

An aerial photograph of the island of Molokai, Hawaii. The island is a long, narrow strip of land with a rugged, brownish-green interior. It is surrounded by deep blue ocean water. The sky above is a clear, light blue with a few wispy clouds near the horizon. The sun is visible on the right side of the image, creating a bright glow and casting a long shadow of the island onto the water.

DHHL Molokai Water Use Permit Application Status

**Meeting on the USGS Molokai
Groundwater Model**

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Saturday, June 1, 2019**

DHHL WUPA Status

- 1. Background: The HHC Water Policy Plan**
- 2. The DHHL Molokai water system PWS 230**
- 3. Future DHHL Water Demands**
- 4. Current WUPA and Reservations**
- 5. Key WUPA issues to Address**



Background: the HHC Water Policy Plan (WPP)

- Data Gathering & Analysis: (2012)
- Beneficiary issue identification: (2012-2013)
- Draft Water Policy Plan (WPP): (Feb. 19, 2014)
- Beneficiary consultation: (Feb.-May 2014)
- Adoption (July 22, 2014)

WPP Priority Goal 1

Affirmatively communicate with beneficiaries regarding water decisions, performance, and water rights on a regional and annual basis

WPP Priority Goal 2

Aggressively, proactively, consistently, and comprehensively advocate for the kuleana of the beneficiaries, the DHHL, and the HHC to water before all relevant agencies and entities

WPP Priority Goal 3

***Develop and manage a Water Assets
Inventory (WAI)***

Ho`olehua, Molokai

WPP Priority Goal 4

Support watershed protection and restoration on DHHL lands and source areas for DHHL water.

2. The DHHL water system PWS 230

Location: Kualapu'u Aquifer System

Water sources: Kauluwai Well Nos. 1 & 2 to water tanks

Users: 2,400 customers & approximately 581 service connections:

APPROXIMATELY 33% OF ISLAND RESIDENTS

- Homestead users
- Homestead supporting uses
- Non Homestead Domestic uses
- Non-Homestead uses



3. Future DHHL Water Demands

- We determine future water demands by:
 - Reviewing HHC land use designations
 - In the Island and Regional Plans
 - In other actions (e.g. subdivision)
 - Applying water demand rates
 - County and state demand figures
 - DHHL data for our own systems
- Recently calculated in the State Water Projects Plan update



Future DHHL Water Demands (mgd)*

	2016	2021	2026	2031
Potable	0.259	0.662	1.061	1.061
Non-potable <i>(for development)</i>	4.721	5.360	6.091	6.091
Nonpotable	4.721	5.360	6.091	34.985
Total	4.980	6.022	7.153	36.046

* These are 20 year demands, not “foreseeable” demands, which may be higher

4. Current WUPA & Reservations

- **Current WUPA: 0.367 mgd**
- **Other WUPA challenged by Ranch**
- **Current pumping exceeds WUPA**
- **DHHL will be seeking permit for**
 - **Existing pumping**
 - **Future needs**
- **Will use existing reservation**

DHHL's Existing Reservation

**HAR §13-171-63 Department of Hawaiian home lands reservation for Kualapuu, Molokai. The commission hereby reserves 2.905 million gallons per day of ground water from state lands in the Kualapuu aquifer system for use on Hawaiian home lands on Molokai. This amount shall be in excess of the existing uses of water on Hawaiian home lands as of the effective date of this rule.
[Eff. June 10, 1995]**

DHHL's Existing Reservation

	MGD
DHHL Pumping June 1995	.640
DHHL CWRM Reservation	2.905
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TOTAL RESERVATION	3.545

5. WUPA Key Issues to Address

- **Proposed withdrawal (pumping)**
 - **Proposed uses**
 - **“Existing” and “new” uses**
 - **Location and kinds of uses**
- **Alternatives**
- **Impact on other Public Trust Uses of water**

Proposed Amount Sought

- DHHL will request .595 mgd
 - Larger well
 - 16 hrs / day
 - Safe system capacity
- Current 12 MAV is .490 mgd
 - .490 is “existing uses”
 - .105 is “new uses”

DHHL Existing and Proposed Uses

- DHHL will identify
 - HHCA § 221 uses
 - HHCA § 221 uses
 - Uses integral to Homestead communities
 - Private commercial uses of high benefit (e.g. High School)
 - Other private commercial uses

DHHL Alternatives: Efficiency

- Existing planned improvements
 - 1 MW alternative energy source
 - New 200,000 gallon tank
 - Other improvements
 - USDA co-funded project
- Water Loss Audit (forthcoming)

Molokai Irrigation System Alternative

- **Cost to connect**
- **Deferred maintenance in general**
 - **Kualapu'u reservoir**
 - **evaporation losses**
 - **seepage losses**
 - **water quality problems related to sediments, algae, animals and organics**
- **Limited distribution (e.g. Kalama`ula)**

Impacts on other Public Trust Uses

- i. waters in their natural state;**
- ii. domestic water use;**
- iii. the protection of water in the exercise of Native Hawaiian and traditional and customary rights; and**
- iv. DHHL water reservations and uses**

Questions?

