

Briefing on the FY24 Congressionally Directed Spending Funds Awarded to CWRM

April 16, 2024

Water Commission Meeting



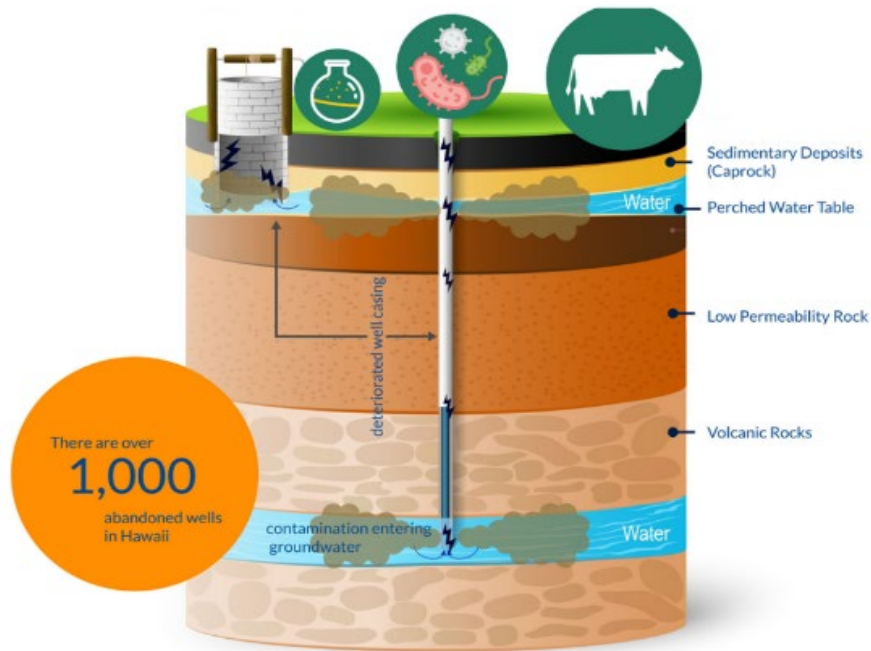
Overview

- What is Congressionally Directed Spending (CDS)?
- Applications submitted in March/April 2023. Notified in March 2024
- Total of \$4.6 million for 4 projects

Sealing Wells That Threaten Drinking Water Supplies

SUMMARY

Unused wells that are not properly sealed and abandoned pose a serious threat to drinking water aquifers. Public safety could be jeopardized as pollutants have a direct conduit to the aquifer via an unmaintained well. There are over 1,000 abandoned wells in Hawai'i, with 19 that threaten the largest drinking water systems.



Project #1: Sealing Abandoned Wells

- \$2.4 million
- Support efforts statewide to protect drinking water aquifers by sealing off derelict wells to prevent external contamination.

Project #2:

Hawai'i Mesonet Network

Hawai'i Mesonet Network

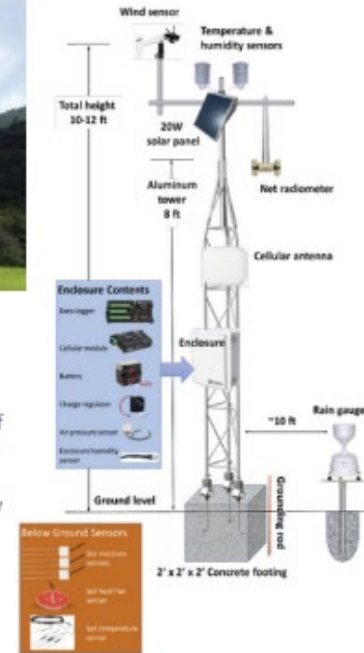


The Hawai'i Mesonet project aims to better understand and forecast the complex weather and climate of the Hawaiian Islands.

SUMMARY

The Hawai'i Mesonet Weather Station Network is a University of Hawai'i (UH) program supported by the National Science Foundation (NSF), the Hawai'i Commission on Water Resource Management (CWRM), and the Honolulu Board of Water Supply (BWS). Each station collects real-time data on weather conditions, including rainfall rates, solar radiation, air temperature, humidity, wind speed, and more.

Hawai'i Mesonet Station Design



- \$350,000
- Improve the state of understanding of Hawai'i's complex hydrologic systems and use sound science to manage and protect water resources into the future.



Water Security Grant Funding

Types of Water Loss

Apparent Losses



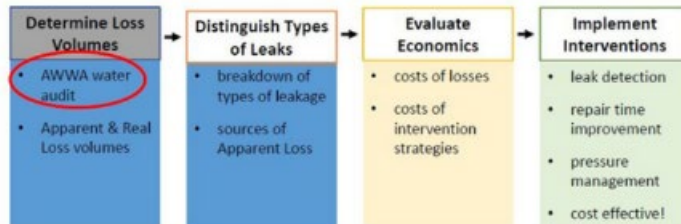
Real Losses



SUMMARY

A water audit is the total accounting of a public water system's water source meter to customer meter. Act 169 requires the Commission to establish a water audit program and to provide technical assistance for affected water utilities. Over 50 water utilities across Hawaii participate in the water audit program. The audit reveals water losses in the system and helps to guide necessary remedial action.

Water Loss Control Program



Statewide Statistics

- 94 systems with Water Audits
- 5,000+ miles of Water Mains
- 28 million gallons per day Real Losses
- 8 million gallons per day Apparent Losses
- \$20 million per year value of Water Losses

Project #3:

Water Security Audit and Repairs

- \$959,757
- Upgrades and improvements to water systems based on the results from CWRM's annual water audit.

Project #4: Deep Monitor Wells (O'ahu)

Deep Monitor Wells, O'ahu

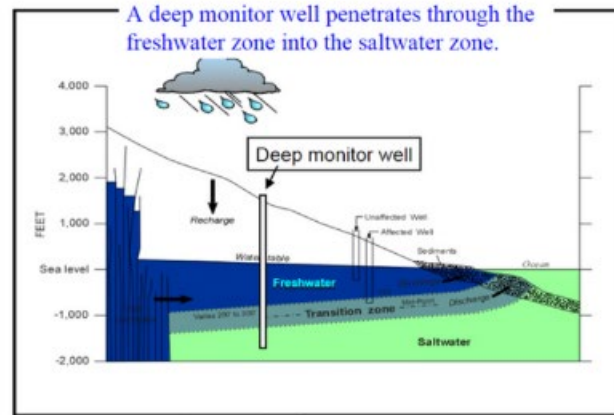


Image 1: Diagram of a Deep Monitor Well (DMW). Image 2: CWRM staff record data from a DMW on Hawai'i Island. Image 3: DMW data ensure drinking water.

SUMMARY

The Commission on Water Resource Management (CWRM) maintains and operates a network of 12 deep monitor wells (DMWs) which provide data on changes in freshwater aquifers over time. This data is essential for observing long-term changes in water availability and planning for future water shortages. Many more DMWs are needed statewide to improve the State's understanding of groundwater conditions and prepare for the impacts of climate change.



EXPECTED BENEFITS

- Monitor health of drinking water aquifers
- Data used to refine current sustainable yield estimates
- Provide assurances of water availability for future developments

- \$959,757
- New DMWs to expand water availability monitoring in Wai'alaie-East and Wai'anae on O'ahu

Next Steps

- “Apply” for funding in 6-12 months
- Secure matching funds (as needed)
- Work with partners to encumber funds and begin projects

Mahalo!

Rep. Ed Case
Rep. Jill Tokuda
Sen. Brian Schatz
Sen. Mazie Hirono

