

East Molokai Watershed Partnership EMoWP



Role: Sustain and or Improve Native Watersheds through specific management actions

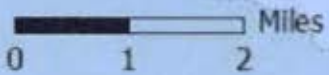
Ungulates Control – Fencing, Hunt Sweeps, Aerial Shooting

Weed Control – Weed Removal Sweeps & Prevention of New Introductions

Wildland Fire Prevention and Preparation (MFTF)

Monitoring or measuring – MUM, USGS Ridge to Reef

Outreach – Earth Day, Nature’s Newsflash, Ahupuaa meetings



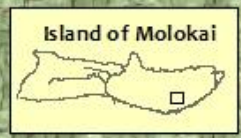
RECEIVED AT WIT MEETING ON 2/21/2020
Ed MisaKi
The Nature Conservancy



- EMoWP Legend**
- Existing Fences (30 miles)
 - TMK2012_Jan
 - EMoWP North Slope (Multiple Lead)
 - EMoWP South Slope (TNC Lead)
 - EMoWP East Slope (TNC Lead)
 - Marine Systems



Pāku'i Fence Unit Project
5.5 Miles, 2080 Acres

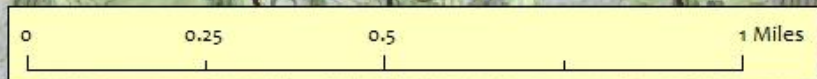


Mapulehu West Rim
Fence Section 1.0 mile

- (H) TNC Helicopter LZs
- Proposed Step Overs
- Proposed Fenceline 5.5 miles
- - - Aerial survey line
- +— Kapualei Fence
- Natural Barrier (Cliffs)
- Tax Map Key

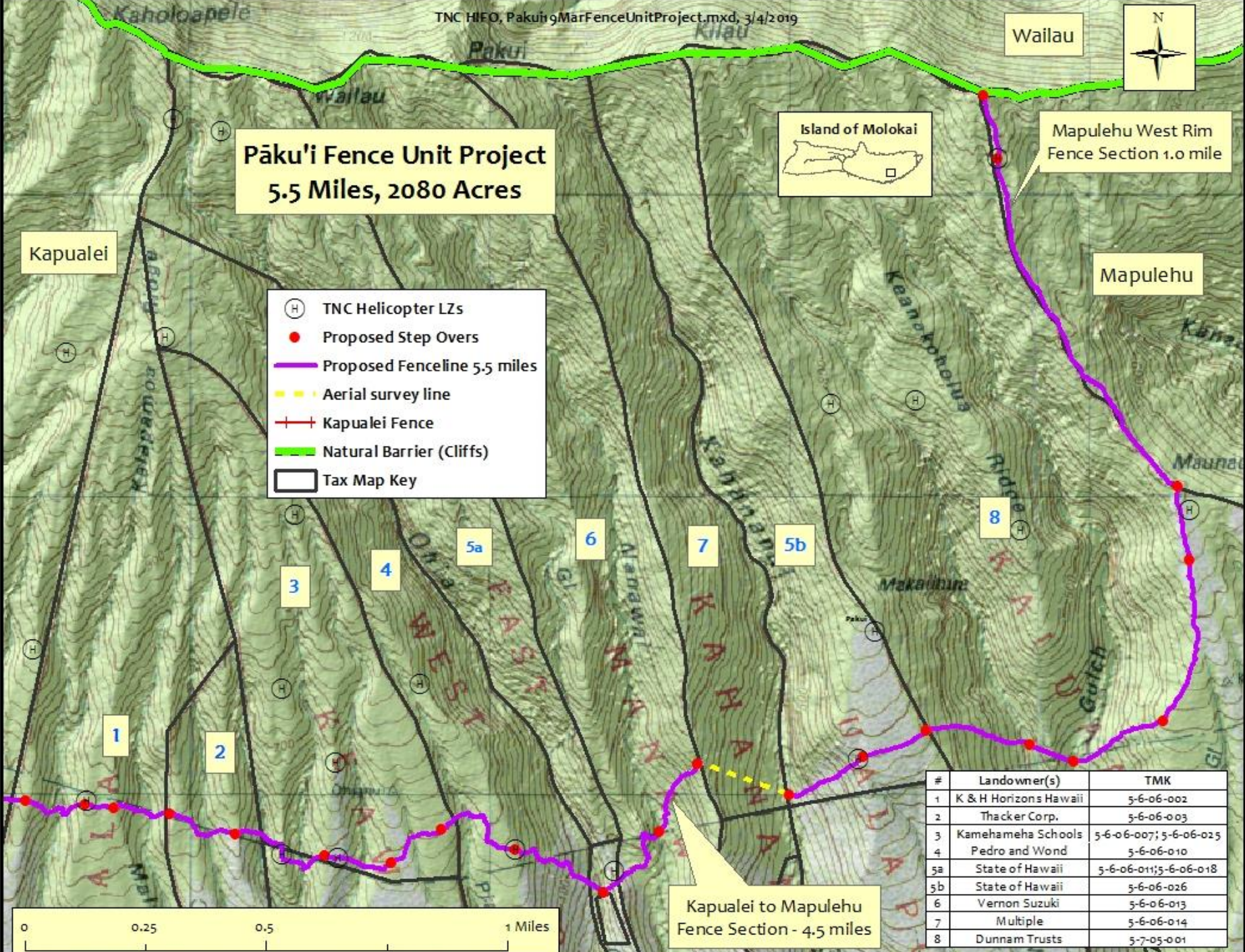
Kapualei

Mapulehu



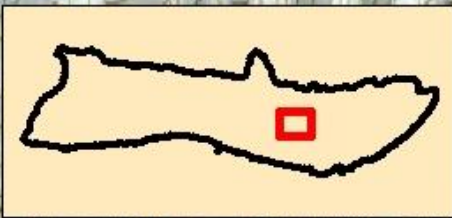
Kapualei to Mapulehu
Fence Section - 4.5 miles

#	Landowner(s)	TMK
1	K & H Horizons Hawaii	5-6-06-002
2	Thacker Corp.	5-6-06-003
3	Kamehameha Schools	5-6-06-007; 5-6-06-025
4	Pedro and Word	5-6-06-010
5a	State of Hawaii	5-6-06-011; 5-6-06-018
5b	State of Hawaii	5-6-06-026
6	Vernon Suzuki	5-6-06-013
7	Multiple	5-6-06-014
8	Dunnam Trusts	5-7-05-001

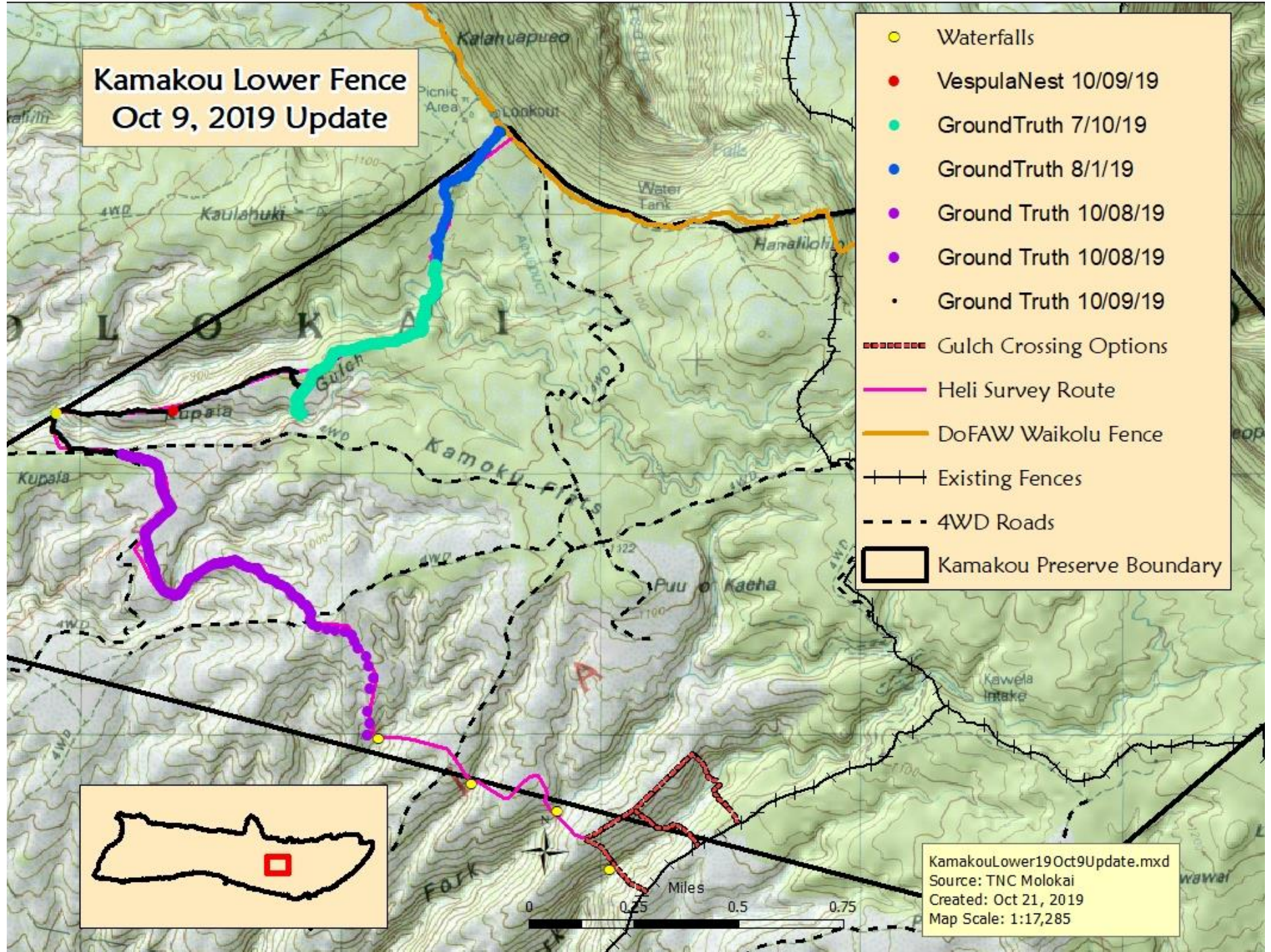


Kamakou Lower Fence Oct 9, 2019 Update

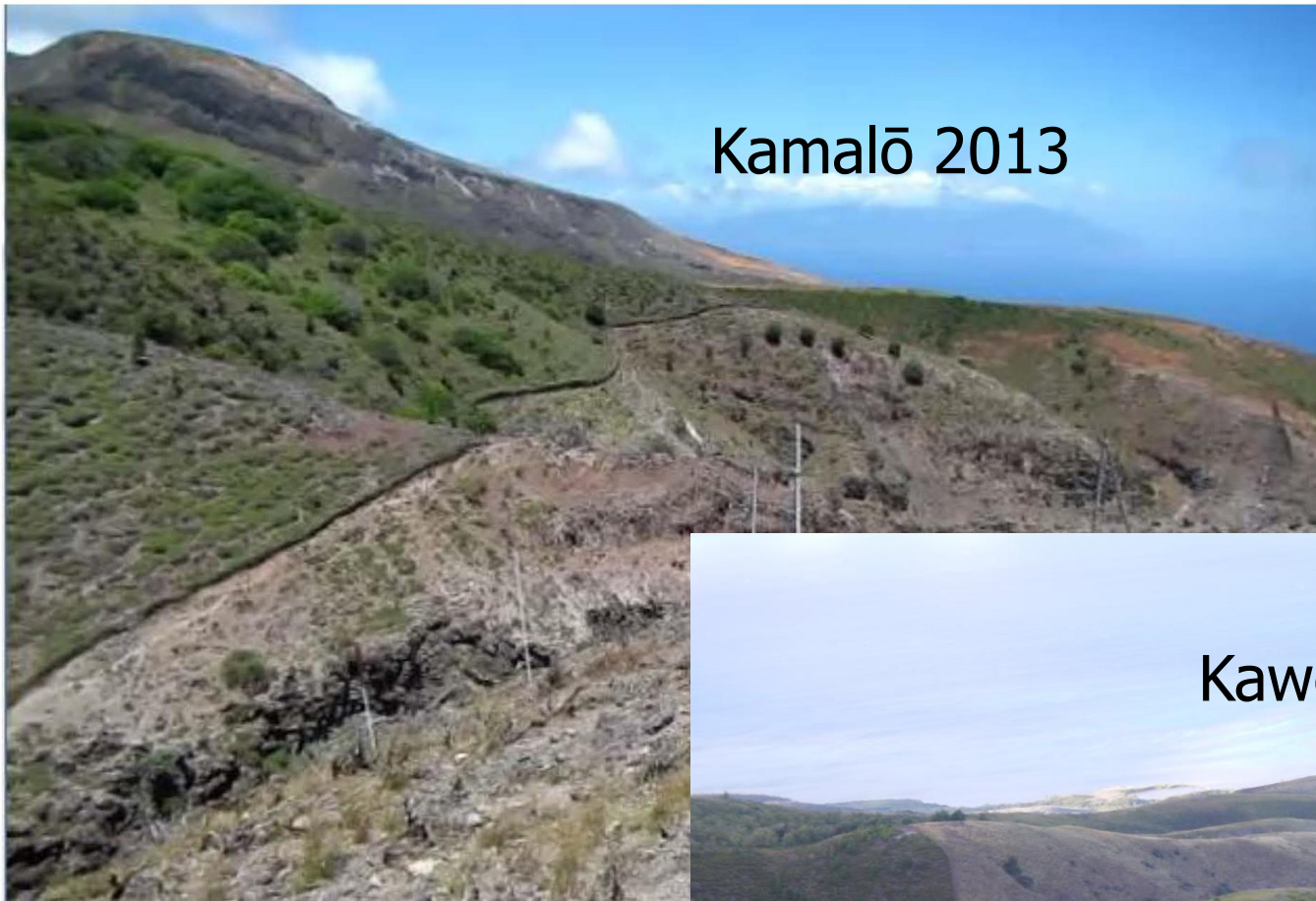
- Waterfalls
- VespulaNest 10/09/19
- GroundTruth 7/10/19
- GroundTruth 8/1/19
- Ground Truth 10/08/19
- Ground Truth 10/08/19
- Ground Truth 10/09/19
- Gulch Crossing Options
- Heli Survey Route
- DoFAW Waikolu Fence
- Existing Fences
- 4WD Roads
- Kamakou Preserve Boundary



KamakouLower19Oct9Update.mxd
Source: TNC Molokai
Created: Oct 21, 2019
Map Scale: 1:17,285



Kamalō 2013



Kawela 2017



Molokai Understory Monitoring (MUM) Summary Map

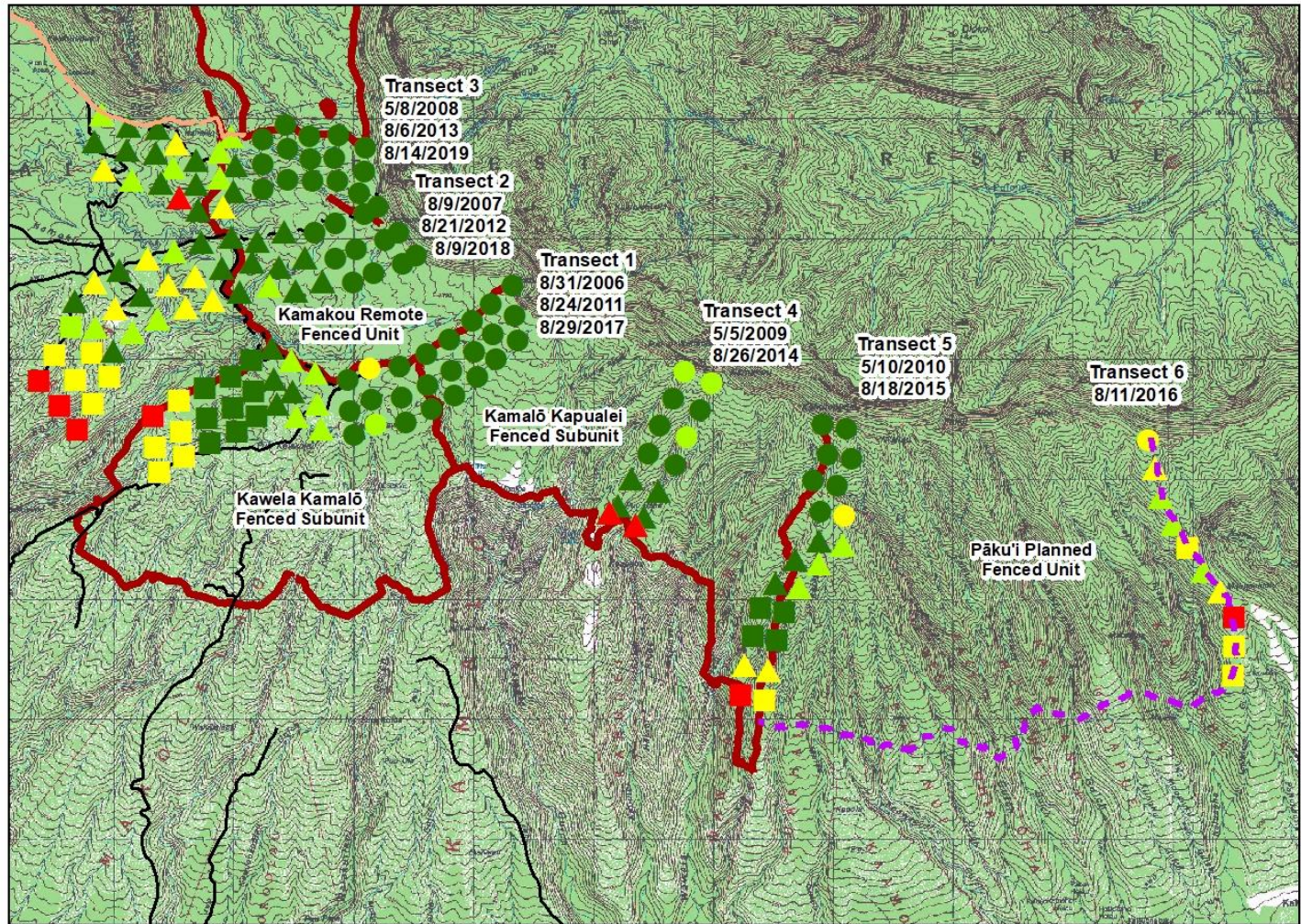
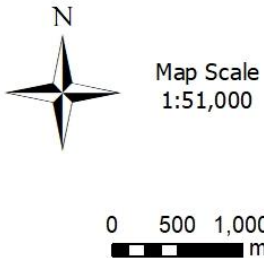
Structures

- Pāku'i Funded Fence
- DoFAW Fence in Progress
- Existing Fences

Vegetation Types

- Wet Forest
- ▲ Mesic Forest
- Mesic Shrubland
- - - Trails
- 4WD Roads

Created: Sep 27, 2019
 Map Scale: 1:51,000
 Data Sources: TNC Molokai
 File: MUMSumMap4.mxd



Island of Molokai



INTEGRITY CRITERIA FOR TERRESTRIAL VEGETATION COMMUNITIES

Vegetation Rank	Very Good	Good	Fair	Poor
Understory Condition	> 90%	90% - 75%	74% - 50%	< 50%
Cover composition of native plants below canopy layer	of existing cover is native	of existing cover is native	of existing cover is native	of existing cover is native

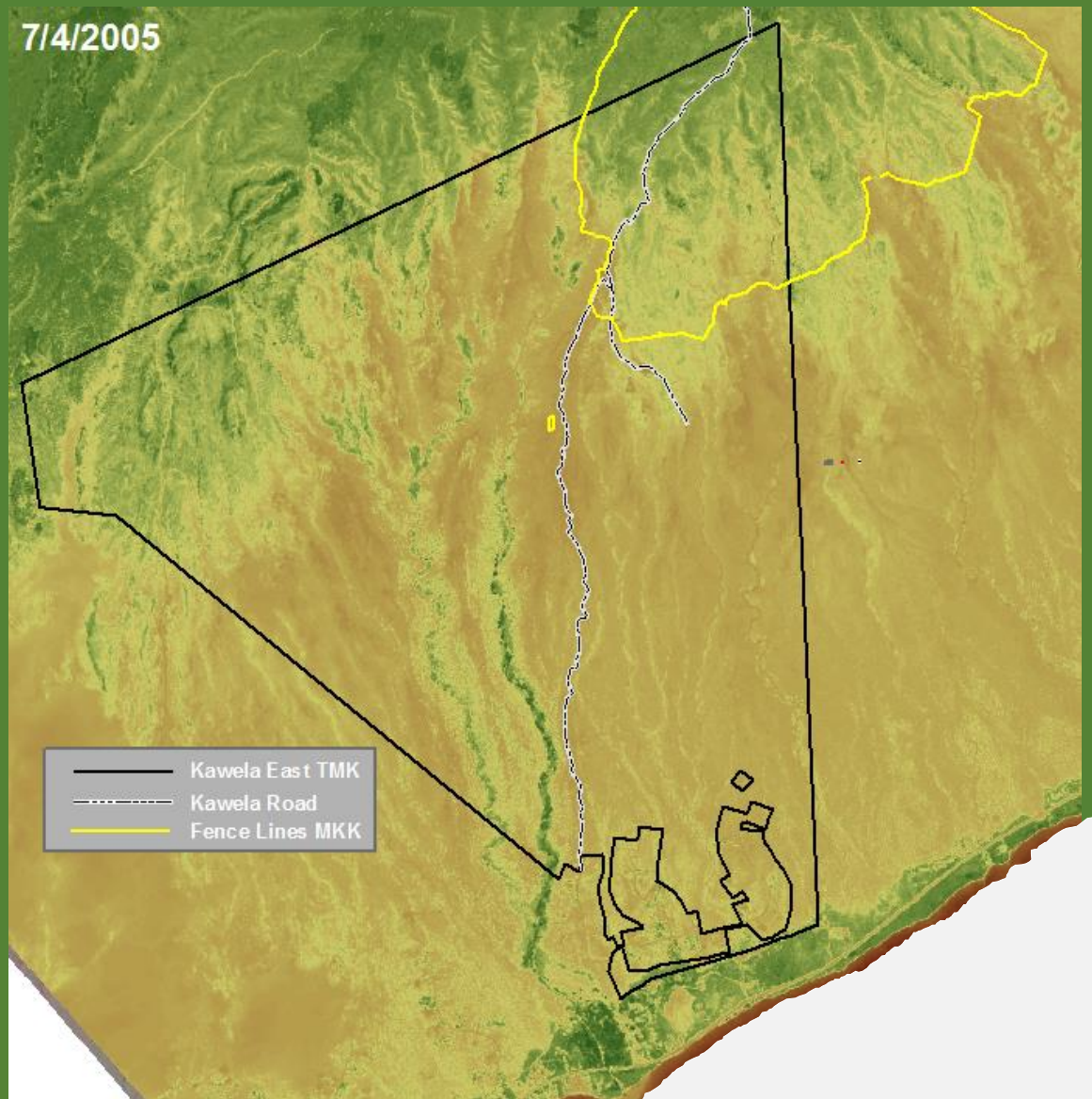
By Tony Kimmet, NRCS

Instigated by Stephanie Tom, TNC

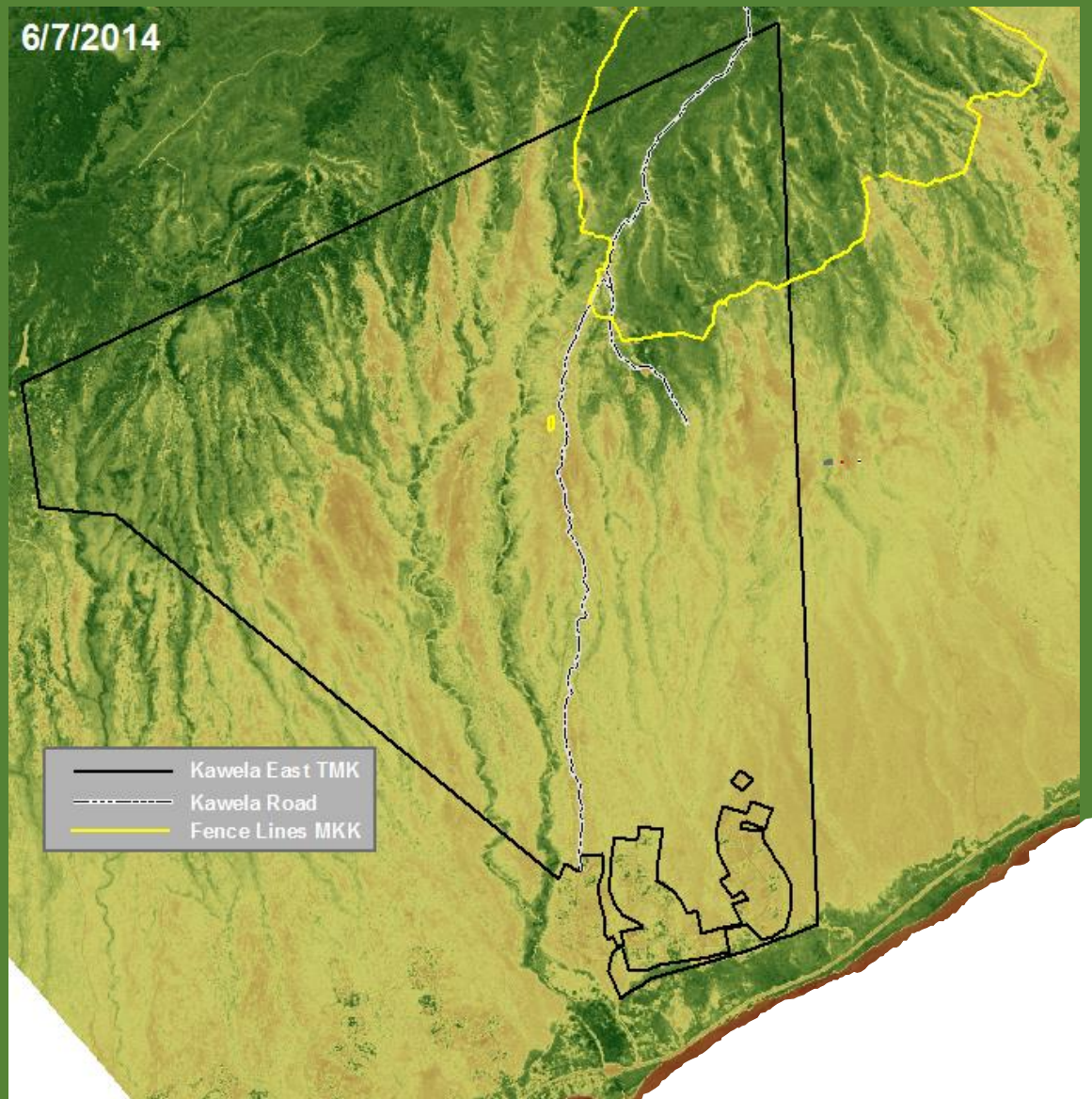
For Ed Misaki, TNC



Kawela, Moloka'i NDVI Imagery Analysis



Kawela, Moloka'i NDVI Imagery Analysis





From Ridge to Reef—Linking Erosion and Changing Watersheds to Impacts on the Coral Reef Ecosystems of Hawai'i and the Pacific Ocean





USGS 2013 Summary Report

2009

Less than 1% Veg Cover

0.4 inches soil loss to erosion

6 tons per year from site goes
into the ocean.

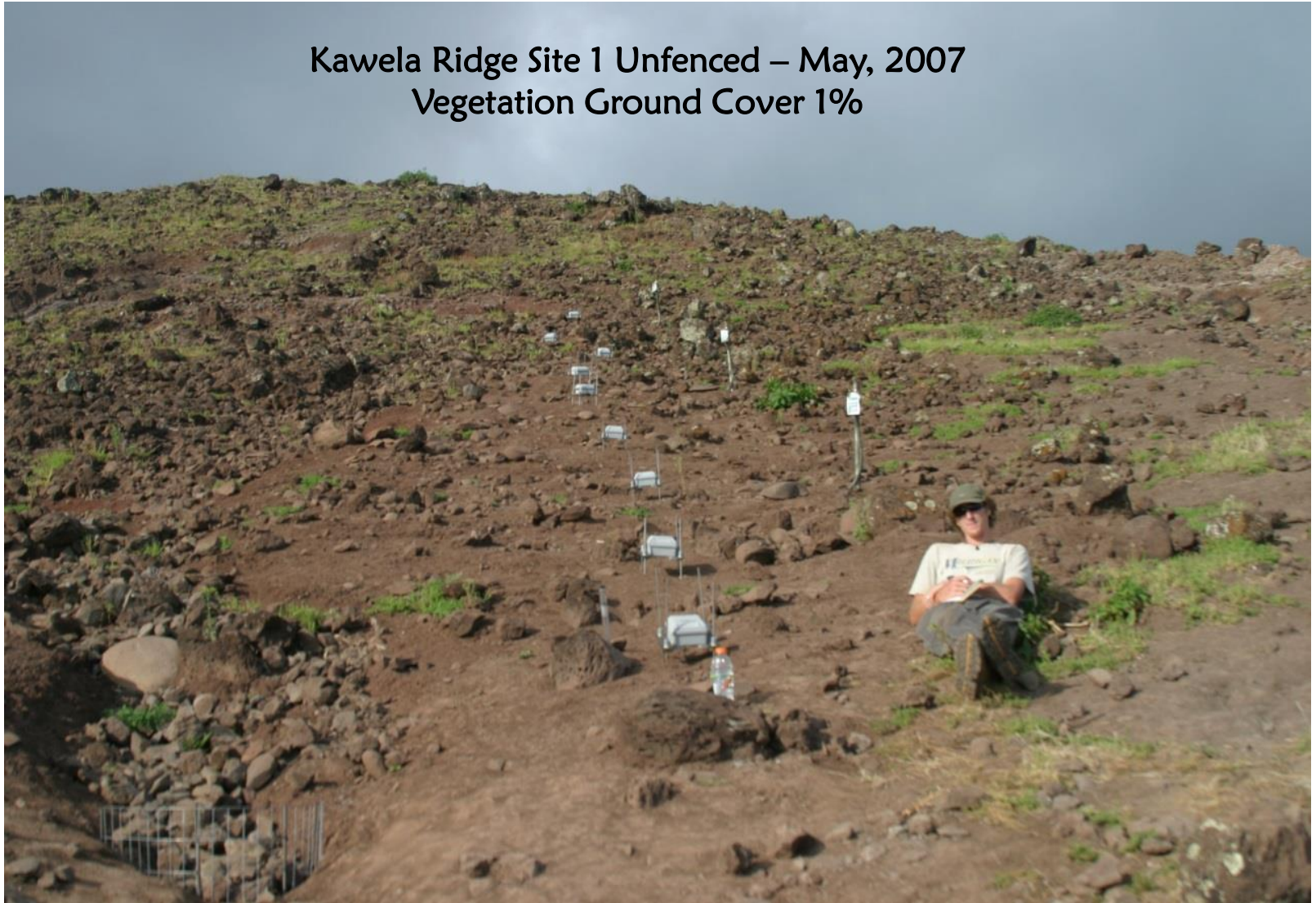
2013

75% Veg Cover!

.04 inches soil loss or 10 fold
decrease!

Less than 2 tons per year!

Kawela Ridge Site 1 Unfenced – May, 2007
Vegetation Ground Cover 1%

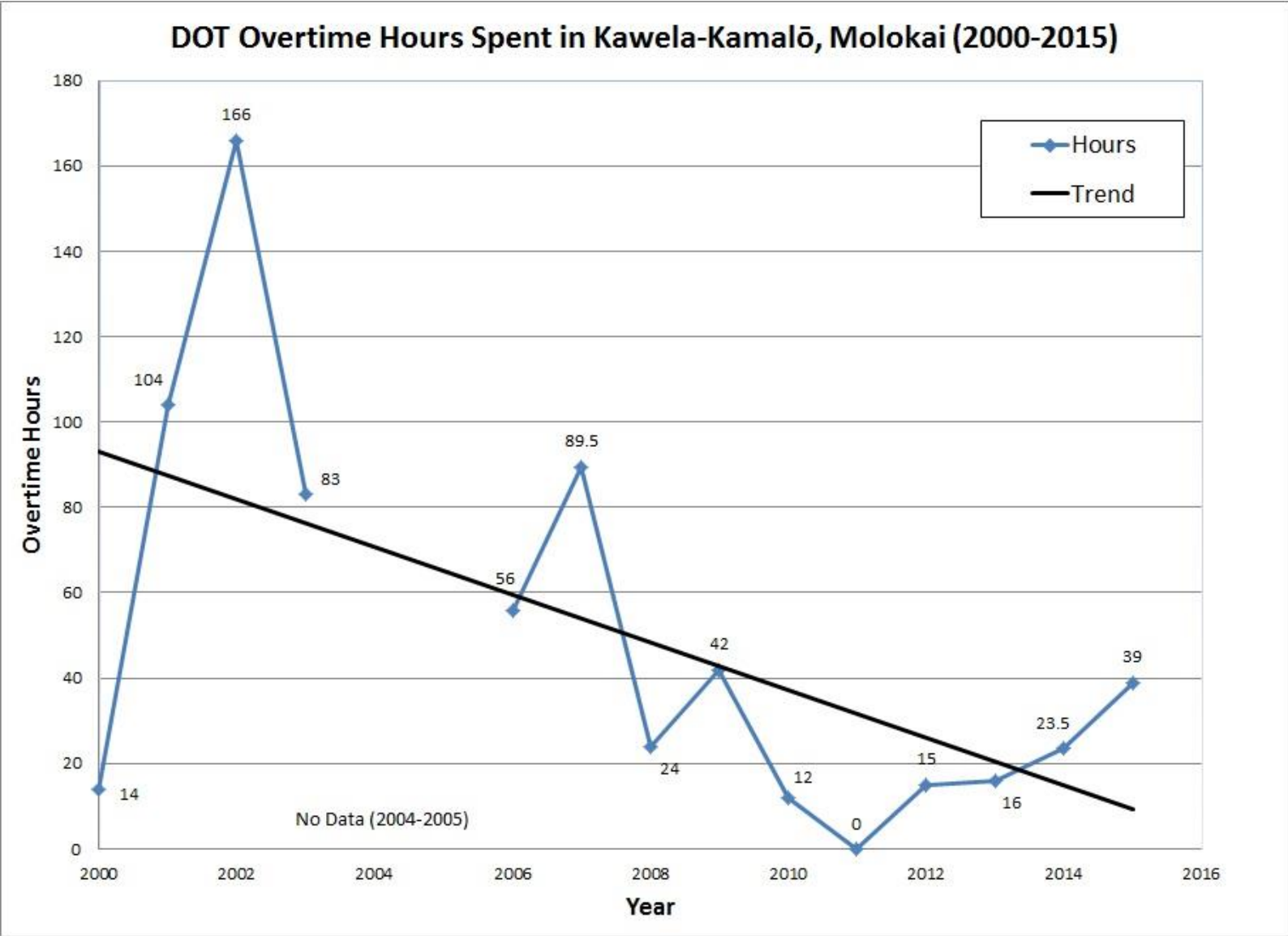



Kawela Ridge Site 1 Unfenced - February 2014
Vegetation Ground Cover over 70%



Site data has shown that **erosion decreased 10 fold** from 2007 to 2013, and through scientific modeling, this results in the decrease of sedimentation into the ocean via Kawela stream from **over 6 tons per year in 2007, to less than 2 tons per year in 2013!**

Public Safety and Economic Benefits





Strongly encourage Water Resource Committee members to “see for yourselves” the watershed areas we are charged with managing.

I speak for all the partnerships when I say “come visit our sites, we will be happy to take you and show you how important the funding is that you provide for us!” Thank you for your unwavering support.

Our future in Maui Nui is tied to our high quality water supply!