

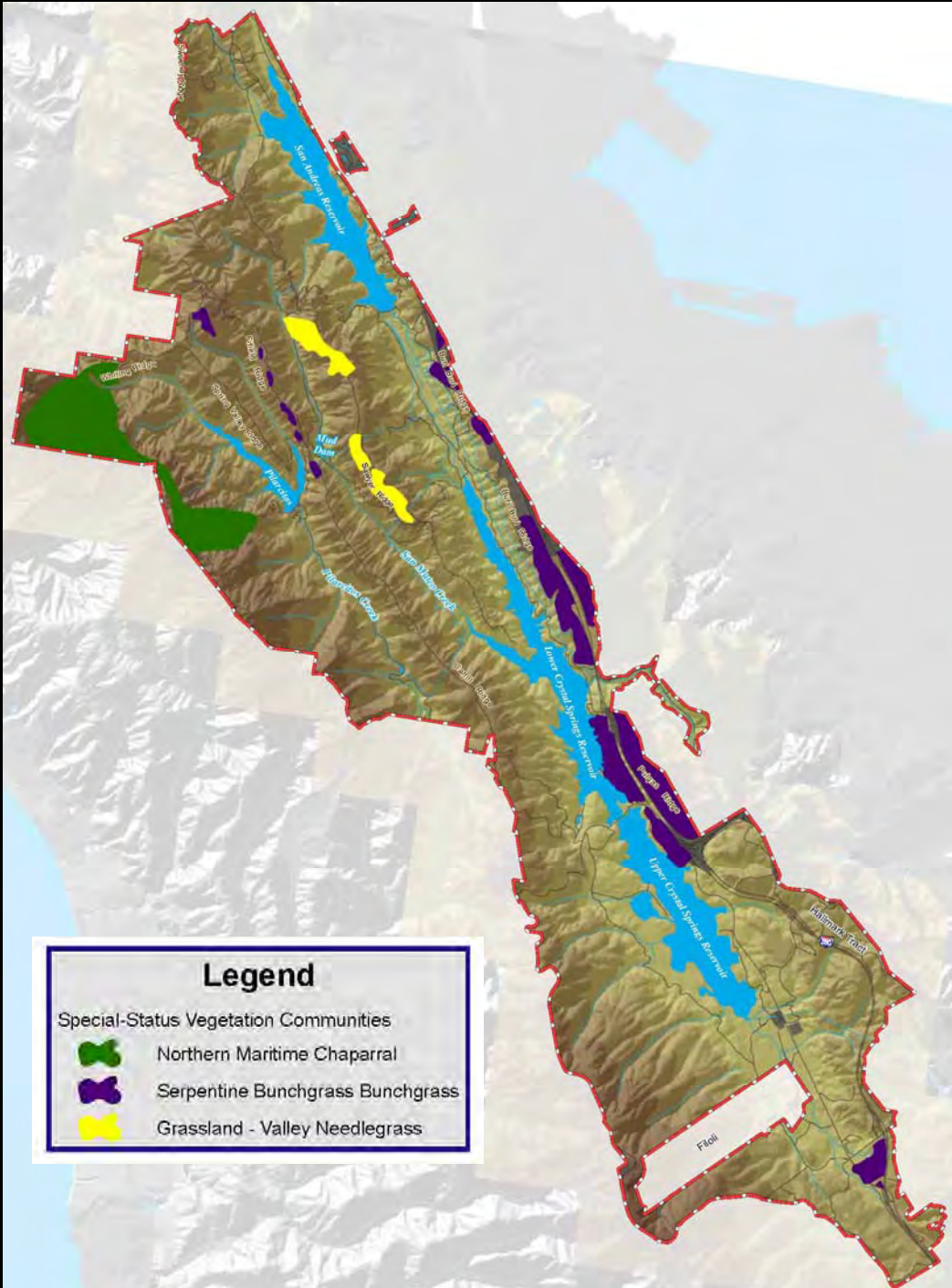
Lots of Land, Lots of Weeds,
and Little Time:
Large scale baseline weed mapping

Weed Mapping of the Peninsula Watershed

Erin McDermott and Heath Bartosh, Nomad Ecology









western leatherwood
Dirca occidentalis; CNPS 1B



San Mateo woolly sunflower
Eriophyllum latilobum; FE, SE, CNPS 1B



San Mateo tree lupine
Lupinus arborius var.
eximius; CNPS 3



Fountain thistle
Cirsium fontinale var. *fontinale*; FE, SE, CNPS 1B



Montara manzanita
Arctostaphylos montaraensis; CNPS 1B



Data Attributes collected:

- **Examiner**
- **Collection Date**
- **Target Weed Species**
- **Gross Area**
- **Infested Area**
- **Cover Class**
- **Number of Individuals**

Gross Area and Infested Area

Acre
0.01
0.05
0.1
0.25
0.5
0.75
1
2
3
4

Number of Individuals Classes

Number Class	Number of Individuals
Trace (T)	<10
1	10 – 50
2	50 – 100
3	100 – 500
4	500 – 1,000
5	>1,000

Cover Classes

Percent Cover Class	Range of Coverage	Description
Trace	<1%	Trace
1	1 – 5%	Low, occasional plants
2	5 – 25%	Moderate, scattered plants
3	25 – 50%	High, fairly dense
4	50 – 75%	Dense
5	75 – 95%	Very dense
6	95-100%	Solid stand

Data Attributes collected (cont.):

- **Distribution Categories**
- **Phenology**
- **Habitat Value**
- **Vegetation Community**
- **Other Weed Species**
- **Notes**
- **Geographic Location, Coordinate System and Datum (NAD83 UTM 10N)**

Date	Personnel	GPS Name/ Way Pt No.
Gross Area (acre)	Infested Area (acre)	Target NIPS
Cover Target NIPS (class)	No. of individuals (class)	Distribution
Phenology	Habitat Value	Veg Type
Other NIPS in Area		
Notes		

Date 8/26/08	Personnel JP	GPS Name/ Way Pt No 485
Gross Area (acre): 0.5	Infested Area (acre) 0.05	Target NIPS CENSOL
Cover Target NIPS (class) 2	No. of individuals (class) 3	Distribution PAT
Phenology FLR	Habitat Value LOW	Veg Type NNAG
Sketch point and NIPS	Other NIPS in Area	
	Notes in field of short NN grass 1 planted oaks/pines along road	

Date 8/26/08	Personnel JP	GPS Name/ Way Pt No 487
Gross Area (acre): 1	Infested Area (acre) .25	Target NIPS CENSOL

Acre	Square Feet	Square (ft x ft)	Rectangle (ft x ft)
0.01	436	20 x 20	40 x 10
0.05	2,178	47 x 47	100 x 20
0.1	4,356	66 x 66	200 x 20
0.25	10,890	104 x 104	363 x 30
0.5	21,780	148 x 148	436 x 50
0.75	32,670	180 x 180	653 x 50
1	43,560	209 x 209	435 x 100
2	87,120	295 x 295	
5	217,800	467 x 467	
10	435,600	660 x 660	

Greater than 2 acres draw it on the map

0.5 acre
 1 acre
 2 acres
 5 acres
 10 acres

1:24,000
 0 1,000 2,000 Feet

Aerial Photo Scale on Transparency

Acreage Estimation Cheat Sheet

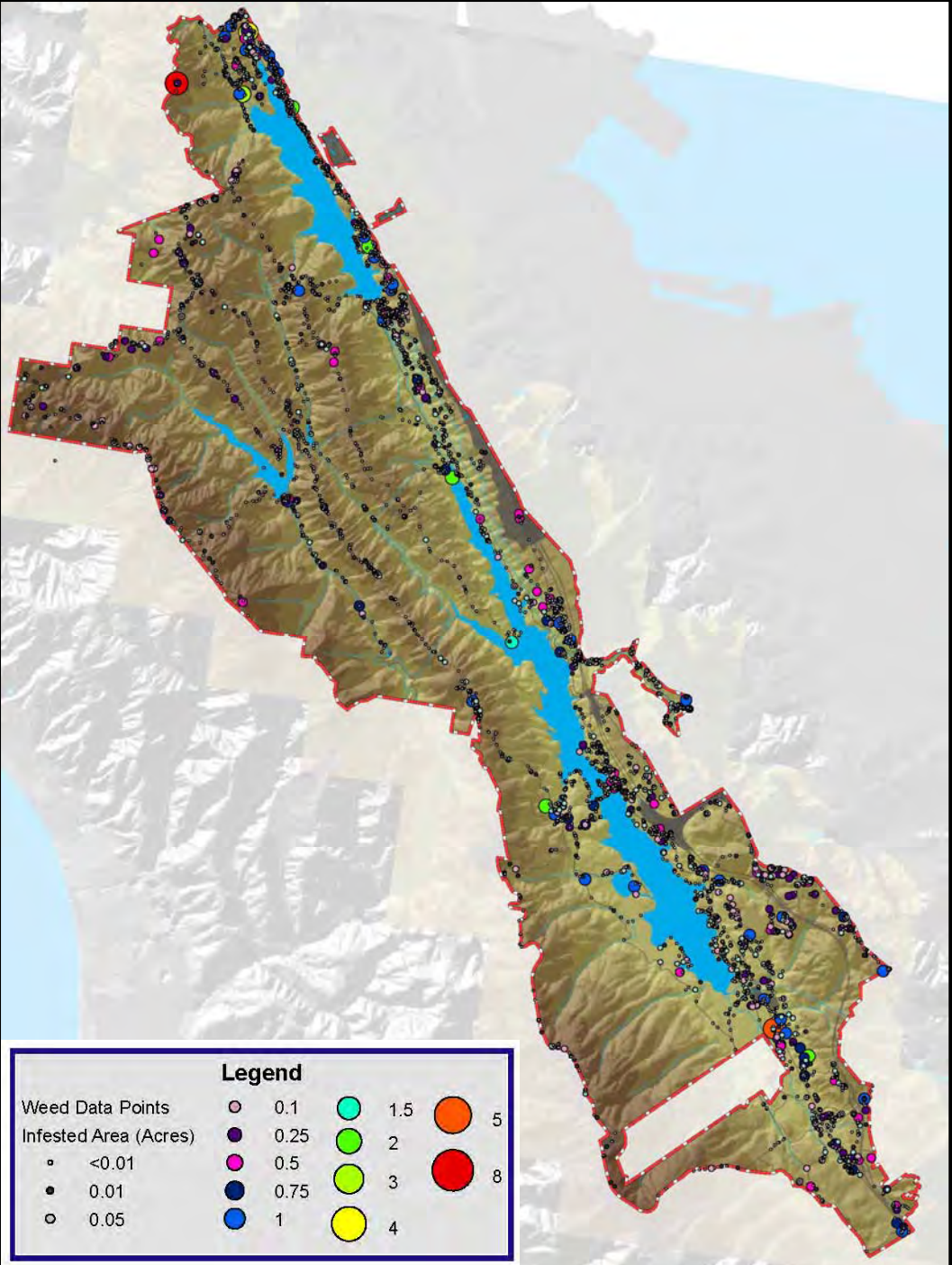
Weed species with the highest number of occurrences

- jubata grass (390 data points)
- bull thistle (360 data points)
- yellow starthistle (314 data points)
- poison hemlock (304 data points)
- teasel (237 data points)

Weed species with the highest infested area

- yellow starthistle (28 acres)
- velvetgrass (17 acres)
- Italian thistle (15 acres)
- blue gum seedlings (14 acres)
- jubata grass (13 acres)





Management Recommendations for Roads

- Keep blade spoils on existing roads
- Clean vehicles and mowers regularly
- Limit access during certain times of year
- Focus weed control on heavily used roads and parking areas to limit spread

Fuel Breaks



Management Recommendations for Fuel Breaks

- Locate fuel breaks in same place
- Follow up treatment of weeds in fuel breaks

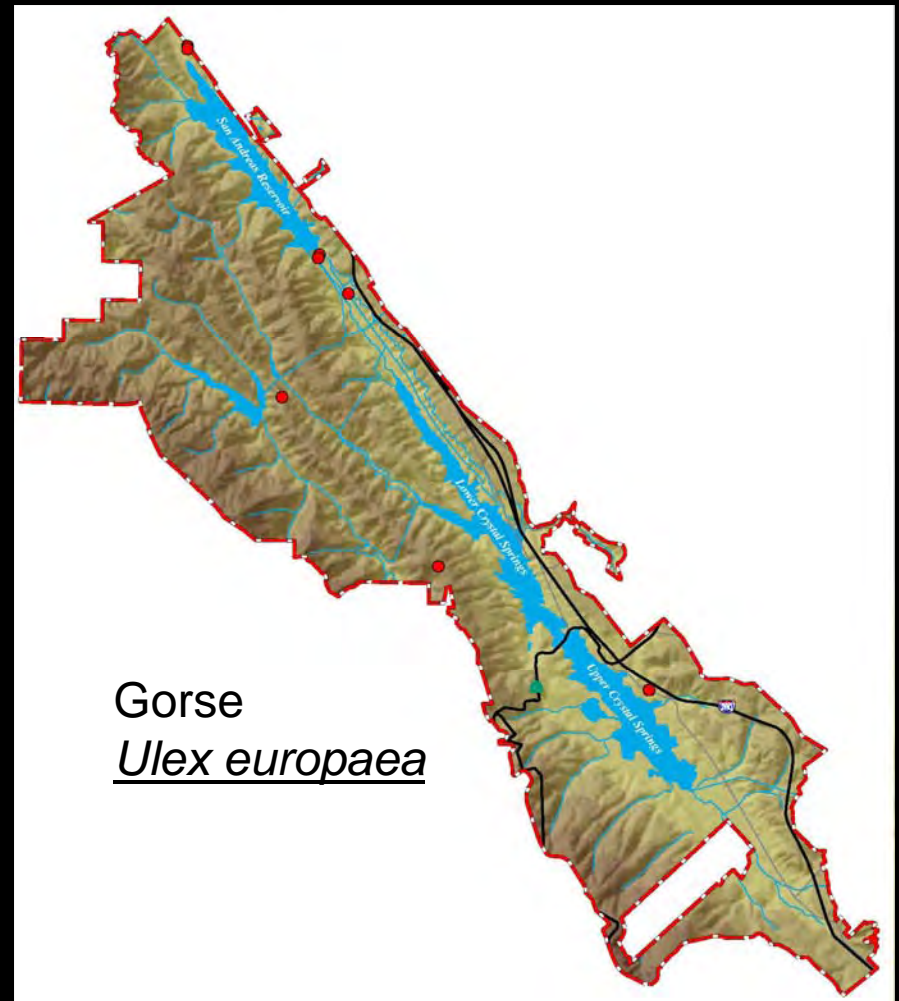
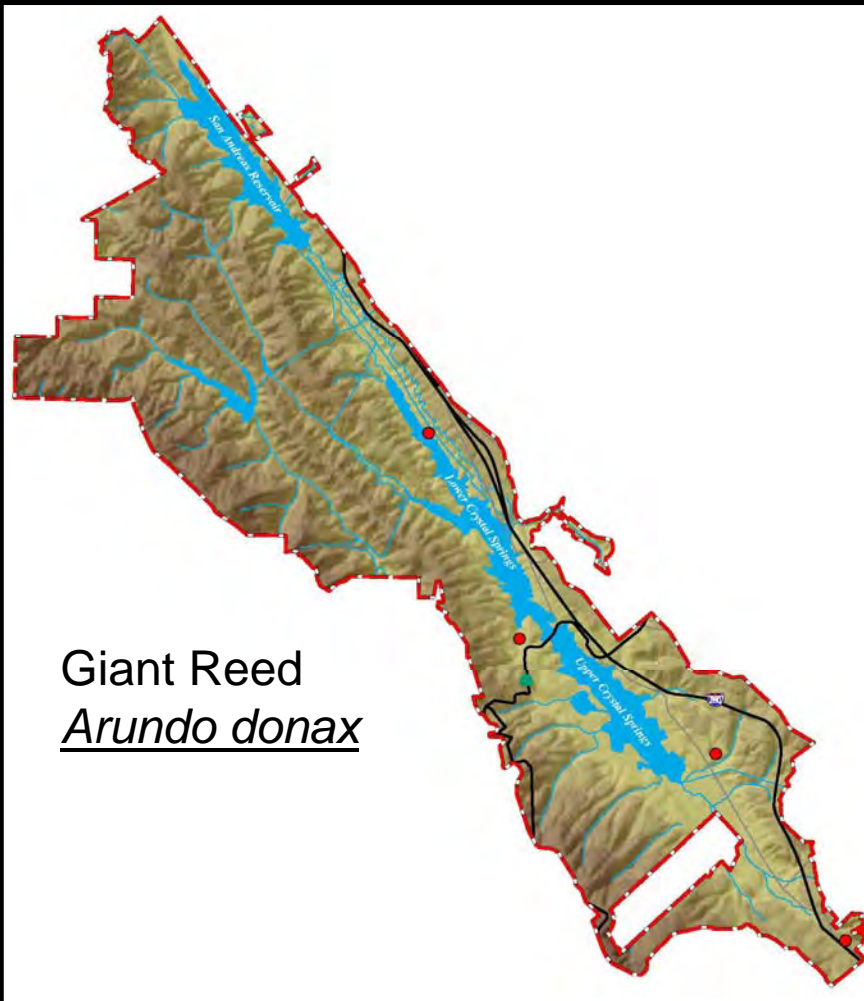
Construction Sites



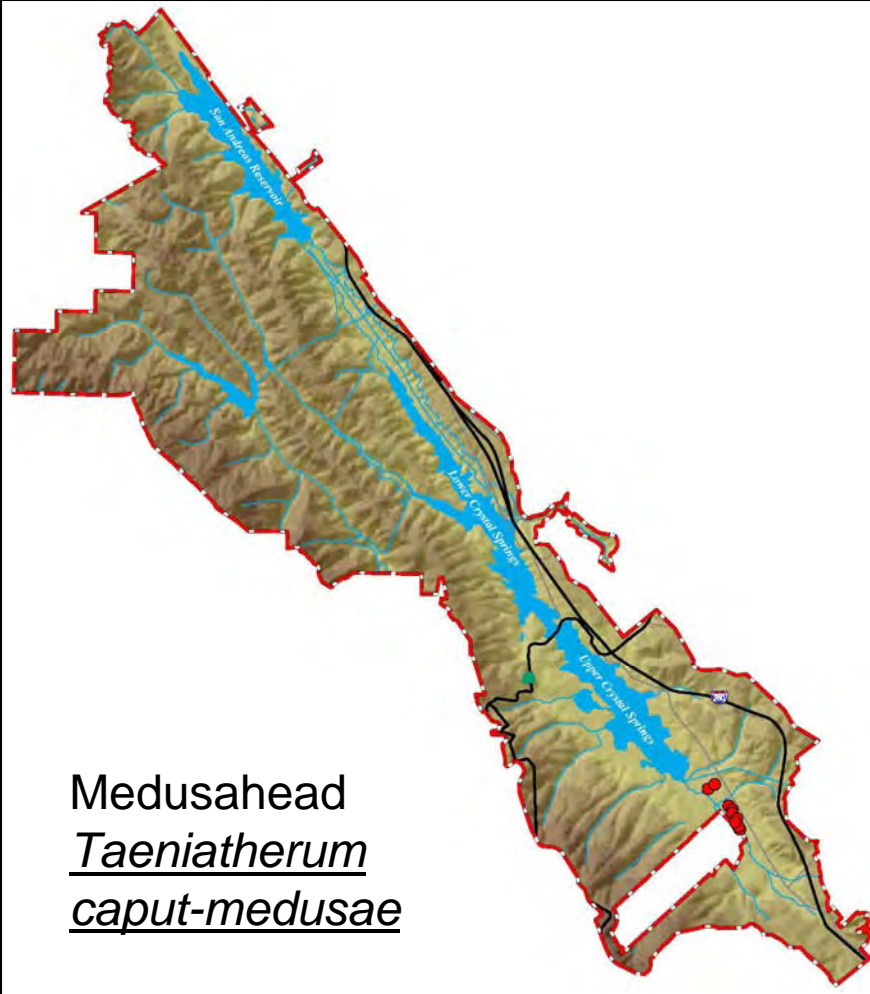
Management Recommendations for Project Sites

- Preliminary biology work prior to construction needs to include weed mapping.
- Standard measures such as washing vehicles and equipment need to be enforced.
- Permits should require follow-up monitoring and control of weeds.

Species with Few Occurrences (Candidates for Eradication)



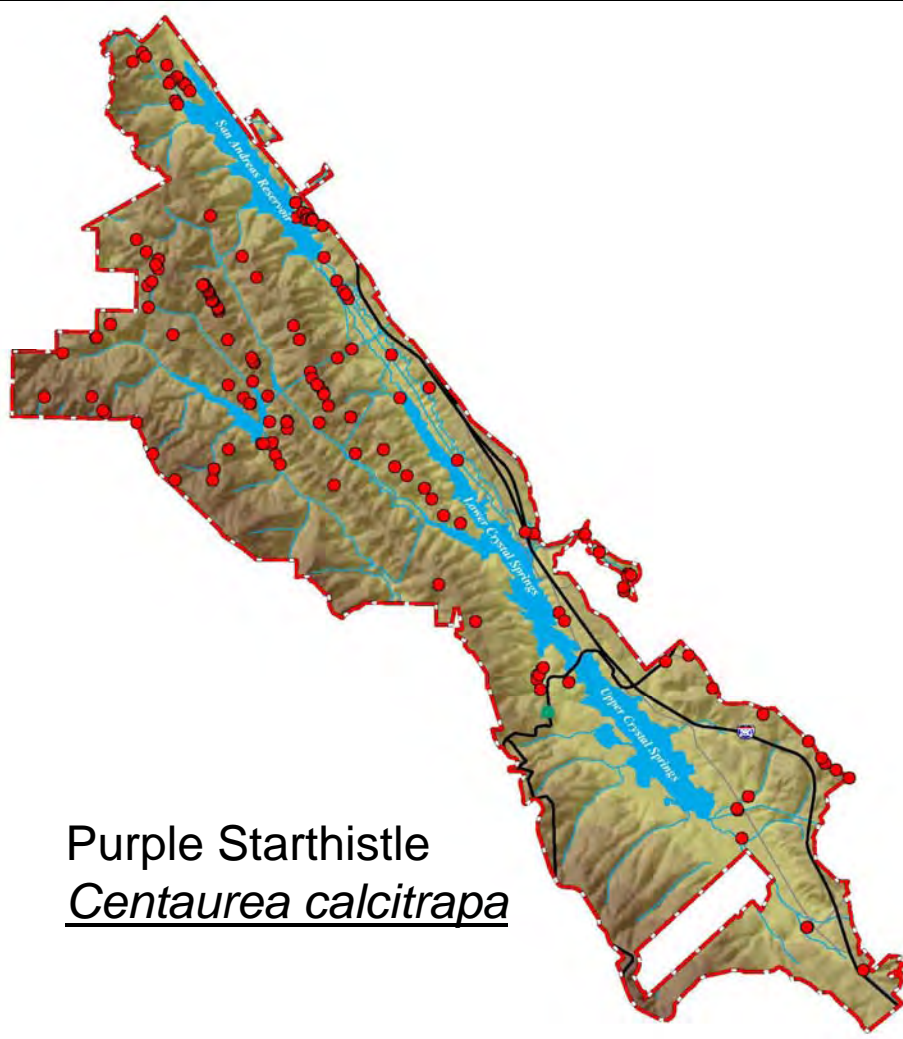
Species with Few Occurrences (Candidates for Eradication)



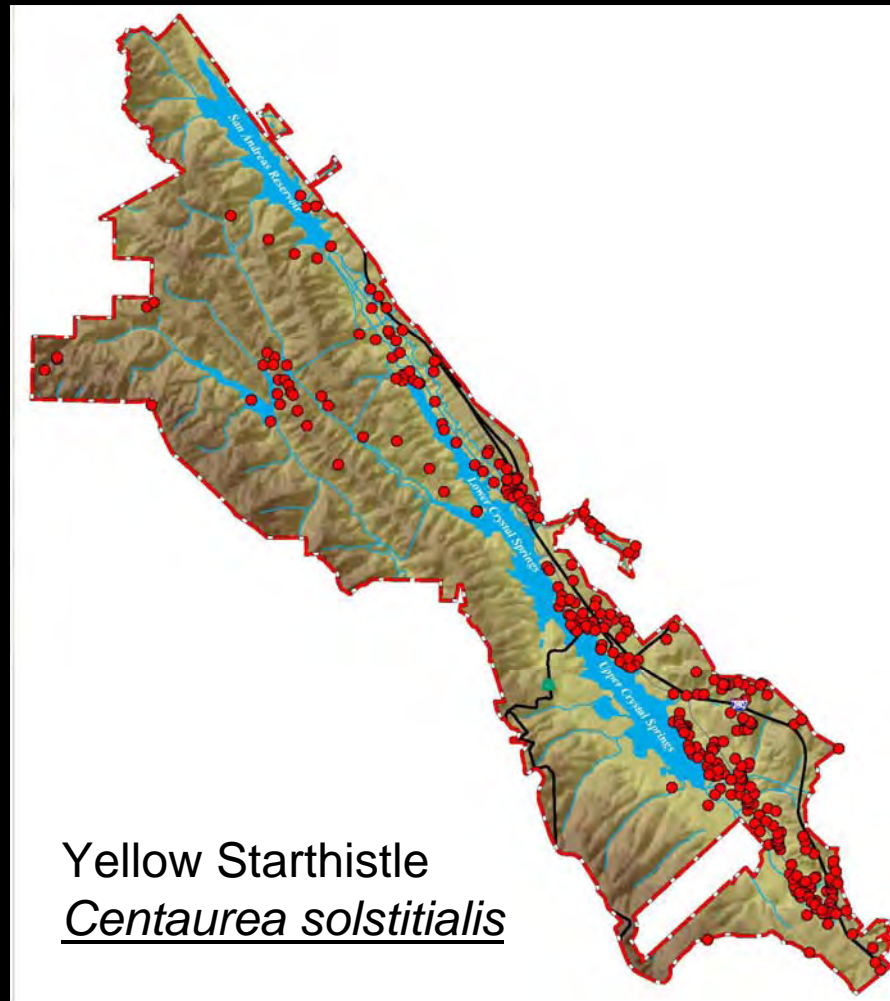
Species more Widespread than Thought



Species more Widespread than Thought



Widespread Species (Targeted Control to Protect High Quality Biological Resources)





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