

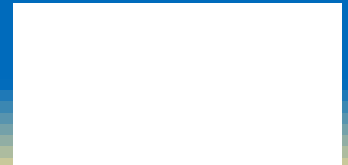
Santa Cruz tarplant: Introduced population in Contra Costa County

Michele Hammond

Temp Botanist

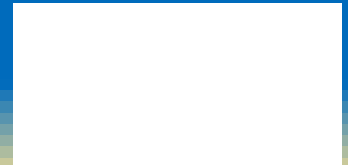
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December 3, 2015



History

- Original population on heavily grazed cattle pasture in Pinole
- Location threatened by development -- 1980
- Seedlings transplanted to Point Pinole and Tilden parks – NOT successful – development happened
- Plants collected from remnant population next to development – 1982, Neil Havlik, EBRPD
- Seed scattered in “similar soils, exposures, grazing conditions” in preserved parkland



Introduced Locations

- Wildcat Canyon Regional Park



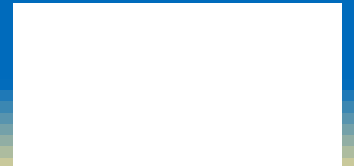
Introduced Locations

- Sobrante Ridge



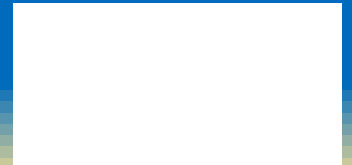
Introduced Locations

- East Bay MUD, Sather Canyon



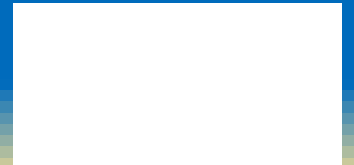
Management

- 33 years of management
- Cattle grazing -- Ongoing in Wildcat Canyon
- Mechanical treatments -- Clearing of shrubs and trees in Sobrante Ridge
- Prescribed burning (2008) – also accidental wildfires (1985)
- Invasive plant management – 2001 attack on artichoke thistle in Wildcat Canyon



Management

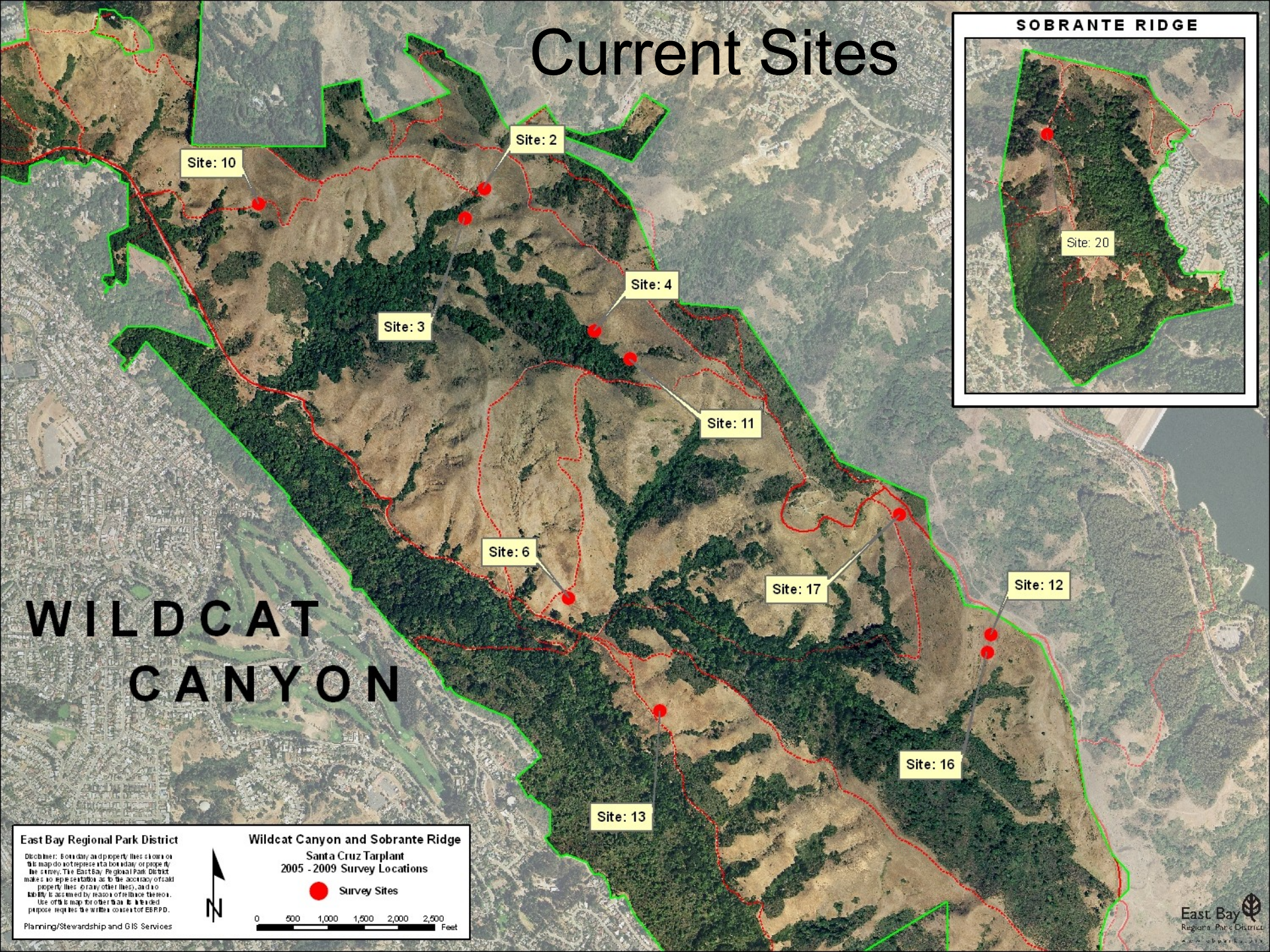
- Ongoing collaboration with USFWS and CDFW (CDFG)
- Seed sowing from existing large population – Site 6 collection and distribution to other sites within Wildcat Canyon



Monitoring



Current Sites



WILDCAT CANYON

SOBRANTE RIDGE

East Bay Regional Park District
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Wildcat Canyon and Sobrante Ridge
Santa Cruz Tarplant
2005 - 2009 Survey Locations

● Survey Sites

0 500 1,000 1,500 2,000 2,500 Feet

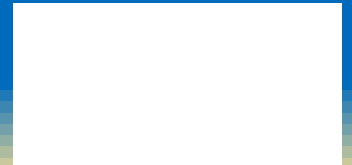
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Monitoring



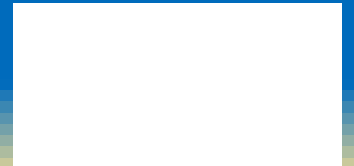
Data

- Before 2002 count data is approximate
- No statistical analysis of correlations with soil factors, weather or management (no replication)
- Better record needed of management actions and responses



Data

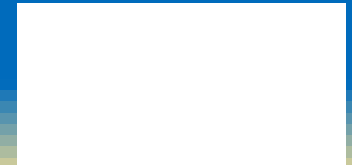
- Accidental burn “increased” population (1985) but prescribed burn (2008 and 2010?) no effect noted
- Sobrante Ridge mechanical treatment did not increase population
- Artichoke thistle not a threat – continued maintenance



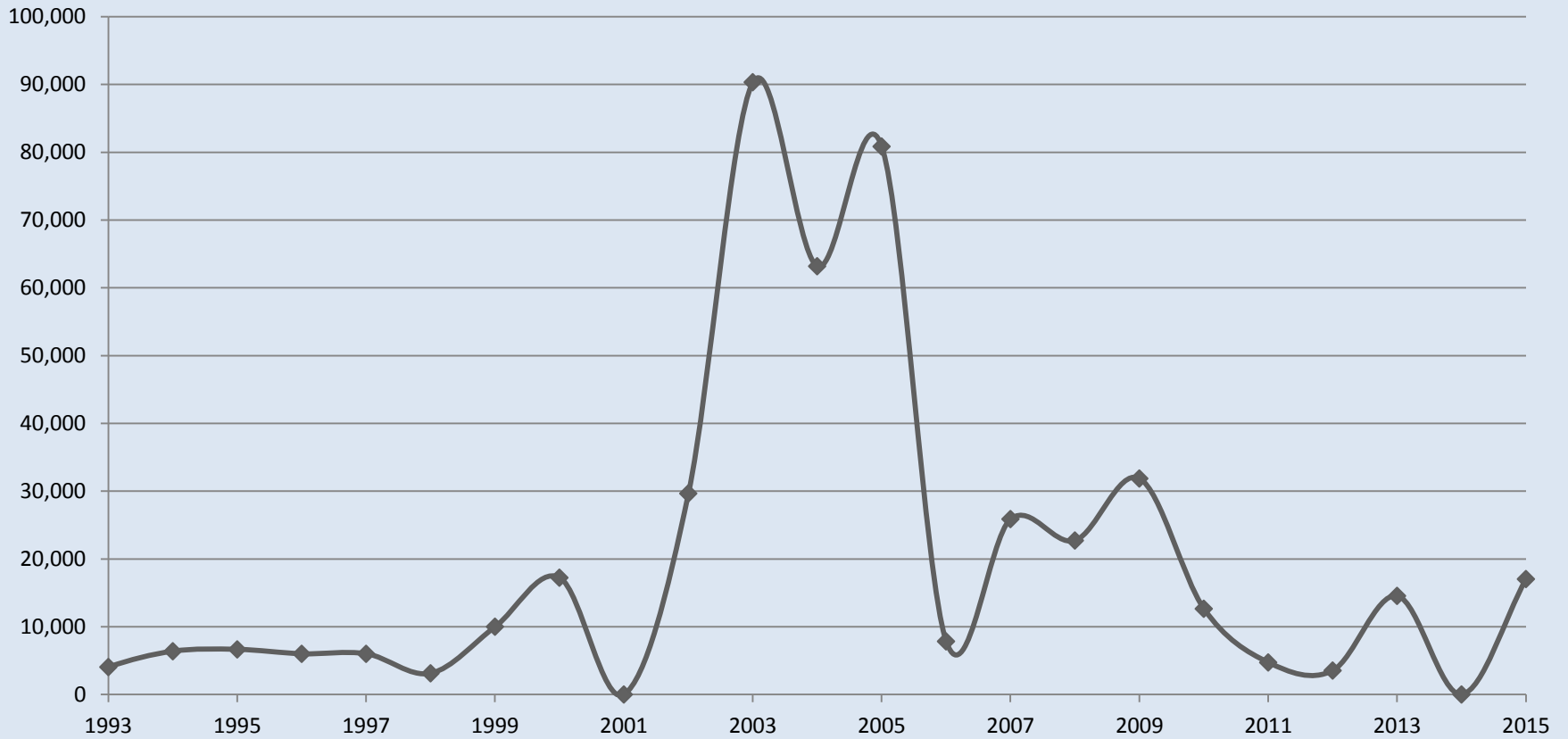
Trend

- 2015 – only 3 sites within EBRPD still extant (sites 2, 4 and 6)
- Only site 6 (Mezue) Wildcat Canyon consistently large population

2015	Site	Count	Estimate	Area (sqft)
WC	2	48		106
	3	0		
	4	115		361
	6		17030	16331
	10	0		
	11	0		
	12	0		
	15	0		
	16	0		
	17	0		
SO	20	0		



SC Tarplant Site 6 "Mezue" Population Estimate



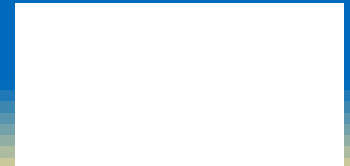
2001
no
survey

2014 no
survey



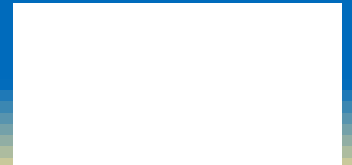
Mezue trail – Site 6

- Soils – Tierra loam
- 1982 seed introduced
- 1983 approx. 300 plants
- 1993 4,000 plants
- 1999 10,000 plants
- 2003 90,000 plants
- 2015 17,000 plants



Conclusions

- No current District conservation goals or targets
- District interest in management for the species
- Create grazing management plan for Wildcat Canyon that includes special management areas for SC Tarplant
- Manage for lower RDM levels, prescribed burning, timed mowing in suitable areas
- Continue annual monitoring effort using volunteer help



Thanks

- Amazing photos
- Dedication of Nancy Brownfield and other District staff for continuing monitoring



Questions?

