

STATE PARKS INVASIVE WEED MANAGEMENT

*Cal-IPC Symposium, Lake Tahoe
October 5, 2011*

*Ramona Robison, Natural Resources Division
rrobison@parks.ca.gov*



TOPICS



- Program overview
- Example projects
- Partnerships

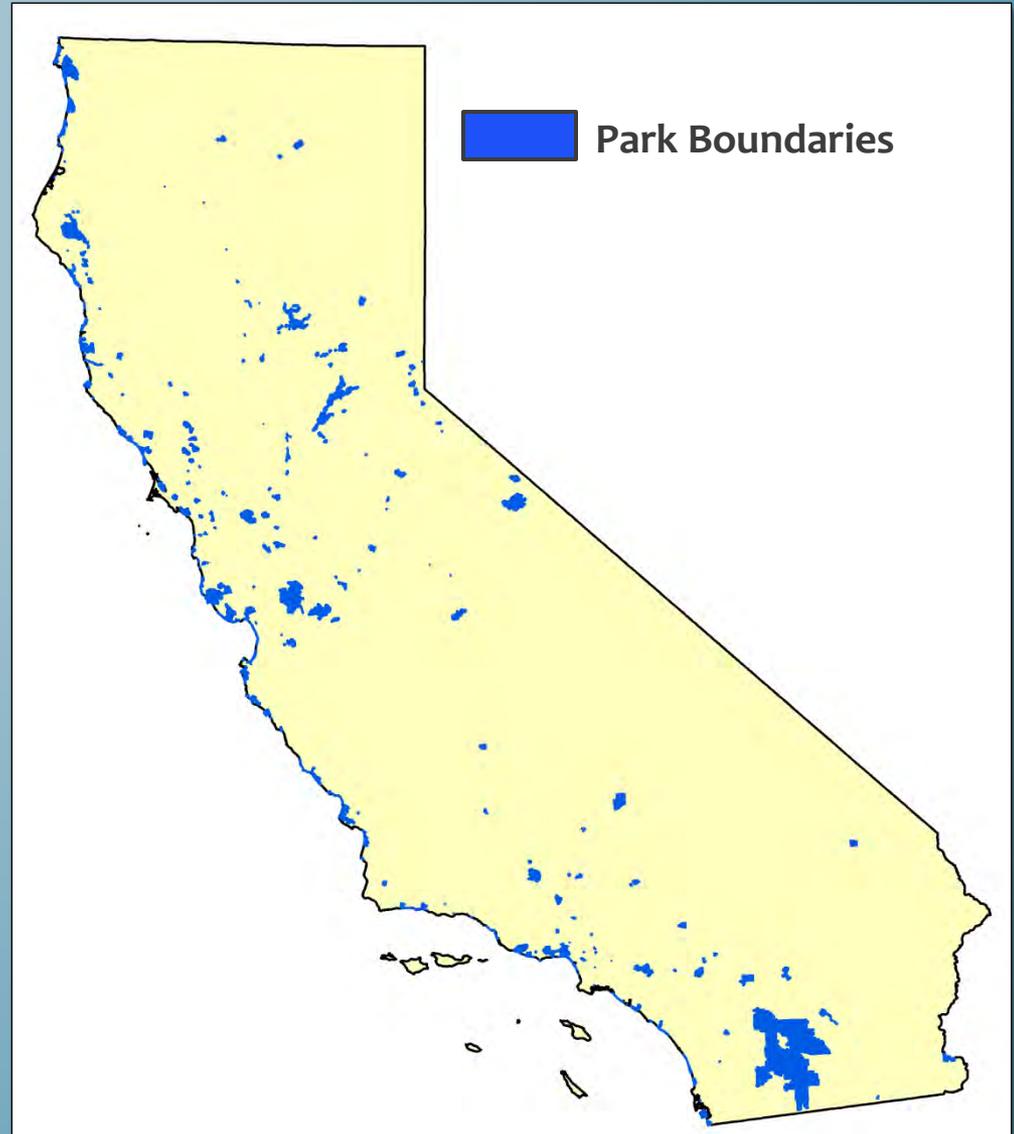


STATE PARKS OVERVIEW

- 1.5 million acres
- 279 Parks
- 70 Parks on closure list identified in May 2011



South Yuba River SP – on closure list



OUR MISSION

To provide for the health, inspiration and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation.



Sugar Pine Point SP



Natural Resources Funding FY 2010/11

Backlog

\$240 million

Documented
Program need

**\$16
million**

Minimum needed
to halt downward
trend in the
health of primary
natural resource
values

**\$9
million**

Approved Budget

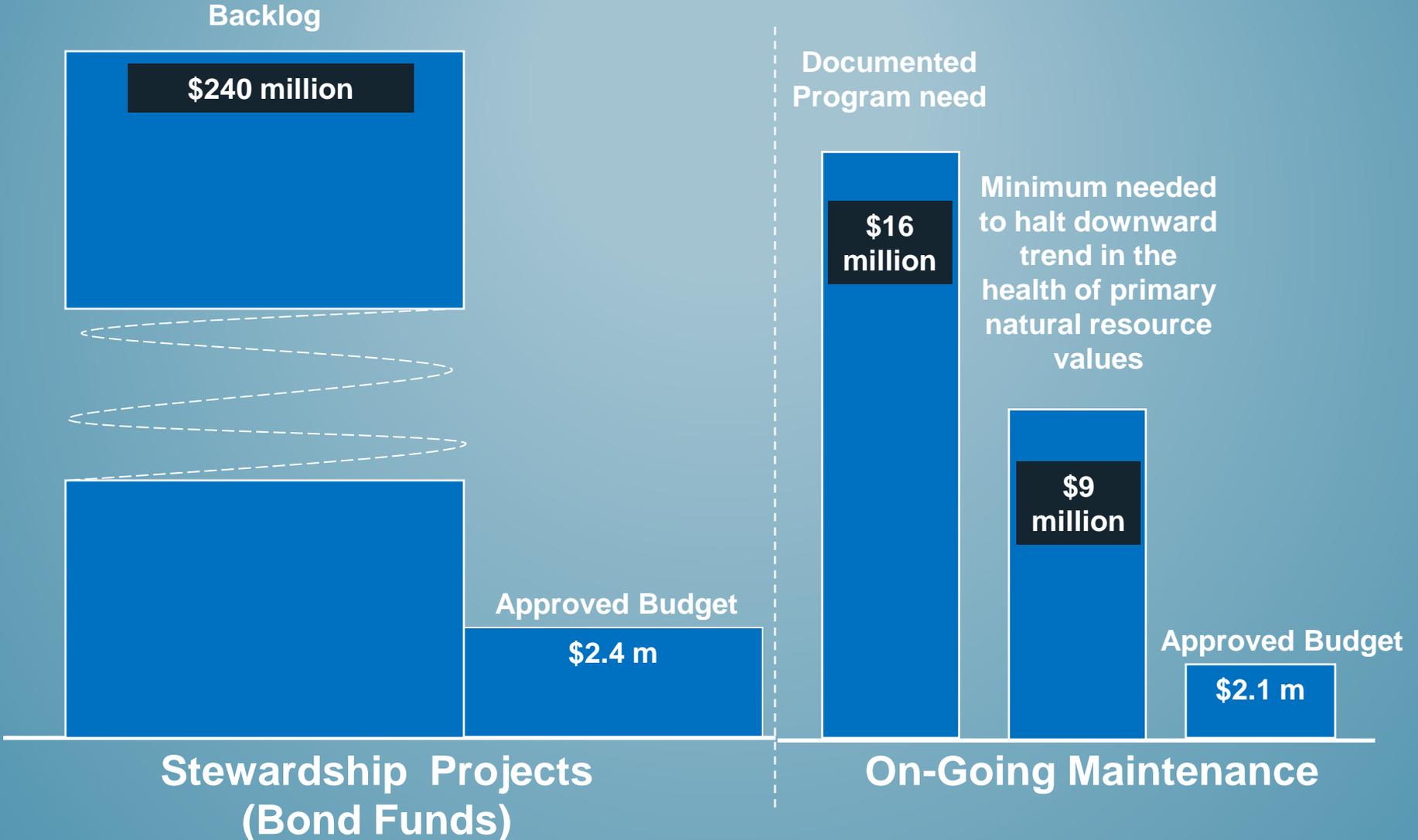
\$2.4 m

Approved Budget

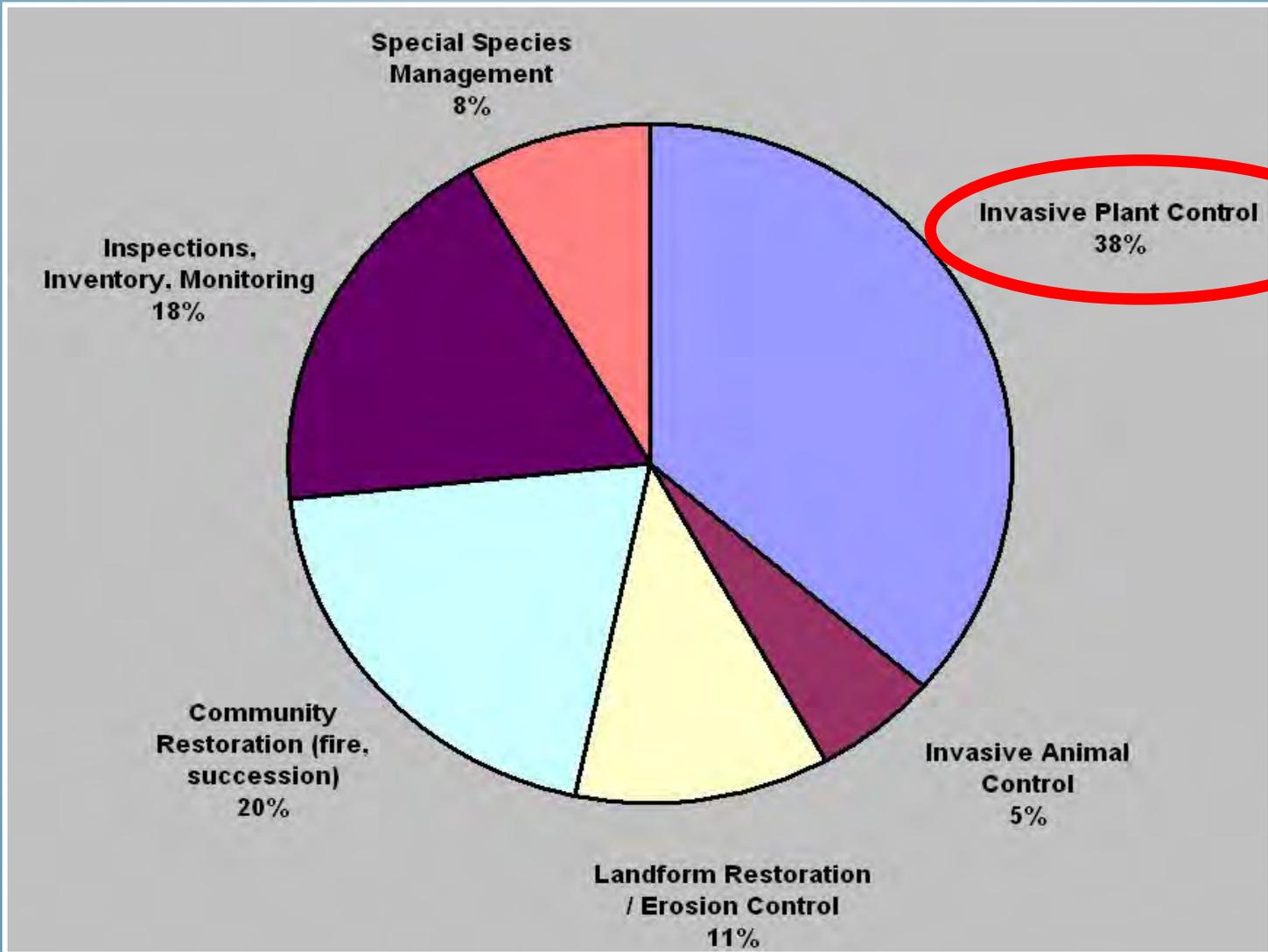
\$2.1 m

**Stewardship Projects
(Bond Funds)**

On-Going Maintenance



ANNUAL NATURAL RESOURCE FUNDING



BACKGROUND ON WEED MANAGEMENT



Italian thistle mowing



Cape ivy removal

STATE PARKS DISTRICTS

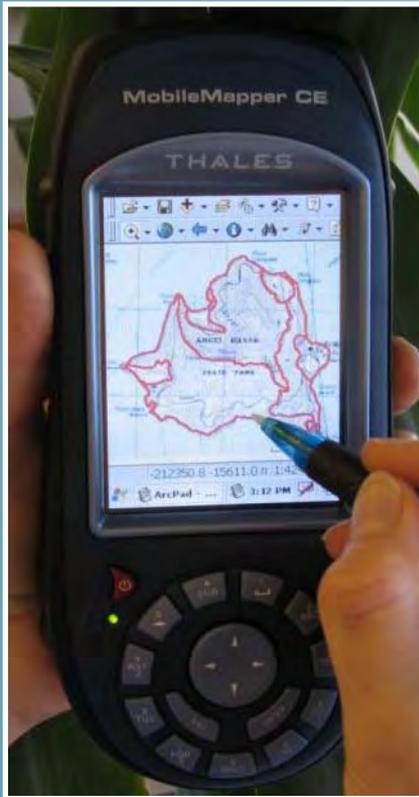


STATE PARKS DIRTY DOZEN

- Cape ivy (*Delairea*)
- Tamarisk
- Ice plant
- European beachgrass
- Yellow starthistle
- Giant reed (*Arundo*)
- Wild fennel
- Italian thistle
- Perennial pepperweed
- Tree of Heaven
- Veldt grass (2 *Ehrharta* spp.)
- French broom



MAPPING WITH DPR-WIMS



Mapping Scotch broom at Folsom Lake SRA

30 WEEDS TRACKED USING DPR-WIMS

Tree of Heaven*

European beachgrass

Artichoke thistle

Giant Reed

Black mustard (*Brassica nigra*)

Brooms

(**Genista**, Cytisus, Spartium)

Cape ivy

Castor bean

Diffuse knapweed

English ivy

Gorse

Harding grass

Licorice-plant (*Helichrysum*)

Himalayan blackberry

Hoary cress (*Cardaria draba*)

Iceplant

Italian thistle

Jubata/Pampas Grass

Milk thistle

Perennial pepperweed

Periwinkle (*Vinca*)

Tamarisk

Tocalote

Veldt grass

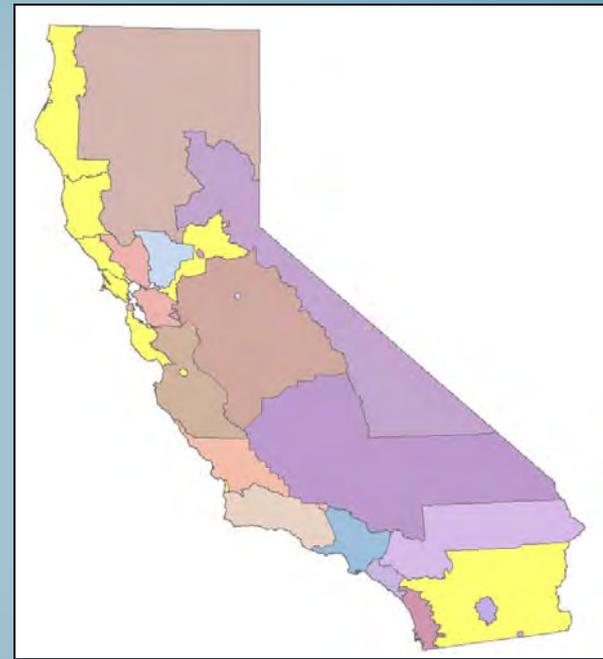
Wild fennel

Yellow starthistle

***Species in yellow are “dirty dozen”**

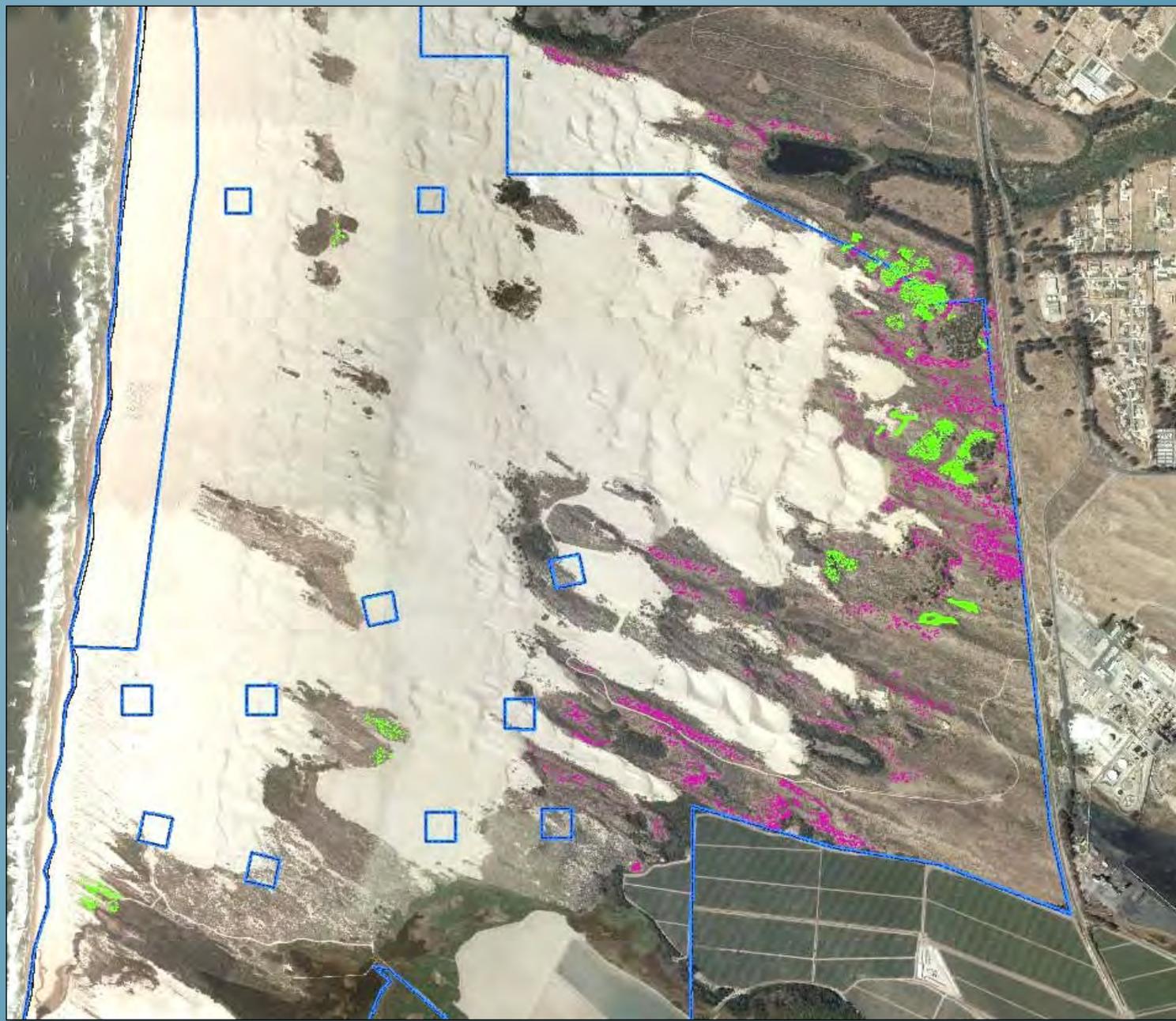
SUMMARY OF NON-WIMS DATA SETS COLLECTED

- *Collected in a number of formats*
- *Uploaded to Calflora with help from Cal-IPC!!*
- *Some interesting findings*



OCEANO
DUNES
REMOTE
SENSING
DATA

- European beachgrass
- Veldt Grass (*E. calycina*)



EXAMPLE PROJECTS

- *European beachgrass -- overview*
- *Central Valley riparian restoration*

EUROPEAN BEACHGRASS



EUROPEAN BEACHGRASS MANAGEMENT METHODS



Hand pulling



**Prescribed fire, followed by
herbicide**



Heavy equipment

Often Districts use a
combination of methods

NORTH COAST REDWOODS DISTRICT

Mechanical removal methods pilot at Little River SB

- Tested three methods with heavy equipment
- Preferred method was Dozer-Grade as compared to excavation
- Also measured sand movement

Significant cost difference in heavy equipment vs. hand removal
(~ \$5-6k compared to \$30k)



New large project starting at Prairie Creek Redwoods SP

MENDOCINO DISTRICT



Methods:

- Burn in fall, then spray with imazapyr and glyphosate
- Hand removal also done in sensitive areas

RUSSIAN RIVER DISTRICT -- BODEGA DUNES RESTORATION

- **Size of restoration area: 300 acres**
- **Restoration partners: Bodega Marine Lab, NPS, Local RCD**
- **Methods planned: Combination of mechanical, hand and chemical**



SANTA CRUZ, MONTEREY AND SAN LUIS OBISPO DISTRICTS



Before



During



After

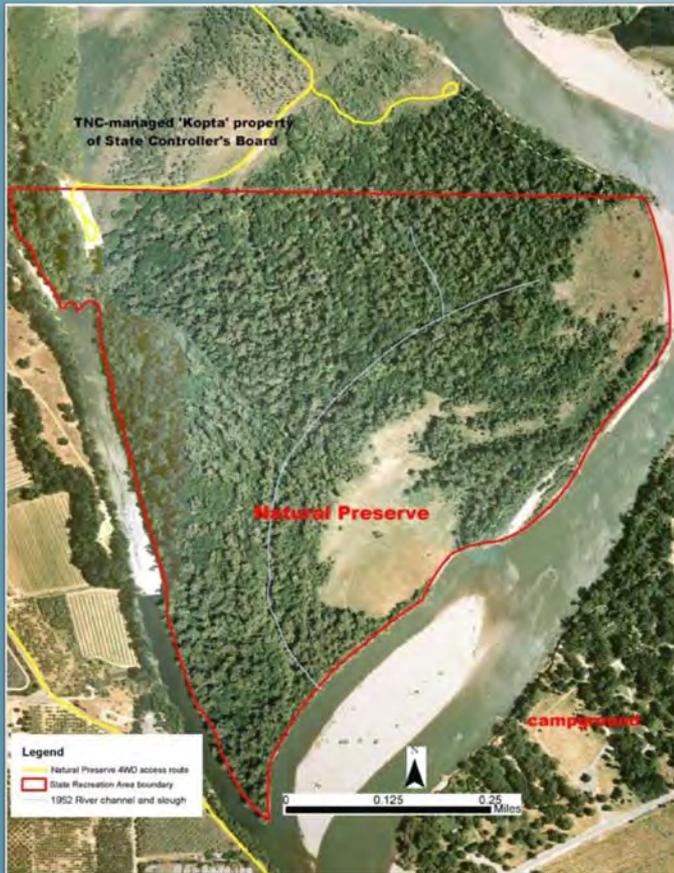
RIPARIAN RESTORATION CENTRAL VALLEY



Woodson Bridge SRA



WOODSON BRIDGE SRA AND CASWELL MEMORIAL SP



Woodson Bridge natural area
219 acres on Sacramento River in
Tehama County



Caswell Memorial SP
258 acres on Stanislaus River in San
Joaquin County

WEEDS MANAGED AT WOODSON BRIDGE

- Fig (*Ficus carica*)
- Prunus rootstock
- Osage orange (*Maclura*)
- Giant reed
- Periwinkle (*Vinca*)
- Whitetop (*Cardaria draba*)
- Tree of Heaven (*Ailanthus*)
- Pokeweed (*Phytolacca*)
- Himalayan blackberry

Fig and Pokeweed major concerns in forest understory



POKEWEED

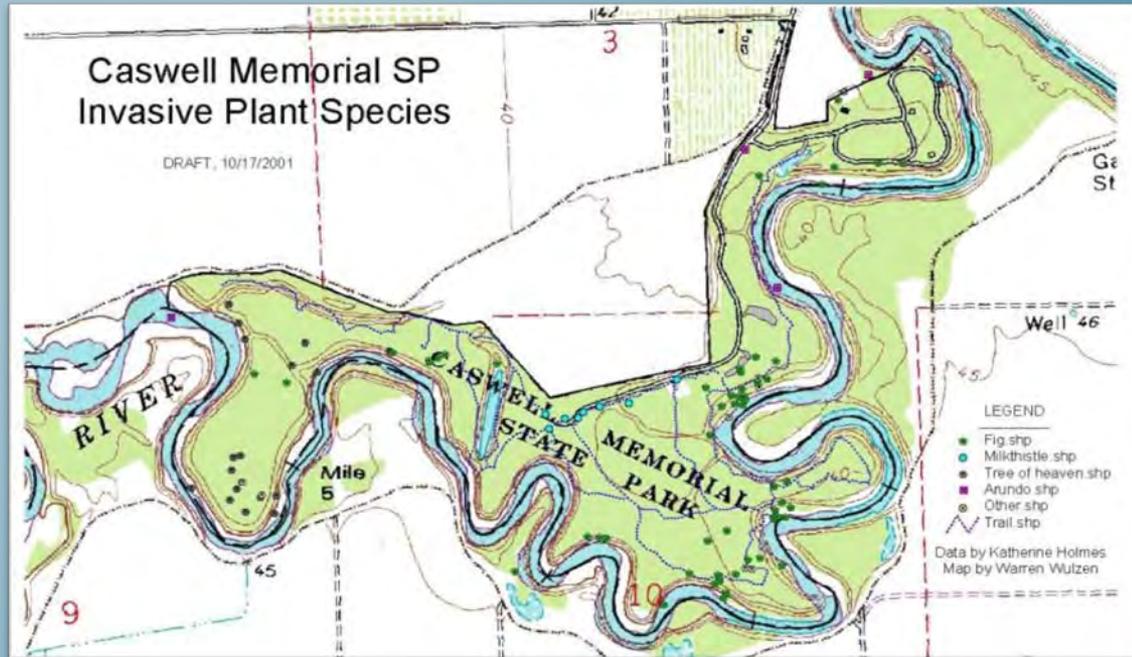
(*Phytolacca americana*)

- New invader in Woodson Bridge SRA riparian understory
- Also reported at DFG's Gray Lodge Wildlife Area, Butte County



WEEDS MANAGED AT CASWELL SP

- Fig
- Milkthistle (*Silybum*)
- Tree of Heaven
- Giant reed
- Himalayan blackberry
- Mulberry (*Morus*)
- Hybrid grape (*Vitis*)
- Italian thistle
- Red sesbania (1 plant)



Rignanese, Calphotos

Fig also
dominates forest
understory

SOMETIMES WHEN YOU REMOVE THE WEEDS
YOU GET SOMETHING YOU DIDN'T EXPECT.....



Bodega Head native
grasses dominate after
ice plant removal



Silver Strand SB



Phacelia stellaris uncovered
after ice plant removal

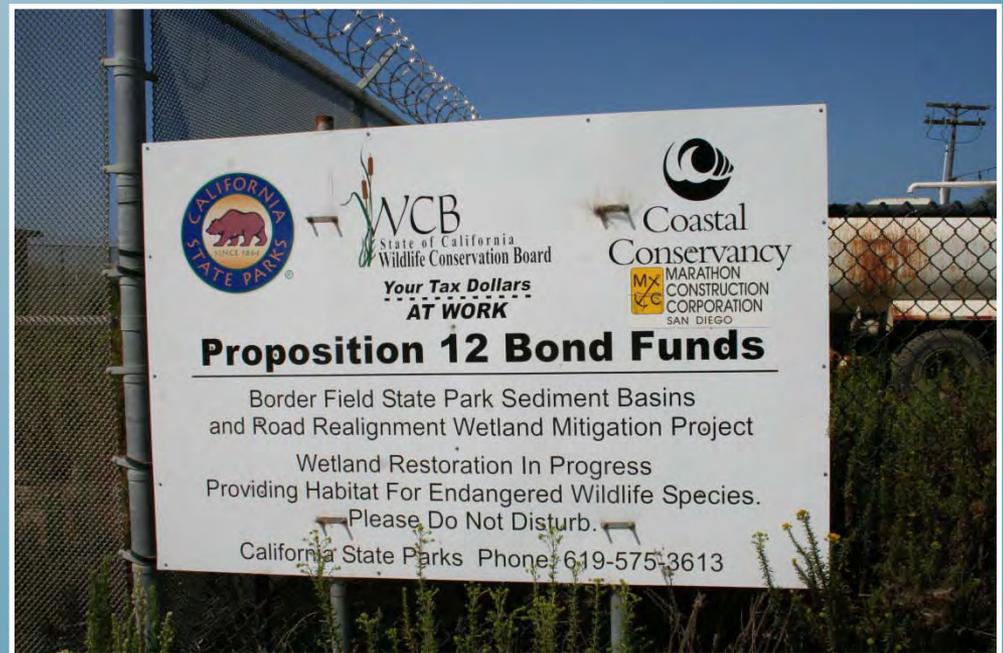
Roullard, Calphotos



Año Nuevo SP, former gorse patch now covered with blue-eyed grass and natives

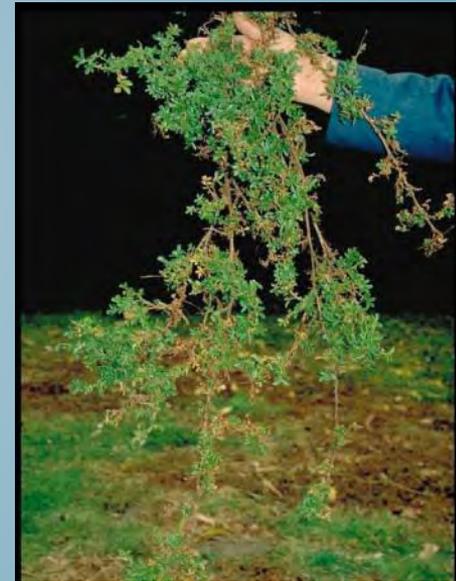
PARTNERSHIPS

- Weed management areas (CDFA)
- Weed-free interagency collaboration
- Cal-IPC BMP development for land managers and transportation corridors
- Early detection with BAEDN and others
- DFG Lands Program



WEED MANAGEMENT AREAS

- Parks staff are active participants in WMAs throughout the state
- WMAs funded small projects on Parks in last several years



A-Listed Noxious Weed Bidy Bidy at Salt Point SP



WEED-FREE COLLABORATION

- Interagency effort with NGOs and private industry
- Hay (forage) and straw
- Erosion control materials
- Gravel, fill and construction materials
- First effort list of weed free forage producers (UC Coop Extension & CDFA)



QUESTIONS?

