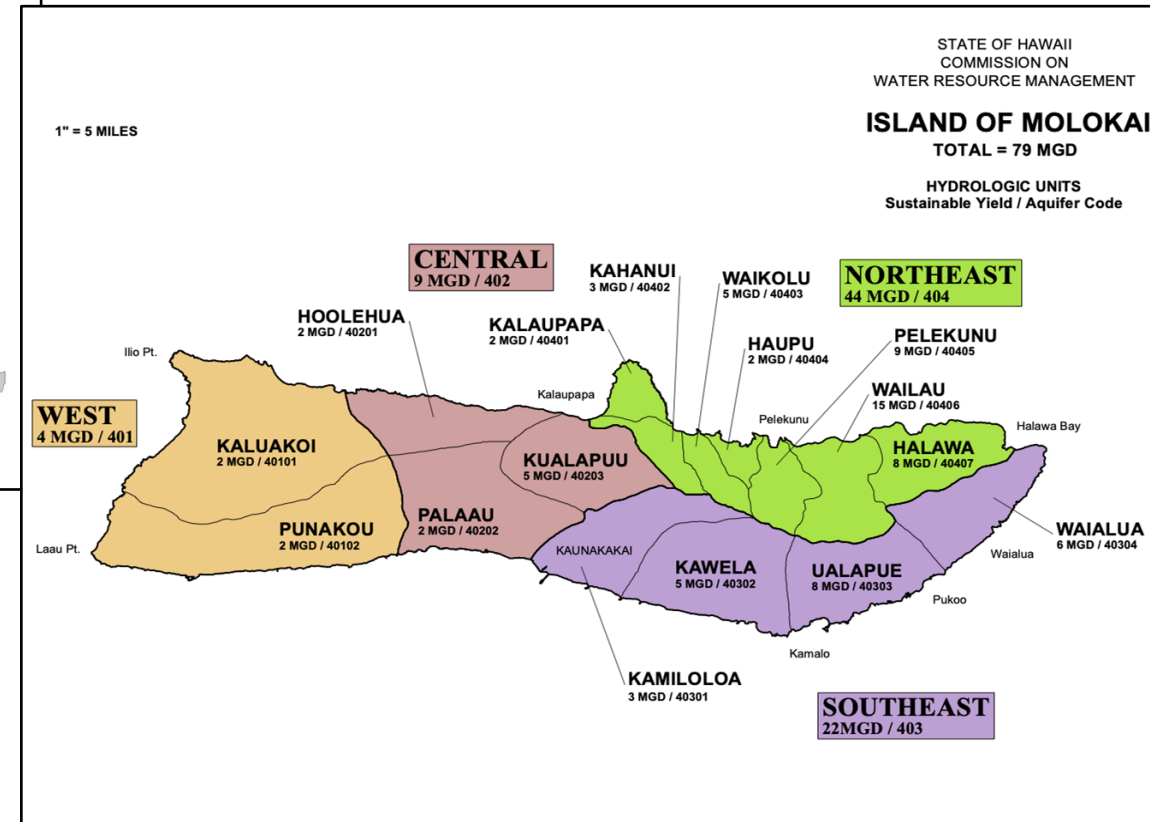


GROUND WATER REGULATION



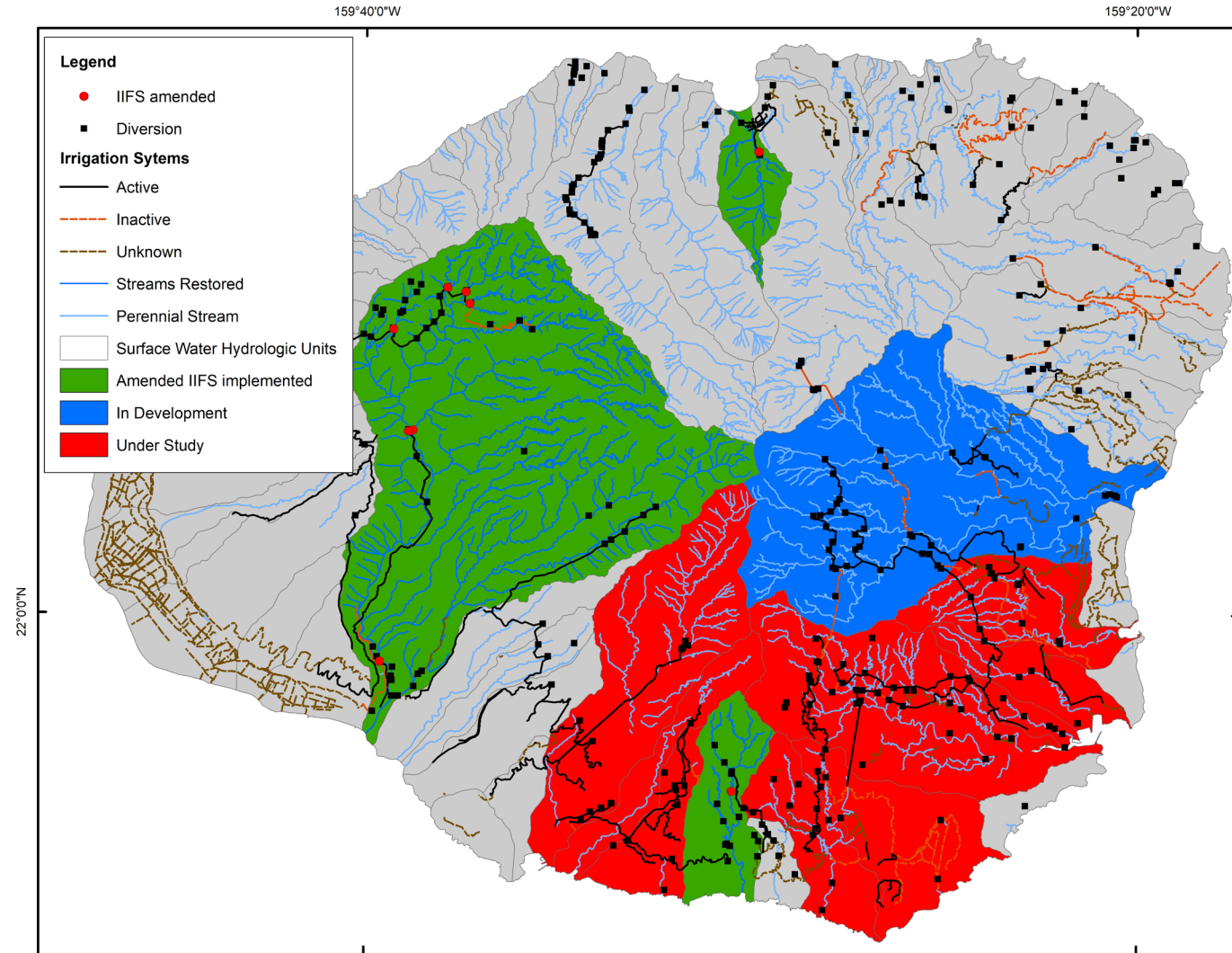
- 5,500 wells in the State
- 110 aquifer system areas statewide

- Sustainable limits (aka: “Sustainable Yields”) are set for each aquifer system



STREAM PROTECTION AND MANAGEMENT

- 376 perennial streams
- 1,300 diversions
- Policies to protect aquatic life, recreational values, and traditional and customary practices (ex: Interim Instream Flow Standards – IIFS)



STREAM PROTECTION AND MANAGEMENT (CONT.)

- Surface water hydrologic monitoring
 - 82 monitoring sites
 - Monitors stream and ditch flows, seepage runs
 - Conducts biological assessments and monitoring
- United States Geological Survey (“USGS”) Cooperative Agreement
 - 47 stream gages, 9 observation wells, 18 rain gages



SURVEY

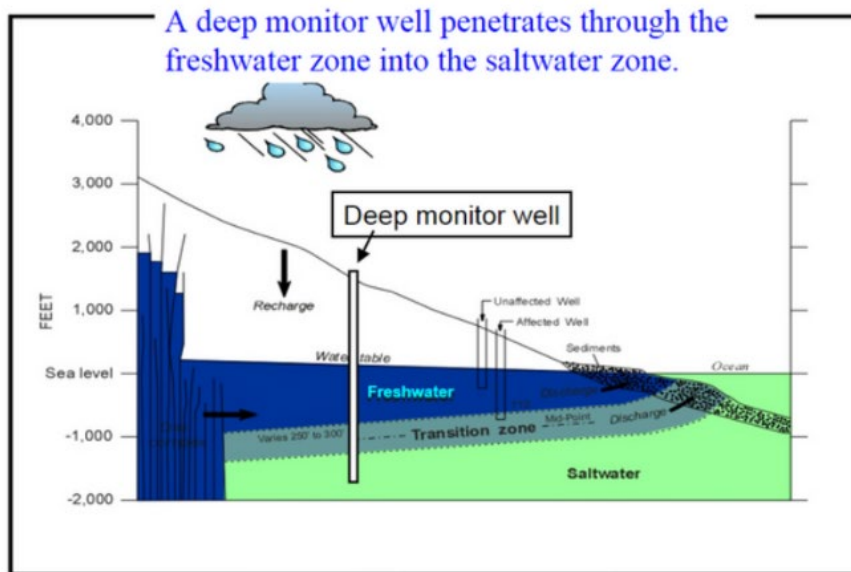


- Ground water hydrologic monitoring
- Deep Monitor Well (“DMW”) Program

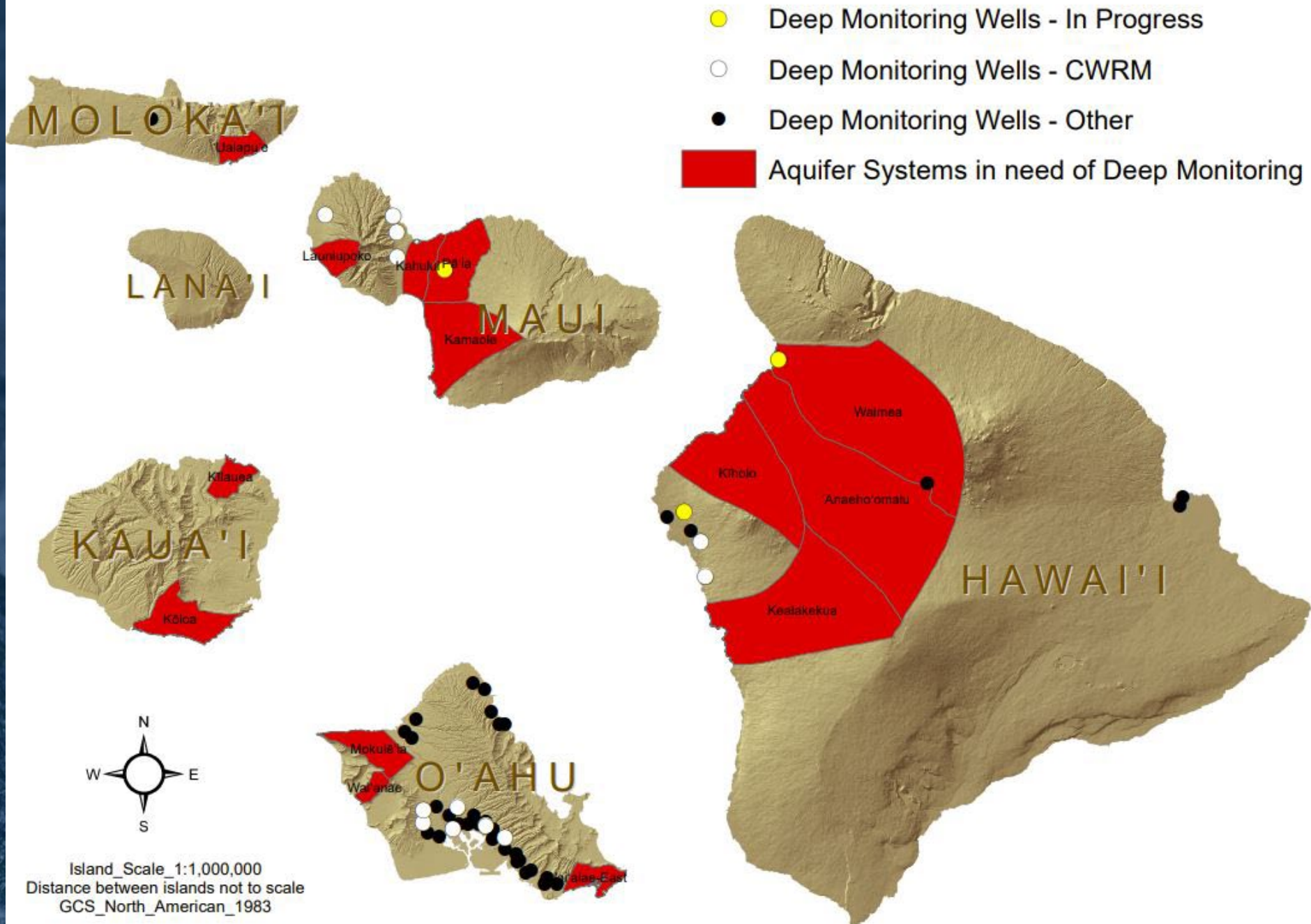
- CWRM currently logs 12 DMWs (6 on O‘ahu, 4 on Maui, and 2 on Hawai‘i Island)

- Ideally, there should be 3 DMWs in each Aquifer System Area (over 300 DMWs)

- Capital Improvement Project (“CIP”) for new DMWs statewide = ~ \$2M/year



Aquifer Systems in need of Deep Monitoring Wells



HYDROLOGIC MONITORING - WATER RESOURCE REPORTING

“If you can’t measure it, you can’t manage it”

- HAR 13-168-7 requires all sources to report (monthly)
- Reporting compliance is improving, but still lacking especially for surface water
- Reporting focused on large users and users in water management areas – but we need ALL data!
- Future enforcement of reporting and water resource violations



WATER LAW IN HAWAI‘I



WATER LAW IN HAWAI‘I

Hawaii Constitution



**State Water Code
HRS Chapter 174C**



**Admin Rules
HAR Chapters 13-167 to 13-171**

Court decisions interpreting these laws

- **Waiāhole I**, 94 Hawai‘i 97 (2000)
- **Wai‘ola**, 103 Hawai'i 401 (2004)
- **Kukui**, 116 Hawai‘i 481 (2007)
- **Nā Wai ‘Ehā**, 128 Hawai‘i 228 (2012)
- **Kaua‘i Springs**, 133 Hawai‘i 141 (2014)*
- **Lāna‘ians for Sustainable Growth**, 146 Hawai‘i 496 (2020)*
- **Nā Wai ‘Ehā II** (June 20, 2024)

(Water lease provisions in HRS section 171-58)

HAWAI‘I CONSTITUTION, ARTICLE XI

SECTION 1

*“All public natural resources are held in trust by the State **for the benefit of the people.**”*



SECTION 7

*“The State has an obligation to **protect, control and regulate the use of Hawaii’s water resources** for the benefit of its people.*

*The legislature shall provide for **a water resources agency** which...shall set overall water conservation, quality and use policies; define beneficial and reasonable uses; protect ground and surface water resources, watershed and natural stream environments; establish criteria for water use priorities while assuring appurtenant rights and existing riparian uses and establish procedures **for regulating all of Hawaii’s water resources.**”*

PUBLIC TRUST DOCTRINE

- Hawai‘i Supreme Court in Waiāhole I: “article XI, section 1 and article XI, section 7 adopt the **public trust doctrine as a fundamental principle** of constitutional law in Hawai‘i”
- Imposes a “**dual mandate** of
 - (1) protection
 - (2) maximum reasonable & beneficial use”
- Establishes an “**affirmative duty** to take the public trust into account in **planning and allocation of water resources**, and to **protect public trust uses** whenever feasible”





PUBLIC TRUST PURPOSES

1. Environmental protection (“maintenance of water in its natural state”)
2. Exercise of traditional and customary Native Hawaiian rights
3. Domestic water use
4. DHHL reservations

There are no “*absolute priorities*” between uses under the public trust.



REASONABLE-BENEFICIAL USE

HRS Section 174C-3

The Code defines a use as “*reasonable-beneficial*” if it is “*in such a **quantity** as is necessary for economic and efficient utilization, for a **purpose**, and in a manner which is both reasonable and **consistent with the state and county land use plans and the public interest.***”

Hawai‘i Supreme Court

Interprets the Code together with the public trust and puts burden on applicant, at minimum, to prove:

- “*actual water needs*”
- “*within the constraints of available knowledge, the **propriety of draining water from public** streams to satisfy those needs.*”
- “***social and economic utility** of their proposed uses, permit applicants must also demonstrate the **absence of practicable mitigating measures**, including the use of **alternative water sources.***”



PUBLIC TRUST - BALANCING

- The public trust dictates that “*any **balancing** between public and private purposes must begin with a **presumption in favor of public use, access, and enjoyment**” and “*establishes use consistent with trust purposes as the norm or ‘default’ condition.*”*
- The public trust also prescribes a “***higher level of scrutiny***” for private **commercial uses**, with the burden on the state and private commercial users.



FUNDAMENTAL PRINCIPLES OF WATER RESOURCE TRUST

Nā Wai 'Ehā II (2024)

- “As a first principle, the authority of the State and its political subdivisions *“precludes any grant or assertion of vested rights to use water to the detriment of public trust purposes”* and *“empowers the state to reexamine any prior use.”* Under this first principle, **no person or entity has automatic vested rights to water.**”
- *““The **public trust doctrine** at all times forms the **outer boundaries** of permissible government action.”* Therefore, *“mere compliance by agencies with their legislative authority”* may not be sufficient to determine if competing uses are **properly balanced in the context of uses protected by the public trust and its foundational principles.**”



PRECAUTIONARY PRINCIPLE

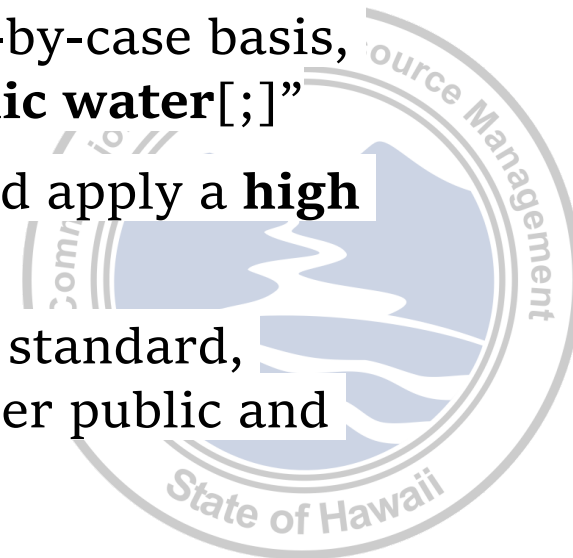
- The precautionary principle holds that *“lack of full scientific certainty should not be a basis for postponing effective measures to prevent environmental degradation.”*
- Commission as a trustee has a **duty to take anticipatory action to prevent harm to public resources.** *“[A]t minimum, the absence of firm scientific proof should not tie the Commission’s hands in adopting reasonable measures designed to further the public interest.”*
- Hawai‘i Supreme Court rejected the requirement of scientific certainty before acting to protect public trust purposes, noting that to do so will often allow for only reactive, not preventive regulation.



KAUA'I SPRINGS – DECISIONMAKER PRINCIPLES

The Hawai'i Supreme Court highlighted six principles that decisionmakers must apply to fulfill their mandates under the public trust:

- (1) “The agency’s duty and authority is to **maintain the purity and flow of our waters for future generations** and to assure that the waters of our land are put to reasonable and beneficial use[;]”
- (2) Decisionmakers “must determine whether the proposed use is consistent with the trust purposes[;]”
- (3) Decisionmakers need to “apply a **presumption in favor of public use**, access, enjoyment, and resource protection[;]”
- (4) Decisionmakers must “evaluate each proposal for use on a case-by-case basis, recognizing that there can be **no vested rights in the use of public water**[;]”
- (5) “If the requested use is private or commercial, the agency should apply a **high level of scrutiny**[;]” and
- (6) Decisionmakers must apply “a ‘**reasonable and beneficial use**’ standard, which requires examination of the proposed use in relation to other public and private uses.”



KAUA'I SPRINGS – APPLICANT'S BURDEN

The Court also outlined four affirmative showings that applicants must make to carry their burdens under the public trust:

- (1) “their **actual needs** and the propriety of draining water from public streams to satisfy those needs[;]”
- (2) the absence of **practicable alternatives**, including alternate sources of water or making the proposed use more efficient;
- (3) “**no harm in fact**” to public trust purposes “or that the requested use is nevertheless **reasonable and beneficial**[;]” and
- (4) “if the impact is found to be reasonable and beneficial, the applicant must implement reasonable measures to **mitigate the cumulative impact of existing and proposed diversions** on trust purposes, if the proposed use is to be approved.”

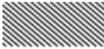
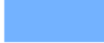


WATER MANAGEMENT AND PERMITTING



CWRM JURISDICTION

DESIGNATED WATER MANAGEMENT AREAS

 Surface Water Management Area
 Ground Water Management Area



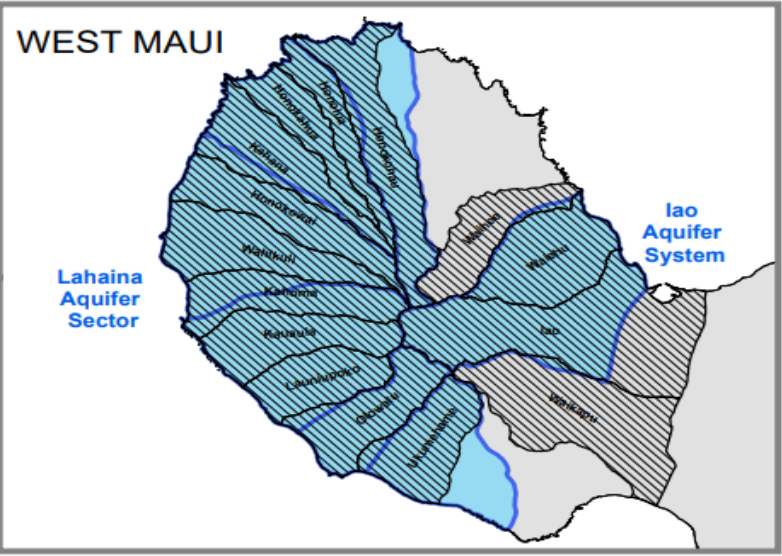
ISLAND OF OAHU
Ground Water
 Central Sector
 Honolulu Sector
 North Sector
 Pearl Harbor Sector
 Windward Sector



ISLAND OF MOLOKAI
Ground Water
 Central Sector
 Northeast Sector
 Southeast Sector
 West Sector



ISLAND OF MAUI
Ground Water
 Lahaina Sector
 Iao System
Surface Water
 Honokohau
 Honolua
 Honokahua
 Kahana
 Honokowai
 Wahikuli
 Kahoma
 Kauaula
 Launiupoko
 Olowalu
 Ukumehame
 Waihee
 Waiehu
 Iao
 Waikapu



STATE OF HAWAII
 Department of Land and Natural Resources
 Commission on Water Resource Management

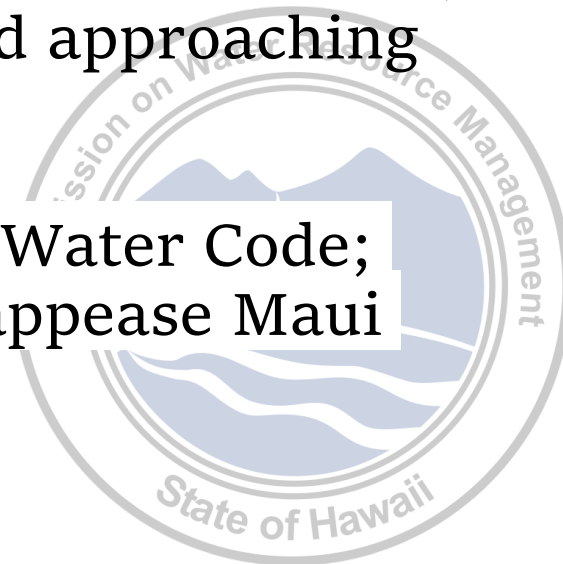
Map Projection: NAD_1983_UTM_Zone_4N Date: 5/17/2023



Regulates **all waters** of the State (excluding coastal waters) and **all water users** (including the County water boards/ departments)

WATER MANAGEMENT AREA DESIGNATION

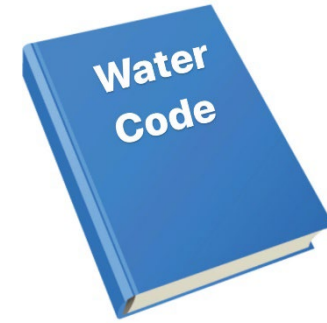
- The State Water Code provides that the Commission **shall** designate an area once a *reasonable determination* is made – based on scientific investigation and research – that water resources in an area are threatened by existing or proposed withdrawals or diversions of water.
- 3 criteria for surface water designation and 6 criteria for ground water designation, i.e. diminishing water levels, serious conflicts, saltwater intrusion, water quality degradation, and approaching 90% of the sustainable yield.
- Water management area designation predates the Water Code; phase-in approach was a political compromise to appease Maui County and enable passage of the Water Code.



REGULATION OF WATER USE



HRS Chapter 174C



- Applies to the remaining areas that are not State lands or water management areas
- No use permit/lease required, but permits for the construction of wells and stream diversion works
- Stream diversions are subject to IIFS
- Applies only in designated water management areas
- Consumptive “user” has to apply for a water use permit under HRS § 174C-48
- Approving agency: CWRM

*Any water use generated on State lands requires a water lease under HRS §171-58 (c), approving agency: BLNR




CWRM PERMITTING - STATEWIDE

- Well Construction and Pump Installation Permit (“WCPIP”)
 - Ground water only (HRS § 174C-84)
- Stream Diversion Works Permit (“SDWP”)
 - Surface water only (HRS § 174C-93)
- Stream Channel Alteration Permit (“SCAP”)
 - Surface water only (HRS § 174C-71)



WATER USE PERMITS

- HRS §§ 174C-48 to -59 apply to water use permits (WUP) for ground and surface water
- After designation existing water users have 1 year to file a WUP to continue their existing use
- WUP have no term limit, but a 4-year partial or total non-use can lead to revocation
- WUP are reviewed at least every 20 years
- New WUP may also require WCPIP and/or SDWP



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

APPLICATION FOR GROUND WATER USE PERMIT

FORM GWUPA

For Official Use Only:

New Use
 Modification of WUP No. _____
 Existing Use

For detailed instructions on filling out this application form completely, refer to the attached instructions. Incomplete applications will not be accepted for processing.

APPLICANT INFORMATION

1. APPLICANT INFORMATION			2. SOURCE LANDOWNER INFORMATION		
Name/Company	Contact Person		Name/Company	Contact Person	
Mailing Address			Mailing Address		
Phone	Fax	E-mail	Phone	Fax	E-mail

SOURCE INFORMATION

3. ISLAND

4. AQUIFER SYSTEM AREA	4A. SUSTAINABLE YIELD FOR ITEM 4 MGD
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5. SOURCE INFORMATION
Attach additional sheets, if necessary.

Well Number (if known)	Well Name	Existing or Proposed?	TMK	Flowmeter installed?
			zone - sector - plat : parcel	<input type="checkbox"/> Yes, date installed ___ / ___ / ___ <input type="checkbox"/> No
			zone - sector - plat : parcel	<input type="checkbox"/> Yes, date installed ___ / ___ / ___ <input type="checkbox"/> No
			zone - sector - plat : parcel	<input type="checkbox"/> Yes, date installed ___ / ___ / ___ <input type="checkbox"/> No
			zone - sector - plat : parcel	<input type="checkbox"/> Yes, date installed ___ / ___ / ___ <input type="checkbox"/> No
			zone - sector - plat : parcel	<input type="checkbox"/> Yes, date installed ___ / ___ / ___ <input type="checkbox"/> No
			zone - sector - plat : parcel	<input type="checkbox"/> Yes, date installed ___ / ___ / ___ <input type="checkbox"/> No

USE INFORMATION

6. TOTAL QUANTITY OF WATER REQUESTED: In the space below, enter total from Box M in Item 11 (Table 1) of this application.
gallons per day, averaged over 1 year

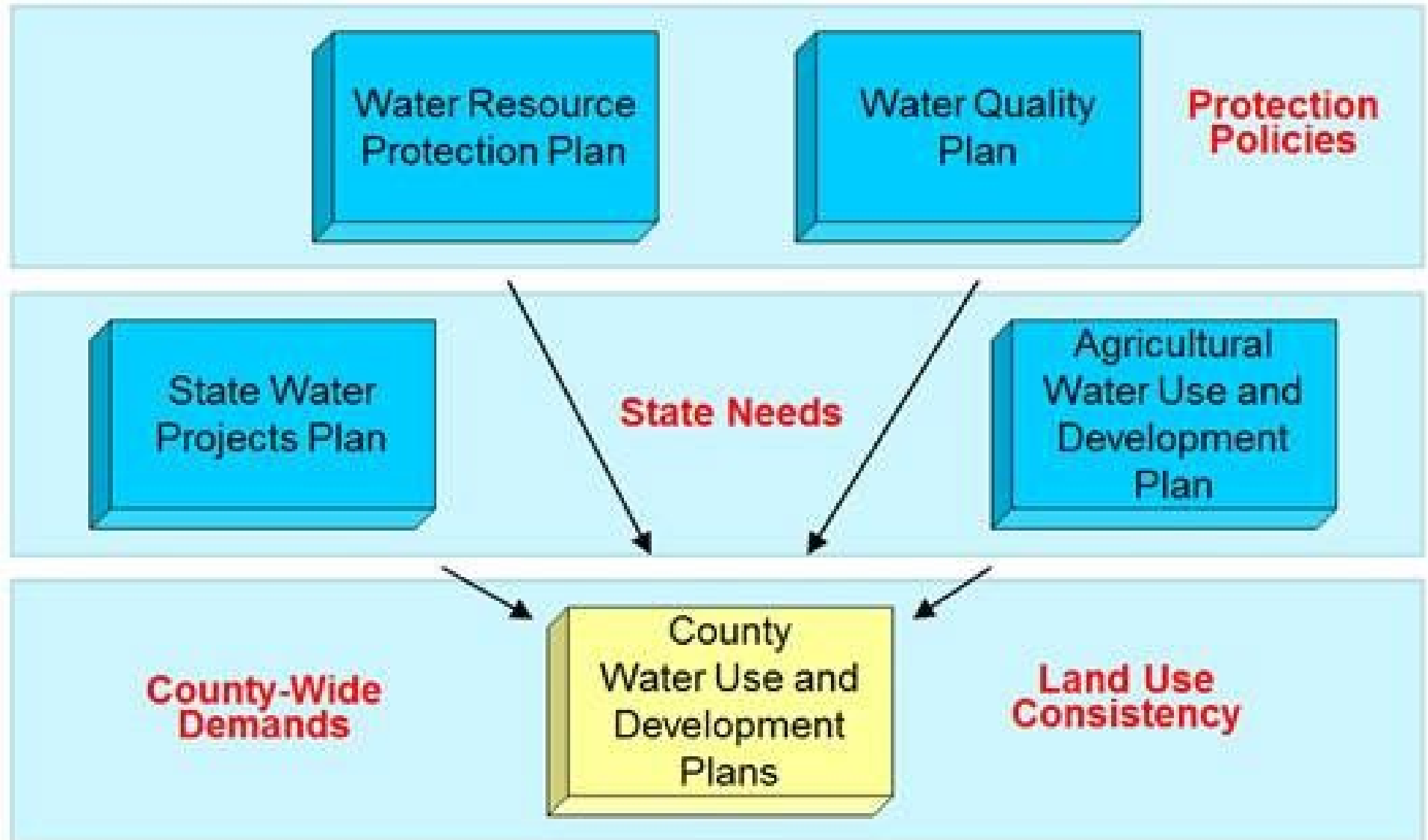
7. USE: Agriculture Domestic Industrial
Check all that apply. Irrigation Military Municipal

8. LOCATION OF WATER USE: Show the location of the use on a map, attached as a .pdf to this application.
See Item 11 (Table 1, column B) of this application.

THE HAWAI'I WATER PLAN

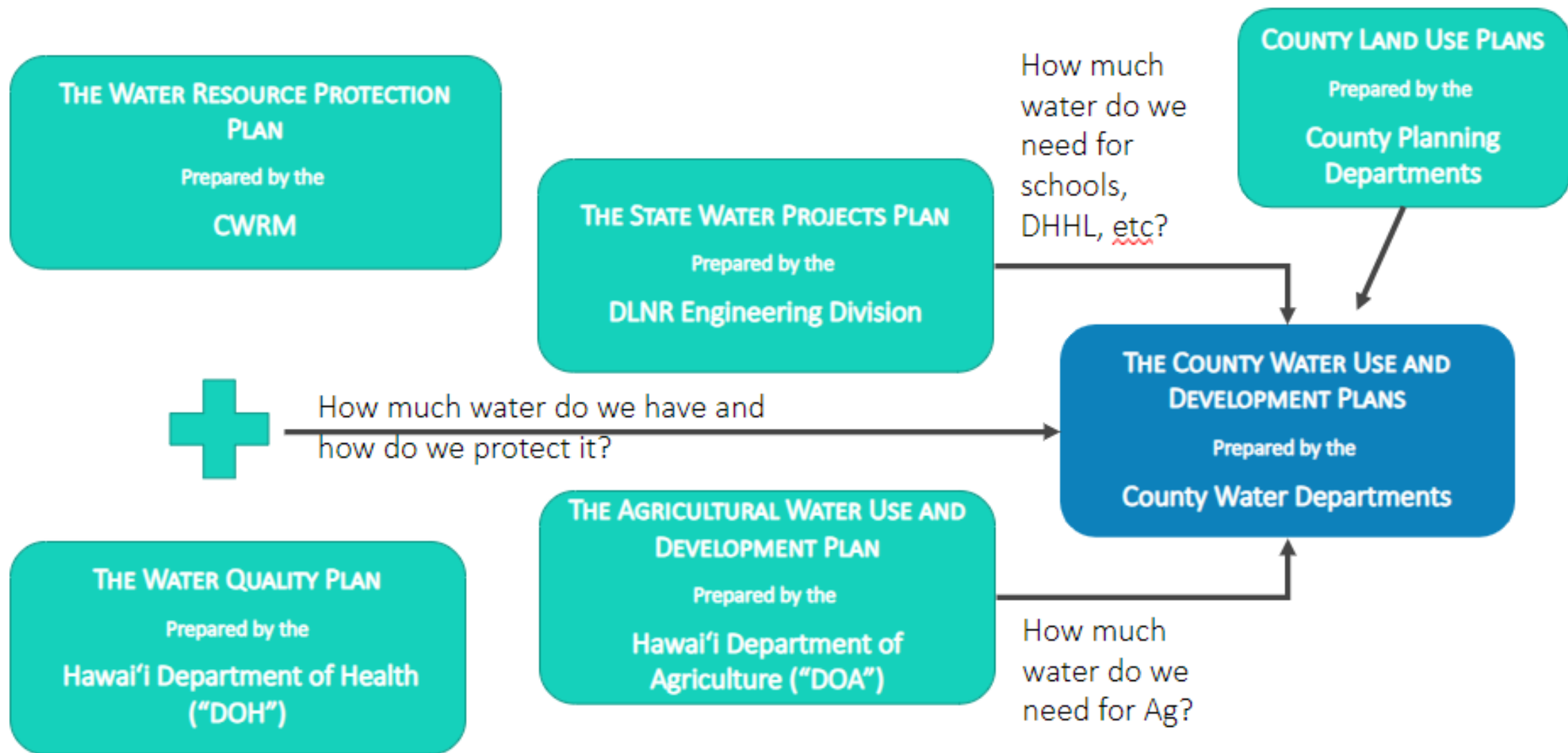


The Hawai'i Water Plan



PLANNING: THE HAWAI'I WATER PLAN

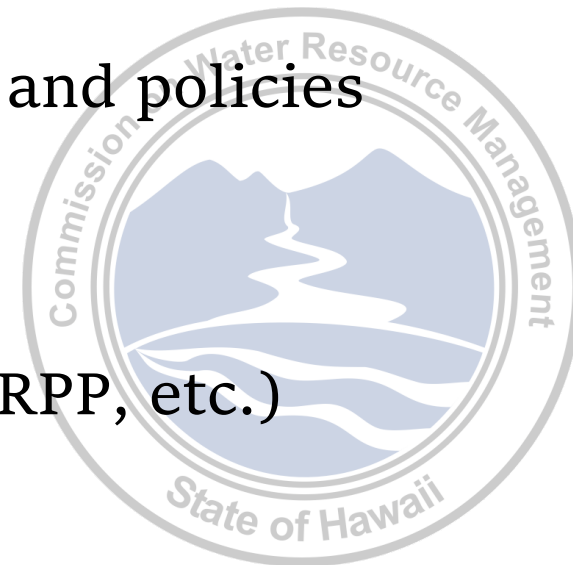
Plan for water needs based on county land use plans



The HWP and Land Use Planning

All county WUDPs shall:

- Identify existing and future land uses and related water needs
- Be consistent with the respective county land use plans and policies including general plan and zoning as determined by each respective county
- Be consistent with the state land use classification and policies
- Consider a twenty-year projection period
- Be consistent with other HWP components (i.e.: WRPP, etc.)



Decisions by the LUC should consider...

- Changes in water availability
 - Climate change
 - The end of sugar
 - Invasive species
 - Updates to Sustainable Yield
 - Establishment of IIFS
- Newly designated water management areas
- Water infrastructure requirements
- Prioritization of public trust uses of water



CWRM AND LUC ENGAGEMENT



Opportunities for Improvement

- Improved coordination between land and water planning
- “Consultation” with CWRM through OPSD
- CWRM attendance at LUC meetings (virtual)
- Encourage counties to include LUC as part of their outreach when updating WUDPs
- HAR amendments specific to CWRM consultation
- MOU?



A lush tropical forest scene with a river flowing through it. The river is surrounded by large, dark rocks and dense greenery, including many ferns. The background is misty and hazy, suggesting a deep forest. The word "MAHALO" is written in white, serif capital letters across the center of the image.

MAHALO