

# Stop the Spread of Yellow Starthistle into the Sierra Nevada Mountain Range

*Early Detection and  
Eradication on a Regional Scale*



Cal-IPC Symposium 2008

Wendy West

UC Cooperative Extension

# California Department of Food and Agriculture (CDFA) Project

Funded by National Fish and Wildlife  
Foundation Pulling Together Initiative  
and CDFA

Coordinated by Wendy West,  
University of California Cooperative  
Extension - El Dorado County

# *Project Goals*

- Identify a YST “no spread line”
- Coordinate efforts to stop eastern spread
- Eradicate outlier populations east of the line
- DO THE DOABLE!



# *Project Area*

14 Sierra  
Foothill Counties  
Plumas to Kern



# What are we protecting?

- 12.9 million acres of public lands
- Habitat for 48 threatened or endangered plants and animals



# What are we protecting?

- Property values
- Recreational values
- Forest/timber production





# *Why is this project important?*

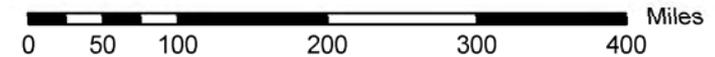
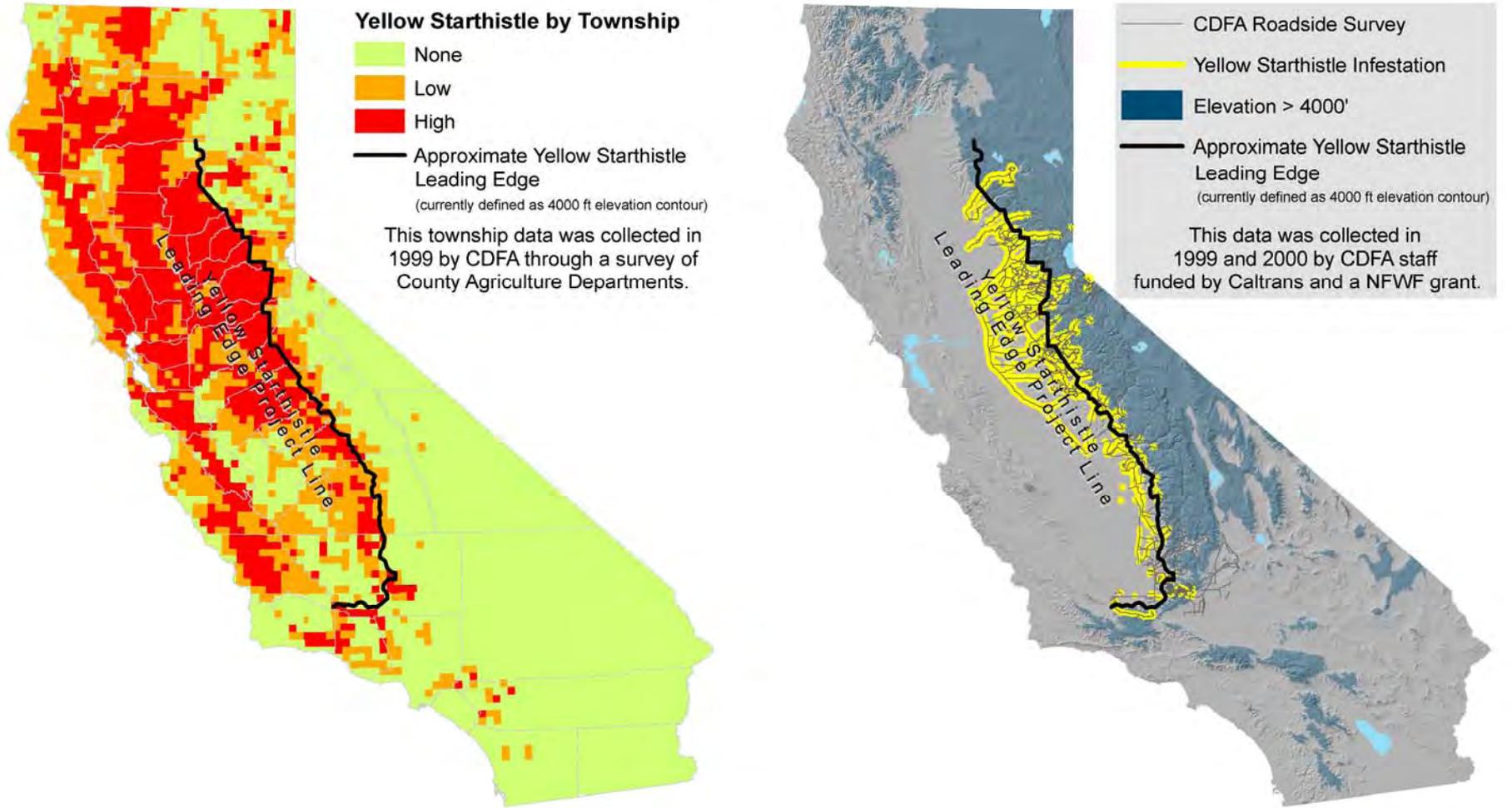
- FOCUSED effort to control YST
- Agency collaboration - statewide
- Regional approach can be used as a model
- Educational opportunity – early detection and rapid response
- Save \$\$\$ by stopping the spread NOW!



# *Objectives*

- Improve coordination and cooperation
- Prioritize and fund mapping and eradication at the county level
- Work with Weed Management Areas (WMA) to identify barriers and needs
- Coordinate with state agencies and public land managers
- Establish “YST Prevention Areas”

# Figure 1: Relationship of Provisional YST Leading Edge Line to Existing YST Survey Data

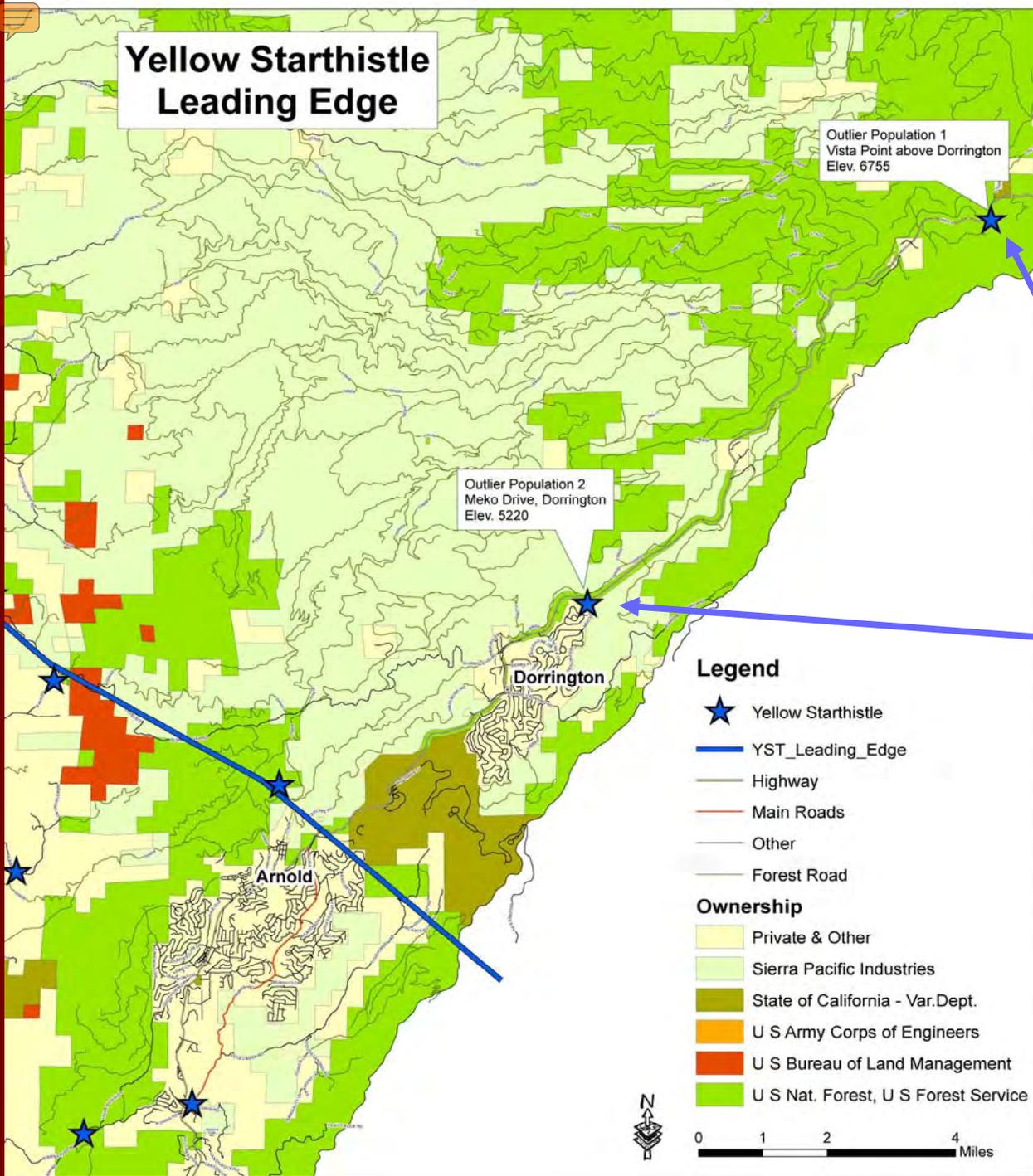




# *Survey and Mapping Components*

- Centralize a YST GIS database at CDFA
- Add data from 2000-2007
- Mini-grants - \$5000 per WMA
- 6 of 14 counties establishing baseline

# Yellow Starthistle Leading Edge



Gained 1200 feet  
in elevation  
on Hwy 4 in  
Calaveras County  
2000 – 2007!

# *Survey Priorities*

## Start east and head west!

- Disturbed areas
  - burned areas, wildfire and controlled
  - construction sites, road and development
- High risk/value areas
  - near threatened and endangered species
  - important wildlife habitat
  - agriculture including timber
  - high value and/or use recreation areas
  - along waterways

# *Identification of Barriers and Needs*

- Funding!
- Ability to hire seasonal and/or part-time staff
- GPS and GIS training



# *Identification of Barriers and Needs*

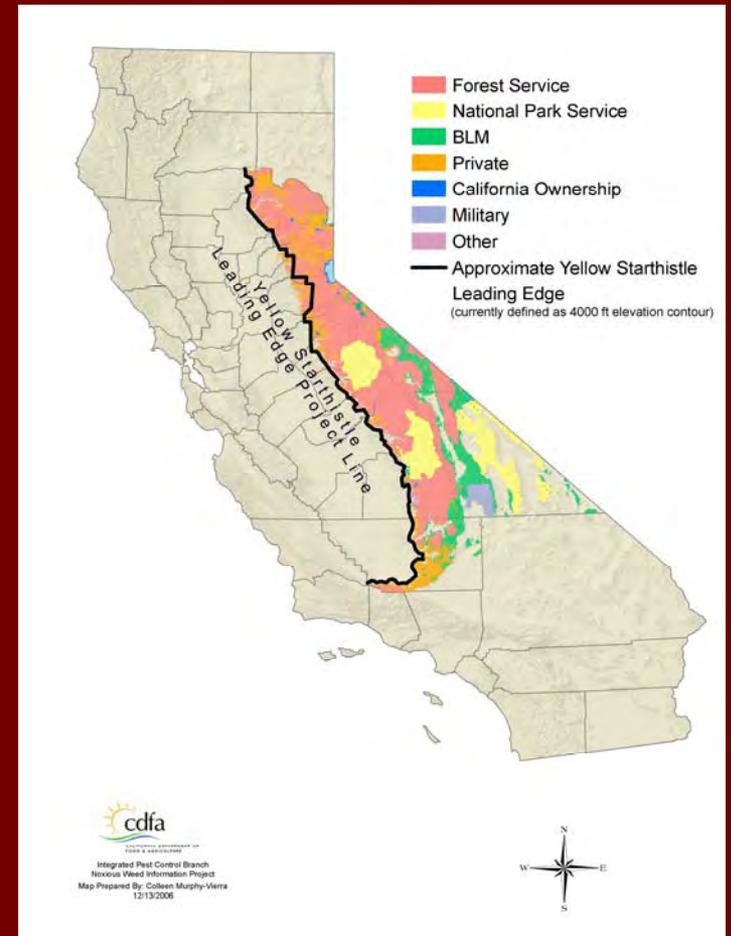
- Coordination with agencies
- Not all treatment tools available
- Engaging private landowners; access to private lands



# *Coordination with Agencies*

Engaging at the local and state level:

- BLM – three districts
- Two National Parks
- Six National Forests
- Utility Districts
- Caltrans, local road depts.



# Surveys Completed

- 24,700 gross acres
- 2,950 miles of roadway



# Treatment

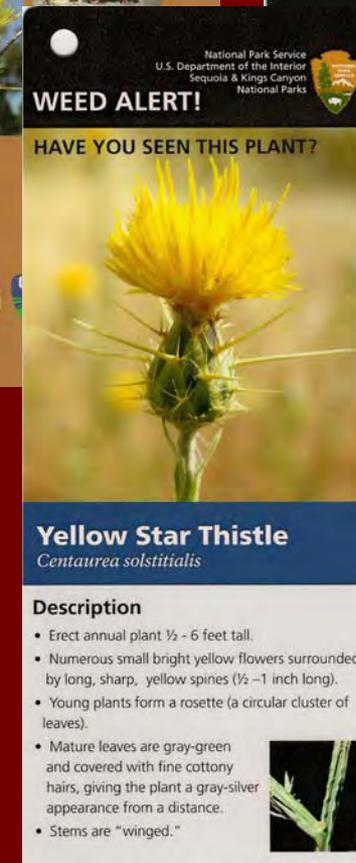
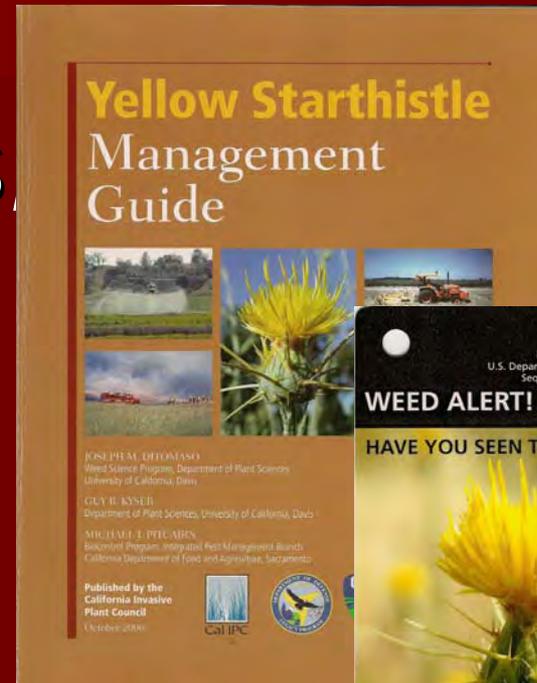
- Hand pulled
  - 24 acres at 15-20% cover
  - 41 miles of roadway at 15-20% cover
- Herbicide treatment on 137 net acres





# Outreach and Education

- Presentations to BOS, planning boards, agricultural commissions, homeowners associations
- Site visits
- Reached +1950 landowners!



# YST Prevention Zones

**ENTERING  
Yellow Starthistle  
Prevention Area**

**Protecting the  
Sierra Nevada Mountains  
from invasive Yellow  
Starthistle!**

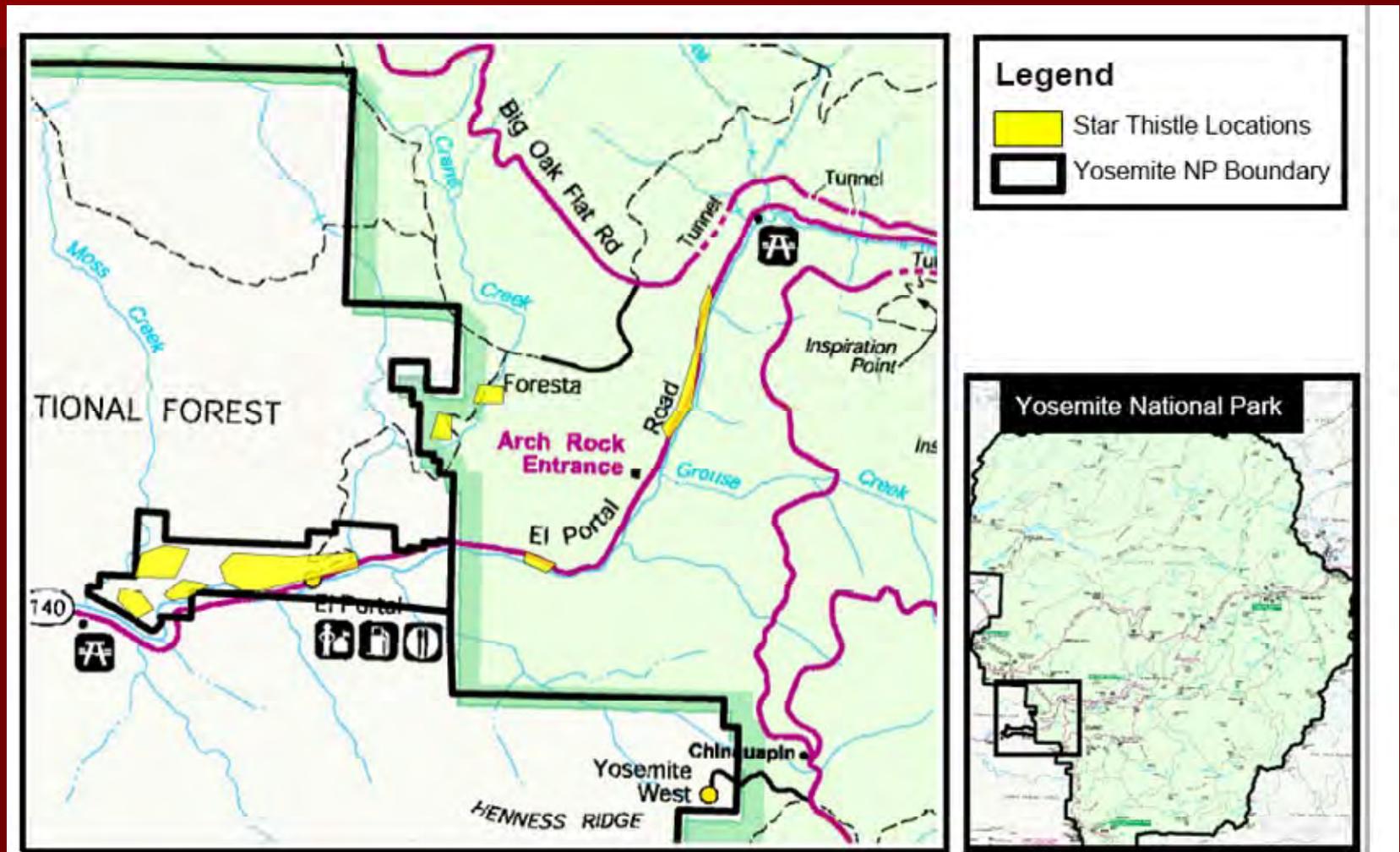
**If you see this plant  
call (530) 621-5533**





Merced Canyon Project  
Highway 140

# Yosemite National Park Environmental Assessment to expand treatment



# *High Priority Areas*

Hwy 180 at Fresno -  
Tulare County  
Border

Sierra Resource  
Conservation  
District

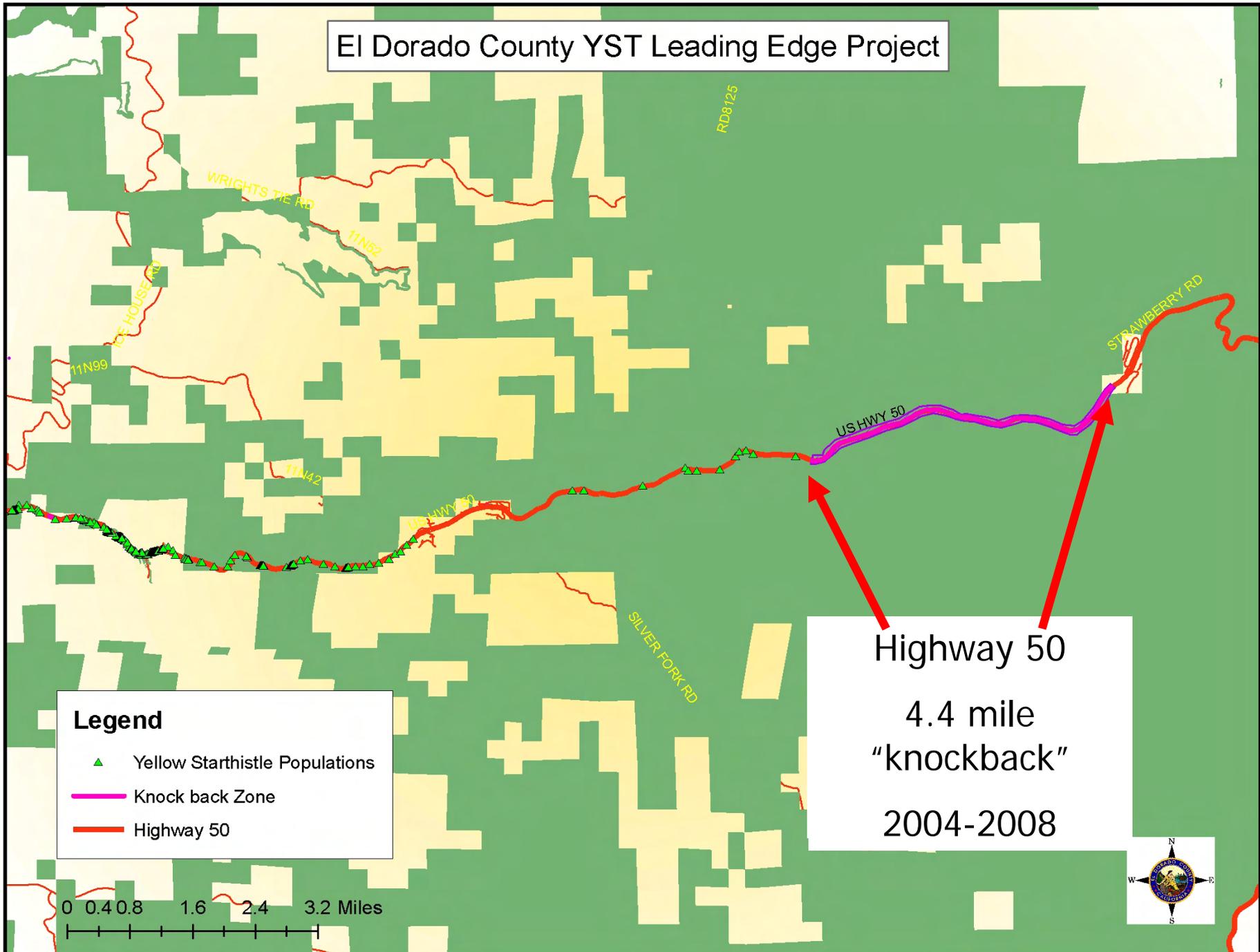
Sequoia National  
Forest

Sequoia-Kings  
National Park

Squaw Valley private  
landowners



# El Dorado County YST Leading Edge Project



**Legend**

- ▲ Yellow Starthistle Populations
- Knock back Zone
- Highway 50

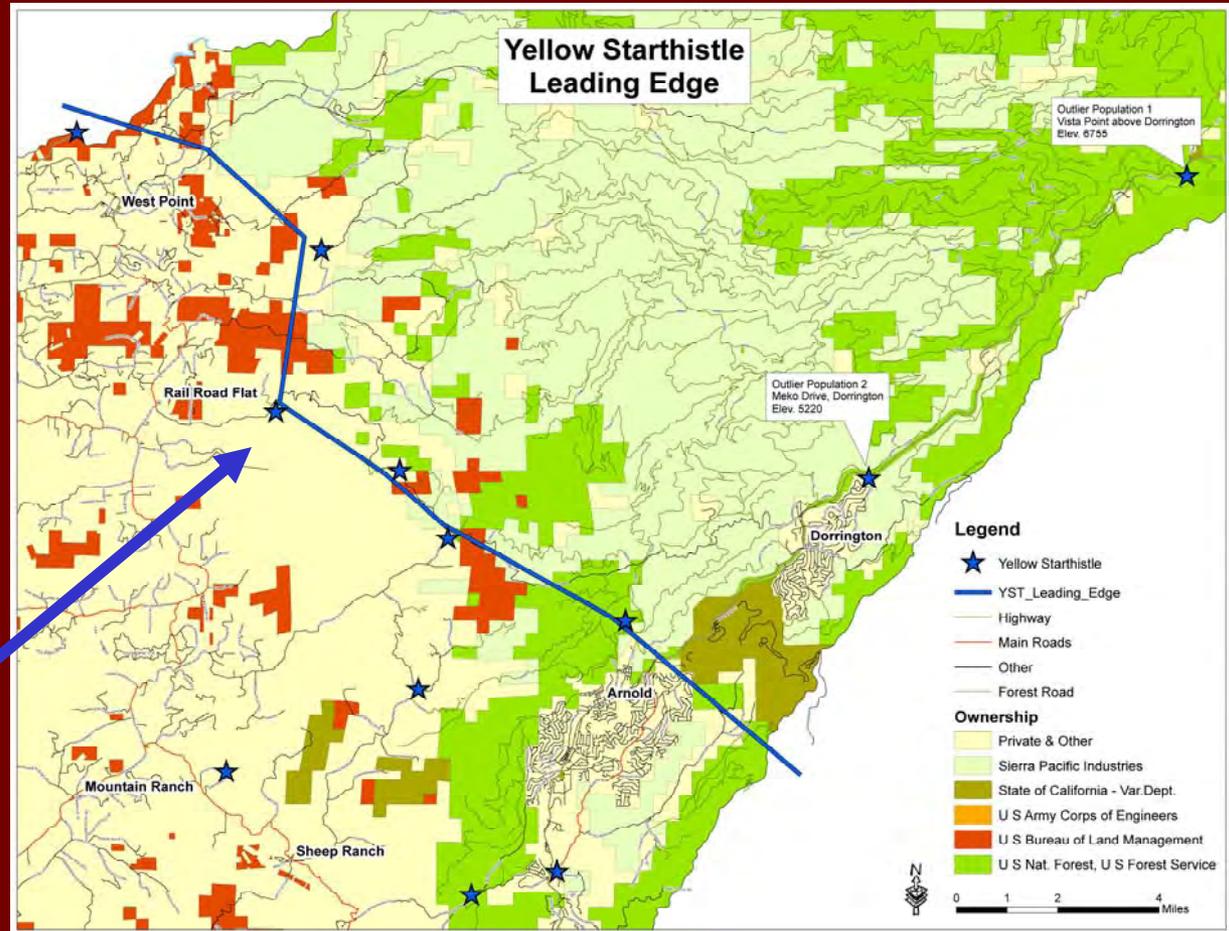
Highway 50  
4.4 mile  
"knockback"  
2004-2008

0 0.4 0.8 1.6 2.4 3.2 Miles

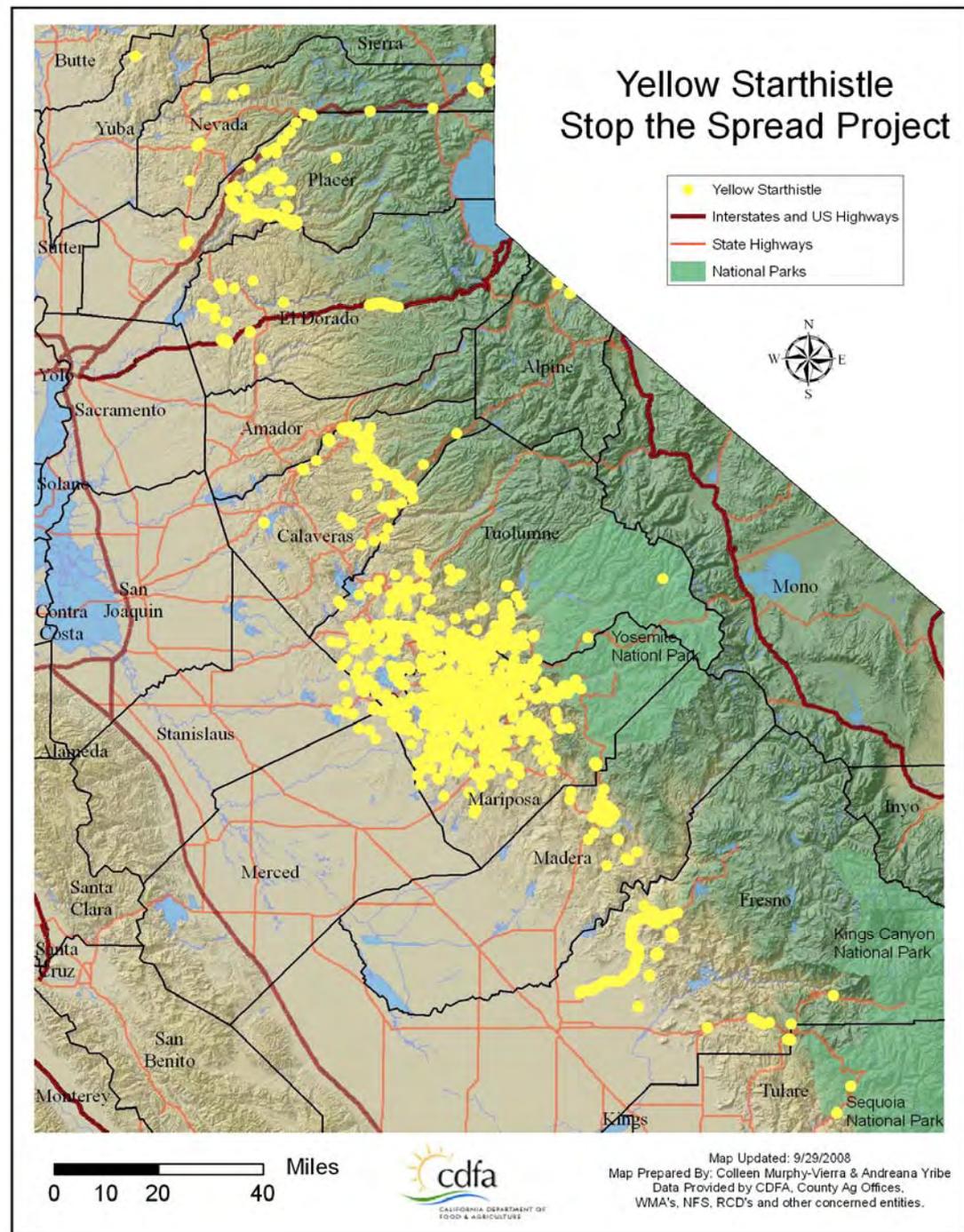


# Next Steps

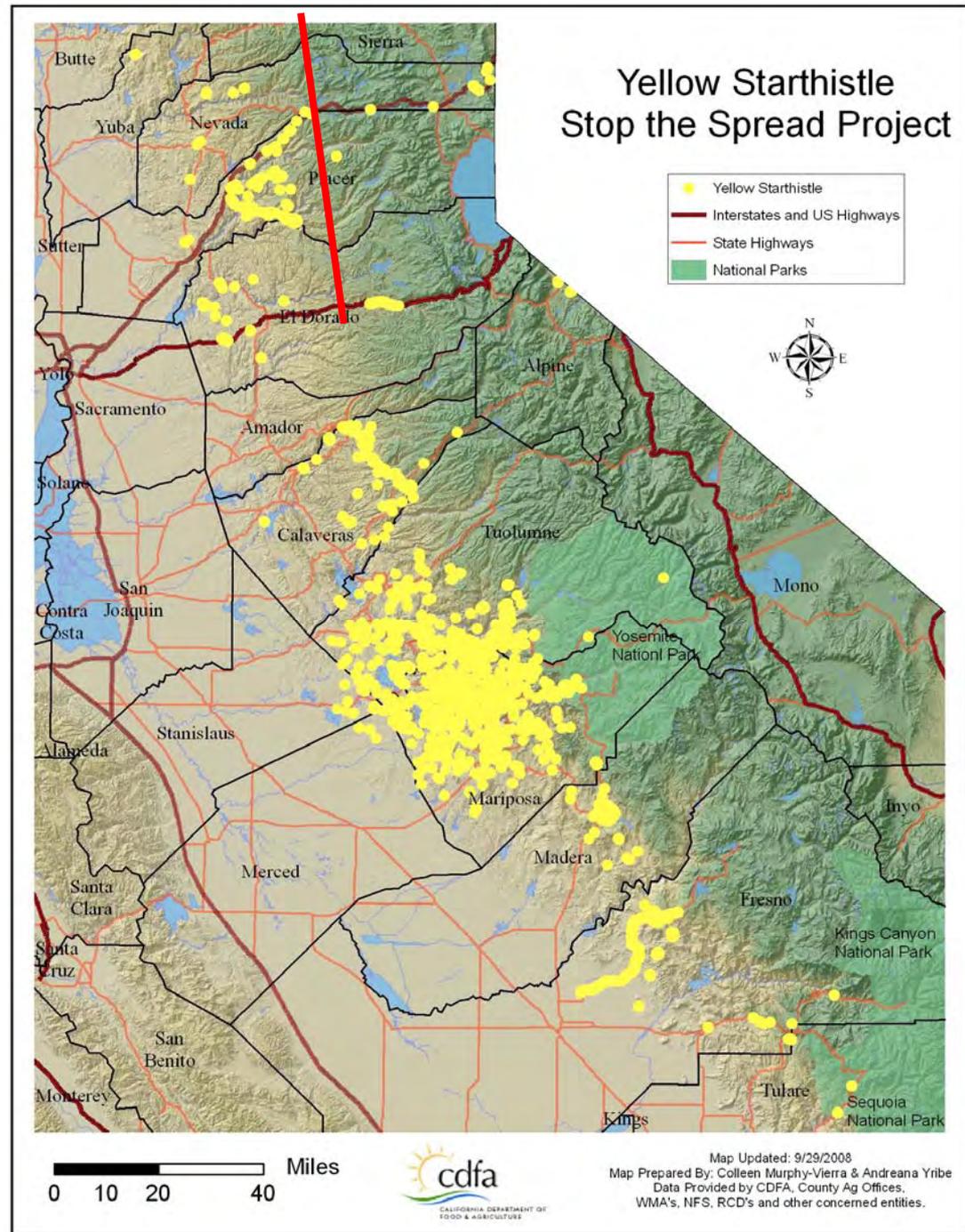
Analyze the data  
and  
define the  
“no spread”  
line at the  
local level



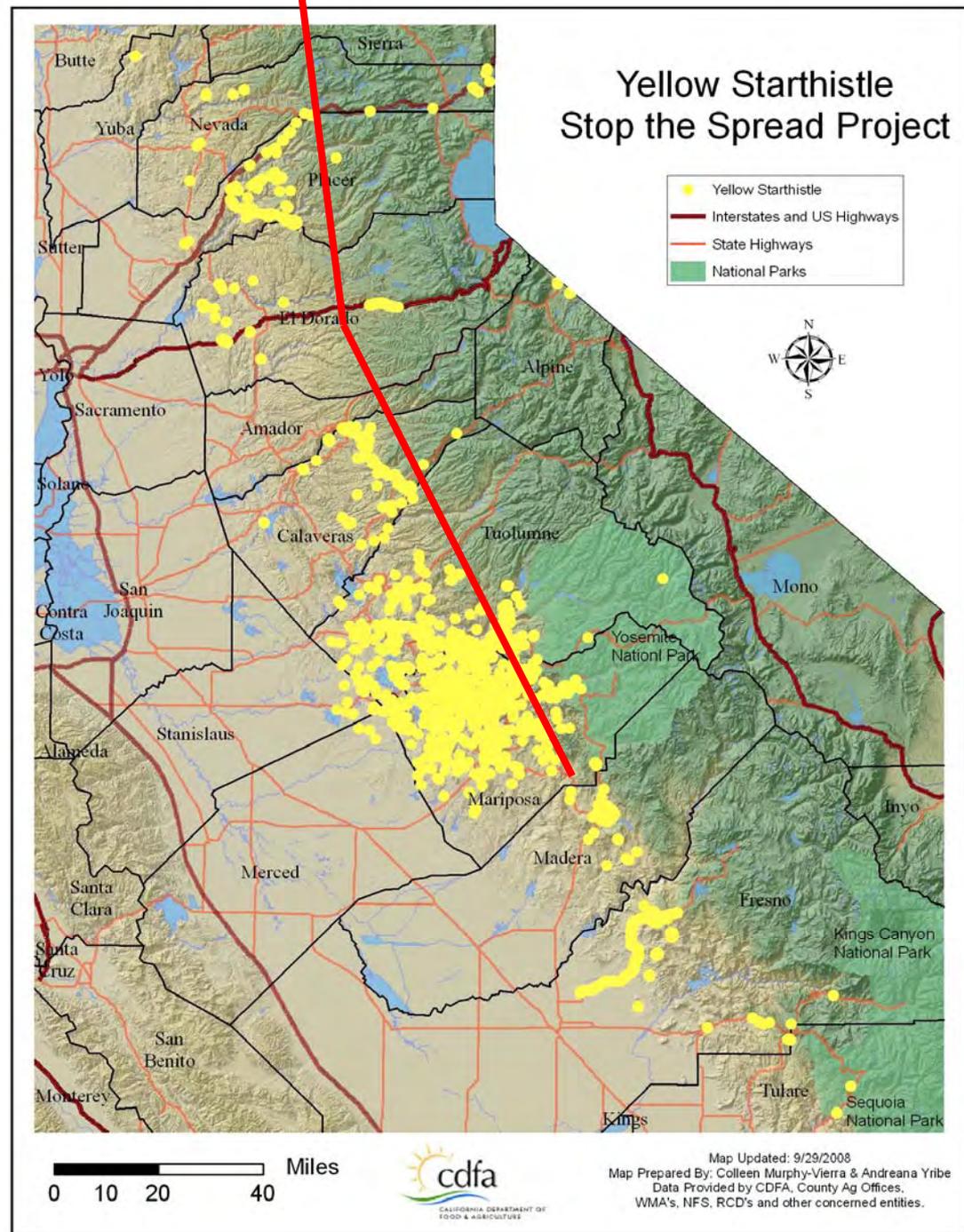
Connect the  
"dots"  
across the  
region



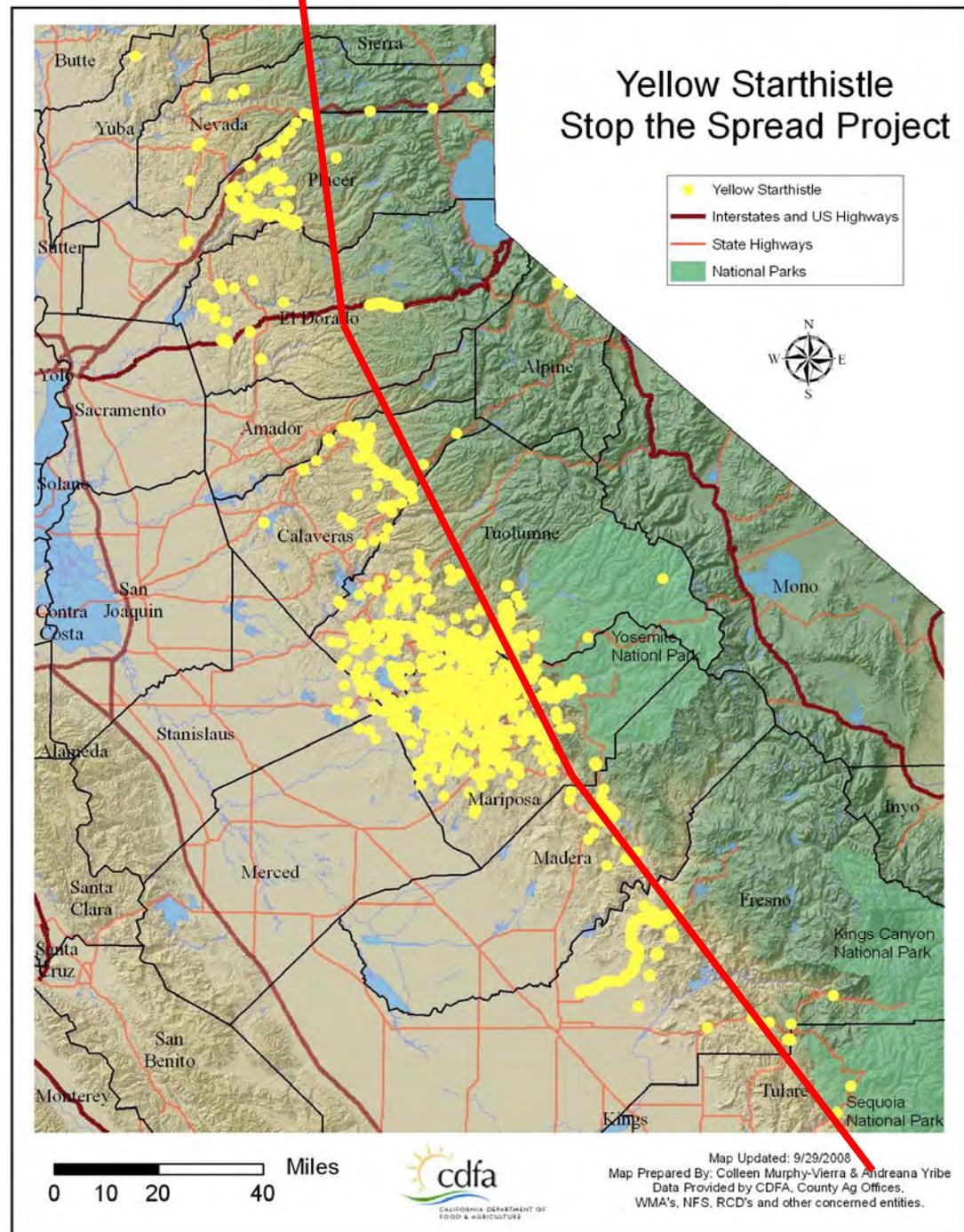
Connect the  
"dots"  
across the  
region



Connect the  
"dots"  
across the  
region



Connect the  
"dots"  
across the  
region



# *Next Steps*

- Identify and eradicate outlier infestations east of the line
- Control YST along the “no-spread” line
- Compile WMA data annually and update the REGIONAL “stop the spread” line

# *Next Steps*

- Secure funding for follow-up survey and treatment
- Prevention and best practices – educational materials
  - Planners/building departments
  - Construction industry
  - Landscaping contractors and professionals
  - Materials suppliers
  - Recreationists
- Voluntary “Weed Free” certification for materials suppliers

*Thank You*

Project info at CDFA Encycloweedia:

[www.cdfa.ca.gov/phpps/ipc/encycloweedia/encycloweedia\\_hp.htm](http://www.cdfa.ca.gov/phpps/ipc/encycloweedia/encycloweedia_hp.htm)

Wendy West, UCCE

(530) 621-5533 or [wkwest@ucdavis.edu](mailto:wkwest@ucdavis.edu)