

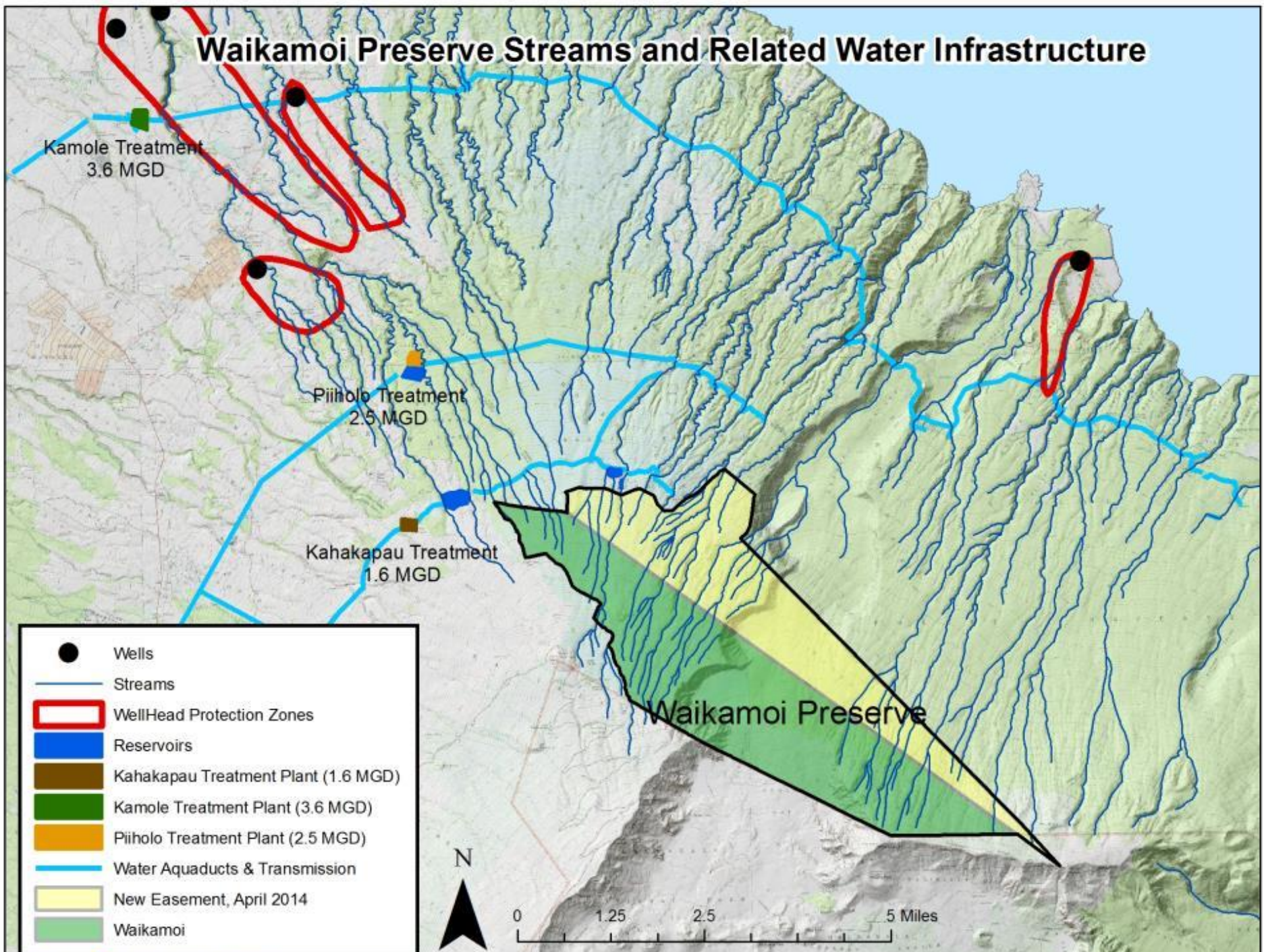
Watershed Protection Grants

TNC's Waikamoi & Kapunakea Preserves

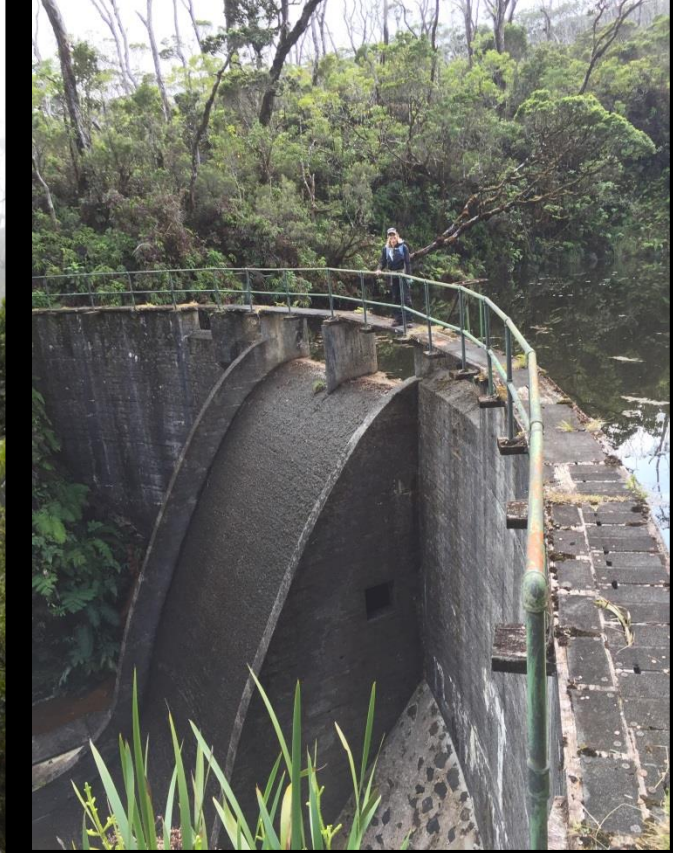
Alison Cohan, Director
Maui Nui Program



Waikamoi Preserve Streams and Related Water Infrastructure



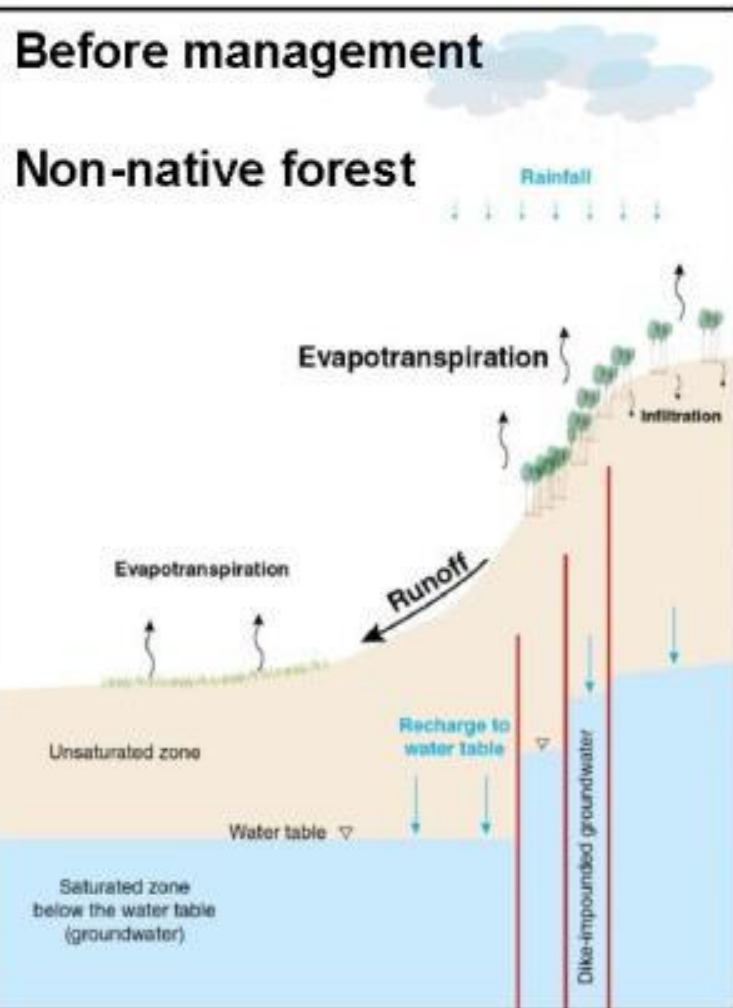




Watershed Management & Restoration Projects May Affect Several Hydrologic Processes

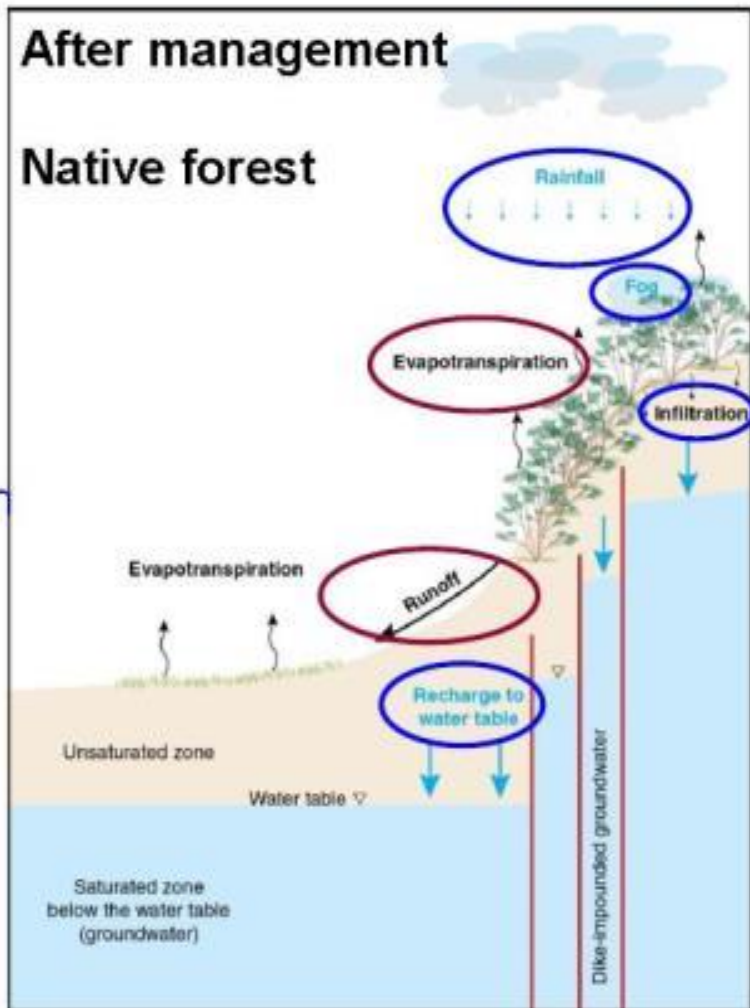
Before management

Non-native forest



After management

Native forest



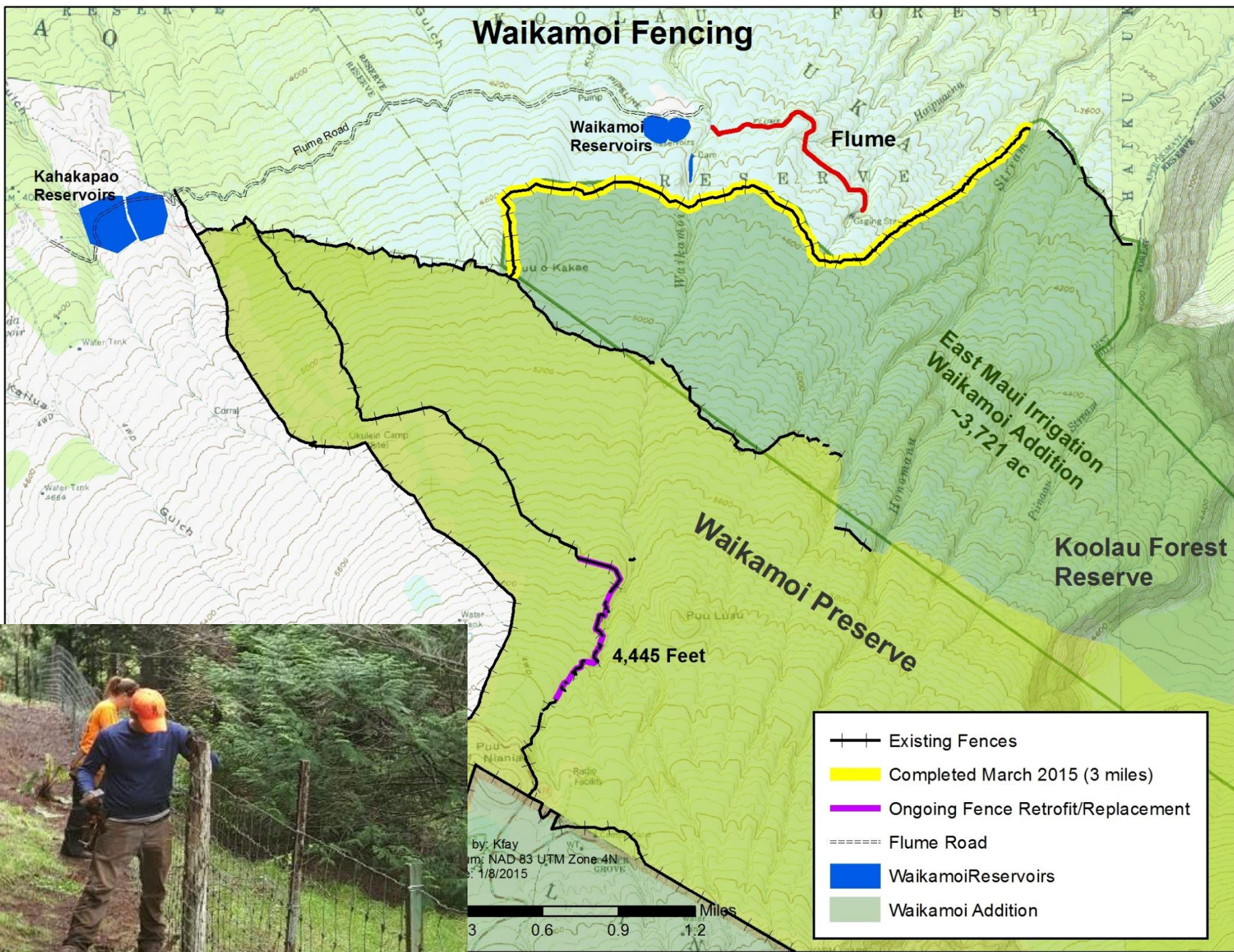
Goal is to increase or improve:

- Rainfall
- Cloud-water interception
- Net precipitation
- Infiltration
- Groundwater recharge

Goal is to decrease or lessen:

- Storm runoff
- Evapo-transpiration

Waikamoi Fencing







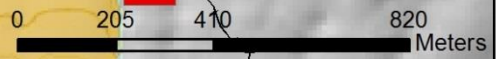


Himalayan ginger (*Hedychium gardnerianum*)

Unit 1A Ginger Treatment Waikamoi Preserve

Estimated Square Meters
Ginger

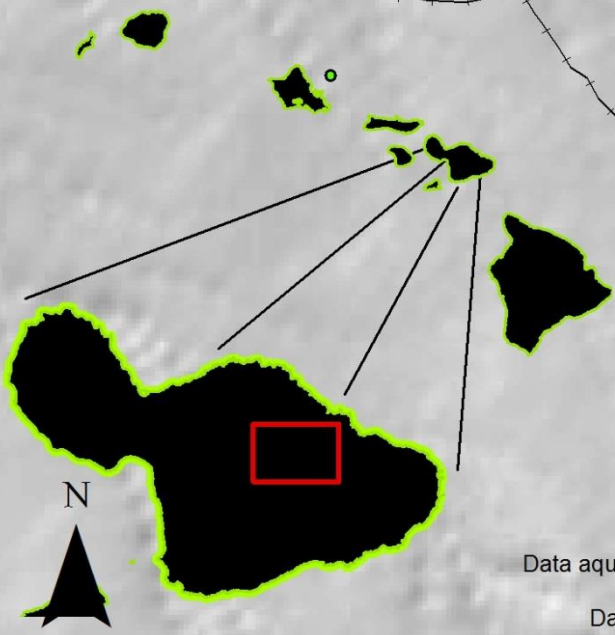
- 0 - 2
- 3 - 10
- 11 - 85
- FY10
- FY11
- FY12
- FY13
- FY14
- FY15



Unit 1A is the westernmost management unit of the Nature Conservancy's Waikamoi Preserve. Staff covered most of the unit by ground sweeps searching for Himalayan Ginger. The unit is about 600 acres.



Himalayan Ginger is a non-native, invasive weed that threatens native Hawaiian forests by producing monotypic stands and a mat-like groundcover.



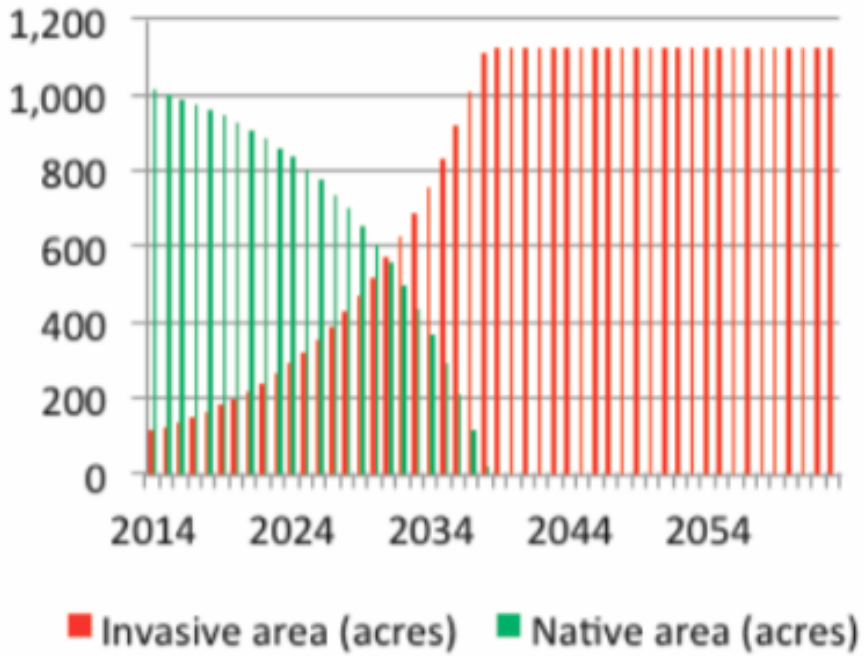
Data acquired from The Nature Conservancy
Maui Field Office
Datum: NAD 83 UTM zone 4 N

Kerri Fay
Aug. 13, 2015





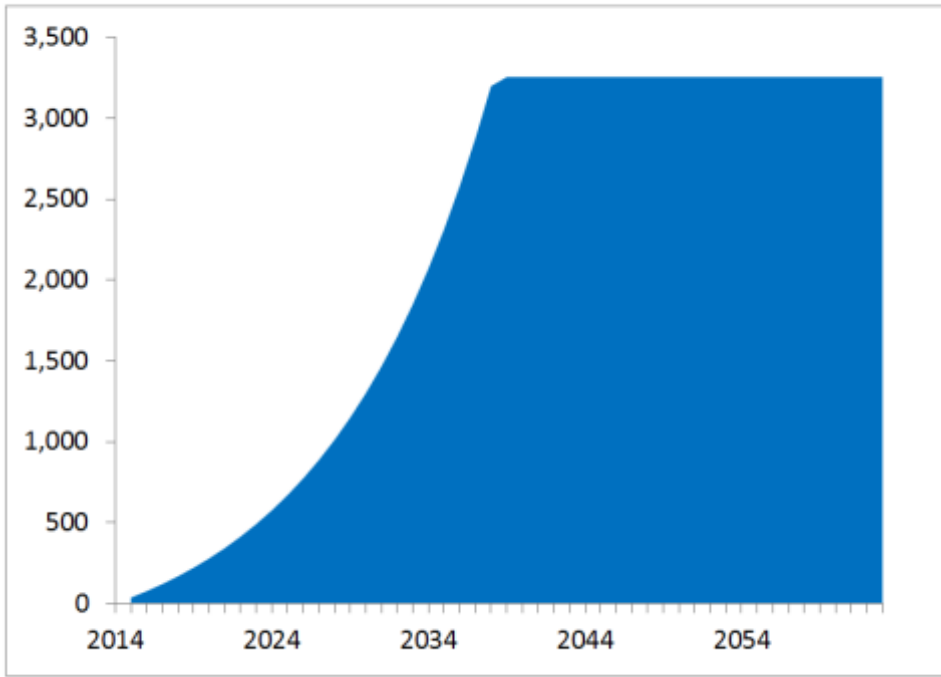
**Resource Monitoring, Rare Plants
and Research**



Kaiholena (Ka'ū)

Projected changes in landcover over time in Kaiholena, Hawaii island **if current watershed conservation activities ceased.** From Burnett et al. 2014 (UHERO).

Kaiholena Avoided ET Loss/Recharge Gain (thousands of gallons)



Watershed conservation return on investment analysis, **depicting groundwater recharge benefits (freshwater volume) generated from conservation activities** at Kaiholena, Hawaii Island. From Burnett and Wada 2015 (UHERO).



Community Outreach

Kapunakea Preserve



Kapunakea Preserve

Kapalua

Kahakuloa

Napili-Honokowai

Kaanapali

Waihee-Waiehu

Wailuku

Lahaina

Waikapu

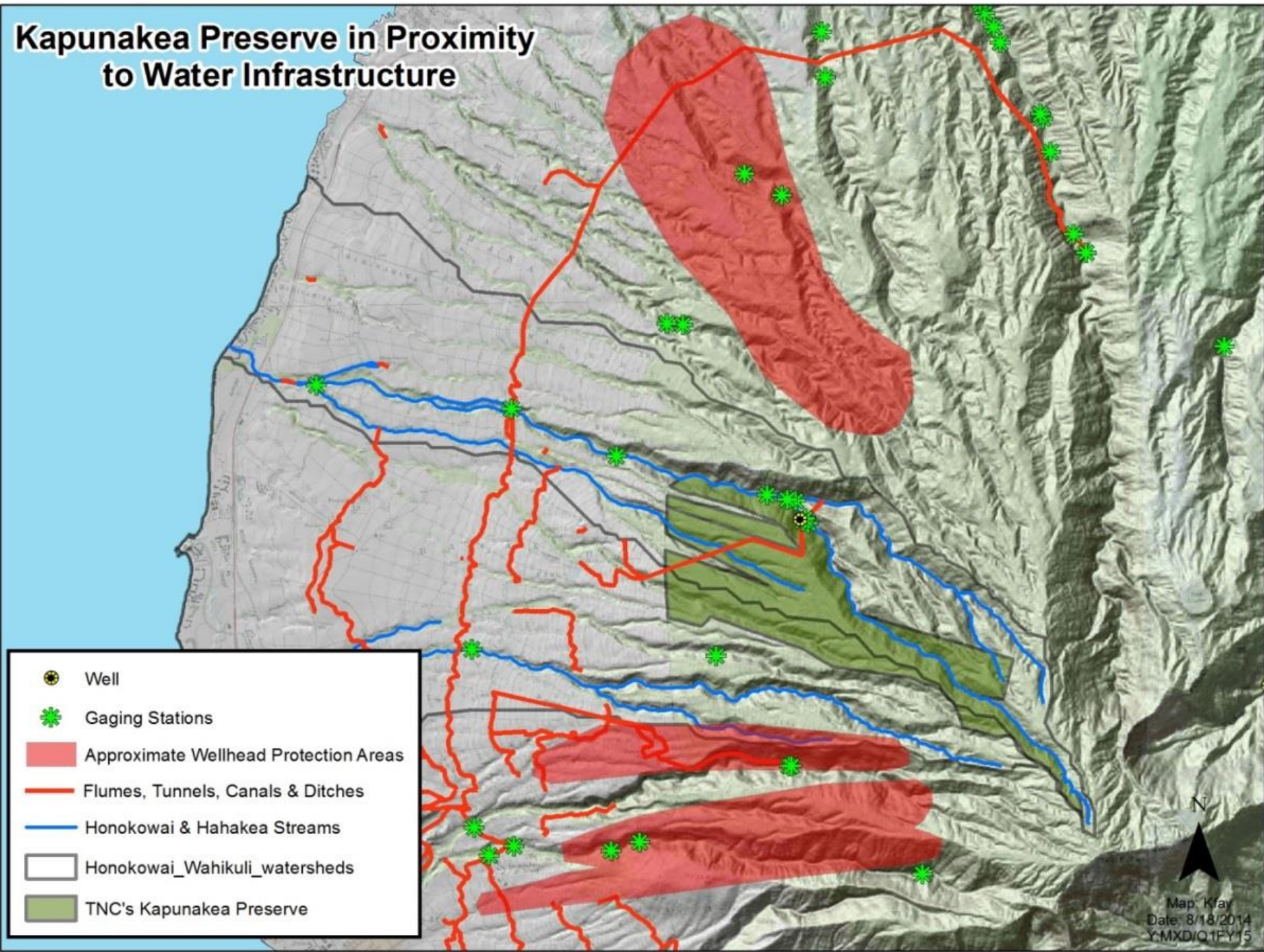
Google earth

Data USGS
© 2015 Google



1 mi

Kapunakea Preserve in Proximity to Water Infrastructure



Major stream headwaters protected

Improved groundwater recharge ability

Endangered species recovery

Climate change adaptation

Community engagement & awareness

Leveraged funds

Quantifiable return on investment of watershed management

~~ Mahalo ~~



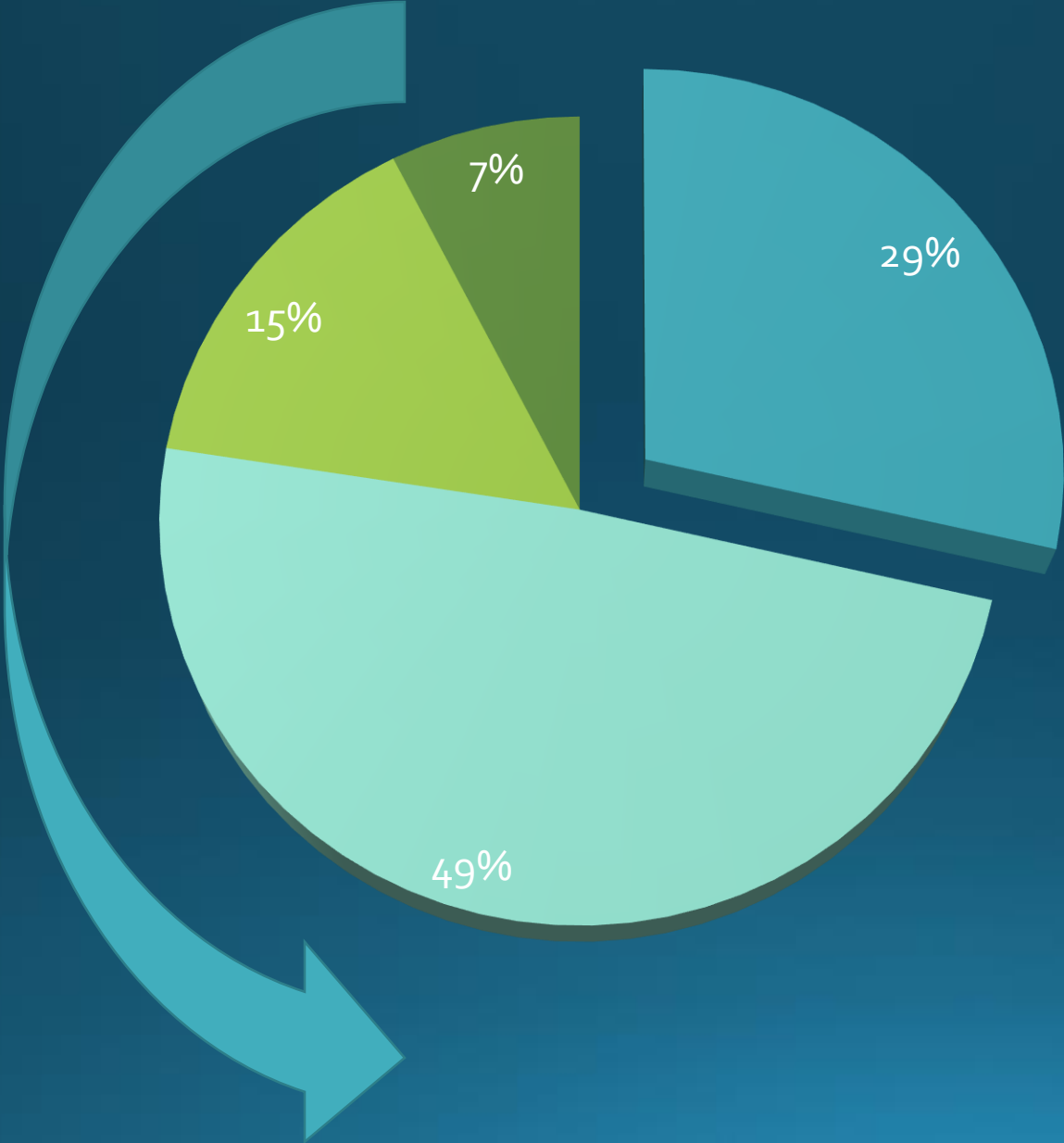


Questions?

**Come join us
on a hike into
Waikamoi!**

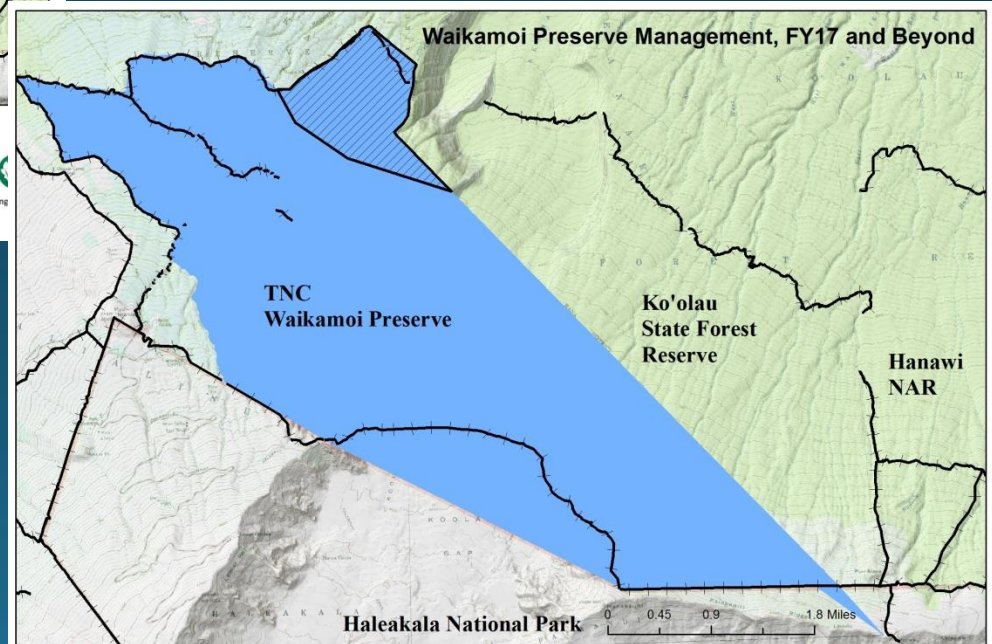
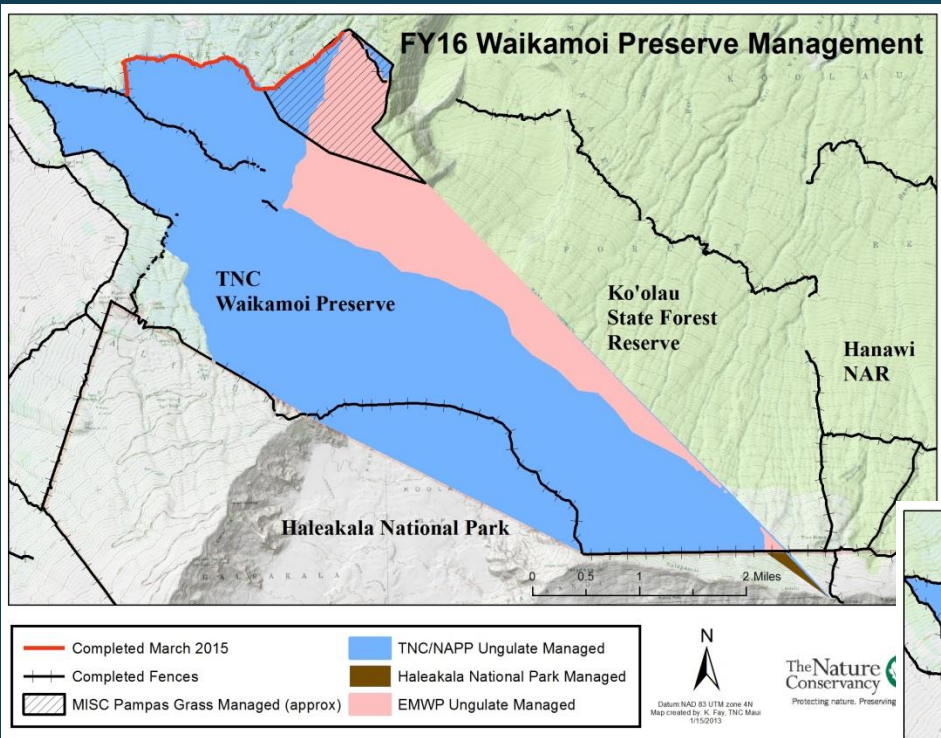
Waikamoi Budget FY16

Leveraged DWS funds



- DWS
- State
- Federal
- Private

Historical vs. FY2017 management lead by agency and area



Prior to FY2015

Beginning FY2017

Waikamoi Preserve

Approximate Budget Allocations

