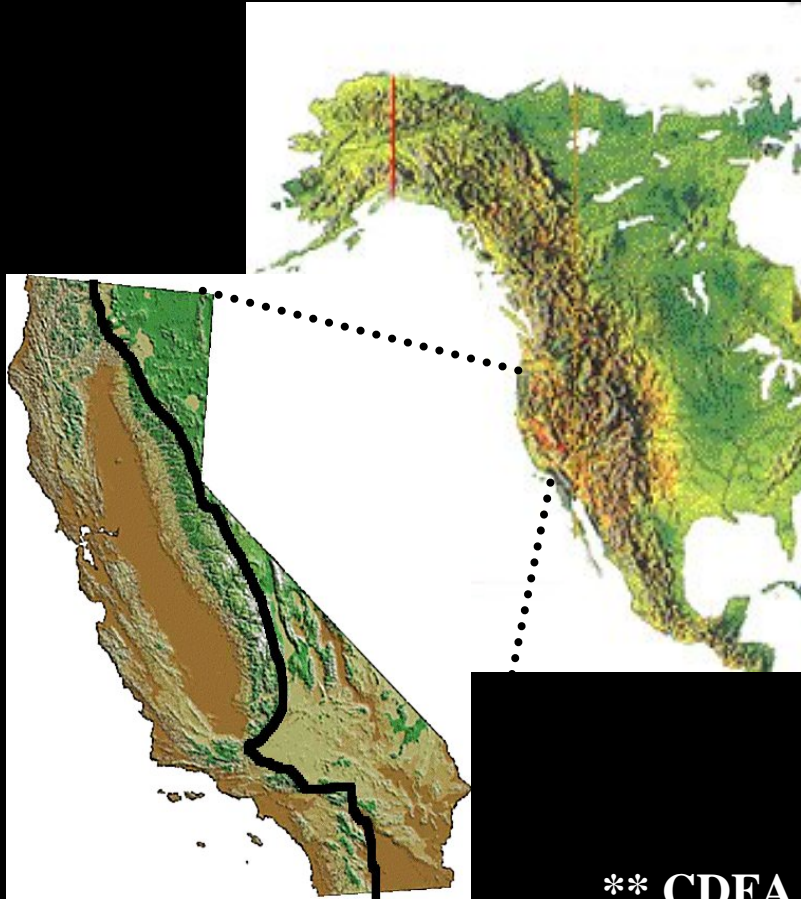


Weeds and Wildlife



Steve Schoenig
California Dept. of Food & Agriculture

California Weed Environment in a Nutshell



- 20,000 – 30,000 (?) exotics
- 1200-1400 Naturalized Plants
- 200-300 Truly Invasive **
- 15-20 Top Priority for Eradication
- Most from Europe/Asia
- Grasslands highly Invaded
- 32,000,000 people live here
- 7000 Native Plant Species
- 2000 +/- spp. rare, endangered, sensitive, special

** CDFA Noxious Weed List (A,B,&C)

** CA Invasive Plant Council List of Wildland Weeds

Where did these weeds come from?

- **Escapes from Ornamental Horticulture**
- **Crop seed Contaminants**
- **Range Improvement**
- **Soil Stabilization**
- **Animals, Ballast**





Statewide and Regional Eradication and Prevention

California's Historic Pest Prevention System

- Pest Exclusion -- to keep pests out
- Pest Detection -- to quickly find new infestations
- Pest Eradication -- to eliminate new pest infestations
- Pest Control -- to reduce the impacts of established pests
- Public Outreach -- to educate the public and obtain their cooperation



- CDFA
- County Ag Commissioners
- County Cooperative extension
- Farmers and Ranchers

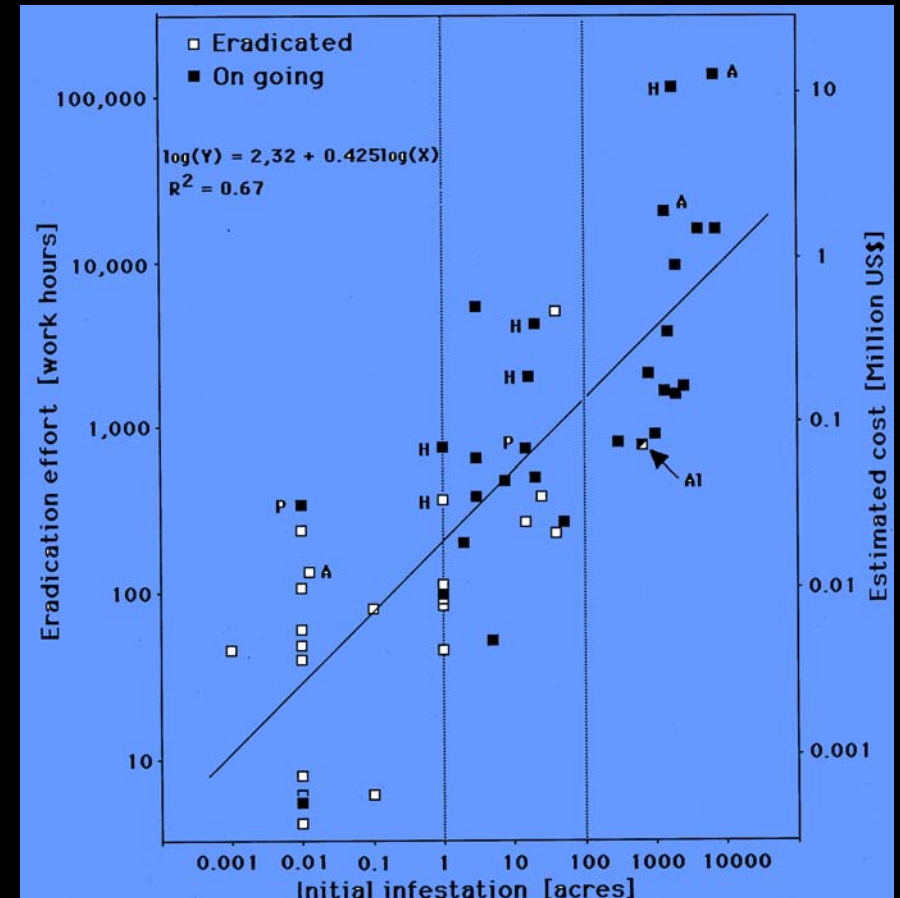
Prevention of new Invasions

History and Future

- PPS done to protect agriculture
- 1900 - 1970
- CNPS and Nature Conservancy
- Prop 13 – Jarvis Gann
- Series of State Fiscal Crises 1/3, 1/3/ 1/3 dropped
- NEPA and Anti-Herbicide groups back feds into a corner
- 2000 CDFA Plant Eradication Program and Detection biologists cut 50%
- 1992 Cal EPPC formed WMAs soon to come
- We Need A Formal System to train para-Detection Biologists
WE NEED YOU!!

Eradicated Species

- 1) Whitestem distaff thistle – *Carthamnus leucocaulos*.
- 2) Dudaim melon – *Cucumis melo* var. *dudaim*
- 3) Giant dodder – *Cuscuta reflexa*
- 4) Serrate spurge – *Euphorbia serrata*
- 5) Russian salttree – *Halimodendron halodendron*
- 6) Blueweed – *Helianthus ciliaris*
- 7) Tanglehead – *Heteropogon contortus*
- 8) Creeping mesquite – *Prosopis strombulifera*
- 9) Meadowsage – *Salvia virgata*
- 10) Heartleaf nightshade – *Solanum cardiophyllum*
- 11) Austrian peaweed – *Sphaerophysa salsula*
- 12) Wild marigold – *Tagetes minuta*
- 13) Syrian beancaper – *Zygophyllum fabago*
- 14) Perennial sowthistle - *Sonchus arvensis*



Species Under Eradication

A-rated weeds

**Under containment



**Punagrass - *Achnatherum brachychaetum*

Biddy biddy - *Acaena* spp.

Camelthorn - *Alhagi pseudalhagi*

**Alligatorweed - *Alternanthera philoxeroides*

Fertile capeweed - *Arctotheca calendula*

**Plumeless thistle - *Carduus acanthoides*

**Musk thistle - *Carduus nutans*

**Diffuse knapweed - *Centaurea diffusa*

Iberian starthistle - *Centaurea iberica*

**Spotted knapweed - *Centaurea maculosa*

**Squarrose knapweed - *Centaurea squarrosa*

Yellowspine thistle - *Cirsium ochrocentrum*

Wavyleaf thistle - *Cirsium undulatum*

**Bearded creeper - *Crupina vulgaris*

Golden thistle - *Scolymus hispanicus*

Leafy spurge - *Euphorbia esula*

Halogeton - *Halogeton glomeratus*

**Dalmatian toadflax - *Linaria genistifolia* spp. *dalmatica*

**Scotch thistle - *Onopordum acanthium*

Illyrian thistle - *Onopordum illyricum*

Taurian thistle - *Onopordum tauricum*

Harmel - *Peganum harmala*

Wormleaf salsola - *Salsola vermiculata*

Leafy Spurge

- On the 100 worst Invasive Species of the World list
- Only on Scott River and heading down the Klamath
- \$180 million losses in upper midwest / year
- Need to use herbicide in a river channel



Dalmation Toad Flax

- Forms monocultures
- No mechanical
- Chemical control difficult

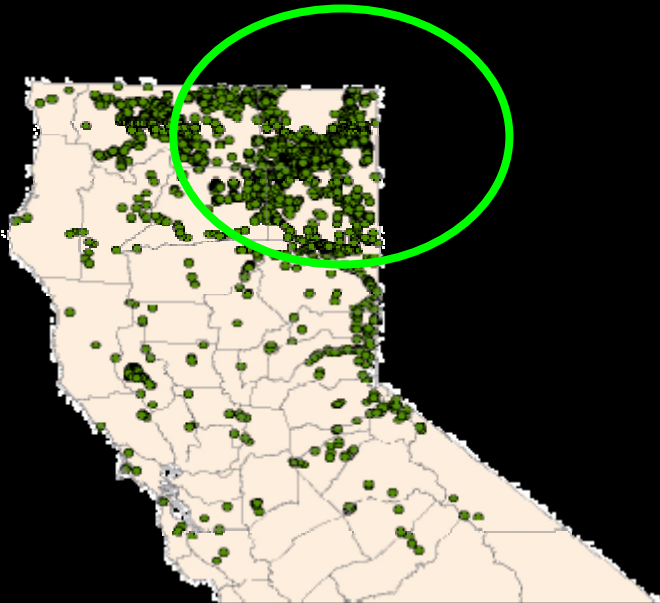


Toadflax, Dalmation
Linaria genistifolia

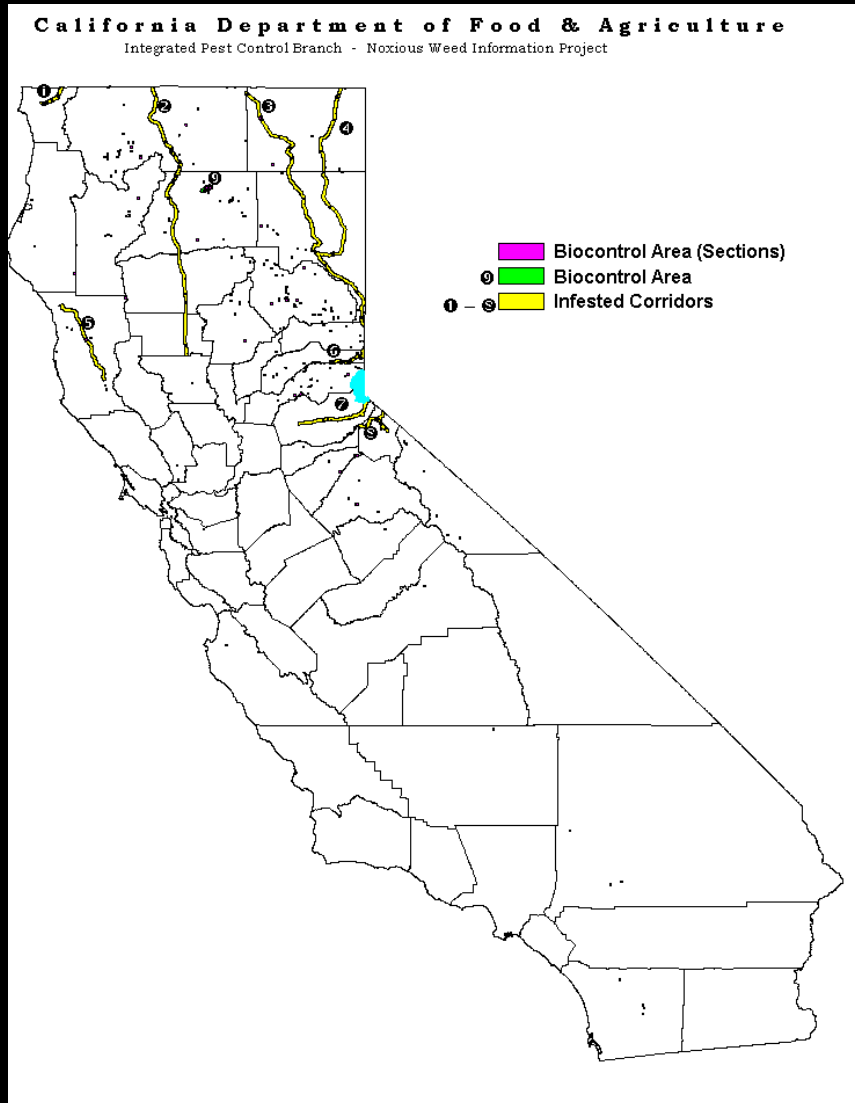


Scotch Thistle

- Can be over 10 feet tall- spiny cornfield
- Very heavy in Modoc county
- Herbicidal control necessary
- 50 year seed bank



Spotted Knapweed



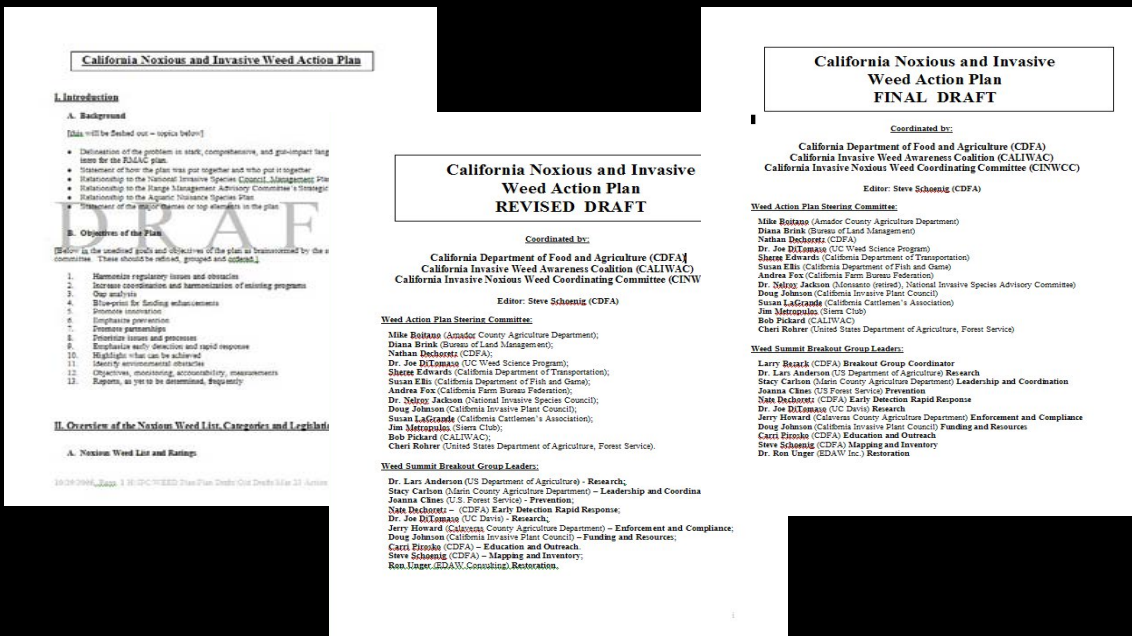
- Many small infestation
- \$40 million per year losses in Montana
- Watershed group pulled > 500,000 plants
- Biocontrol program and local eradication

Prioritization

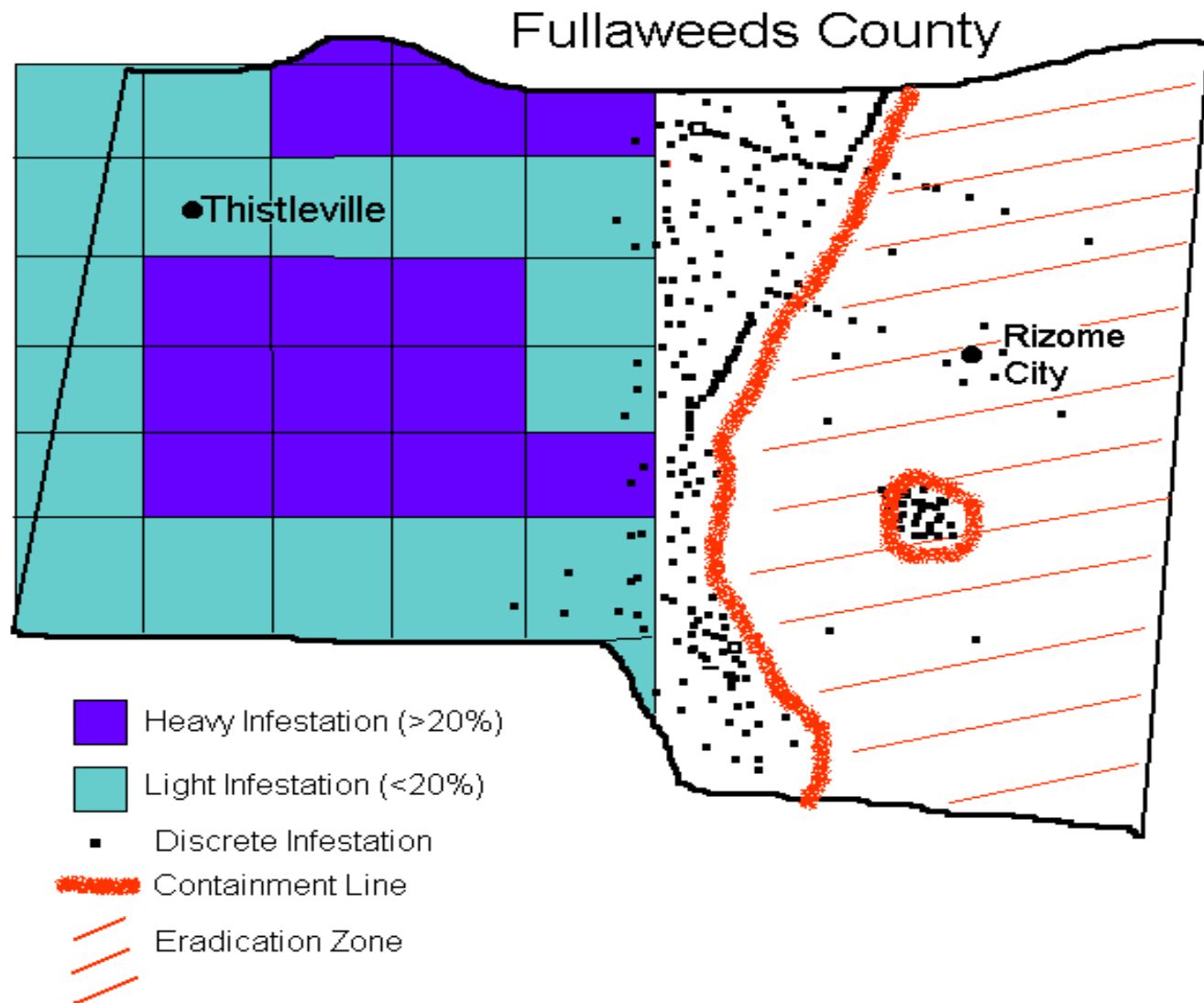
- Too many weeds too little money
- Need a better system for prioritizing
- What is the 10, 25, 50 year impact of projects
- We have species priorities, but need site priorities
- Population based priority system:
 - Doesn't currently exist
 - Gina Darin, UC Davis & CDFA
 - Combination of species scores combined with site score
- We need an “Un-natural” Diversity Database

California Noxious and Invasive Weed Action Plan

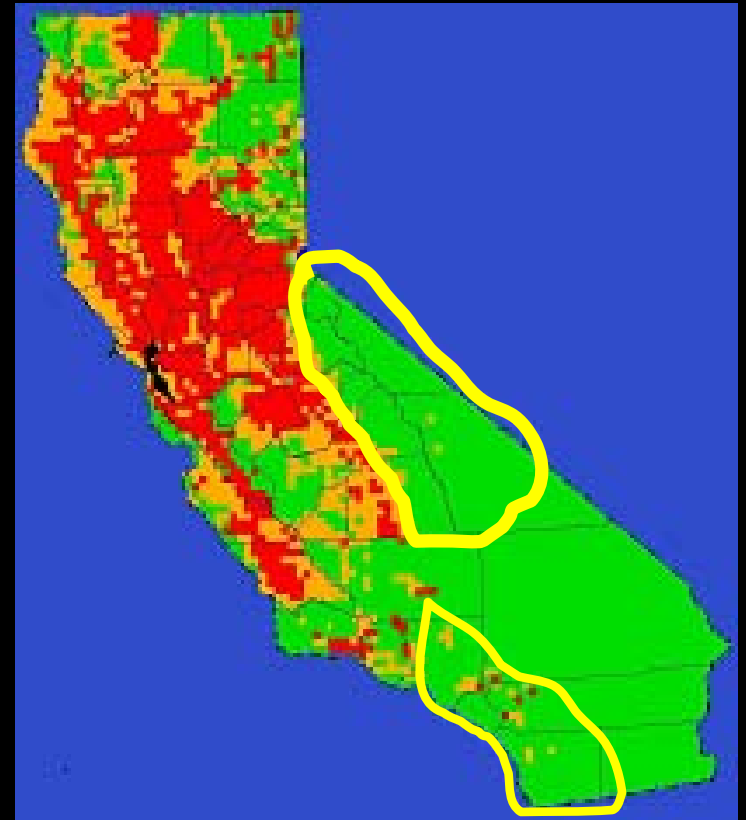
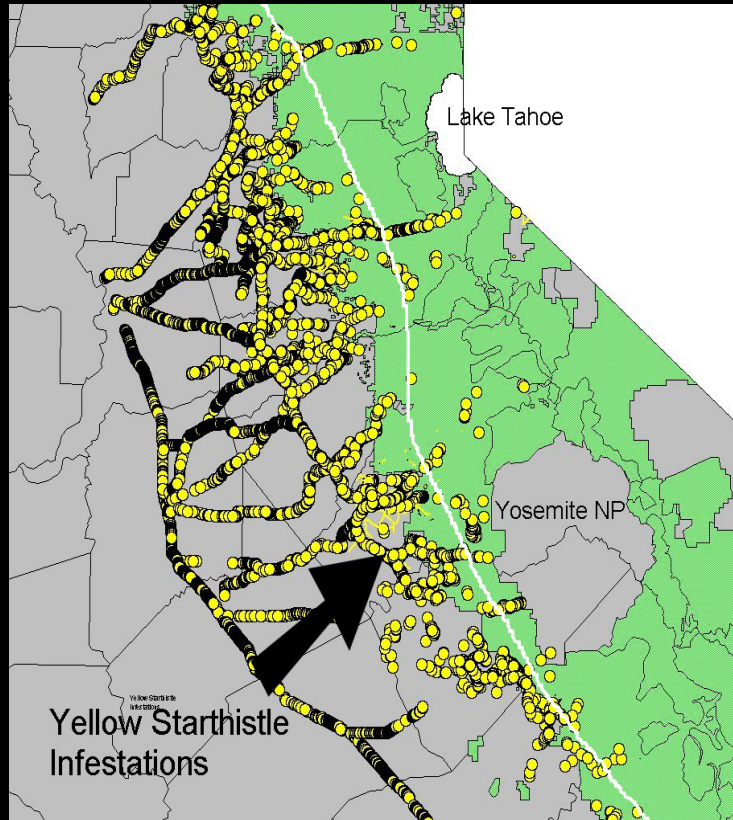
A series of drafts were released to the public and many experts resulting in the final September 2005 plan



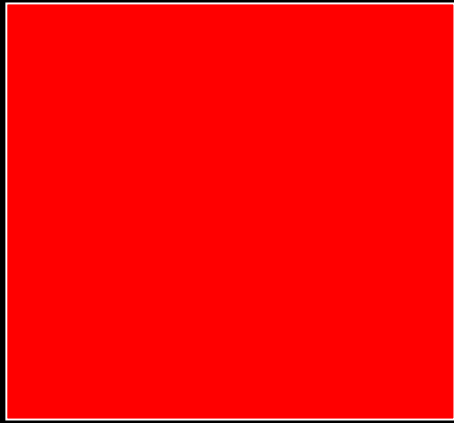
Stopping Weed Spread



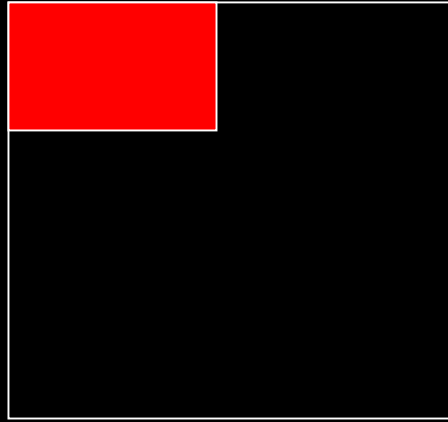
Containment of Spread –



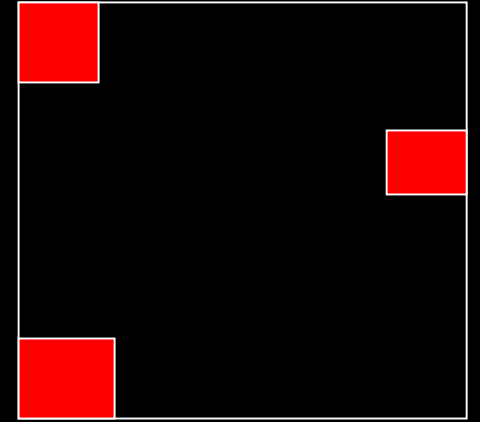
What Does the YST Raster Map Mean



=



or



or

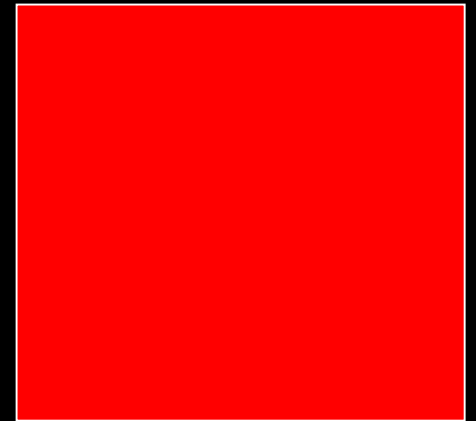
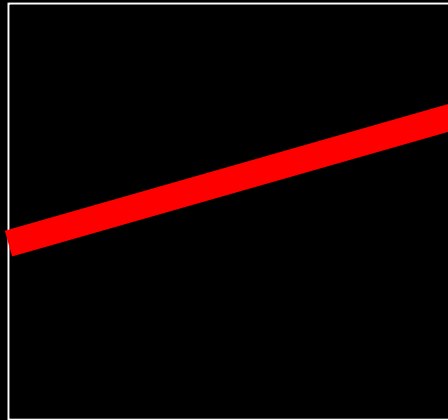


Figure 1: Relationship of Provisional YST Leading Edge Line
to
Existing YST Survey Data

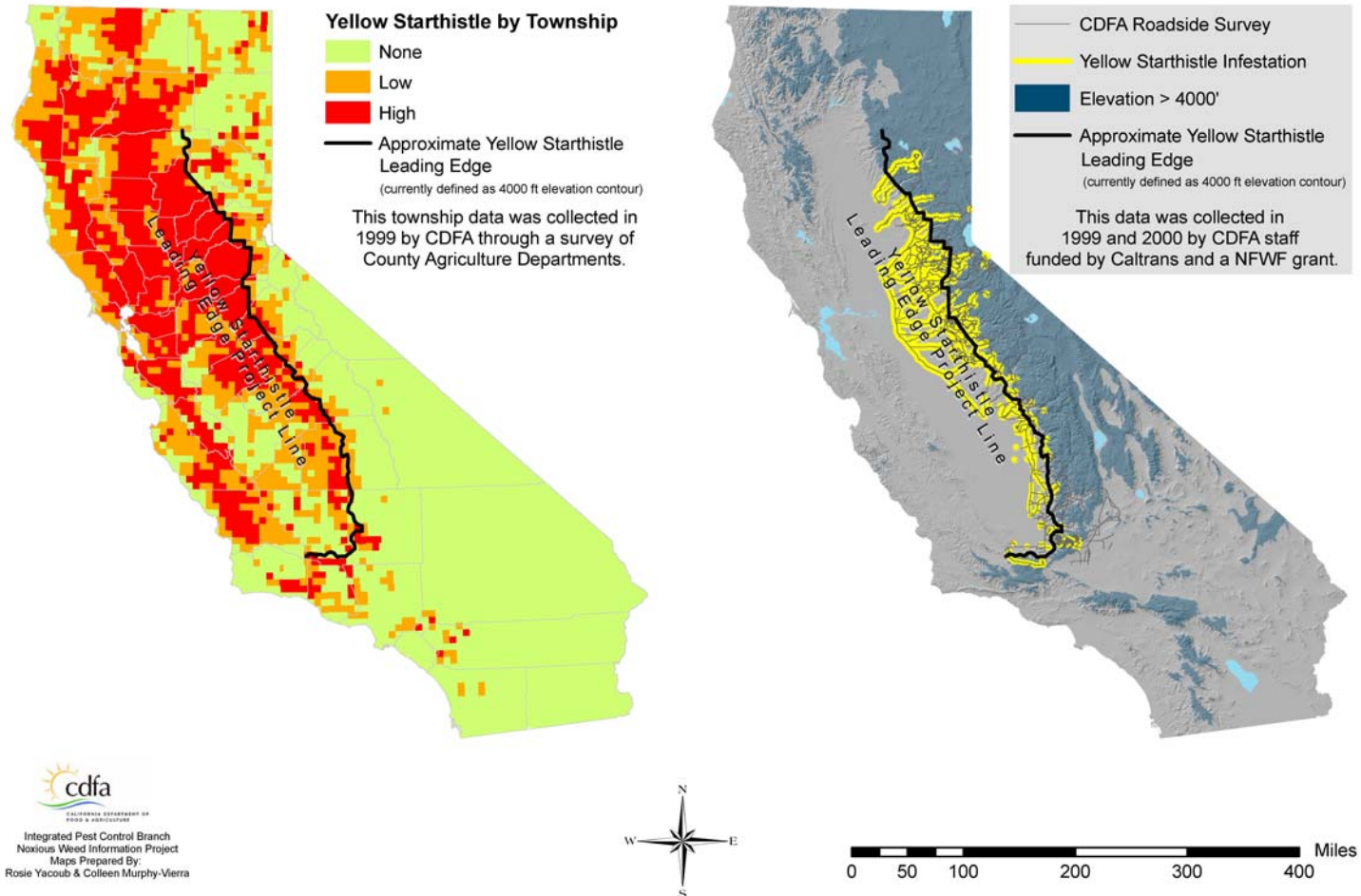
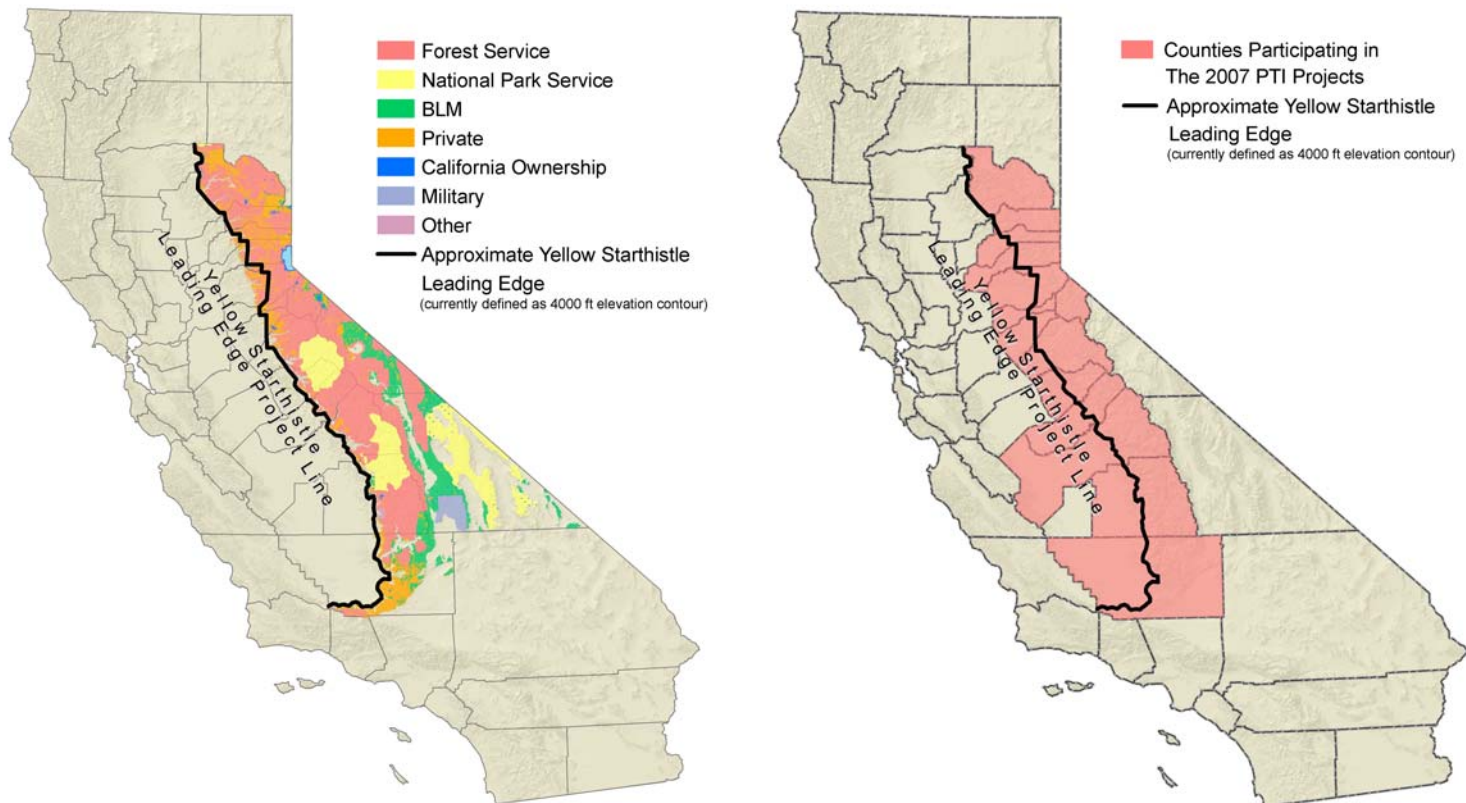
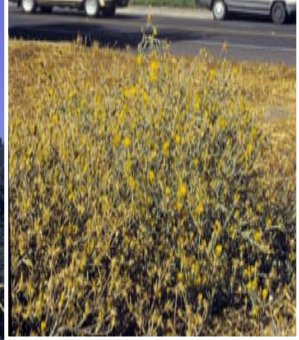
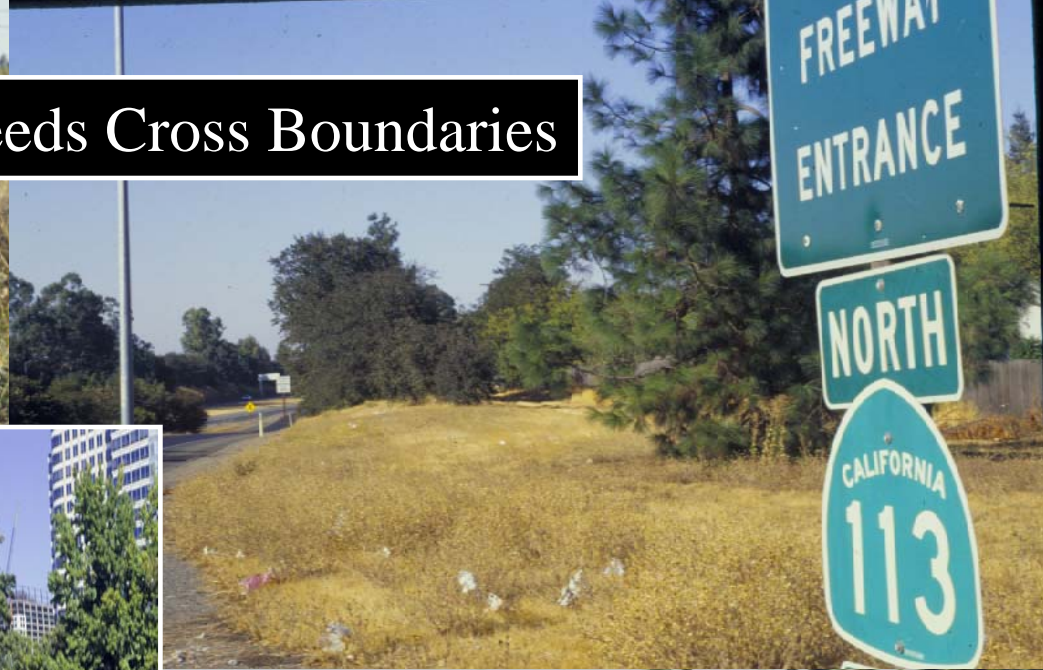


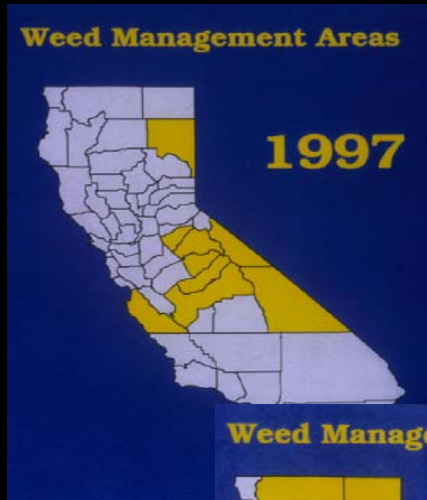
Figure 2: Stakeholders Benefiting from Yellow Starthistle Stop-the-Spread Program



Weeds Cross Boundaries



WEED MANAGEMENT AREAS

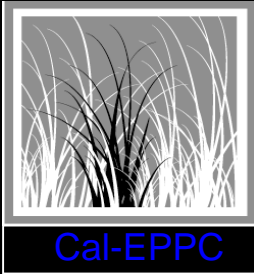


Who Participates?

- County Ag Department
- State Agencies- CDFA, Parks, Fish & Game, Forestry & Fire, Etc.
- Federal Agencies- BLM, Forest Service, NRCS, NPS
- Growers, Cattlemen, RCDs, Forest Industry, Landowners
- UC Cooperative Extension
- Cities
- Military Landowners
- Departments of Transportation
- CNPS, Nurserymen
- Railroads, Utilities
- Volunteers, Pest Control Ops
- Open Space, Parks, Water Districts



Strange Bedfellows

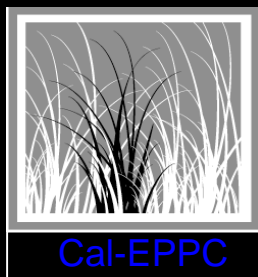


CIINIPC
= CINWCC





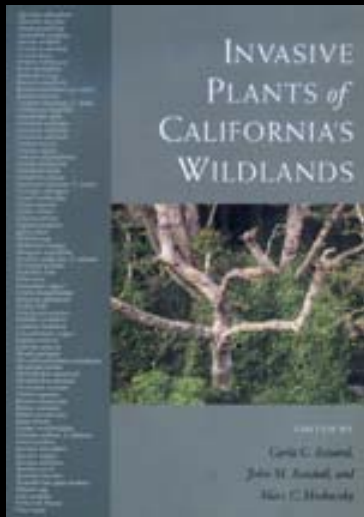
CACASA



CalIWAC

California Invasive Weed Awareness Coalition

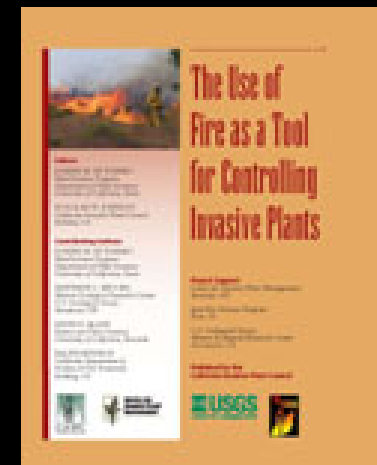
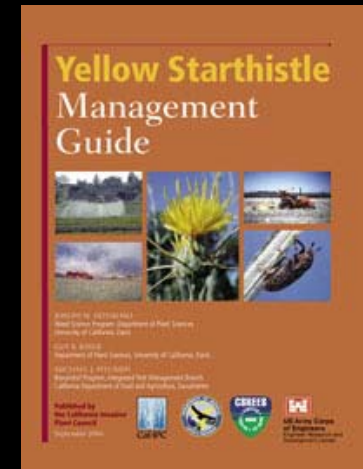
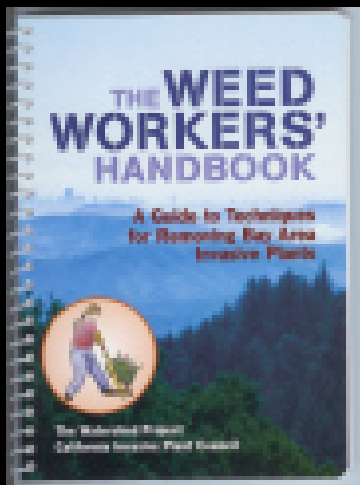




Cal-IPC

California Invasive Plant Council

- Quarterly Newsletter
- Annual Symposium
- CaliforniaWeedTalk listserve
- Field School Classes
- Wildland Weed List
- Content-rich website
- Don't Plant a Pest Brochures
- Local, State and Federal Advocacy
- Publications
- Mapping Coordination



www.cal-ipc.org