Ranch Scale Strategies for Managing Weeds

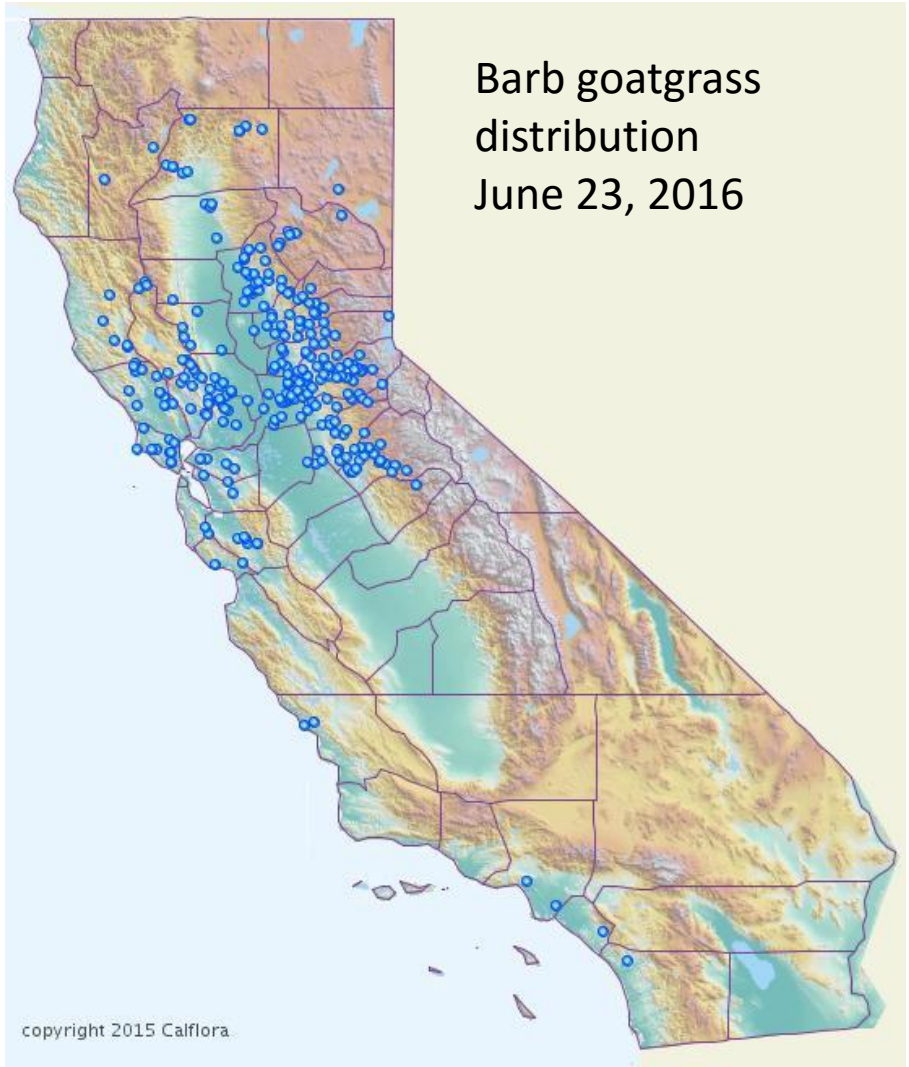
Philip Brownsey

Rangeland Restoration Academic Coordinator

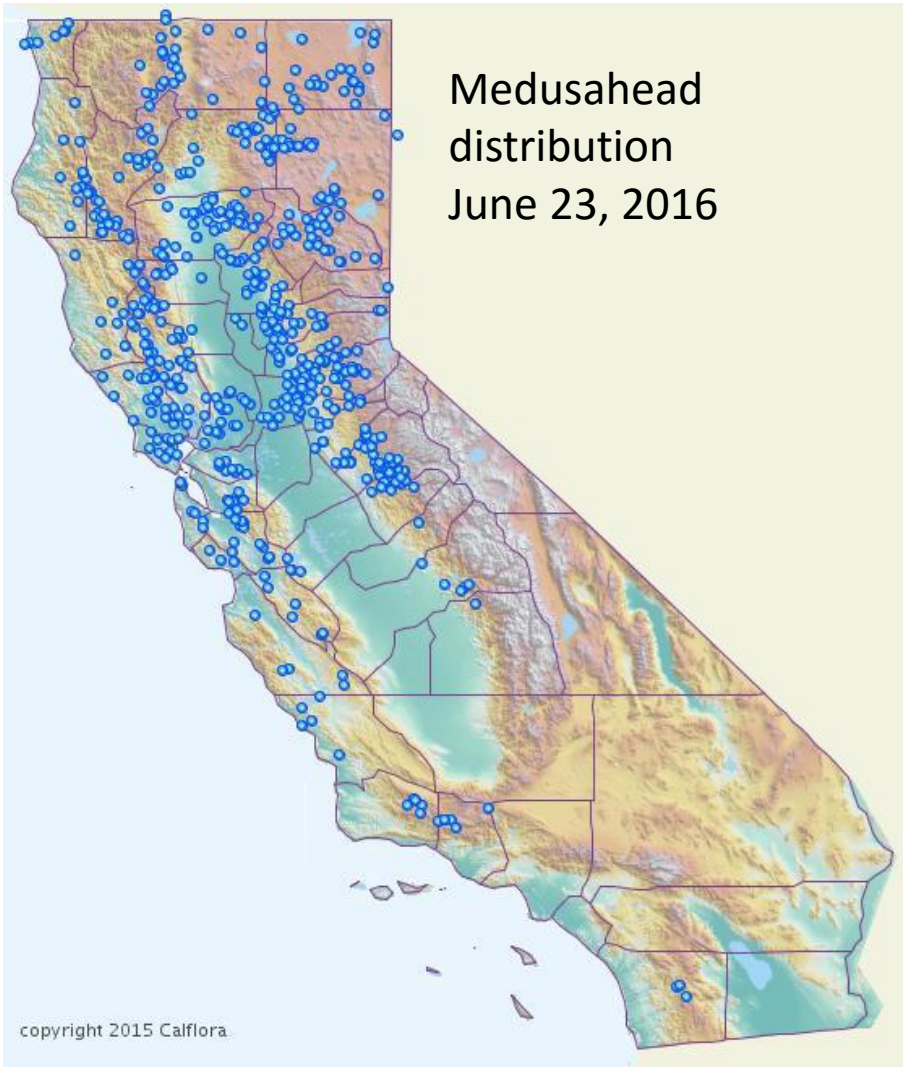
Sierra Foothill Research and Extension Center

June 28, 2016

University of California
Agriculture and Natural Resources | Research and Extension Center System



Barb goatgrass distribution
June 23, 2016



Medusahead distribution
June 23, 2016

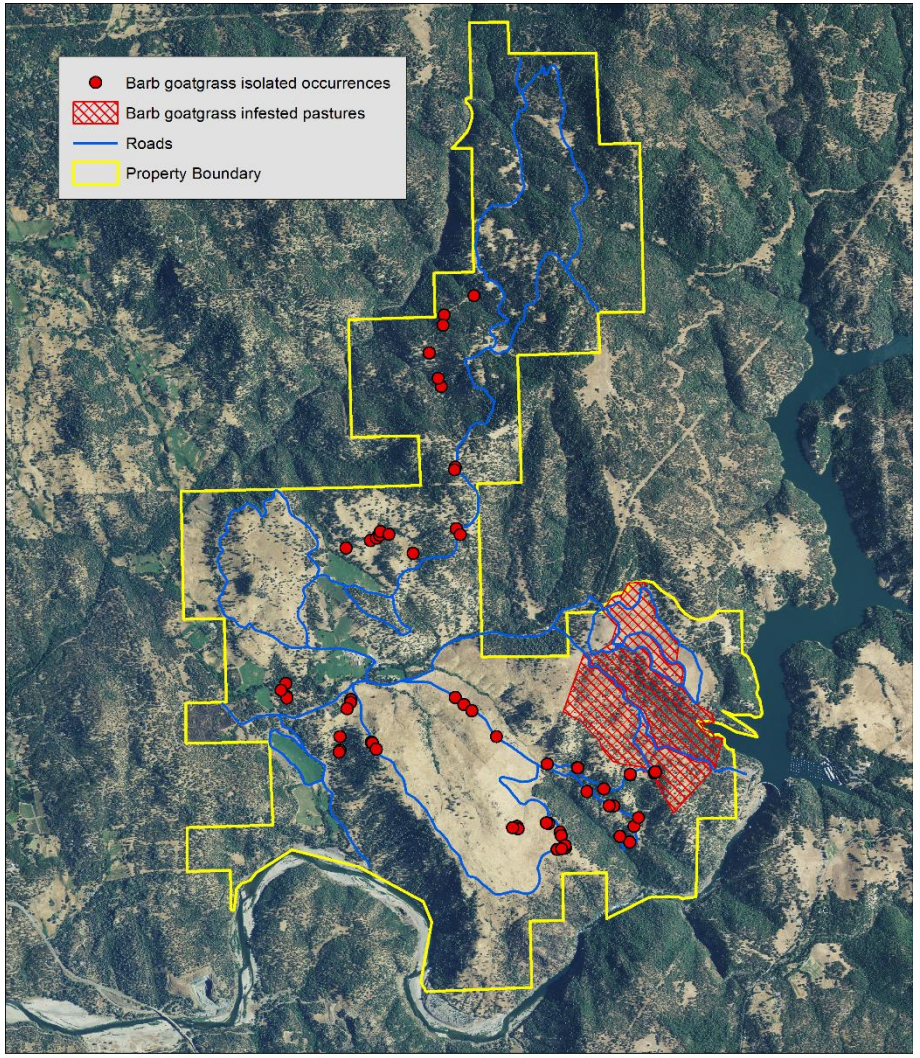
Approach

Ecologically-Based Invasive Plant Management

- Inventory
- Assess
- Prioritize/Plan
- Track progress/re-evaluate

Inventory

- Where are infestations and satellite populations?
- What is weed-free?
- Where do you lack information?



Inventory Tools

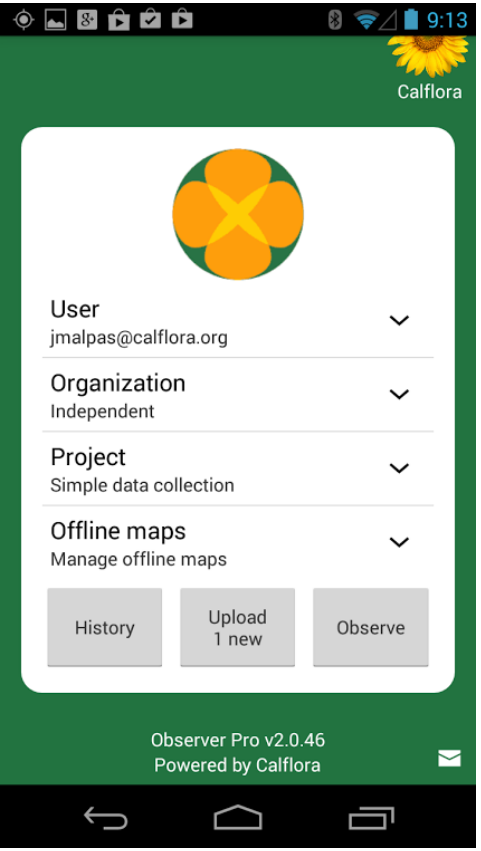
- Notebook
- Paper map
- CalFlora.org and CalFlora Observer: web-based and mobile apps
- Anything else that works for you (can you find the data 5 years from now?)

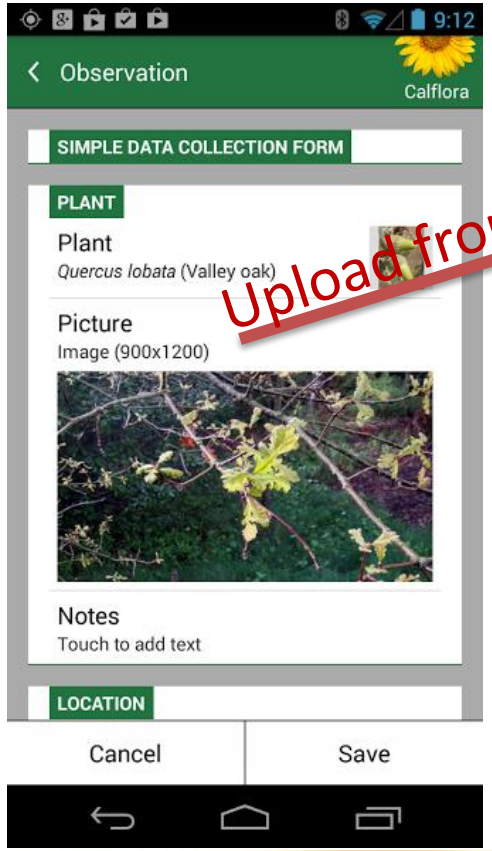
Inventory

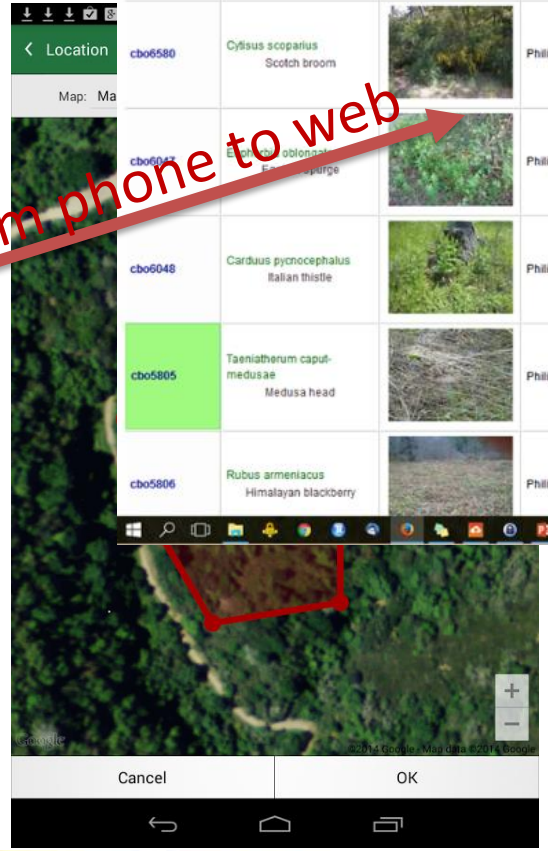
- Where are infestations and satellite populations?
- What is weed-free?
- Where do you lack information?

Pasture	Date	Species	Extent
Campbell	*6/15/2016*	*Barb goatgrass*	*Widespread, 25% cover*
Porter	*4/30/2016*	*Barb goatgrass*	*6 Isolated patches, about 200 ft^2*
Forbes	*5/16/2015*	*Barb goatgrass*	*Goatgrass free*
Koch		*Barb goatgrass*	*Unknown*

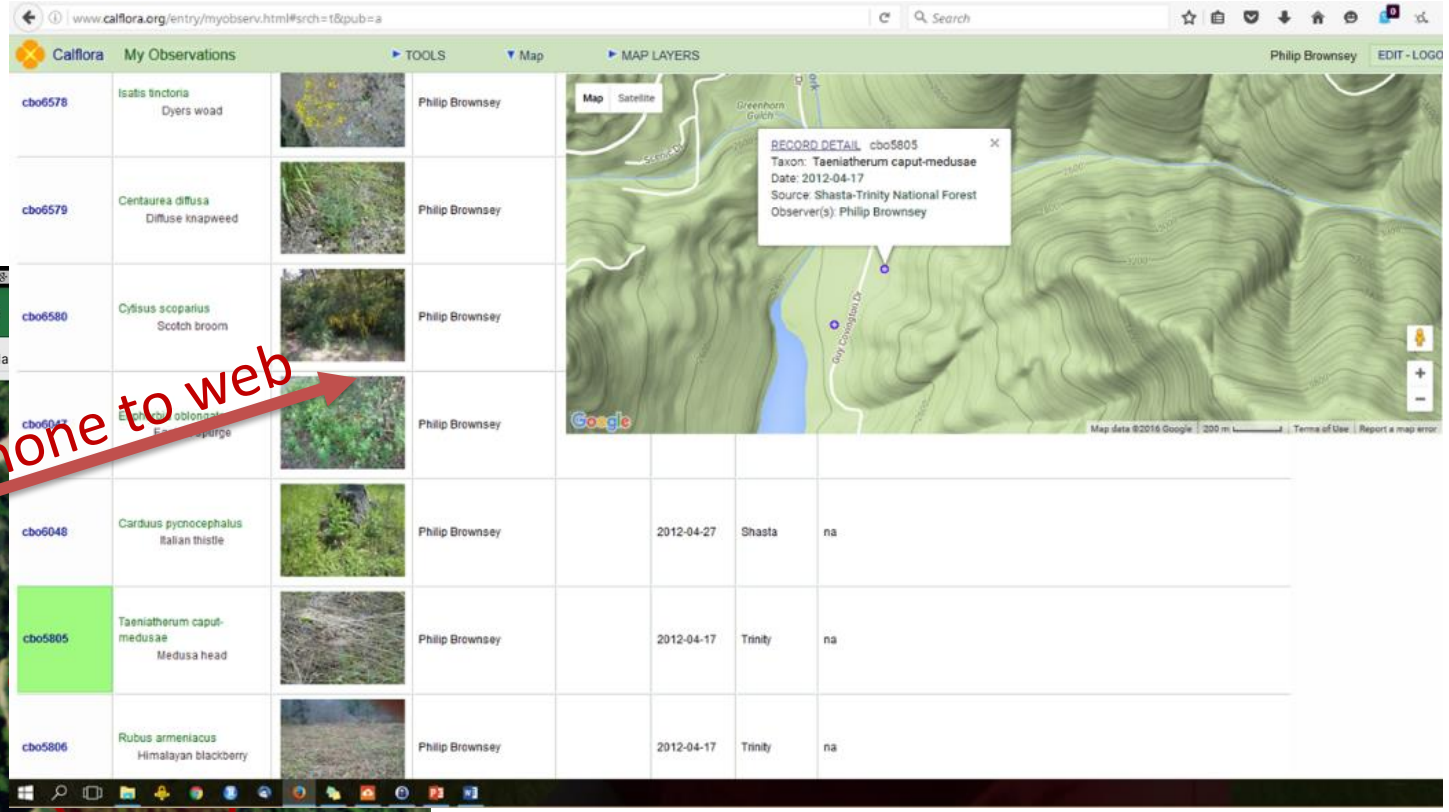
Inventory Tools







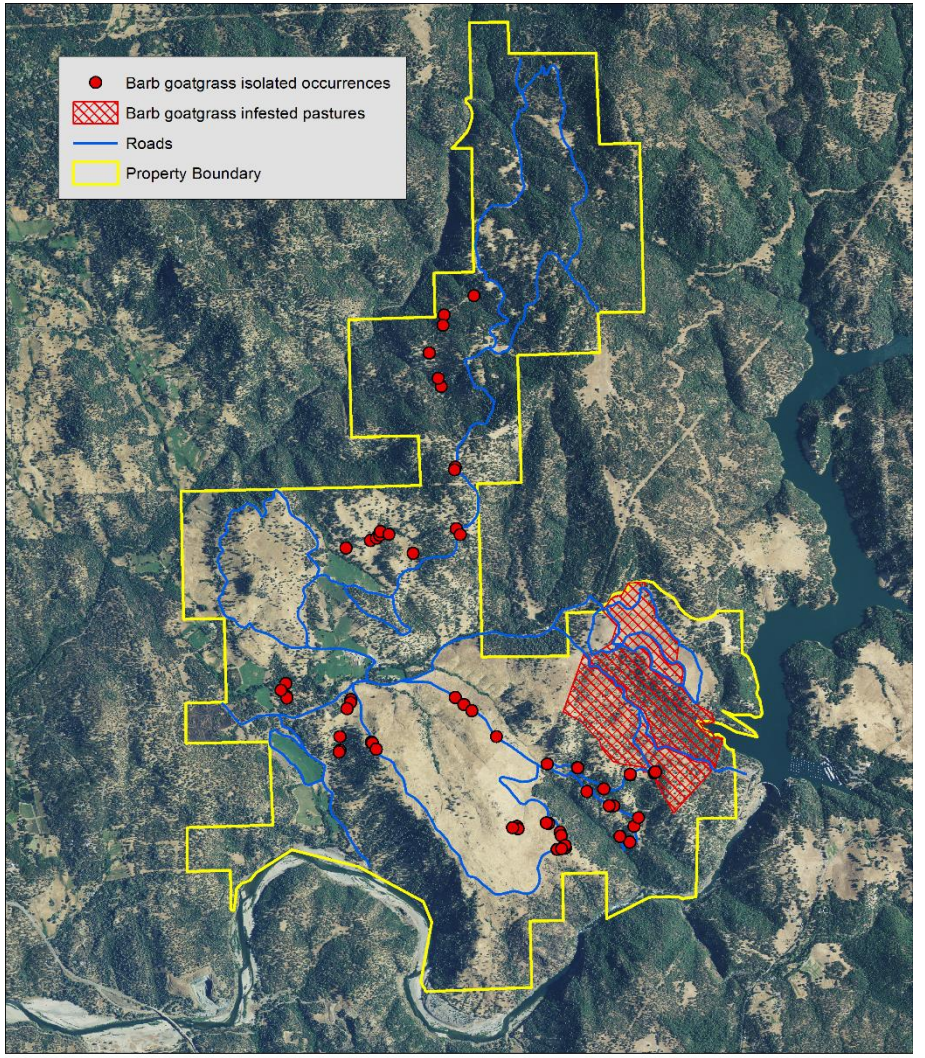
Upload from phone to web



CalFlora.org and the CalFlora Observer App (for iPhone and Android)

Assessment

- What might be contributing to this pattern?
- What is your current grazing (and other) management (season, days, head, etc.)?
- What/where are your resources (water?)
- How are these impacting your enterprise goals?



Assessment

- What might be contributing to this pattern?
- Are there simples steps you can take to reduce/eliminate dispersal?
- Leave the seeds at the infestation

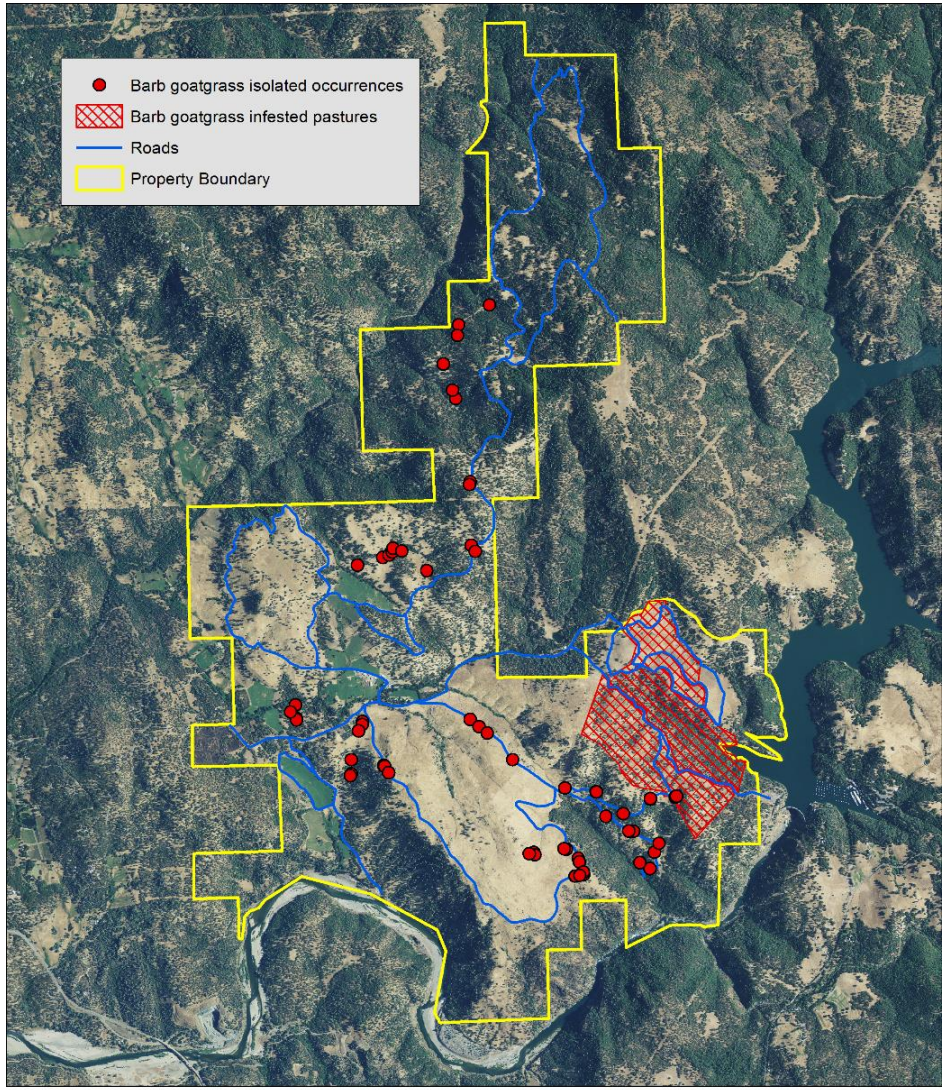
Prioritization: developing a plan

Done in the context of existing enterprise goals: focus on attaining your larger goals.

- Prevent new infestations from outside
- Prevent spread from existing infestations
- Eradicate by pasture where feasible
- Manage existing populations to reduce impact

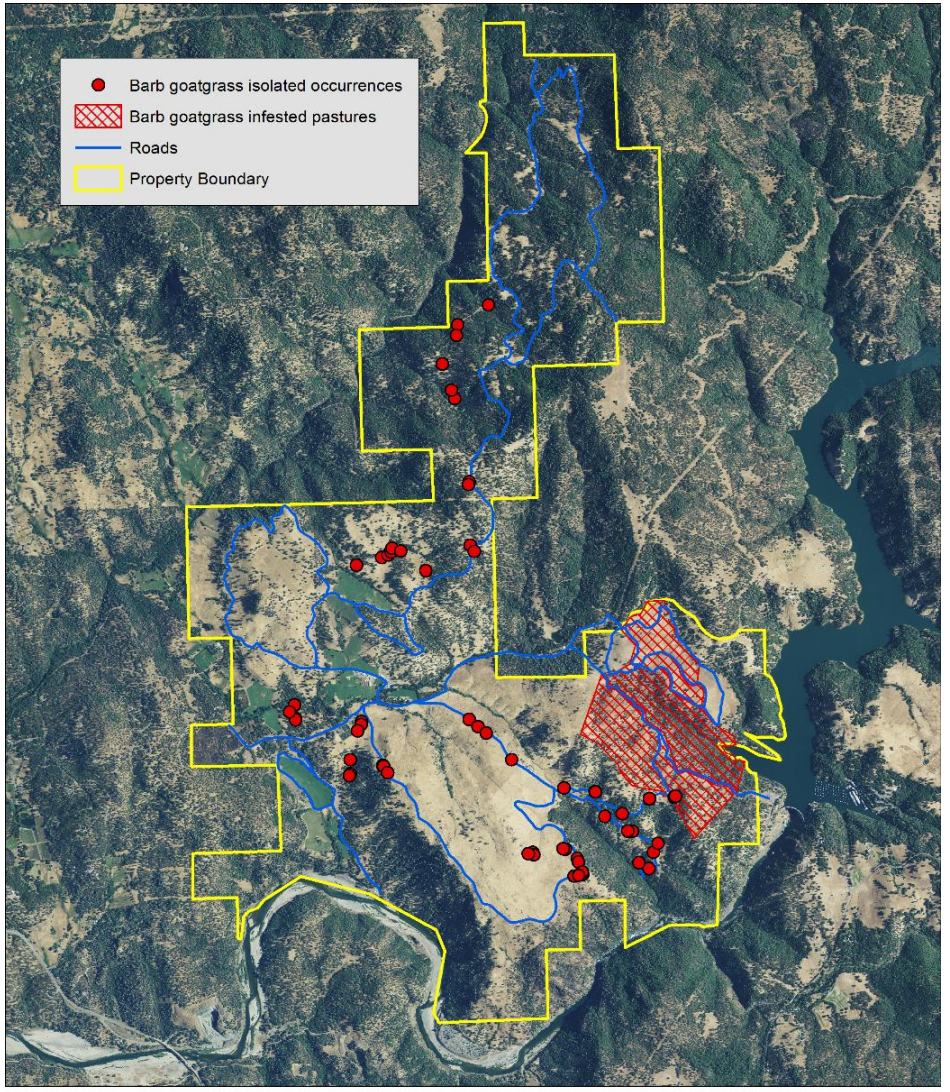
Management Strategy

- Prevent introduction from outside or introducing to other properties.
- Prevent introduction to uninfested pastures
- Use chemical control to eradicate small populations
- Manage existing populations to reduce impact with grazing or fire
- Track your management and infestations



Grazing considerations

- High intensity grazing at boot stage can have substantial impacts on <u>medusahead and barb goatgrass</u>
- Grazing at lower intensities through the spring can keep <u>medusahead</u> at lower abundance, reducing impacts to steer gains
- Manage to meet RDM targets with good distribution (water?)



Tracking Progress

- Revisit known populations and infested pastures
- Check uninfested pastures for new infestations
- Compare the old map/notes to the current conditions
- What has changed: increase/decrease in cover, size, new populations
- Have you needed to reduce grazing anywhere due to infestations?
- Can you increase grazing anywhere due to improvements?

Philip Brownsey
Sierra Foothill Research and Extension Center
pbrownsey@ucanr.edu