DEPARTMENT OF WATER SUPPLY

A BILL FOR AN ORDINANCE AMENDING TITLE 14, ARTICLE 1, MAUI COUNTY CODE, RELATING TO PUBLIC SERVICES, REPEALING CHAPTER 14.06A, AND ESTABLISHING A NEW CHAPTER 14.06B RELATING TO WATER CONSERVATION AND CONTROL OF WATER USE DURING WATER SHORTAGES

Received at 12/17/2025 WAI Committee meeting from Director of Water Supply

Key Points of Ordinance

- The purpose of the Ordinance
- Rationale for the water conservation
- Ordinance provisions
- Maui County water use statistics
- Community engagement and support
- Alignment with legal and policy requirements

The Purpose of the DWS Water Conservation Ordinance

- To protect Maui's scarce and natural water resources
- To set reasonable standards and restrictions
- To safeguard essential public services
- To ensure water sustainability
- To ensure public awareness
- Provide need-based water through conservation

Rationale for the Water Conservation Ordinance

- Drought – less rainfall
- Rising chloride levels at wells
- Decreasing stream flows to treatment facilities
- Urban growth
- Offset capital costs
- Better water conservation guidance for the public
- Consistency with State and County plans
- To define and prevent water waste
- To help find equity in times of shortage

Source: Hawai'I Commission on Water Resource Management

Water Conservation Policy

Water Conservation Policy

- The DWS Water Conservation Policy Statement pursuant to Article XI, Section 1 of the Hawaii State Constitution to include:
  - Protect water in its natural state
  - General public and Hawaiian Homeland water use equity
  - The Precautionary Principle to protect water

Provisions of the Bill for an Ordinance

Planning for consistent information

- The Hawaii Water Conservation Plan
- The Hawaii Drought Plan
- The Climate Change Adaptation Priority Guidelines
- The Water Use and Development Plan
- The Maui County Planting Plan
- The Water Shortage and Conservation Plan
- Water conservation saves water for affordable housing

"Awareness through consistent information and guidance reduces the need for over-regulation and policing."

Physical water loss prevention

- Find and identify non-revenue water loss:
  - Private property owners to repair water leaks
  - Customer water leak notice to repair within 30 days
- Provide information and guidance
  - Investigate and repair private property leaks
  - Central controlled, efficient, irrigation systems
  - Soil moisture sensors
  - Auto shut-off valves to stop leaks and control irrigation
  - Covert lawns to equally pleasant, drought-resistant, landscaping
  - Using electric blowers to clear outdoor debris
  - Replace aging toilets, urinals, and irrigation systems
  - Use pool covers

Agricultural customers and water conservation

- Exercise these best management practices when practical:
  - Efficient irrigation methods
  - Install soil and rain sensors
  - Use drip irrigation
  - Use rain catchment
  - Soil management with amendments
  - Use on-site water reuse
  - Grow sustainable crop varieties

USDA NRCS
United States Department of Agriculture
Natural Resources Conservation Service

Outdoor water use schedules

- Prohibited between 9:00 am and 5:00 pm
- Delay during high winds or heavy rain
- Only three staggered days for landscape irrigation

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Even Residential Address	x		x		x		
Odd Residential Address		x		x		x	
Even Commerical and Multi-Family			x		x		x
Odd Commercial and Multi-Family	x			x		x	

Exceptions:

- Hose watering with auto shut-off nozzle 
- Drip irrigation 
- Agriculture customers
- 100% recycled water
- Newly installed landscapes

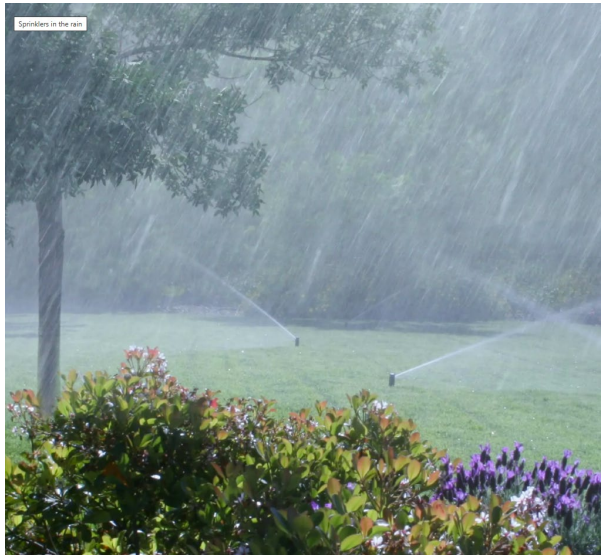
Defining potable “water waste”

- Disregarding best management practices
- Removing yard/driveway debris with potable water
- Irrigating during heavy rain
- Neglecting water leaks and overspray
- Over-watering landscaping
- Constantly exceeding the highest water rate tier

Source: UC Berkeley

Correctable potable “water waste”

- Over and off-target irrigation sprinkler spray
- Watering during the peak sun hours
- Not using drip irrigation for plants and shrubs
- Leaking irrigation system due to poor or irregular maintenance
- Not applying the cycle and soak method (using timer)
- Use soaker hoses for sandy soil to release water slowly
- Watering during rain events
- Replace inefficient fixtures and appliances



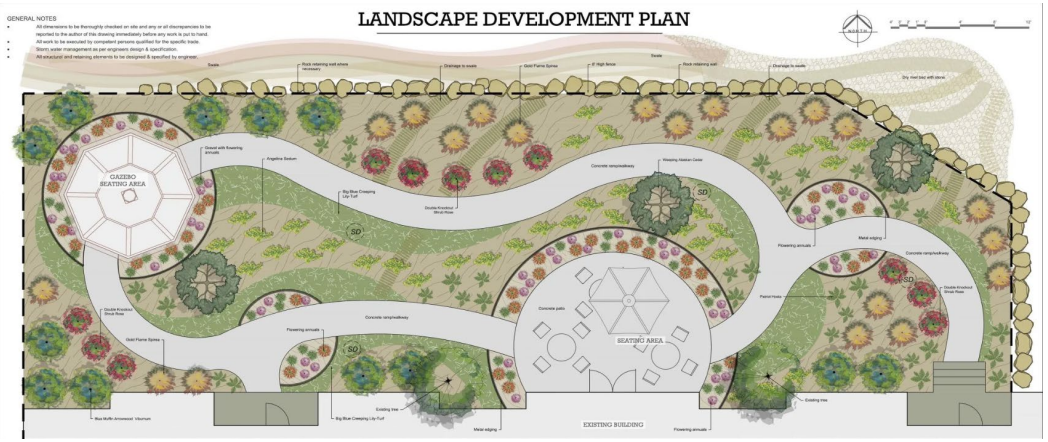
Source: Earth Works

“Over 60% of a typical household’s water is in lawn and garden maintenance.”

Require and encourage landscape planning to save water

- Applies to existing and new commercial, residential, and public properties:
  - Install efficient irrigation systems
  - Design landscapes around water conservation
  - Improve or replace water intensive landscapes
  - Reuse water when possible
  - Encourage pool covers

Source: Maui Lawn and Landscaped, LLC



Commercial establishments

- Train staff to save water
- Water conservation programs for patrons
- Make reasonable operational improvements
- Install water-efficient indoor and outdoor fixtures
- Install and monitor water-efficient irrigation systems
- Install water-efficient HVAC systems

*The DWS is engaging with hotels, resorts and condominium associations to save water.

Violation-penalties

14.06B.160

- Violations to schedules, restrictions, or measures will be delivered in writing by mail, personally delivery, or newspaper of general circulation
- Appeals are possible with the Board of Water Supply under Chapter 14.11, within 30 days
- Fines can be as high as $1,000 per day if the violation is not corrected
- The Director may consider hardship waivers

14.06B.170

- Fines can be as high as $1,000 per day if the violation is not corrected
- The Director will provide a report to the council on all actions taken by the department regarding shortages and restrictions

Administrative enforcement

19.530.030

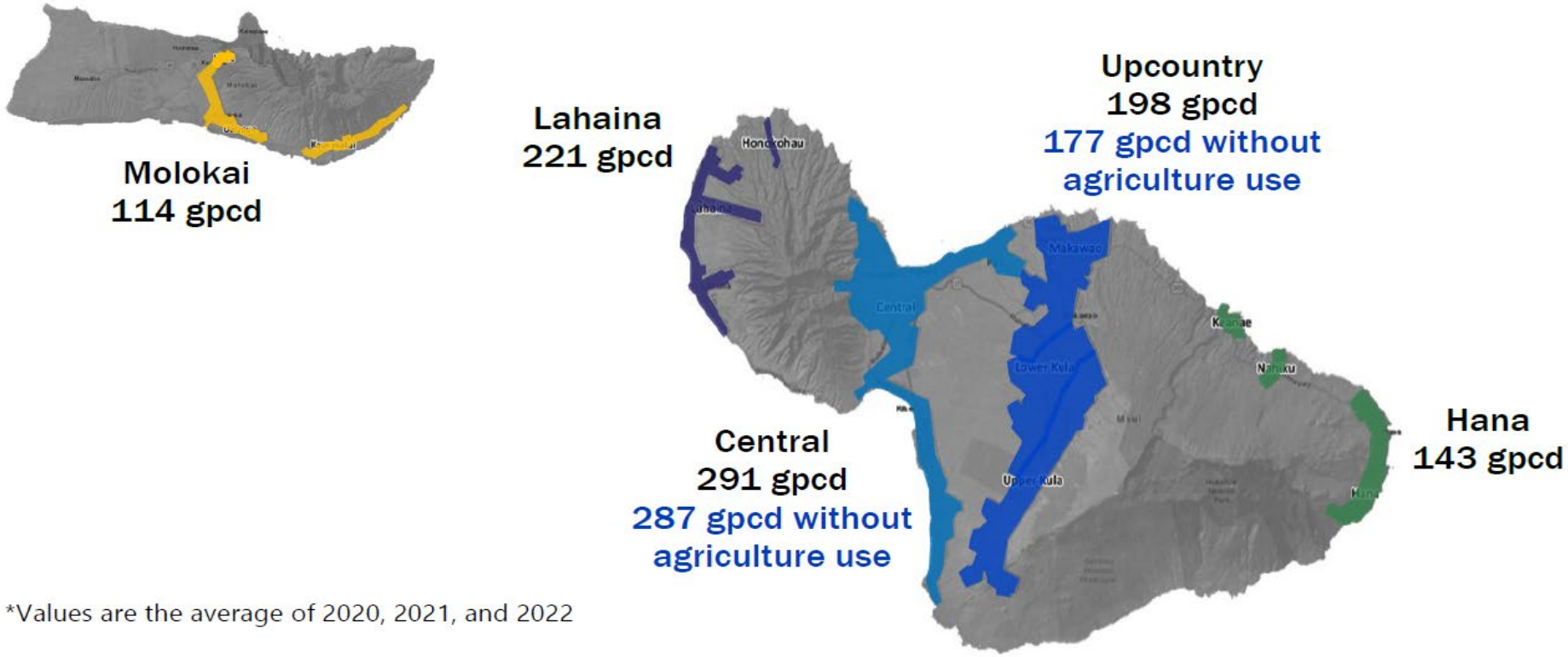
- Title 14, Administrative Rules, of the Maui County Code applies:
  - Regulations adopted by County departments to implement and enforce County laws
  - Allows for the department to create enforceable water conservation rules without having to amend the County Code each time a technical update is needed

Water use statistics,

DWS conservation goals,

and initiatives

Water use statistics



*Values are the average of 2020, 2021, and 2022

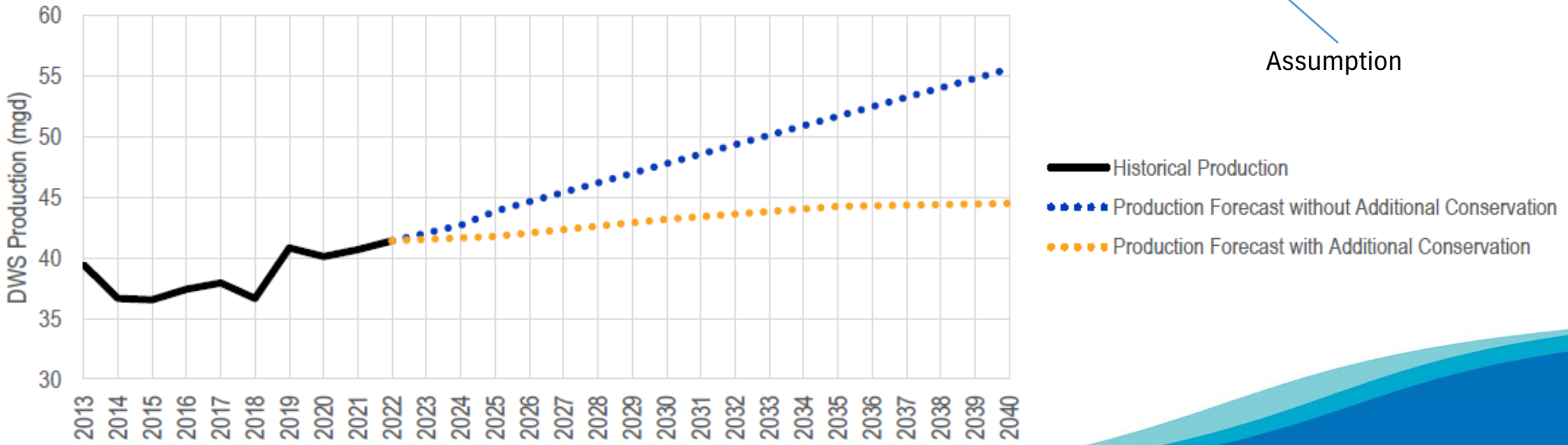
Figure ES.2 Average Water Production in Gallons per Capita per Day by System

Legend
*gpcd: gallons per capita per day

Conservation Goals 2022-2040

	Lahaina	Upcountry	Central	Hana	Molokai	DWS Total
2022 (representative 3-year average)						
Resident Population Served	24,800	37,800	93,900	2,750	7,550	166,800
Water Production (mgd)	5.4	7.5	27.3	0.39	0.86	41.45
Water Production (gpcd)	221	198	291	143	114	249
2040						
Resident Population Served – High Growth	39,300	42,200	128,200	3,500	9,220	222,420
Water Production without Conservation (mgd)	8.7	8.3	37.1	0.50	1.05	55.65
Water Production with Conservation (mgd)	6.9	6.7	29.5	0.46	0.96	44.52
Water Production without Conservation (gpcd)	221	196	290	143	114	250
Water Production with Conservation (gpcd)	175	159	230	130	104	200
Conservation Goal (mgd)	1.8	1.6	7.6	0.04	0.09	11.13

Assumption



The DWS helps and encourages customers save water

- Toilet Replacement Program (*restarting)
- High efficiency fixture giveaways (*ongoing)
- Rain Barrel Program (*restarting)
- Water conservation advertising
- Conservation information online: Waterresources.mauicounty.gov
- Public outreach events
- Annual Water Conservation School Poster and Video Contests
- Engaging hotels, resorts, and condominium associations

DWS infrastructure water conservation initiatives

- Annual Department Water Audit
- Leak detection (distribution system)
- Installation, deployment, and calibrating smart meters
- Greywater and R-1 (recycled water) pilot programs
- Increasing supply-side efficiency
- Replacing older, under-registering, water meters

Thank you

Sources of Information

WaterSENSE Your irrigation system may be wasting water and money

NRCS EQUIP WaterSMART Initiative (WSI): https://www.nrcs.usda.gov/programs-initiatives/watersmart -- May have to request NRCS for Hawaii

Hawaii Landscape: https://hawaiiscape.com/images/downloads/Magazine/hawaiilandscapemayjune2023.pdf

Places to see Native Plants in Maui: https://www.mauicounty.gov/855/Places-to-See-Native-Plants

Native Plants of Hawaii: https://dlnr.hawaii.gov/forestry/plants/

Island Landscape: https://hawaiilandscapingservices.com/water-conservation/

Maui County's Landscape and Gardening Handbook: https://waterresources.mauicounty.gov/DocumentCenter/View/682/County-of-Maui-Landscape-and-Gardening-Handbook-PDF

University of Hawaii Sea Grant- Xeriscaping: https://seagrant.soest.hawaii.edu/xeriscaping/

U.S. Environmental Protection Agency Cycle and Soak: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.epa.gov/system/files/documents/2022-03/ws-outdoor-cycle-and-soak-brochure.pdf

Case Studies:

https://www.kqed.org/news/144037/uc-berkeley-takes-steps-to-curb-irrigation-run-off-and-water-use