

## APT Committee

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**From:** Lucienne de naie <laluzmaui@gmail.com>  
**Sent:** Tuesday, March 2, 2021 9:58 AM  
**To:** APT Committee  
**Subject:** Slides for Sierra Club presentation at 3/3/2012  
**Attachments:** APT slides Haiku aquifer 322021.pdf

Please see attached for today's presentation on APT-57

Lucienne de Naie  
[laluzmaui@gmail.com](mailto:laluzmaui@gmail.com)  
808 214-0147

## Ha'iku Aquifer Wells: Get Data First

- Specific recharge info- not just estimates
- Specifics on aquifer capacity to store water
- Specifics on locations and concentrations of pollutants from Ag use
  - Specifics on natural stream flow levels & recommended IIFS
  - Specifics on 100 private wells and springs depended on by local residents
- Specifics on relationship of groundwater flows and nearshore fisheries
- Specific strategy to respect community plan and meet water needs of Ha'iku

Ha'iku's natural stream network once supported legendary fisheries. Now the nearshore ecosystems depend on groundwater.

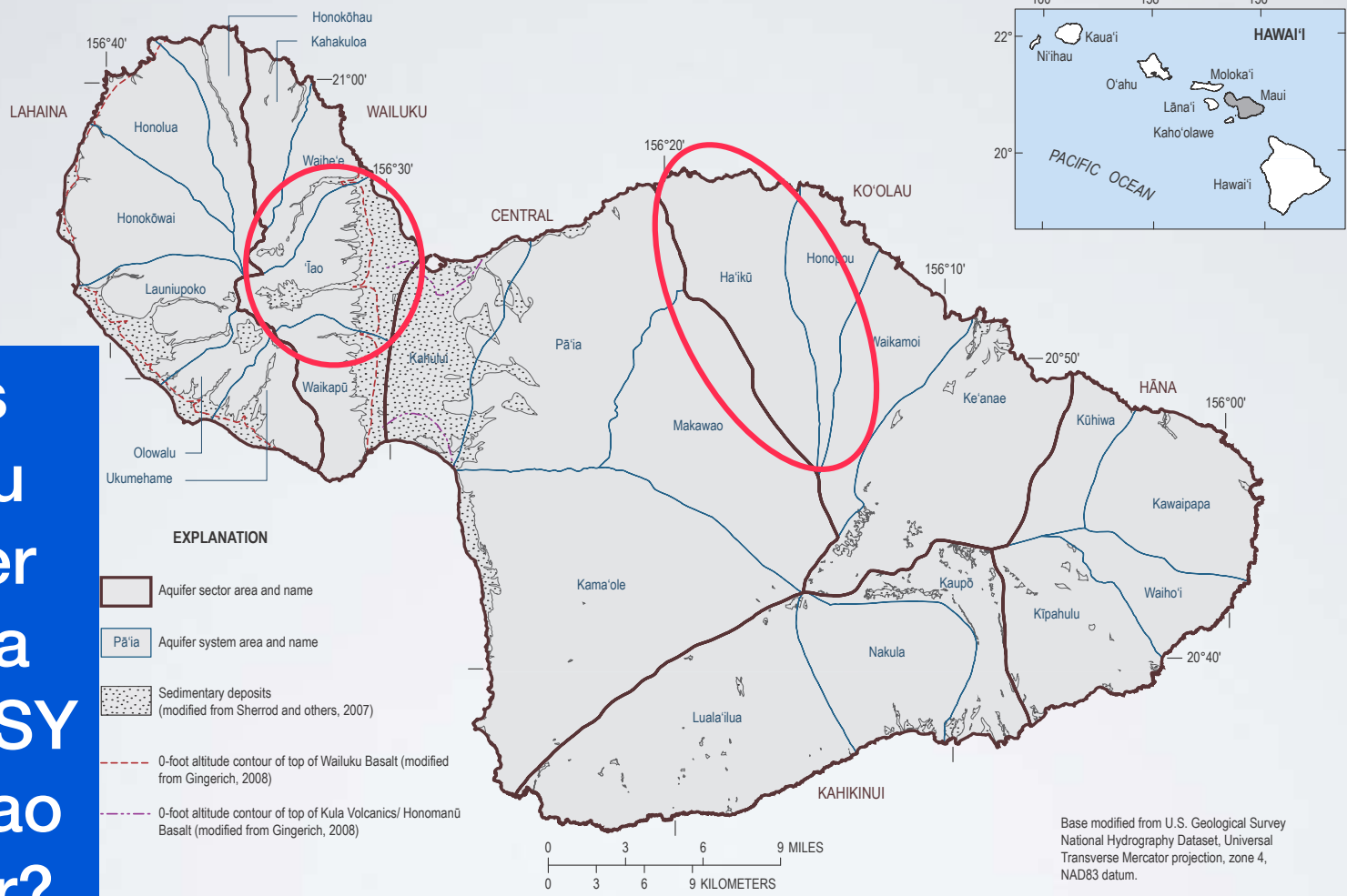


Most Ha'iku streams are drained dry by EMI system. This could affect recharge of aquifer.



Ha'iku aquifer has no capstone to buildup water levels ("head") 'Iao aquifer has a limestone "capstone" layer that builds up water levels -allowing wells to pump millions of gallons

Does Ha'iku aquifer have a higher SY than 'Iao aquifer?

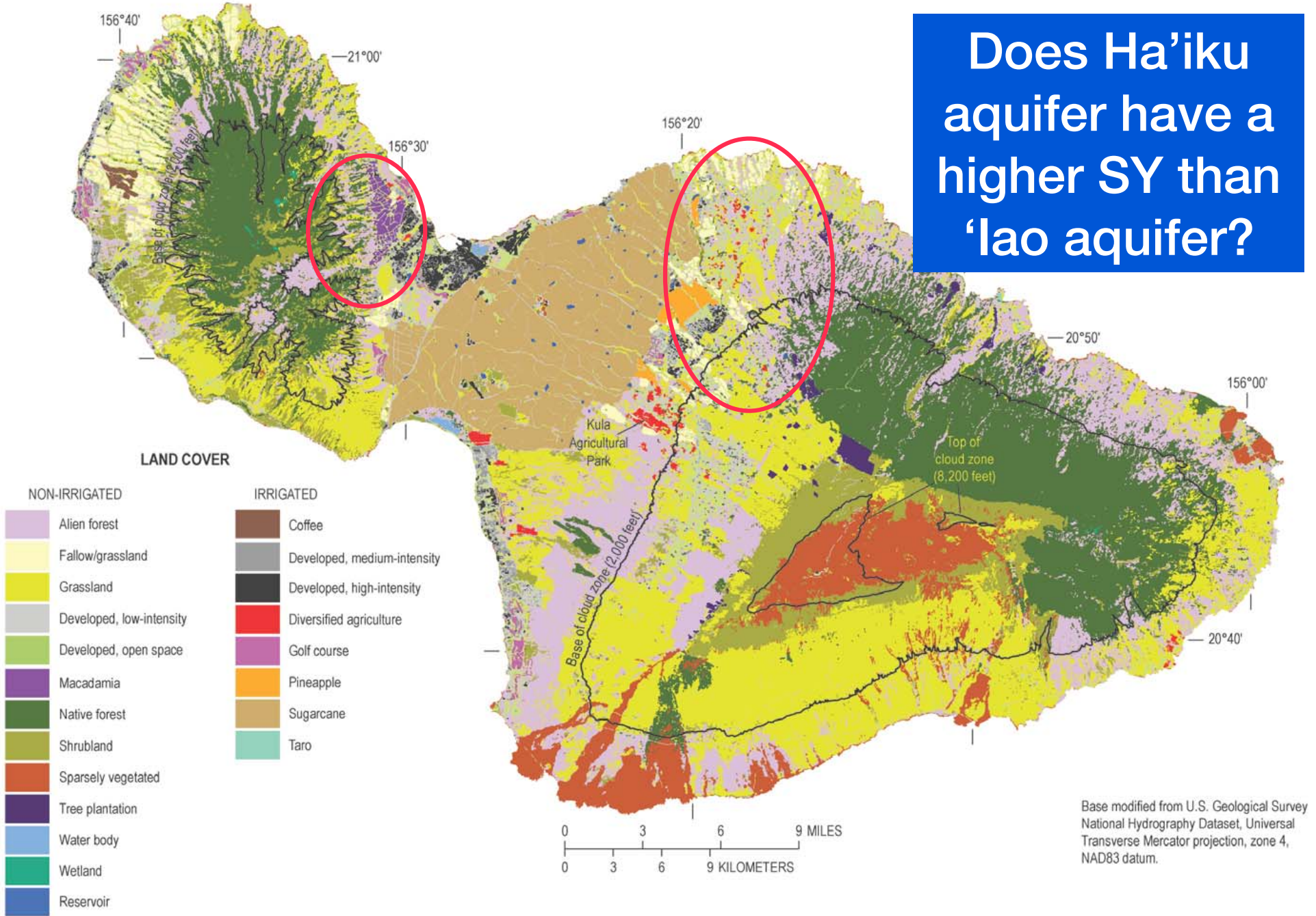


Spatially Distributed Groundwater Recharge Estimated Using a Water-Budget Model for the Island of Maui, Hawai'i

Figure 1. Aquifer sectors and aquifer systems on the Island of Maui, Hawai'i (State of Hawai'i, 2008).

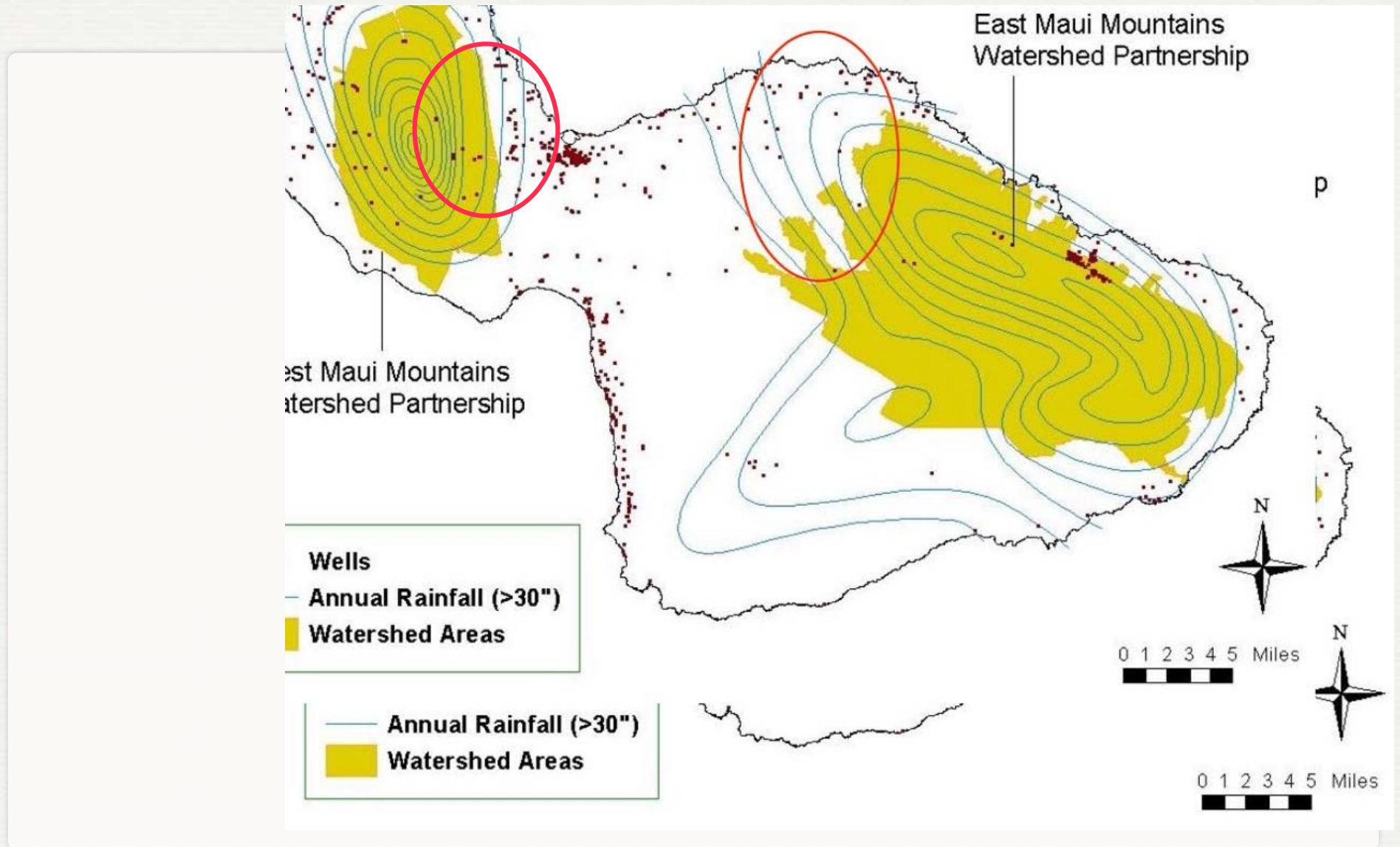
“Rain follows the forest” ‘Iao has native forest upslope/ Ha’iku has pasture and shrublands

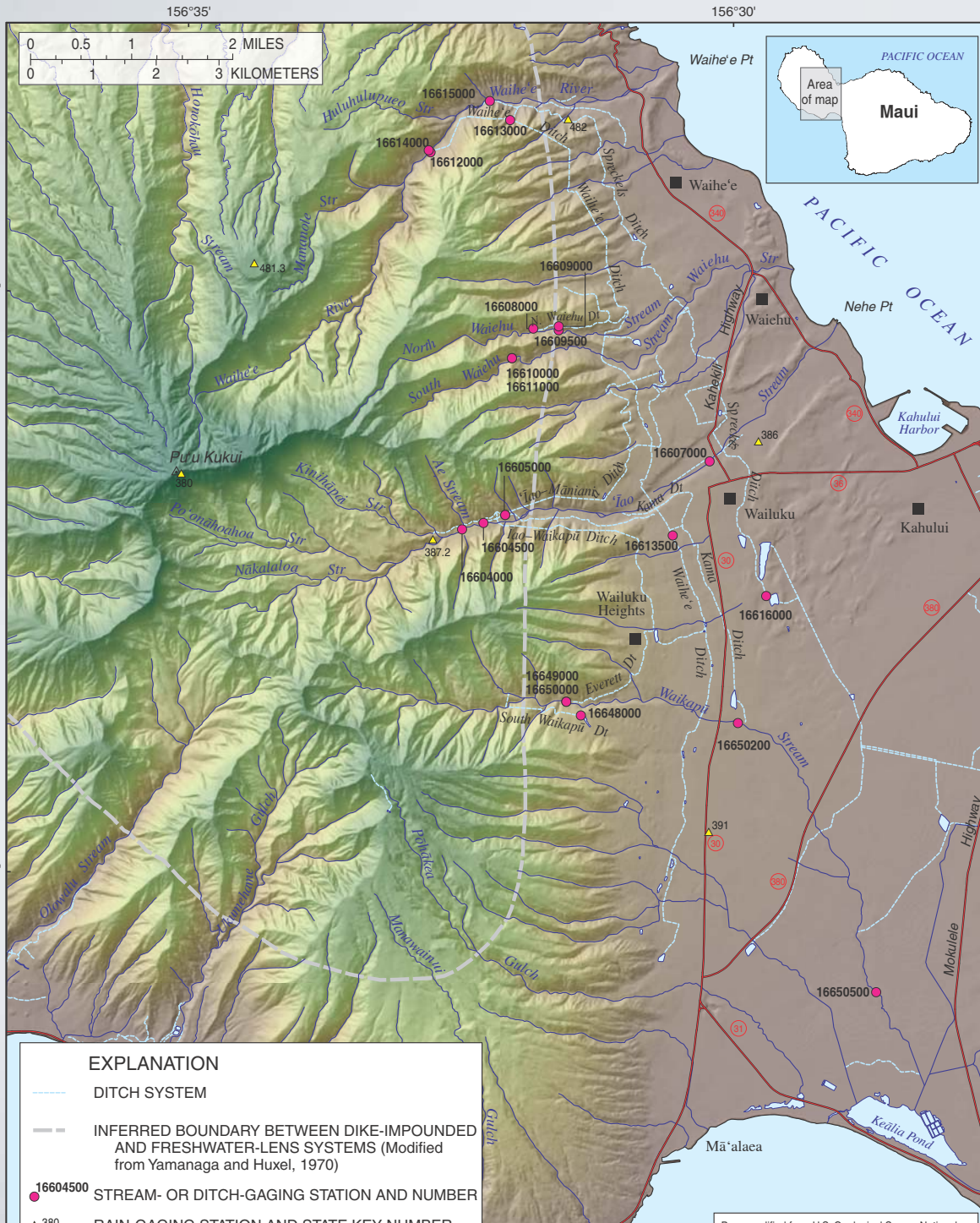
Does Ha’iku aquifer have a higher SY than ‘Iao aquifer?



Spatially Distributed Groundwater Recharge Estimated Using a Water-Budget Model for the Island of Maui, Hawaii

‘Iao has high rainfall areas upslope/ Ha’iku has moderate rainfall areas upslope





Is Maui county willing to invest in Ha'iku aquifer to make sure it is a dependable source-- or just "chance 'em"

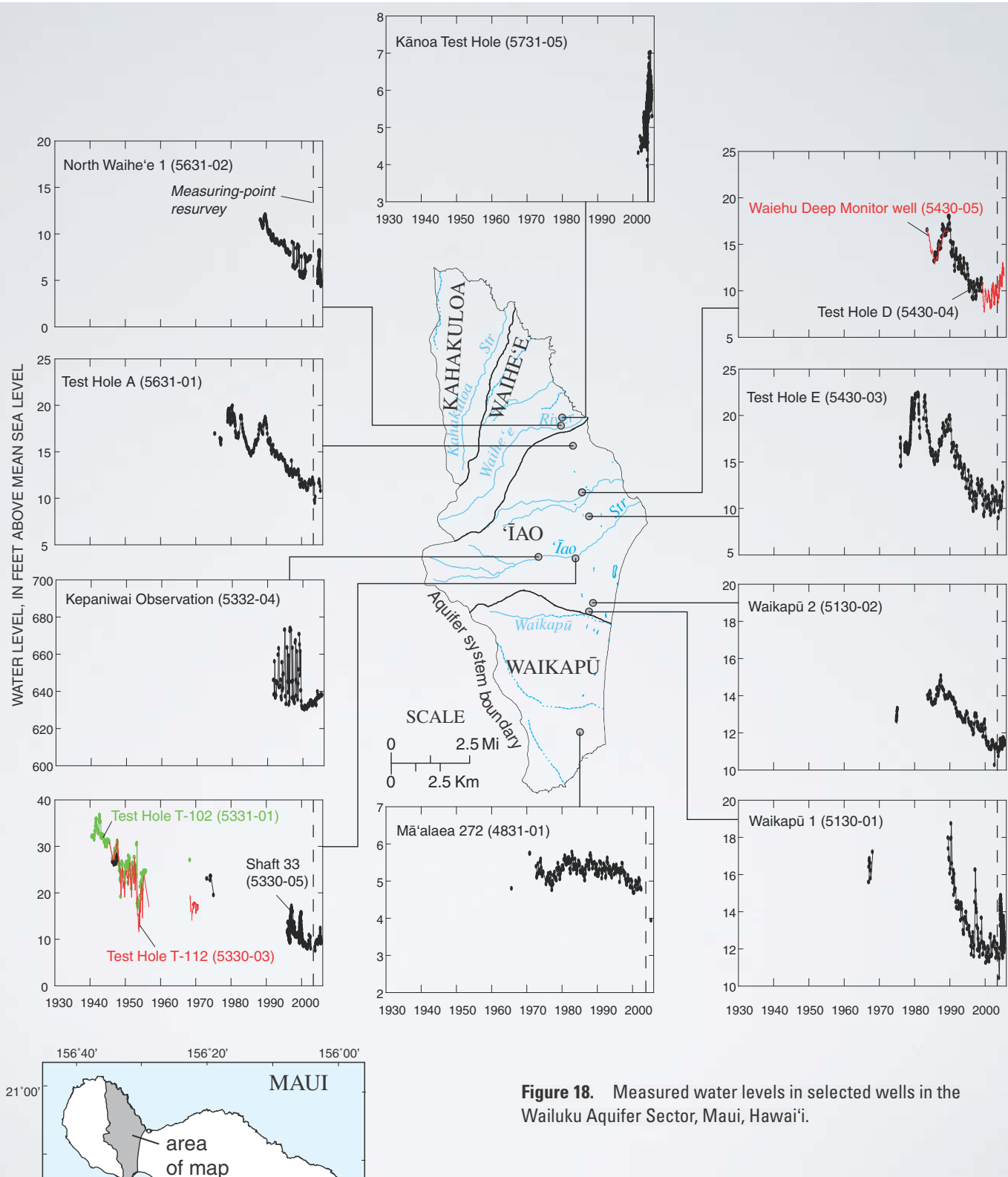
**'Iao Aquifer**

- 14 stream gauges
- 4 rain gauges
- 1 deep monitoring wells/3 test holes/ 1 observation well

**Ha'iku Aquifer**

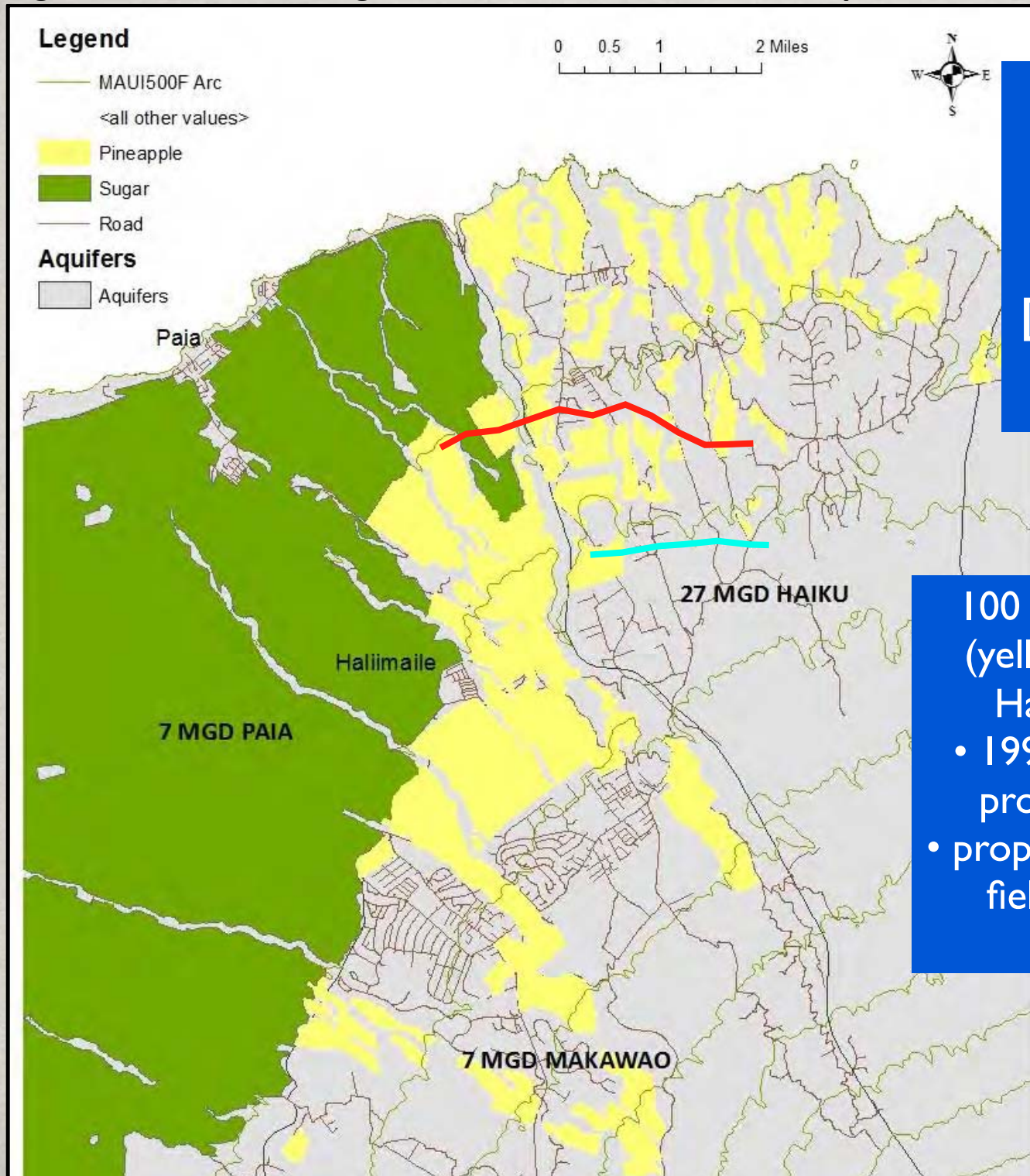
- no operational stream gauges
- Backyard rain gauges only
- 1 test well- uncertain how it is monitored





**Figure 18.** Measured water levels in selected wells in the Wailuku Aquifer Sector, Maui, Hawaii.

Figure 15-32 Historic Agriculture in Ha'ikū and Pā'ia Aquifers



Many private wells in Ha'iku have tested positive for DBCP, TCP or EDP contamination

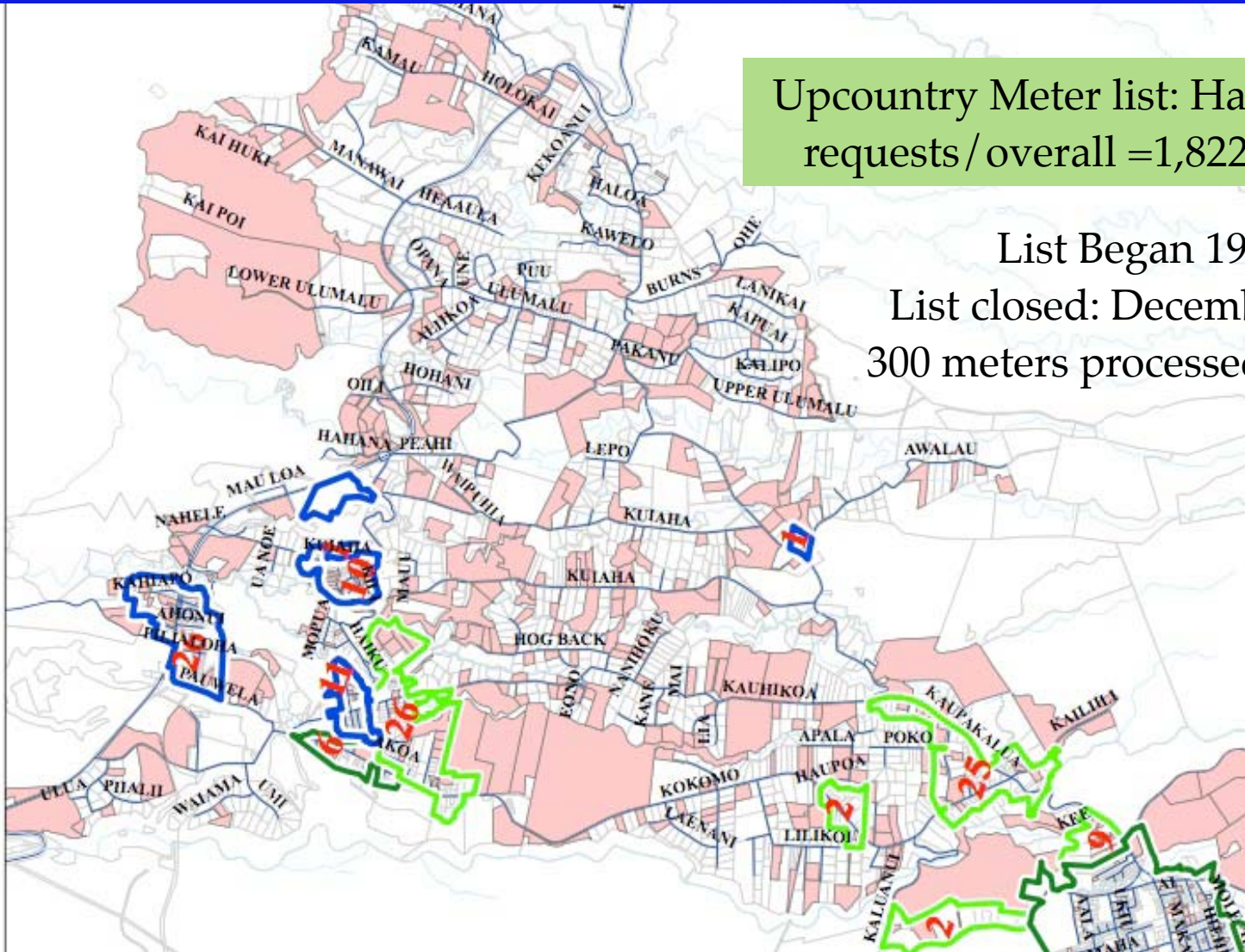
- 100 years of Pineapple production (yellow area) has left chemicals in Ha'ikū & Pā'ia groundwaters.
- 1992 Ha'iku wells (red line) were proposed in old pineapple lands
  - proposed 2002 higher elevation well field is blue line- still some risk

Any future well plan must comply with state and County laws, including the Pa'ia-Ha'iku Community Plan. Hundreds of Ha'iku families have waited decades for County Water meters. Meeting Ha'iku needs must be part of well plan

Upcountry Meter list: Ha'iku= 400+ requests/overall =1,822 requests

List Began 1994  
List closed: December 2012  
300 meters processed by 2020

**ORITTY LIST**



**Ha'iku Aquifer supports an ancient, fertile land that  
deserves to continue to nourish all of Maui.  
We must plan with care**



**Mahalo -Sierra Club Maui**