

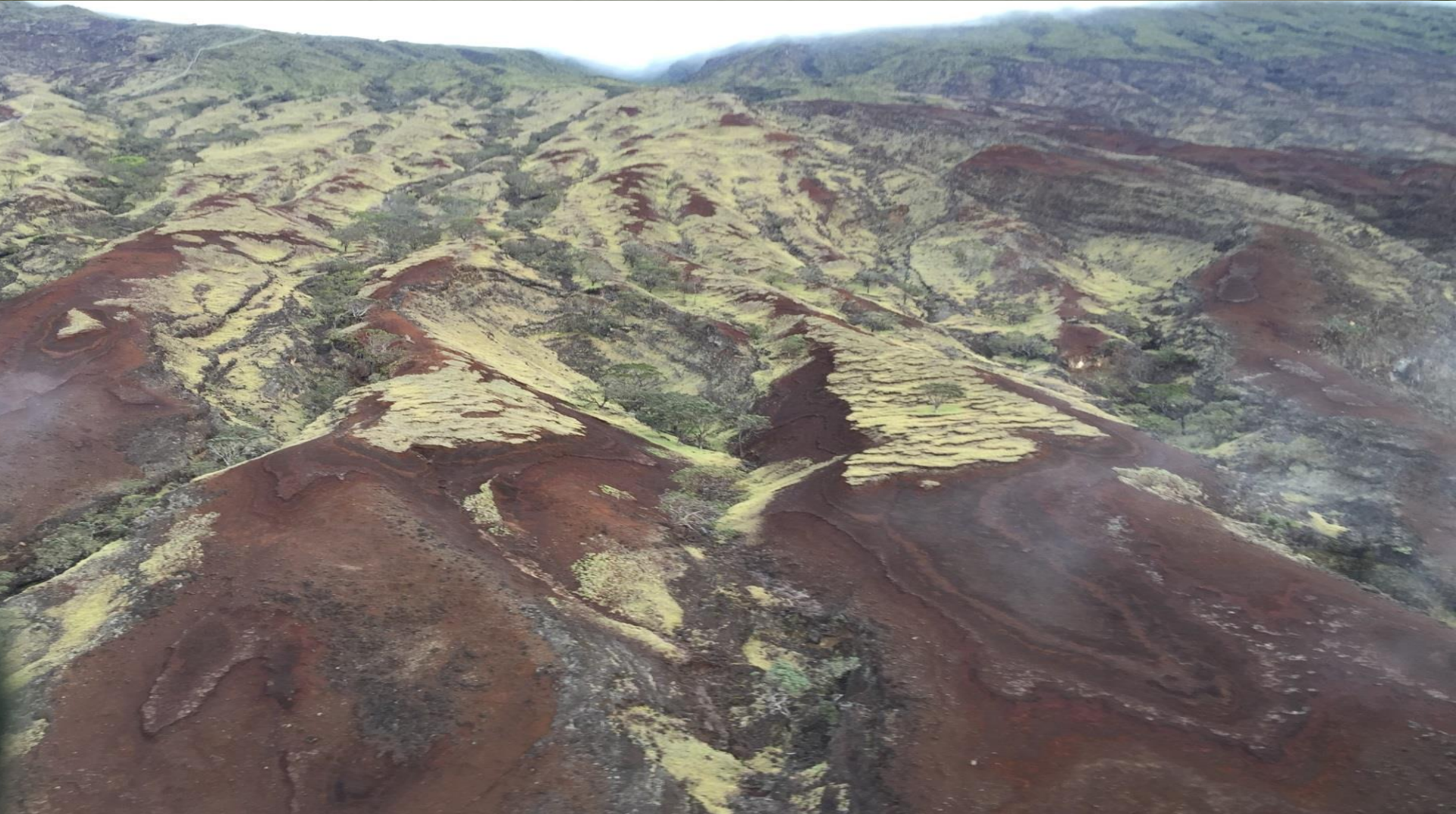
E ho'omau i nā moku koa o Maui

Leeward Haleakalā Watershed
Restoration Partnership

Mohala i ka wai ka maka o ka pua

Unfolded by the water are the faces of flowers

-Flowers thrive where there is water, as thriving people are found where living conditions are good



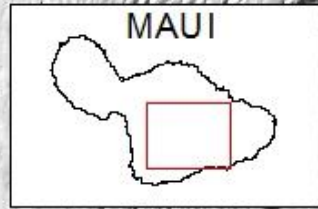
Sedimentation of coastal ecosystems and economic impacts for communities



Fire and storm effects at Kahikinui

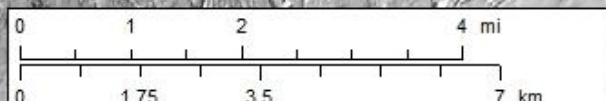
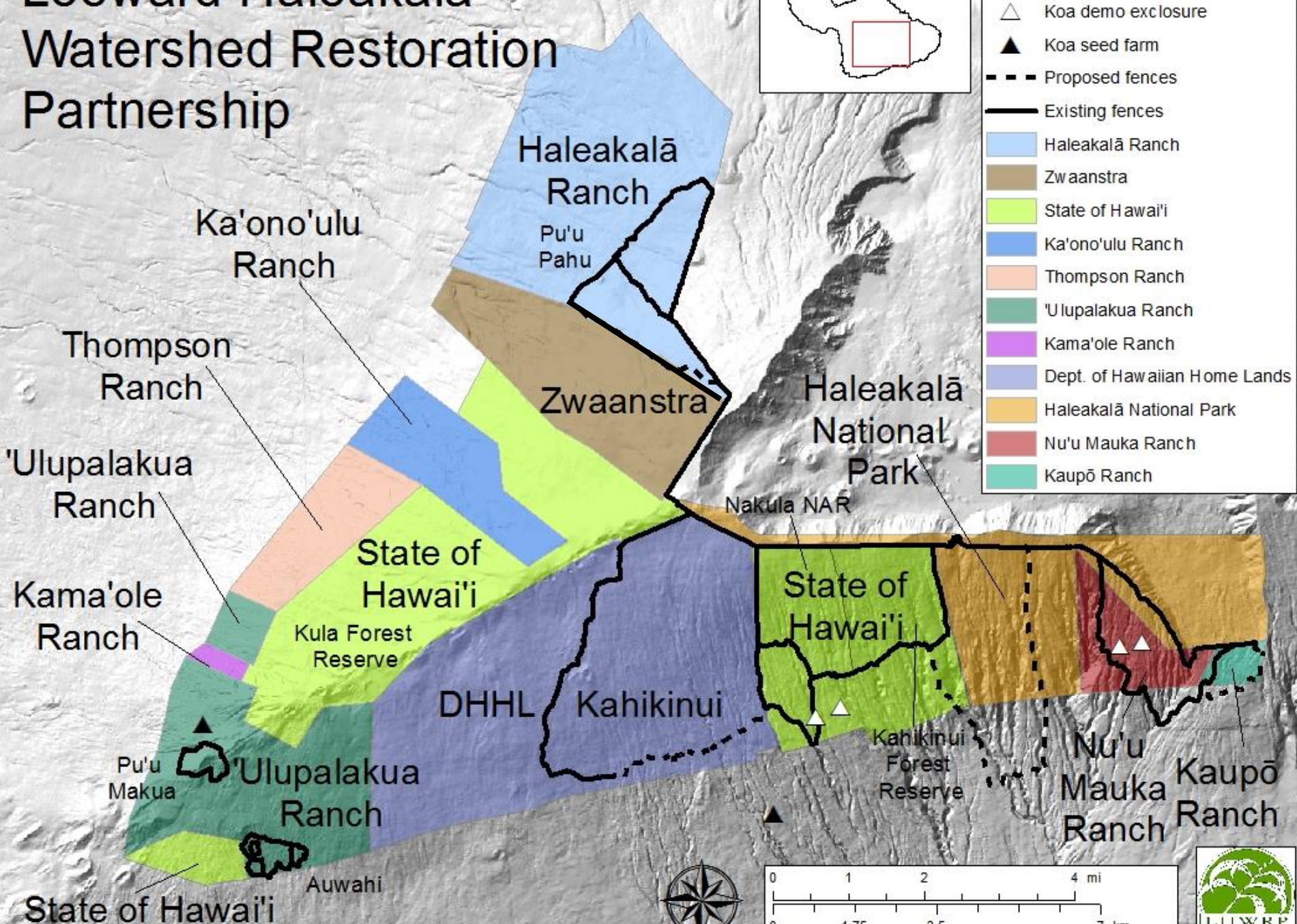


Leeward Haleakalā Watershed Restoration Partnership



Legend

- Koa demo enclosure
- Koa seed farm
- Proposed fences
- Existing fences
- Haleakalā Ranch
- Zwaanstra
- State of Hawai'i
- Ka'ono'ulu Ranch
- Thompson Ranch
- 'Ulupalakua Ranch
- Kama'ole Ranch
- Dept. of Hawaiian Home Lands
- Haleakalā National Park
- Nu'u Mauka Ranch
- Kaupō Ranch



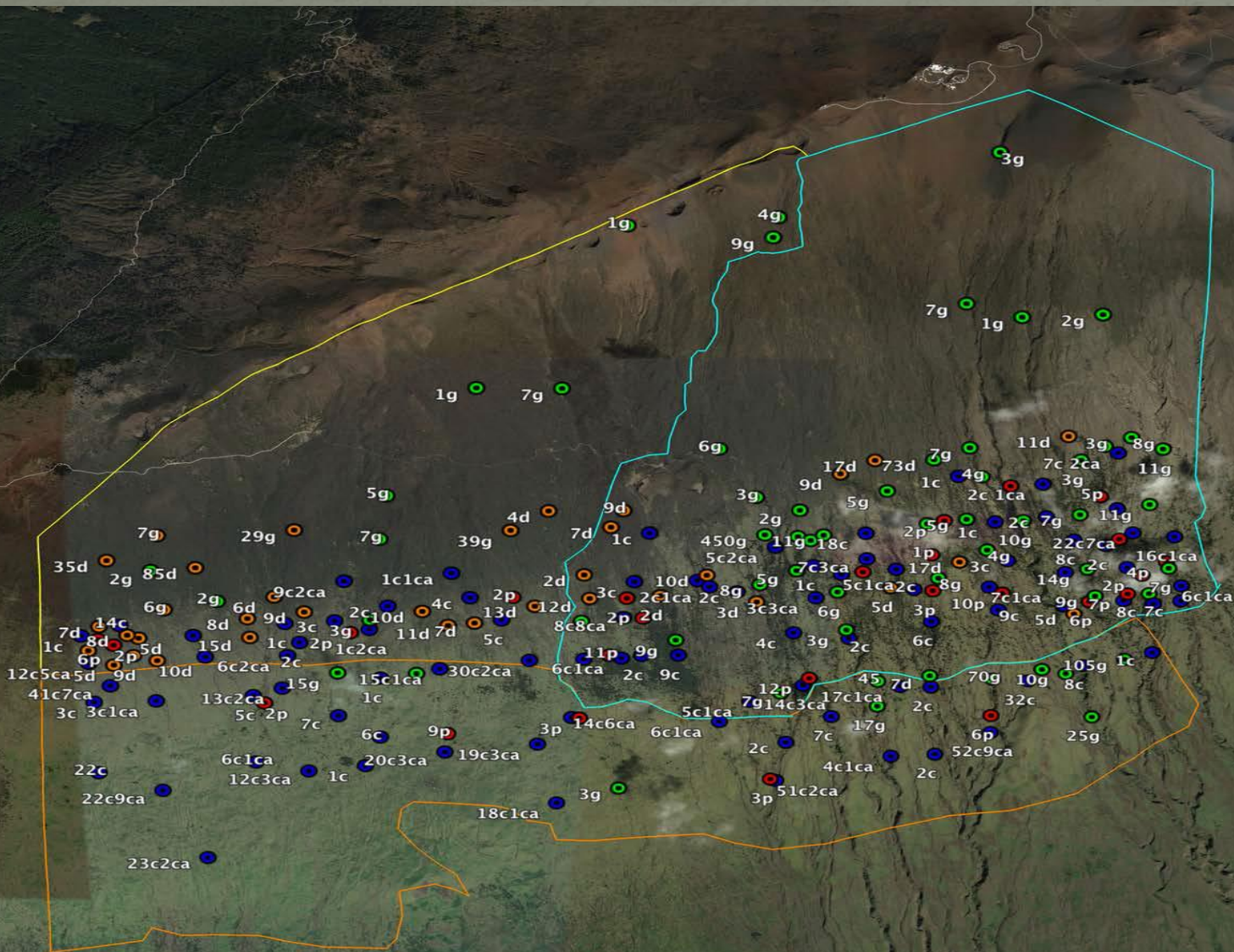
Wildfire preparedness and prevention





Kahikinui ungulate management planning

at minimum...988 (389) cows, 1324 (931) goats, 449 (131) deer, 123 pigs (89)



Priority invasive species control

Leeward Haleakalā Watershed Restoration Partnership

Invasive Species
Control Efforts

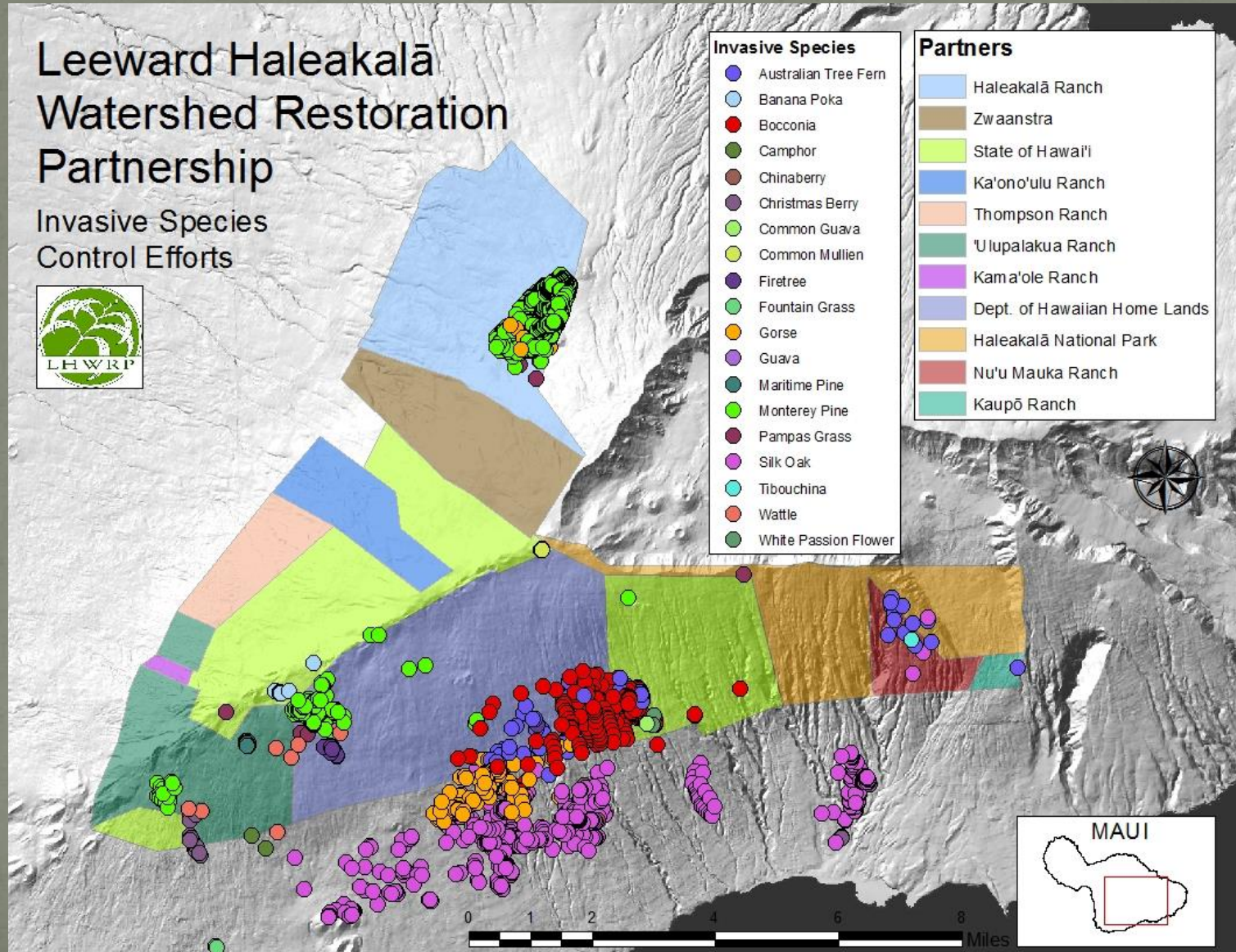


Invasive Species

- Australian Tree Fern
- Banana Poka
- Bocconia
- Camphor
- Chinaberry
- Christmas Berry
- Common Guava
- Common Mullien
- Firetree
- Fountain Grass
- Gorse
- Guava
- Maritime Pine
- Monterey Pine
- Pampas Grass
- Silk Oak
- Tibouchina
- Wattle
- White Passion Flower

Partners

- Haleakalā Ranch
- Zwaanstra
- State of Hawai'i
- Ka'ono'ulu Ranch
- Thompson Ranch
- 'Ulupalakua Ranch
- Kam a'ole Ranch
- Dept. of Hawaiian Home Lands
- Haleakalā National Park
- Nu'u Mauka Ranch
- Kaupō Ranch



Bocconia (*Bocconia frutescens*) at DHHL-Kahikinui



Rappelling for
Bocconia at
Nākula Natural
Area Reserve and
Haleakalā Ranch



New technologies- drones and HBT

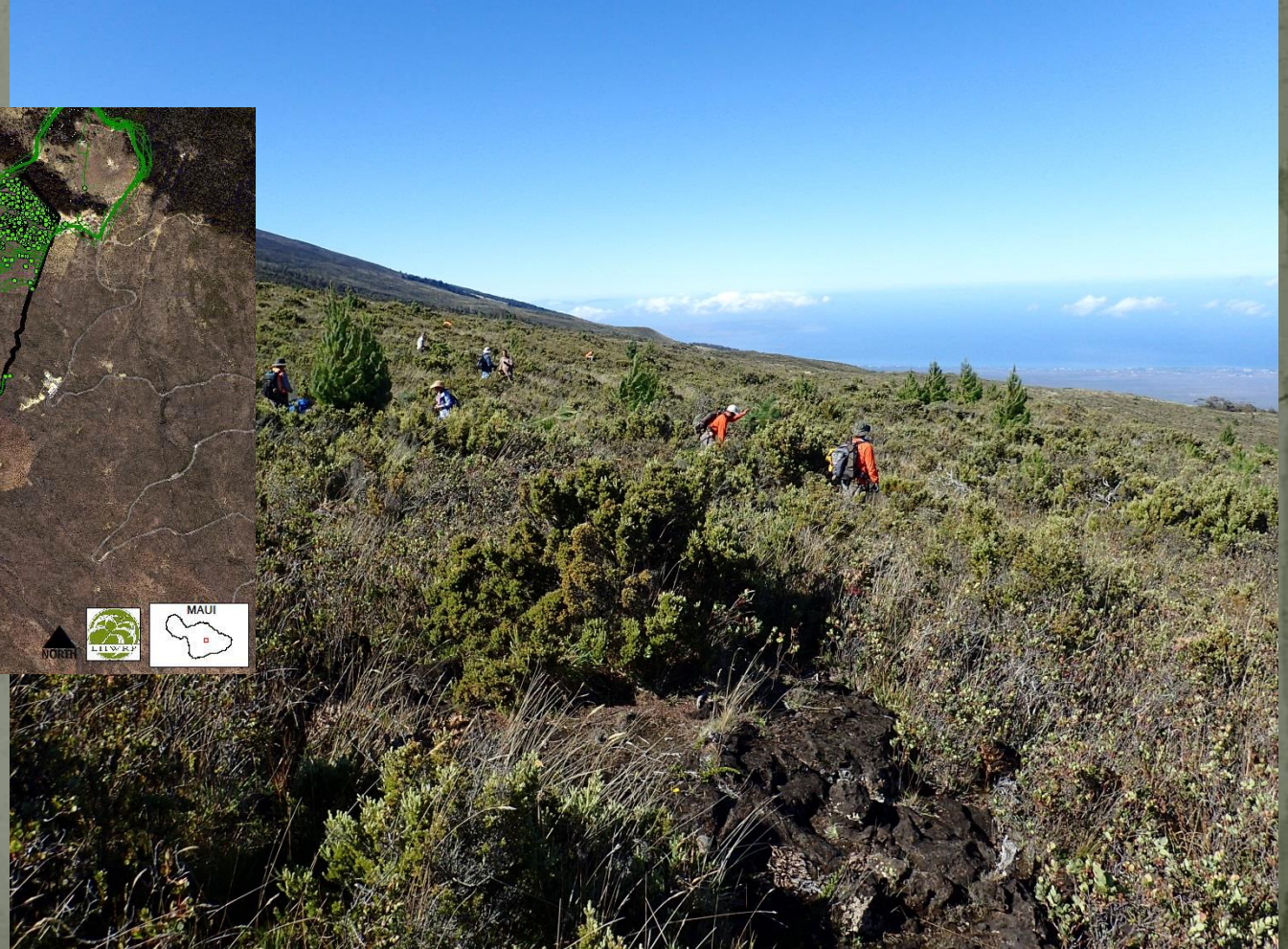
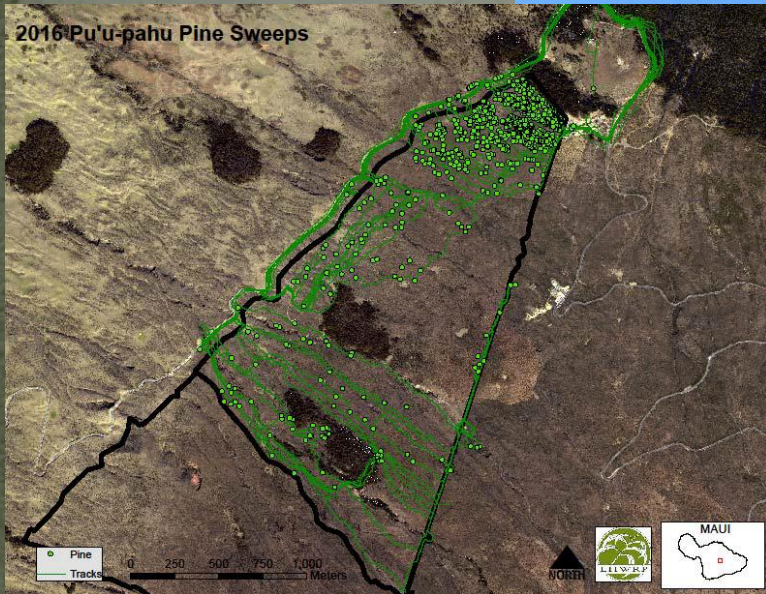


Biological control of strawberry guava at Nāholokū



Interagency pine sweeps at Pu'u Pahu

Haleakalā Ranch, Haleakalā National Park, MISC, East Maui Watershed Partnership, Maui Plant Extinction Prevention Program, Maui Nui Seabird Recovery Project, The Nature Conservancy, Maui NARS and others controlled 1,200 pines



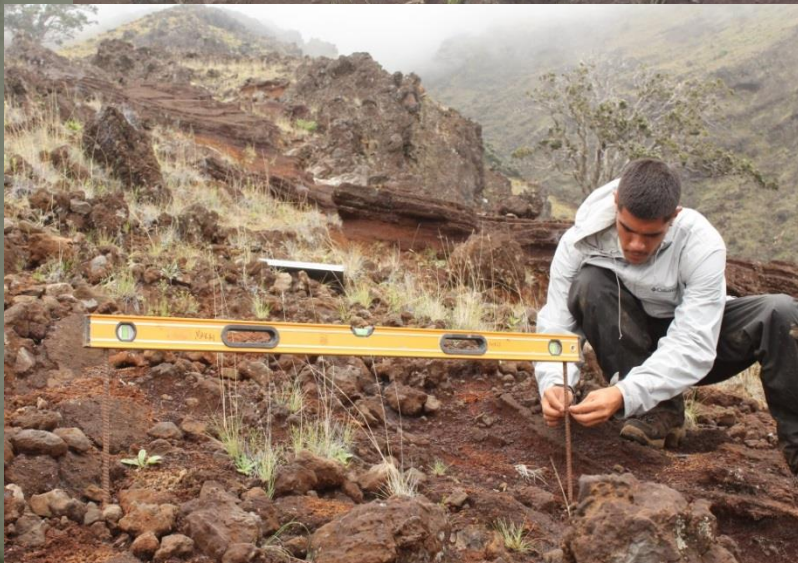
Base camp establishment



Erosion mitigation at Nu'u



Erosion mitigation and monitoring



Planted over 18,000 native seedlings at Nu'u Mauka, Kaupō, Nākula, and Kahikinui Forest Reserve



Natural regeneration at Nu'u



Seed collection

Over four million seeds from twenty native species collected



Identifying and expanding koa seed sources, as well as seed collection and storage capacity



Seed farms with HARC and Nu'u Mauka Ranch

3 HARC sites nearly complete, one planned for 2017, one koa'ia farm complete at Nu'u



Climate monitoring with CTAHR and Hydrology studies with U.S. Geological Survey



Fog drip capture with Dr. Jim Juvik at Kahikinui



Rare species protection

*“He keiki aloha nā
mea kanu”*

Beloved children are the
plants”

-‘Olelo No’eau, Mary Kawena
Puku’i



First outplantings of *Cyanea obtusa*

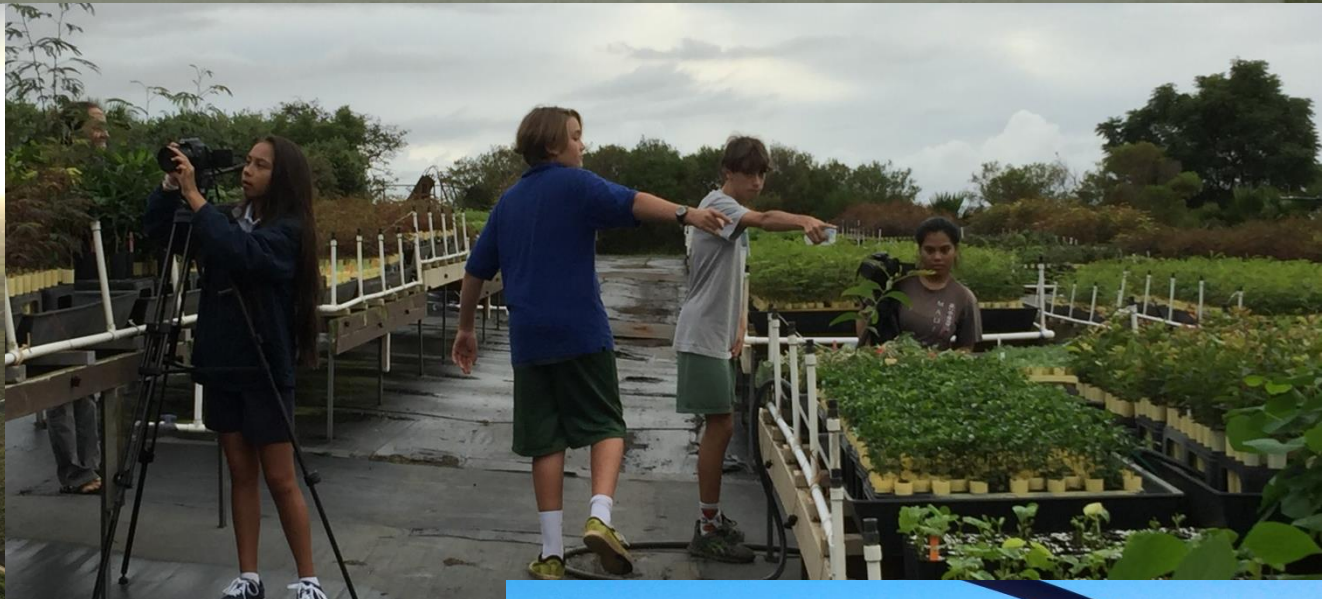
after rediscovering a single plant in Manawainui, Kahikinui, in February 2012



Maui Land Snail Working Group



Maui Huliau student film program



Environmental education program

310 students, four schools, 600 volunteer hours



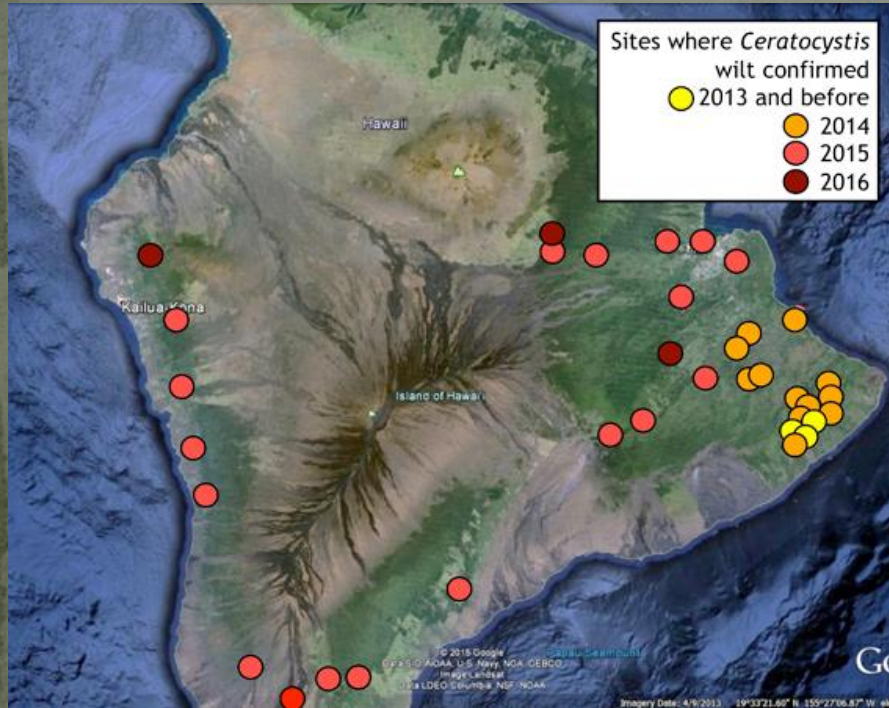
Seed ball deployment



Long-term monitoring plots



Rapid 'ōhi'a death – over 47,000 acres on Hawai'i Island



Mahalo piha

For your leadership,
dedication, and
commitment

