OVERVIEW OF
"Summary of Existing Water Use Permit Applications for Public and Private Water Systems in the Lahaina Surface and Ground Water Management Area, Maui"

OVERVIEW

Staff at the Commission on Water Resource Management (Commission) have prepared a report summarizing existing water use permit applications filed by large water system operators in Lahaina. **The report is a first look at who uses water, where that water is being used, and in what quantities.** These existing water use permit applications have not yet been accepted as "complete" by Commission staff, but the water use permit applications have been made available for public review online at the Commission's website. As a result, the information and figures presented in the report are preliminary. Final decisions about the amount of water that will be permitted for each applicant will be made after a more thorough review and decision-making by the Commission.

BACKGROUND

Lahaina was designated as a surface and ground water management area effective August 6, 2022. To continue using water within the newly designated area, water users in Lahaina had to file applications to get a water use permit for their existing uses. Applications for existing use permits were due on August 7, 2023. **Commission staff received 93 existing use applications for both surface water and groundwater.** Applications include information about both the source of water and the end uses, including metered use and tax map key number. The largest quantity permit applications were from water system operators who serve many users, including households, commercial properties, agriculture, industrial uses, and hotel or resort properties.

HERE'S WHAT WE FOUND

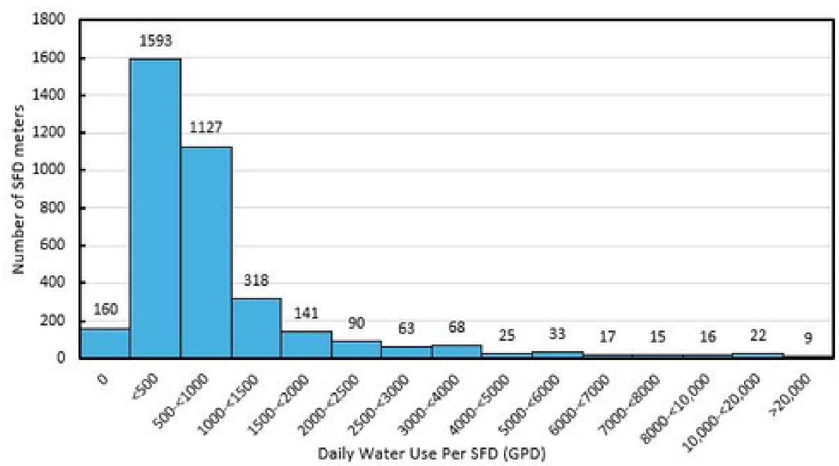
- Most single family dwelling meters use 1,000 gallons of water per day or less

  Most parcels (77.9%) with one or more single family dwelling (SFD) water meters applied for an average of 1,000 gallons of water per meter per day, or less. In fact, out of 3,537 SFD meters, more than half (1,593 meters) use 500 gallons of water per day or less.

  But some use a lot more water: 358 SFD meters used 2,000 gallons of water or more each day.

- Millions of gallons in potential water savings

  Based on the analysis below, if every single family dwelling unit limited its water use to 1,000 gallons per day, Lahaina could save a total of 1,737,945 gallons of water per day on average. And that's just for units with single family dwelling meters.



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- Non-owner occupied homes use a lot of water

  Non-owner-occupied units may be long-term rental units, short-term rentals, or second homes. In some locations, owner-occupied homes use *less* water than non-owner occupied homes. For example:

  - In Kapalua (operated by Hawaii Water Service), owner-occupied homes averaged 781 gallons per day (52 water meters) compared to 2,709 gallons per day in non-owner-occupied homes (207 water meters).
  - In Napili-Honokōwai and Lahaina Town (operated by Maui Dept. of Water Supply (MDWS)), the pattern only applies to non-owner-occupied homes on larger lots and in the historic district.
  - In Lahaina Town (operated by MDWS), of the 1,901 meters, 802 (42%) serve non-owner-occupied homes, agricultural lots, or apartments, consuming 713,704 gallons per day.
  - In Launiupoko (operated by Launiupoko Water Company & Launiupoko Irrigation Company), 219 of the 266 (82%) single-family dwelling meters are for non-owner-occupied homes and use a total of 248,931 gallons per day.
  - In Olowalu (operated by Olowalu Water Company), 39 of the 51 single-family dwelling meters (76%) are for non-owner-occupied homes, consuming a total of 205,558 gallons per day.

- Meter type vs. parcel type

  Water meter and water use do not always match one-to-one. In some resort developments, there are multiple parcels with a variety of buildings and facilities, and a different number of meters. In some developments, multiple homes are built on a single parcel with one or more meters. And in many, but not all, areas of Lahaina, dual lines give parcels access to both potable and non-potable water supplies.

  Further, "meter type" and parcel zoning don't always match. Some meters serve parcels labeled as "road" or "commercial" when they may actually be a home, apartment/condo complex, or neighborhood association common area. Most agriculture-zoned parcels support a single family dwelling, but little to no agricultural production, with the majority of water used for landscape irrigation.

  To keep comparisons as fair as possible, this report provides per unit figures for each parcel where data are available.

Read the full summary report and view existing water use permit applications for major systems here:

https://dlnr.hawaii.gov/cwrm/groundwater/gwma/lahaina/

- Hotel and resort water use is difficult to determine

Comparing "water use per hotel room" in Lahaina isn't straightforward. Hotels sit on different water systems. Some properties can irrigate with non-potable water while others, like those on the County system, only have potable water available for irrigation and other non-potable uses.

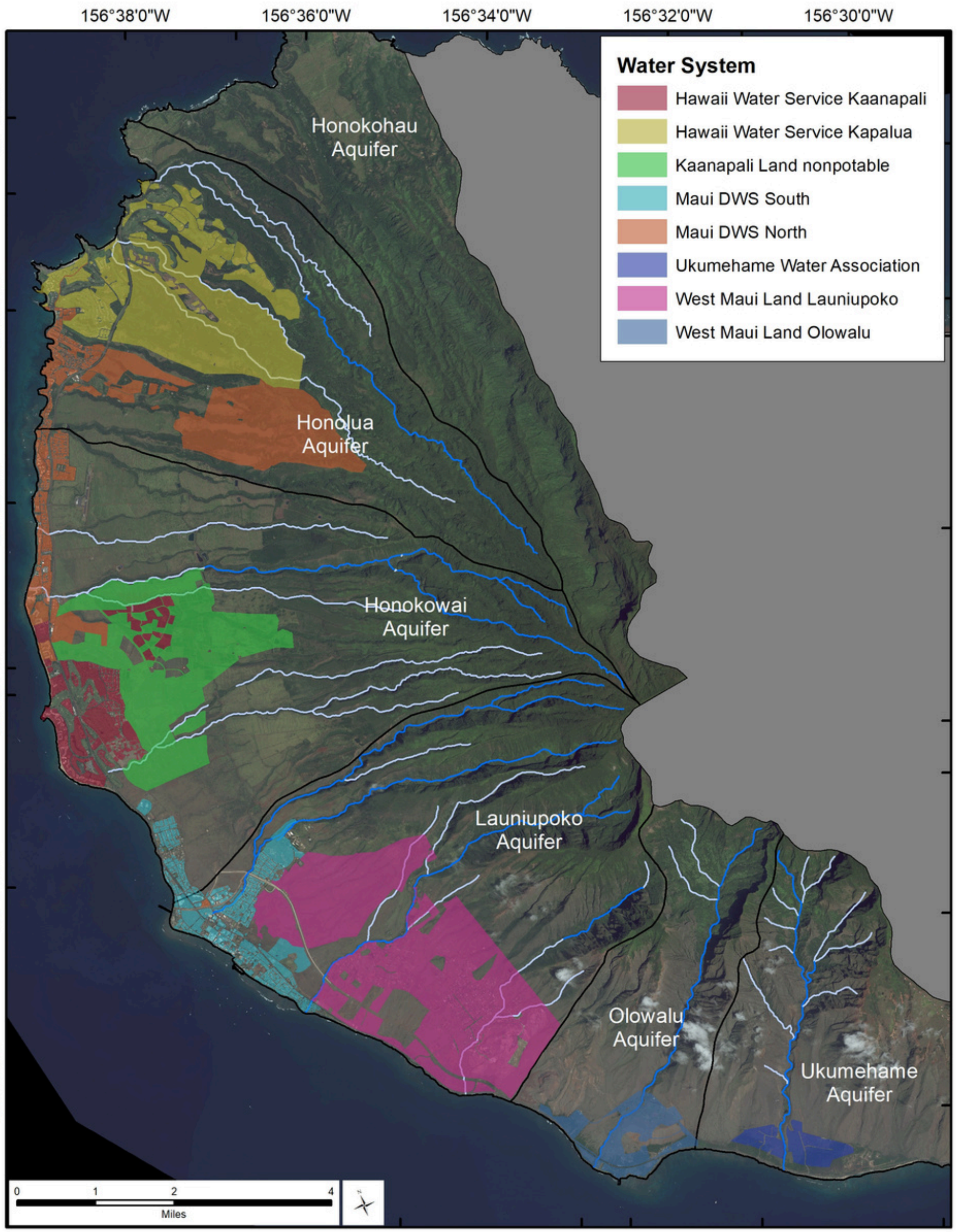
Hotels also differ widely in the extent of their landscaping, pools and water features, restaurants, and other amenities.

Hotel & Resort Potable Water Use by System

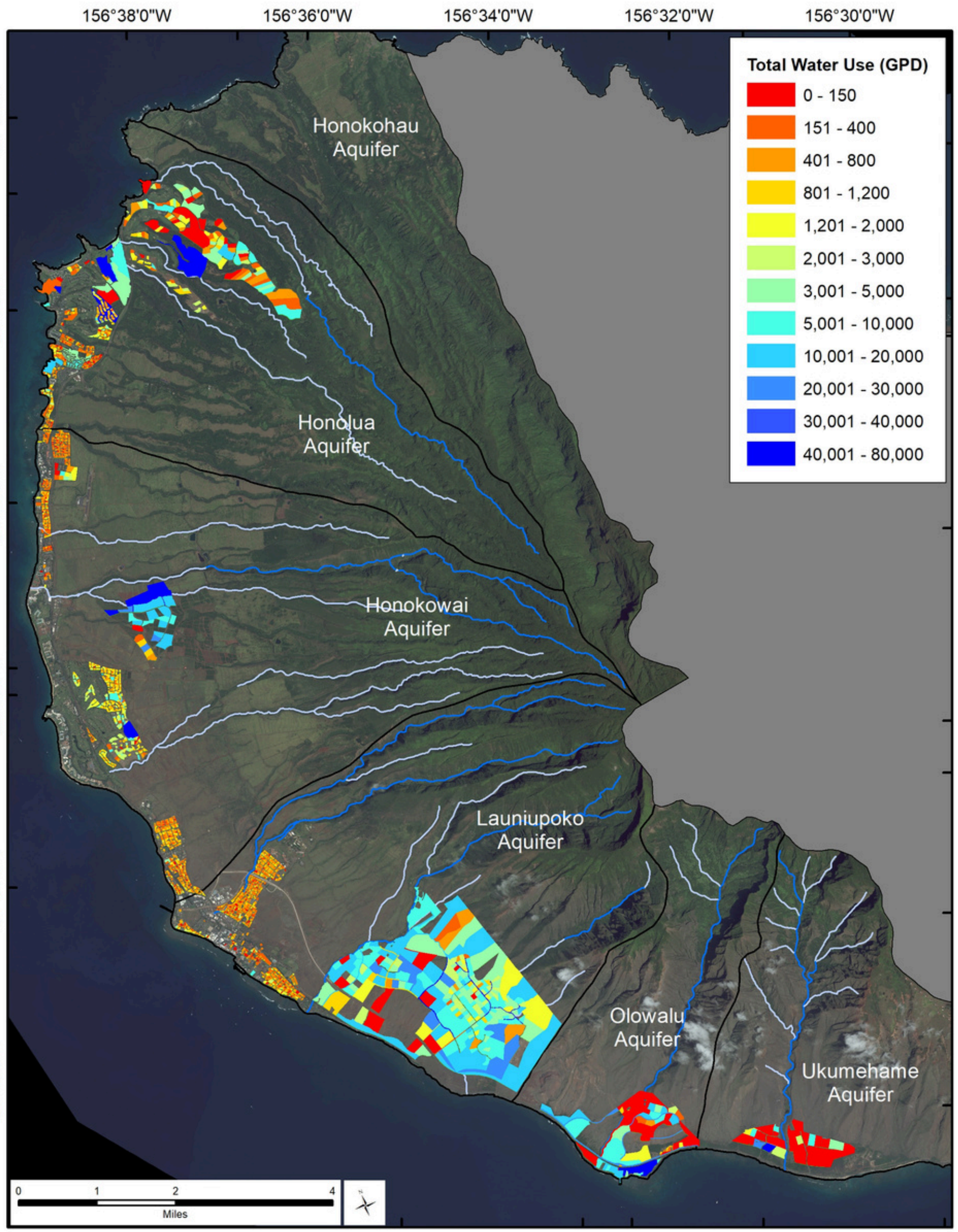
System	Total Water Use (gpd)	Number of Units	Mean per Unit (gpd)	Mean Water Use per Meter (gpd)
Kapalua	75,863	1,135	139	12,644
MDWS North	1,644,778	5,799	6,403	15,815
Kāʻanapali	2,806,096	6,903	3,431	82,532
MDWS South	166,274	447	4,921	27,712

The table above shows potable water use *only* for hotel and resort meters, organized by system. It does not include any non-potable water used for irrigation in areas like Kapalua or Kāʻanapali, where hotels have access to separate non-potable water supply.

Where a hotel does not have a separate non-potable supply, its per-room number looks higher because it is likely also using potable water for landscaping and irrigation, pools and water features, and on-site services like restaurants and laundry.



Public and Private Water System Service Areas



Single Family Dwelling Unit Water Use