

Albizia Assassins!

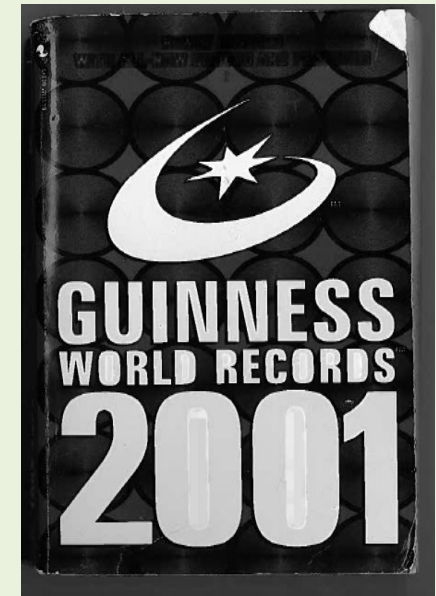
Big Island Natural Area Weed
Management Forum
April 13, 2018

Bill Buckley
Big Island Invasive Species Committee





- Albizia (*Falcataria moluccana*) one of the most commonly planted trees in Forest Reserves of Hawaii in early 20th century (~140,000 albizia planted across state).
- Native to Moluccan Islands and Indonesia
- Fast growing tree: 10-15 feet per year
- Abundant wind dispersed seeds after 4 years





Problem?

- Brittle branches
 - Shallow root system
 - Break or fall over in wind event
-
- Tropical Storm Iselle
 - August 2014
 - Smashed lower Puna
 - Many w/o power for weeks
 - Emergency access blocked
 - Cost in the multi-millions
 - Almost entirely due to albizia



2011



- May 2013 Technical Working Group begins
 - BIISC
 - State HDOT
 - County DPW
 - HELCO
 - DOFAW
 - USFS
 - Others

2013

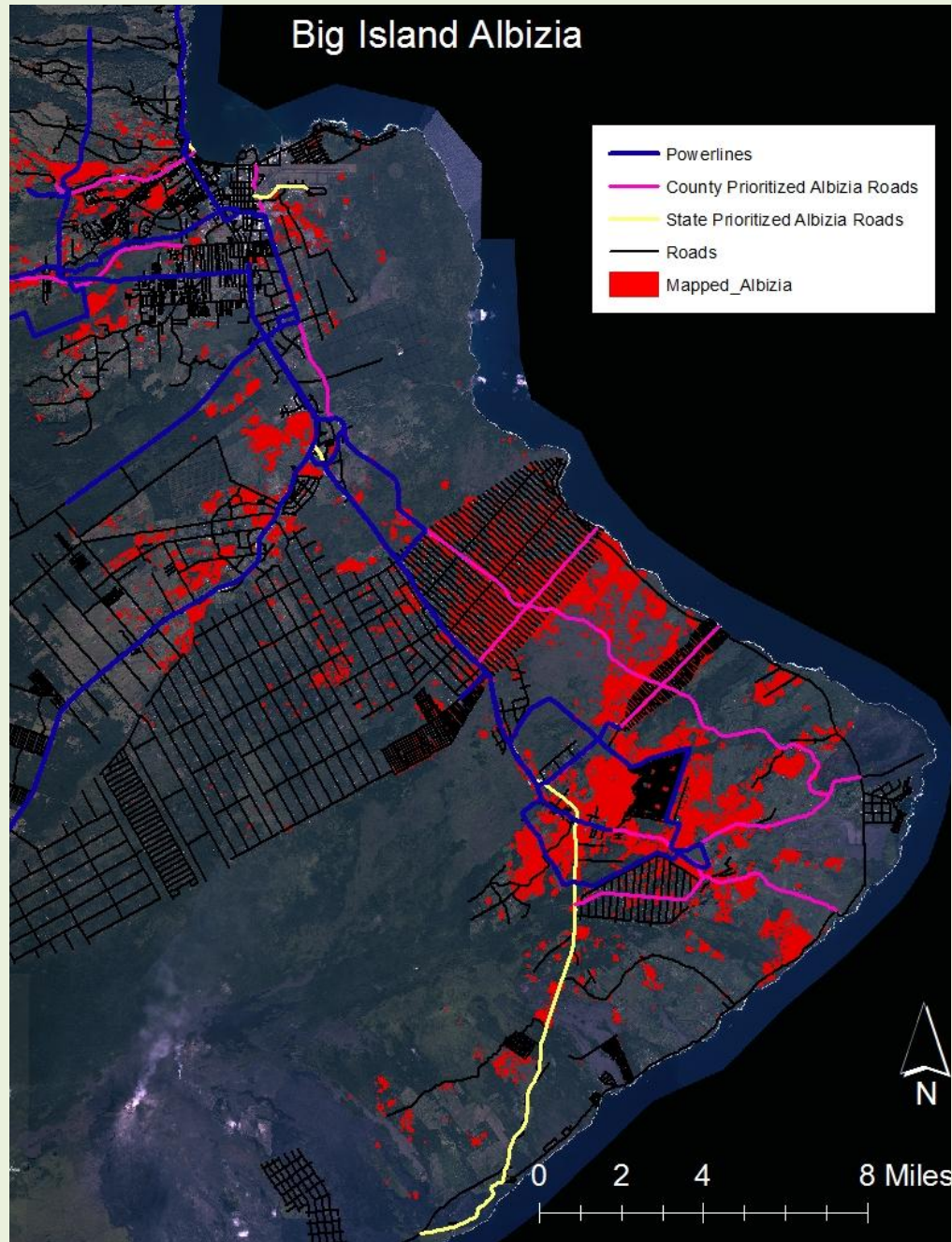


- Three Goals of Working Group:
 - Identify Priority Infrastructure
 - Look for Innovative Approach
 - Community Engagement

Oopsie, forgot to mow the lawn 😞



Big Island Albizia



1) Identify Priority Infrastructure

County

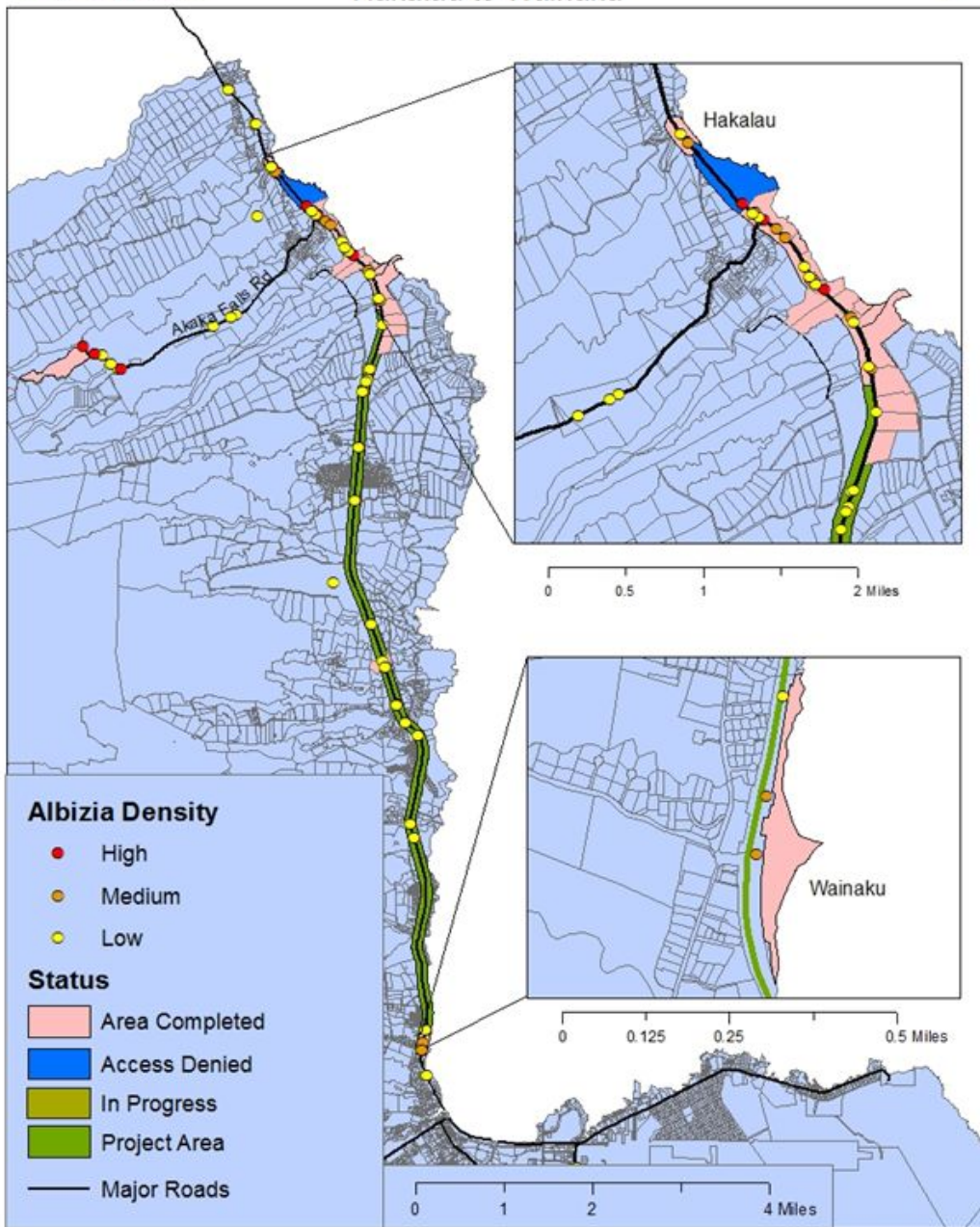
- 22.3 miles of Hazard Trees
- 845 acres of Non-Hazard Trees
- \$1.8 million

State

- 8.8 mile of Hazard Trees
- 314 acres of Non-Hazard Trees
- \$1.3 million

HELCO

- 18 miles of Hazard Trees
- 655 acres of Non-Hazard Trees



5-year Albizia Emergency Hazard Mitigation Plan

Project Site	Percent Complete
County	
Puainako Extension	90%
Hilo Landfill	65%
Maku`u Street Phase 1	0%
Kapoho Road	80%
Maku`u Street Phase 2	0%
Waiianuenue	10%
Kahakai Blvd	20%
Pohoiki Road	70%
Leilani Ave	20%
Railroad Ave	0%
HDOT	
Puainako Street	90%
Hawaii Belt Road	90%
Hwy 130 Keaau-Pahoa Road	85%
Hwy 11 Mamalahoa Hwy	100%
Hilo Aiport Access Road	50%
HELCO	
Piihonua 7400 12 mi	100%
Nanawale 6500 29 mi	100%
Leilani 8700 18 mi	100%
Kaumana 9200 2 mi	100%





2) Innovative Approach

- Work in partnership to secure access permission
- Fell or trim all hazardous trees
- Treat all non-hazardous trees within 100 meters of infrastructure with Milestone Herbicide





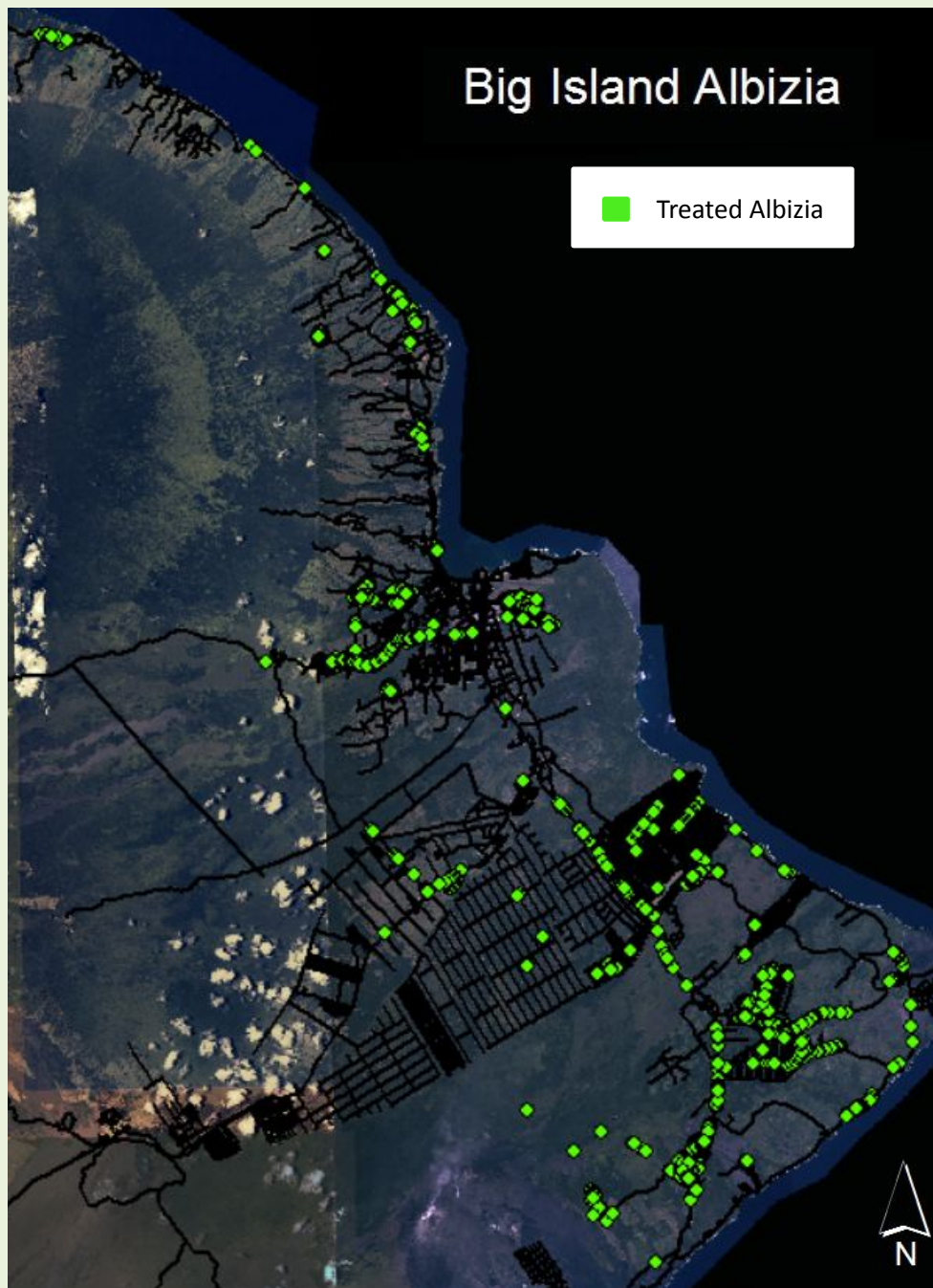
Incision Point Application using Milestone Herbicide AKA “Hack and Squirt”

0.5 mL (~1/60th
ounce) per application

Non Hazard Trees:
\$3-5 per tree (paid
labor and supplies)

About \$200 per acre





BIISC Albizia Treatments Since 2013

- >142,000 trees treated
- ~5,500 acres
- >10 Priority road miles



Albizia Control at Piihonua with HELCO

6 weeks, 60 acres

6,000 trees

\$22,550 (Non-hazard Trees)

\$224,000 (Hazard Trees)





3) Community Engagement

>550 community members attended albizia workshops since 2014

~13,500 trees treated during work days by community members



Albizia Assassins!



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Thank You!

Funders:

- Hawaii Invasive Species Council
- US Forest Service
- Hawaii County Council
- Hawaii Department of Transportation

Collaborators:

- US Forest Service
- Hawaii Electric Light Company
- Hawaii Department of Transportation
- Hawaii County Department of Public Works

