



*West Maui Community Plan Advisory Committee  
Ready and Resilient Systems*

August 20, 2019

Maui County Department of Water Supply

OLA NĀ MEA A PAU I KA WAI  
*By Water All Things Find Life*

# Presentation Outline

- Water resources and constraints
- Water systems and infrastructure resiliency
- Land use policies to support resilient systems

# Groundwater Resources and Constraints

Groundwater withdrawals 6 mgd = 18% of sustainable yield

Use of brackish groundwater at lower elevations likely underreported

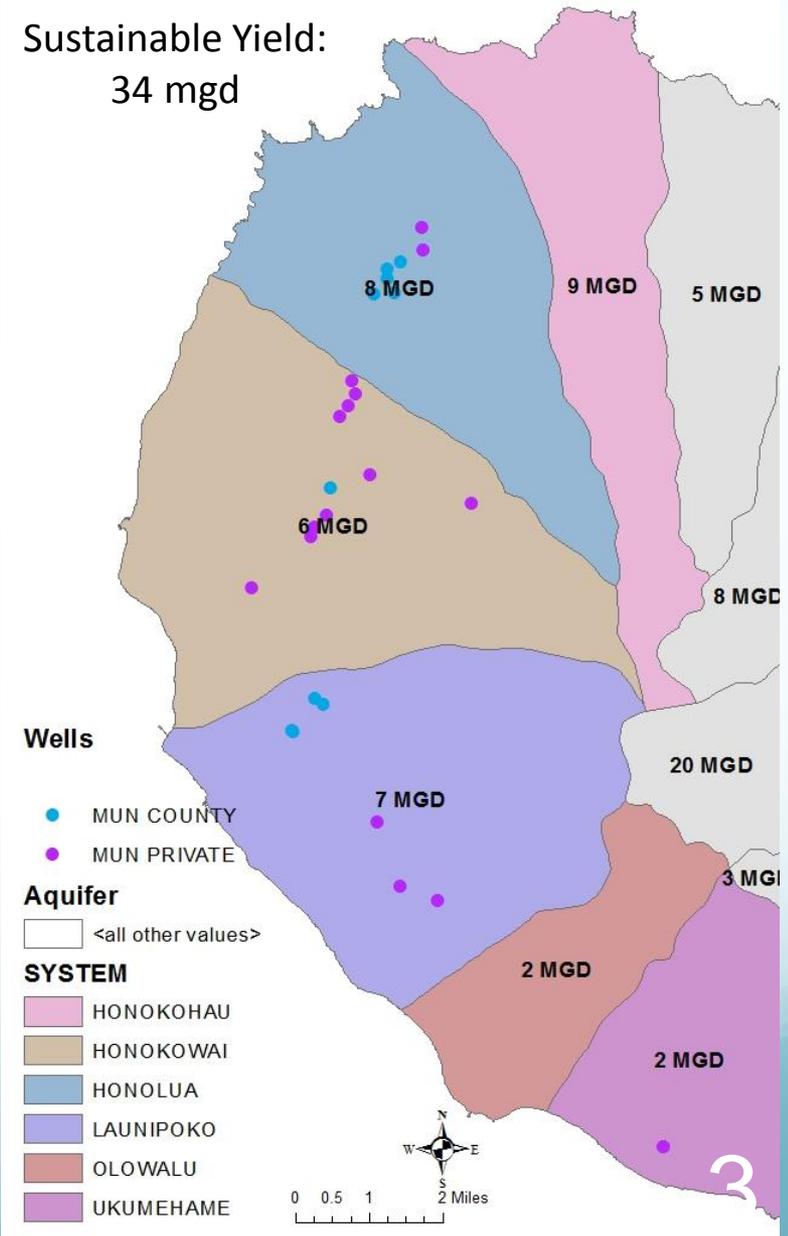
Recharge decrease:

- Low rainfall/droughts
- Decreased irrigation

Recharge increase:

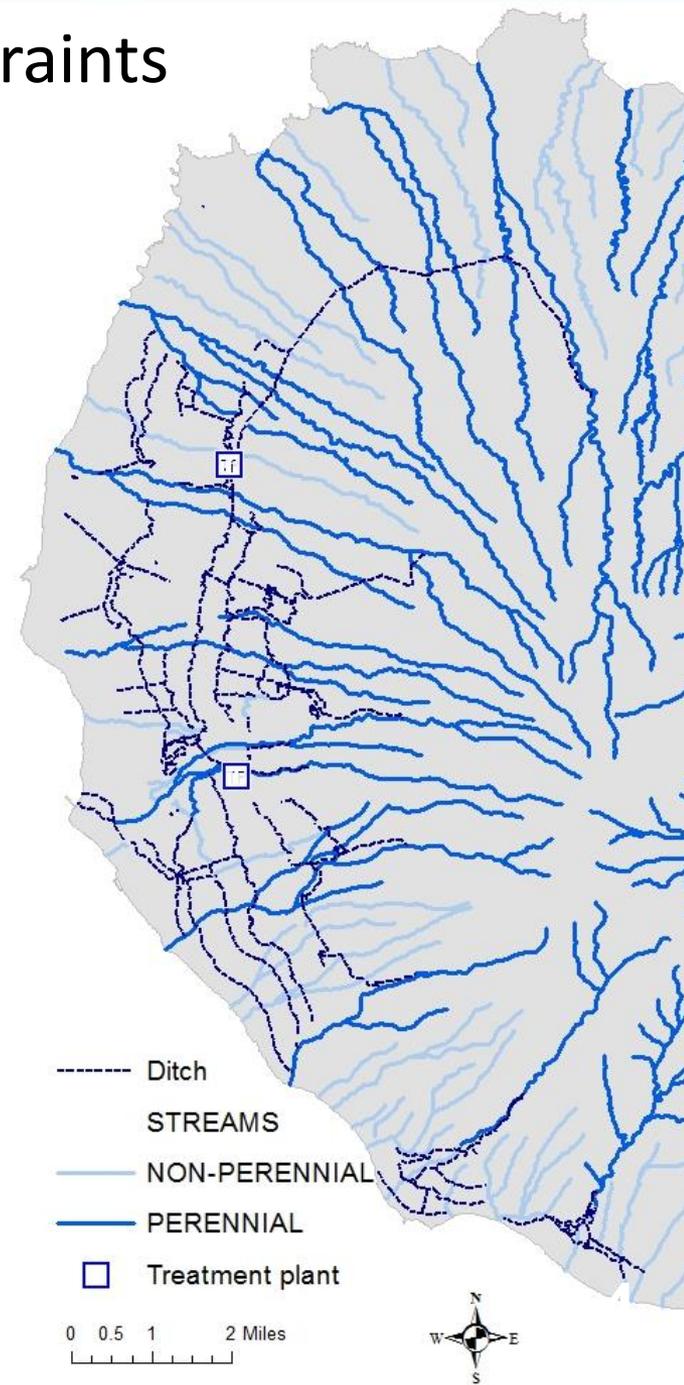
- Intact forested watershed and persistent cloud cover
- Wastewater injection wells
- Stream restoration along losing reaches of streams

Climate change impacts: reduced rainfall, decreased groundwater recharge, increase coastal water salinity



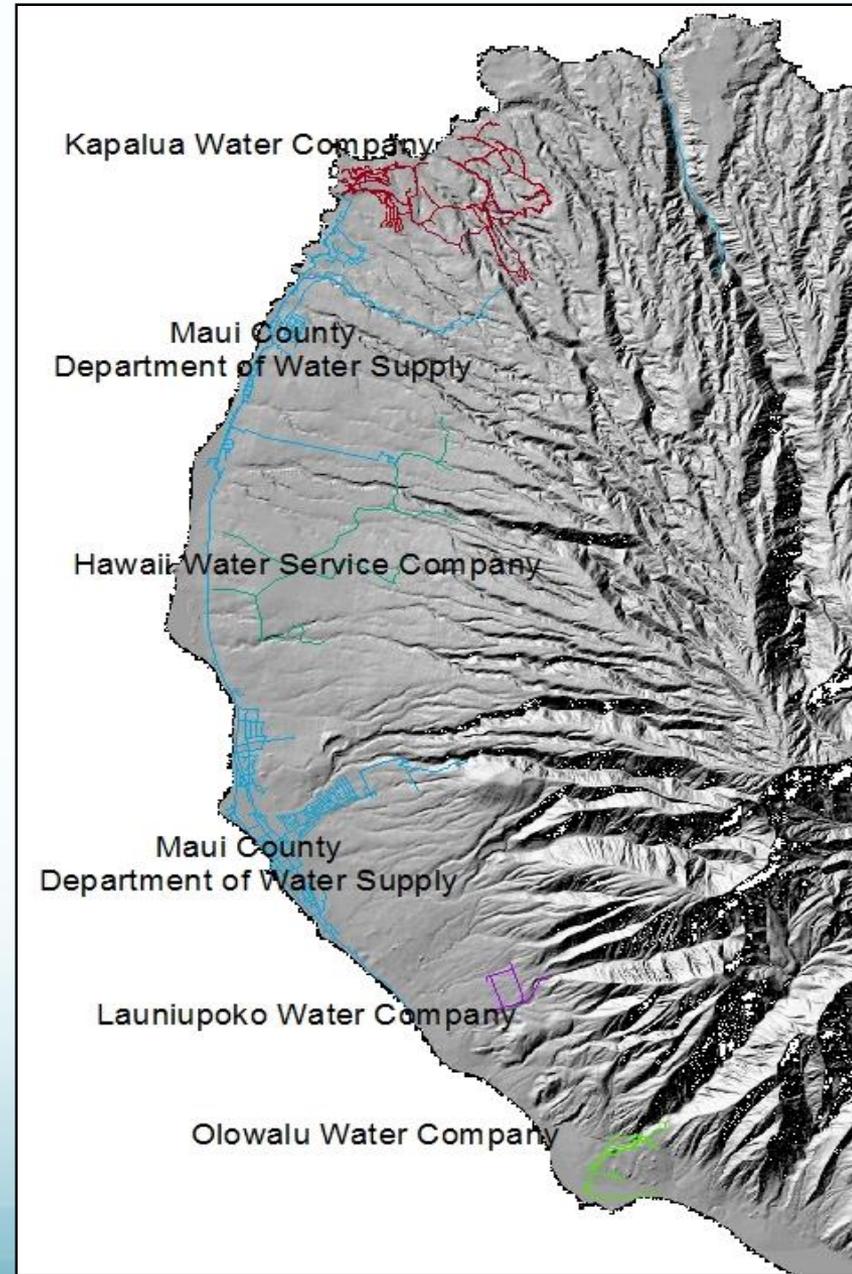
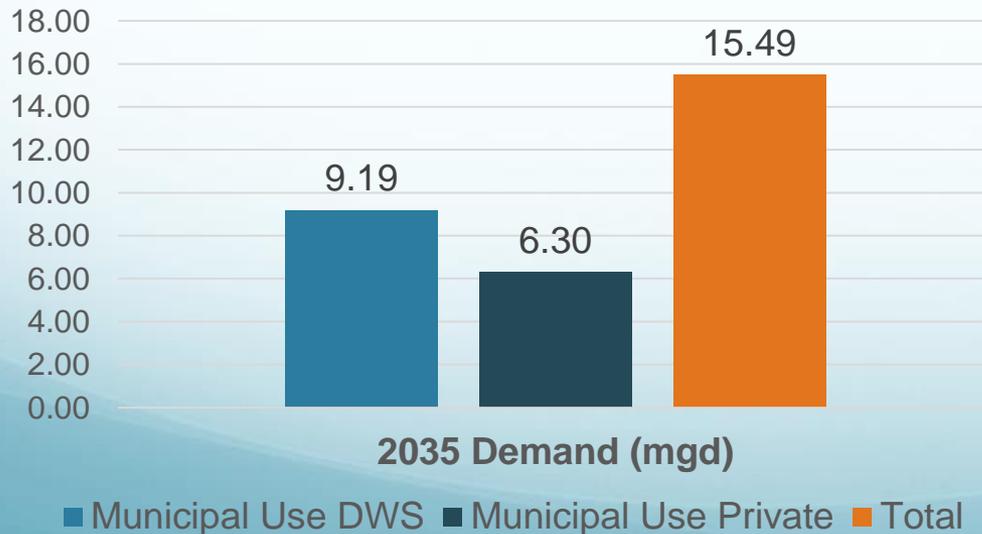
# Surface Water Resources and Constraints

- ✓ Stream flow diversions average 18 mgd (DWS 3.5 mgd)
- ✓ Natural stream flow ranges from drought base flow 20 mgd to median base flow 40 mgd (not including rainfall)
- ✓ Interim Instream Flow Standards underway restore stream flow and reduce some diversions
- ✓ Vulnerable to storms and droughts: blocked intakes, high turbidity, low flow
- ✓ Climate change impacts: reduced rainfall, diminishing stream flow but also variable and unstable



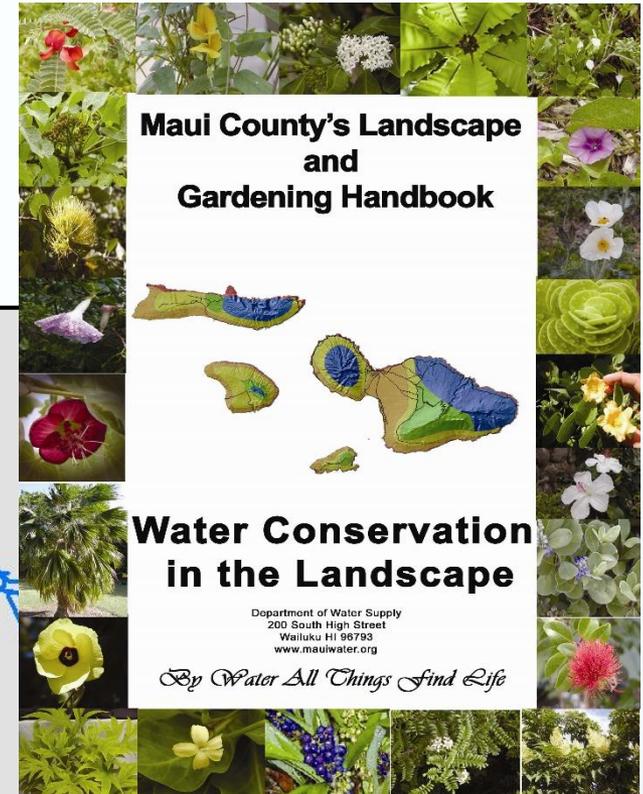
# Water System and Infrastructure Resiliency

- Develop basal groundwater to provide for planned population growth and offset decrease in surface water diversions
- Well development coordination by public and private water purveyors to optimize pumpage, mitigate salt water intrusion and preserve regional resources.
- Adequate interconnection between DWS subsystems
- Contingency agreements between water purveyors



# Land Use Policies to Improve Resiliency

- Adapt landscaping and intensity of water use to drought resistant and micro-climate appropriate design and plants
- Provide incentives for green infrastructure and use of alternative water sources (stormwater, greywater and blackwater use)
- Coordinate actions between county agencies to address sea level rise impact on infrastructure (roads, sewer, water etc)



MAHALO!