

# Collaborative Weed Control Along the Truckee River

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## INTRODUCTION

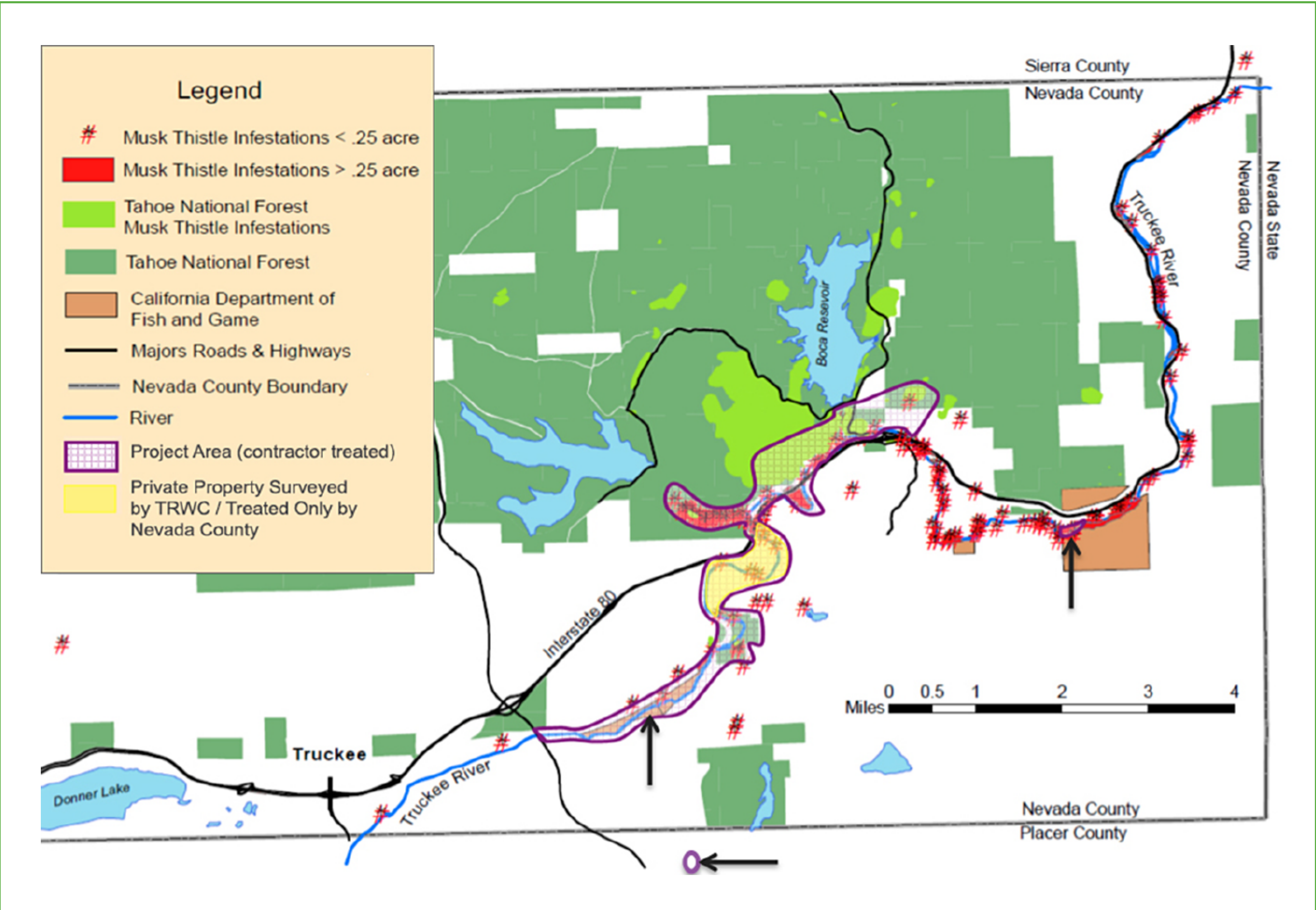
For the last two decades, US Forest Service (USFS), Nevada County, California Department of Fish and Wildlife (CDFW) and other landowners have been treating non-native invasive plants (NNIP) independently on their properties with some collaboration. In 2014, through a combination of numerous funding opportunities, Truckee River Watershed Council was successful in gaining approval from and cooperation of six landowners within the project area, and contracted with a Qualified Weed Treatment Contractor (California Reforestation), to treat several species of NNIPs on nearly 300 acres along the Truckee River.

## OBJECTIVES

- Control and substantially reduce numbers of NNIPs, in particular State Noxious Listed A and B species.
- Prevent and reduce spread of NNIPs by treating large source populations.

## PROJECT AREA

Six Miles of the Truckee River Corridor East of the Town of Truckee



## MATERIALS AND METHODS

### Funding and Collaboration:

- TRWC allocated \$13,000 funding from Martis Fund to hire a Contractor to treat NNIPs.
- TRWC, USFS, and Nevada County identified and Defined Priority Areas.
- TRWC contacted all landowners and gained approval for treatment.
- Cal-IPC provided \$15,000 additional funding for treatment on CDFW and other land in Project Area.

### Treatment (Table A):

- Hand / Mechanical  
On USFS property, musk thistle, bull thistle, and teasel were removed by hand digging.
- Chemical  
Nevada County, TRWC Contractor, and CDFW treated appropriate NNIPs with approved chemicals including Garlon 3A, Telar, Milestone, Inlet, and Hylight Blue.
- Monitoring  
Each population treated (and observed) was recorded by GPS location; species and number of individuals treated; and treatment method.
- Documentation  
Occurrences and treatments were documented in Calflora.

TABLE A Total NNIP Species Treated in Project Area in 2014			
Species Treated	CA Noxious List, Other	Treatment Method	No. Treated
Musk Thistle (Carduus nutans)	A	Hand / Mechanical (rosettes), Chemical	26,064
Spotted Knapweed (Centaurea stoebe)	A	Chemical	400
Perennial Pepperweed (Lepidium latifolium)	B	Chemical	250
Russian Knapweed (Acroptilon repens)	B	Chemical	13
Bull Thistle (Cirsium vulgare)	C	Hand / Mechanical (rosettes)	339
Klamath Weed (Hypericum perforatum)	C	Chemical	75
Teasel (Dipsacus fullonum)	None, Local Concern	Hand	1,317
White Sweet Clover (Melilotus albus)	None, Local Concern	Chemical	300
TOTAL			28,758

## BACKGROUND

### The Middle Truckee River Watershed

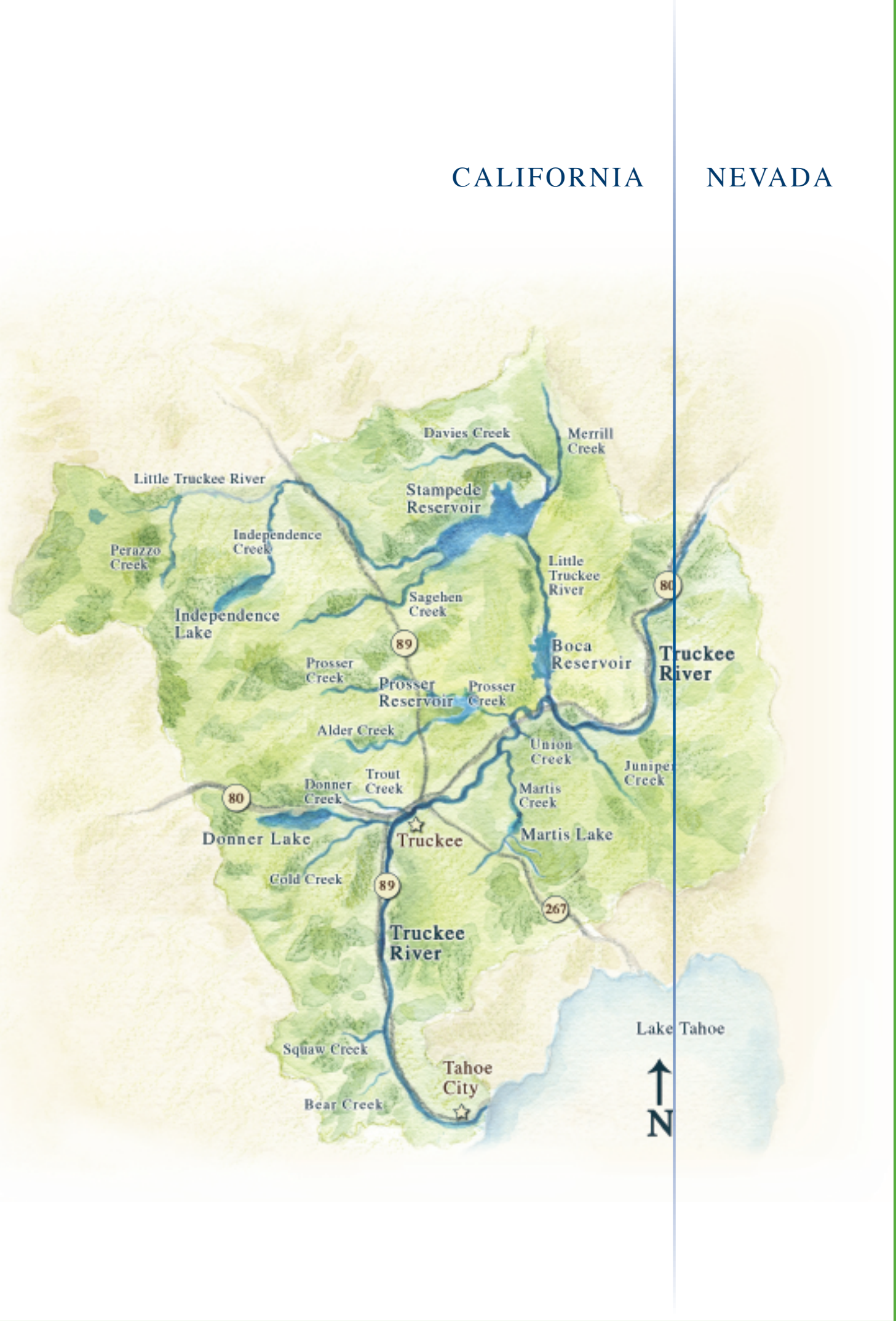
- Northwest of Lake Tahoe
- 285,000 acres (435 sq. mi.)

### Truckee River Watershed Council (TRWC)

A non-profit organization whose mission is to bring the community together to protect, enhance and restore the Truckee River.

### Truckee River Weed Warriors

A TRWC program that prevents and controls the spread of non-native invasive plants (NNIP) in the Truckee River watershed. Following the principle of "Early Detection, Rapid Response," we educate the community, report occurrences to weed-management authorities, and organize work parties to enhance native habitats.



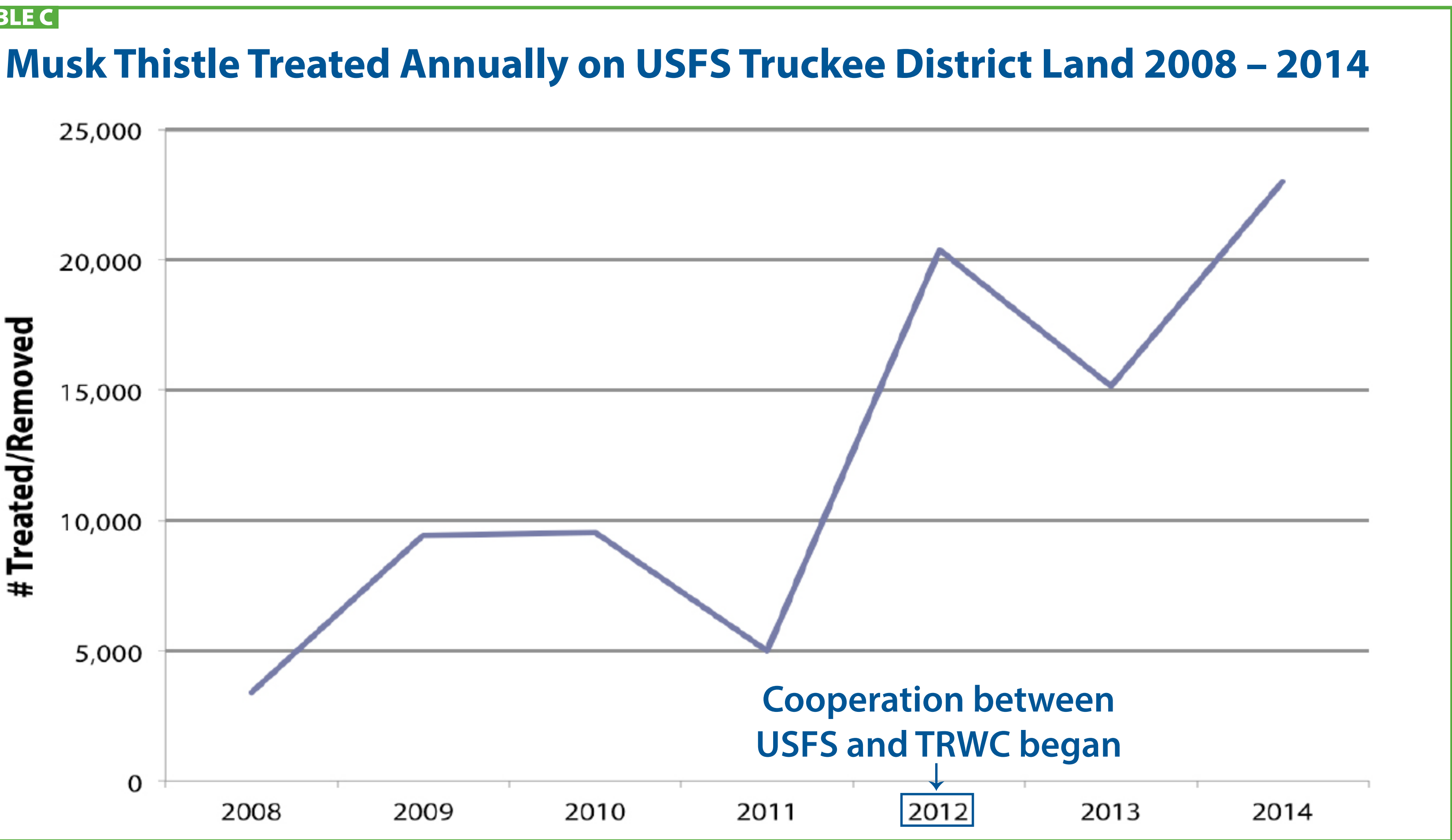
### Musk Thistle Population, Boca Hill Site, USFS Property



Left to right: Seeds dispersed; seeds; USFS and TRWC contractor crews dig up rosettes

## RESULTS

TABLE B Number of NNIP Species Treated in 2014 by Date				
Date	Property	Approx. Acres	Species	Labor
6/9 – 6/12	USFS – Boca Hill and Below Boca Dam	50	Musk thistle	Contractor w/ USFS staff
6/17 – 6/18	TTSA, TSD 267 to Glenshire Bridge – south side of River	20	Musk thistle, bull thistle, perennial pepperweed teasel	Contractor w/ Nevada Co staff
6/19	CDFW – Polaris Unit (N side River) 1 <sup>st</sup> pass	50	Musk thistle, perennial pepperweed, spotted knapweed, bull thistle, teasel	Contractor w/ Nevada Co staff
6/19	USFS – Glenshire Bridge Area – 1 <sup>st</sup> pass	20	Musk thistle, perennial pepperweed, teasel	Contractor
6/25 – 6/26	USFS – Boca Hill and Shooting Range	30	Musk thistle	Contractor w/ USFS staff
6/27	CDFW – Boca Unit (#1-3), Union Ice Unit 1 <sup>st</sup> pass	60	Musk thistle, spotted knapweed, Russian knapweed, perennial pepperweed, white sweet clover, Klamath weed, teasel	Contractor
7/7	CDFW – Polaris Unit 2 <sup>nd</sup> pass; Union Ice Unit 2 <sup>nd</sup> pass	25	Musk thistle, Russian knapweed, white sweet clover, teasel, bull thistle	Contractor
7/7	Waddle Ranch	3	Bull thistle	Contractor
7/8	CDFW – Boca Unit (#2-3) 2 <sup>nd</sup> pass	50	Musk thistle, teasel	Contractor
7/8	TTSA 2 <sup>nd</sup> pass	70	Musk thistle, teasel	Contractor
7/9	CDFW – Boca Unit (#1) 2 <sup>nd</sup> pass	25	Musk thistle, spotted knapweed, Klamath weed, teasel, white sweet clover	Contractor
7/9	USFS – Boca Hill	10	Musk thistle	Contractor w/ USFS staff
7/10	CDFW – Polaris Unit 3 <sup>rd</sup> pass	20	Musk thistle	Contractor
7/10	USFS – Boca Hill	10	Musk thistle	Contractor w/ USFS staff



## CONCLUSIONS

- Through coordinating work crews on USFS property, substantially more musk thistle were treated annually between 2012 and 2014 than in previous years (Table C).
- Through collaboration, we were able to treat most of the project area two to three times during the growing season, prior to plants setting seed (Table B).
- Through collaborating and concentrating weed treatment efforts, we were able to procure additional funding for 2014 and beyond.



Truckee River Watershed Council  
Collaborative solutions to protect, enhance and restore the Truckee River Watershed

### THANK YOU TO OUR FUNDERS



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A collaborative project of Martis Camp landowners, DMB Highland Group (the developers of Martis Camp), Mountain Area Preservation Foundation (MAPF), and Sierra Watch.

### THANK YOU TO OUR PARTNERS

California Department of Fish and Wildlife  
Nevada County  
San Francisco Flycasting Club  
Truckee Donner Land Trust  
Truckee Sanitation District  
Truckee Tahoe Sanitation Agency  
US Forest Service