

Developing a Coarse Scale Tamarisk Removal and Revegetation Plan on Walker River Paiute Tribal Lands



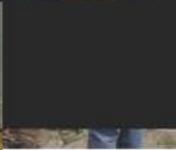
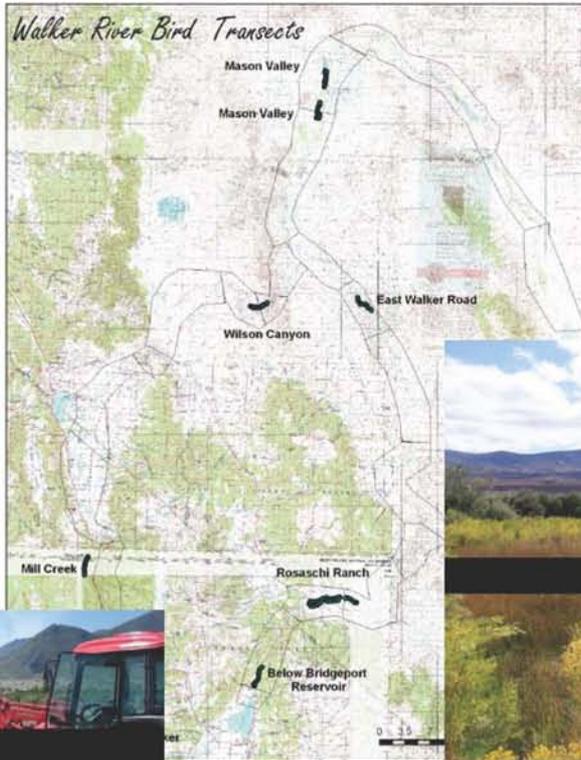
Walker River Paiute Tribe

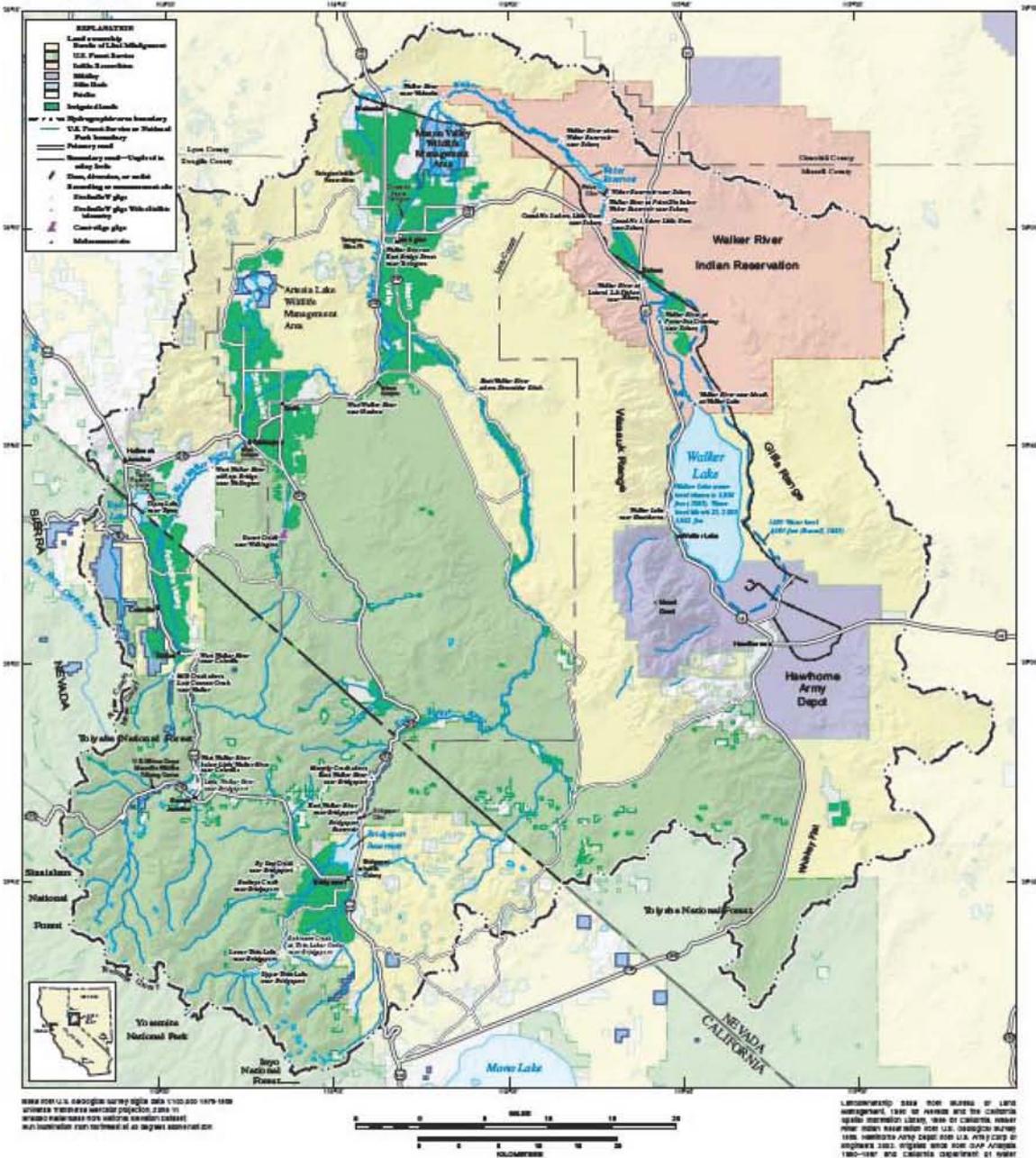


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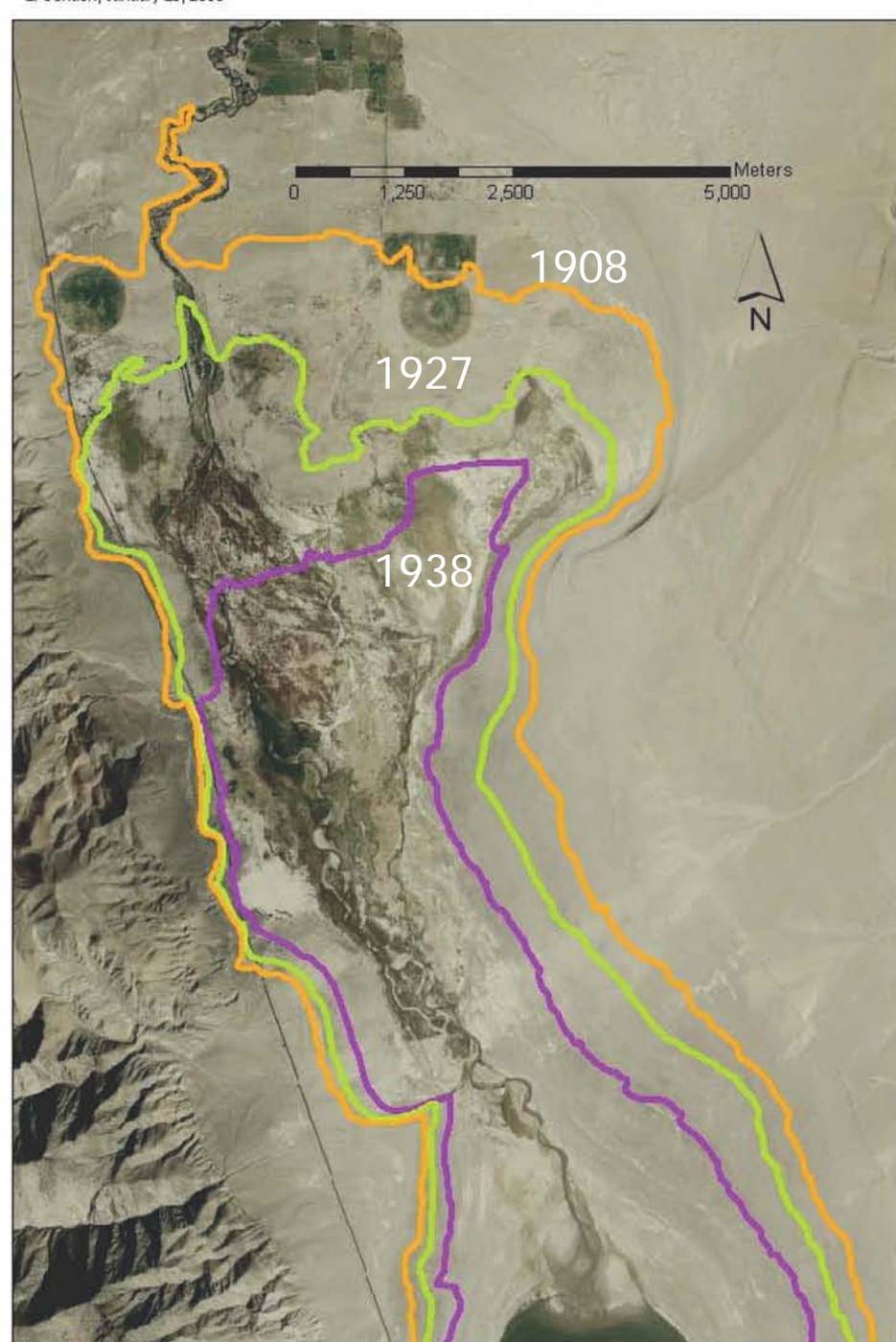
**Walker River
Paiute Tribal
Lands cover
about 10%
of the
Walker River
Basin**

SELECTED FEATURES OF THE WALKER RIVER BASIN, CALIFORNIA AND NEVADA

Goals

- Restore sustainable native plant communities over 1600+ acres currently classified as tamarisk





**Tamarisk
invaded the site
as lake levels
declined.**

Outline

- Previous Treatments
- Demonstration Site
 - Removal
 - Site Preparation for Planting: Mulching and Creating Microtopography
 - Continued Tamarisk Treatments
 - Species selection for planting
- Prioritizing Sites for Future Efforts
- Treatments for Site Types
 - Low infestations
 - High infestations with a water source
 - High infestations without a water source

Previous Treatments

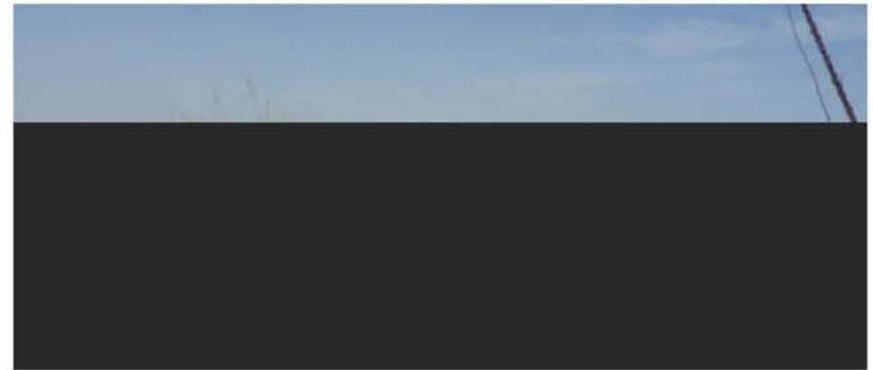
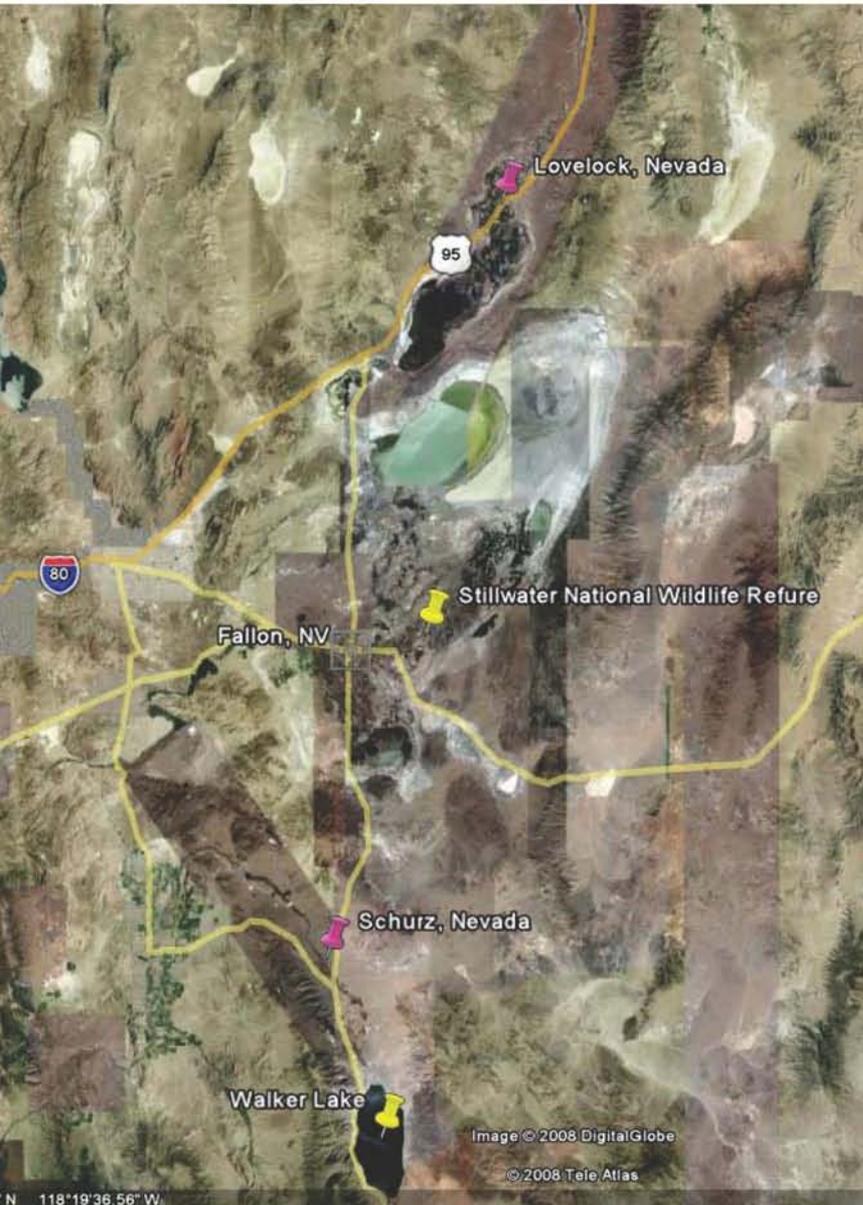


Tamarisk Leaf Beetle *Diorhabda elongata*



The beetles will help...

Beetles were released in Lovelock, and Schurz, on Walker River Paiute Tribal Lands

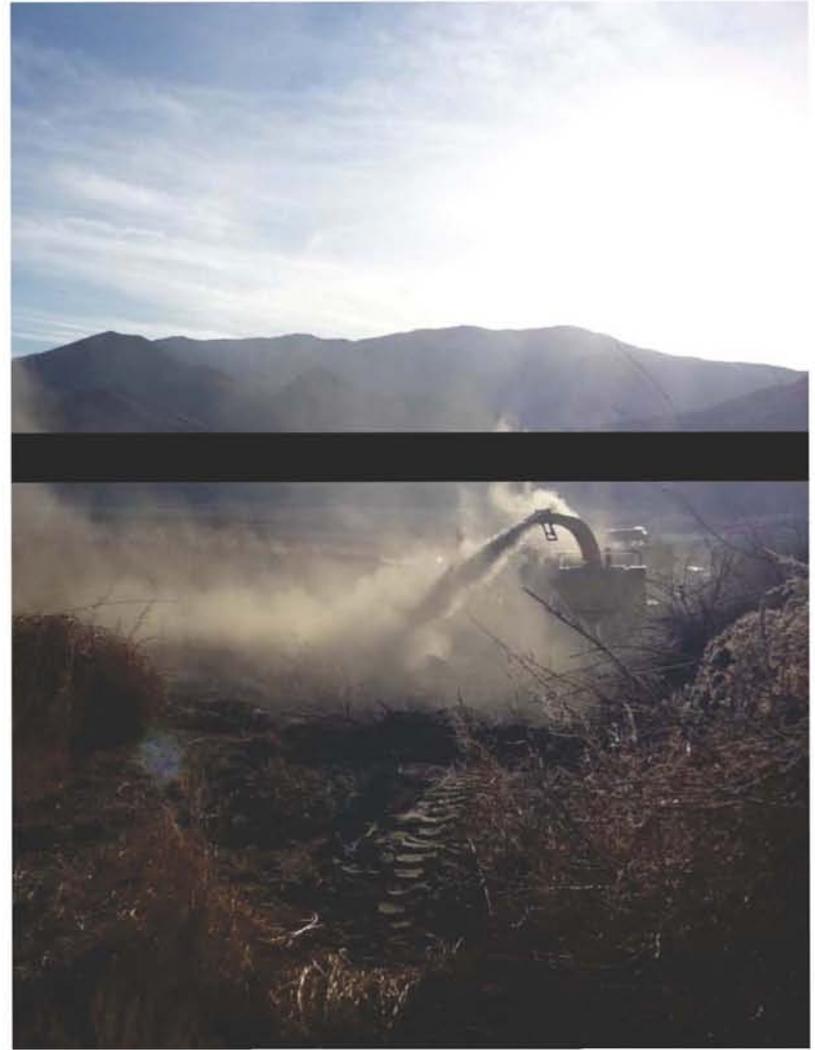


Beetle Defoliation at Stillwater National Wildlife Refuge



Demonstration Site Removal

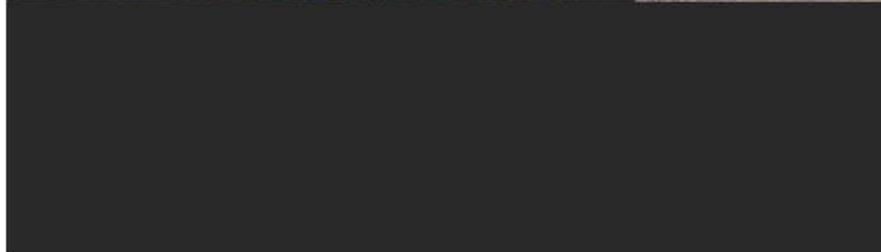
- Tamarisk were removed with an excavator and placed in windrows
- Some windrows are being left to decrease wind erosion
- Windrows are being mulched to increase water and seed retention for revegetation efforts



Demonstration Site Mulching



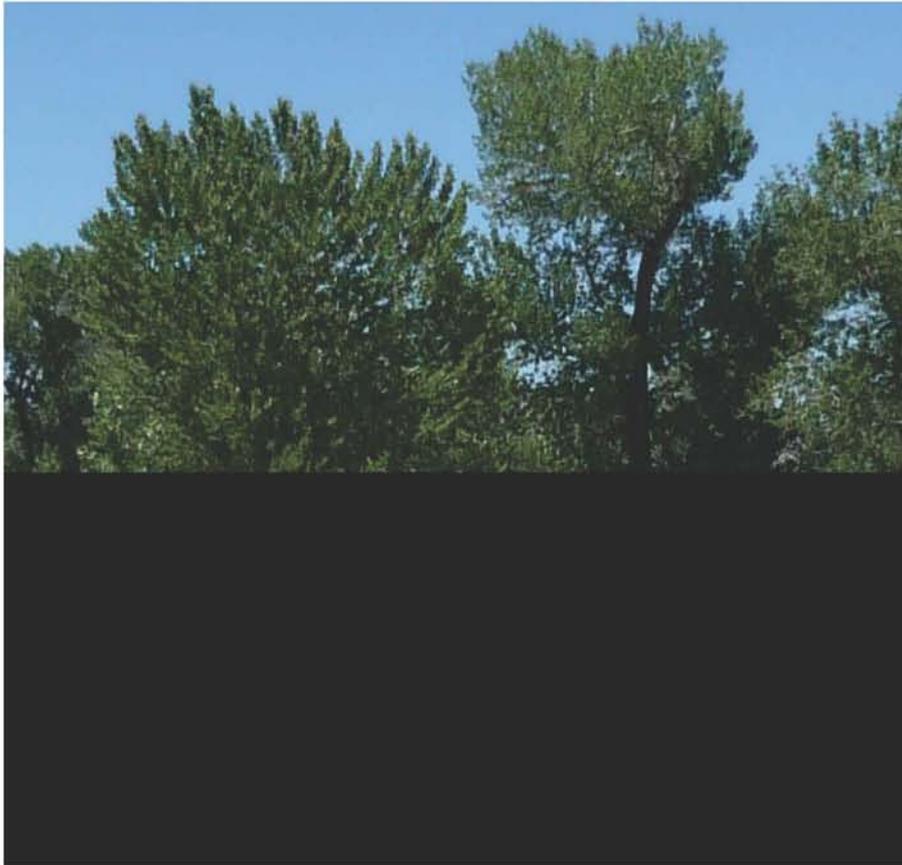
Demonstration Site Creating Microtopography



Demonstration Site Herbicide Treatments



Species selection with additional concerns



There is a need for pasture restoration.

Natives

Common Spikerush

Eleocharis palustris (L.) Roemer
& J.A. Schultes

Photo Courtesy of USDA Plants
assessed November 3, 2008



Indian Ricegrass

Achnatherum hymenoides (Roem.
And Schult.) Barkworth

Photo Courtesy of USDA Plants
assessed November 3, 2008



Beardless Wildrye

Leymus triticoides (Buckl.) Pilger

Photo Courtesy of USDA Plants
assessed November 3, 2008



Natives that do well with disturbance

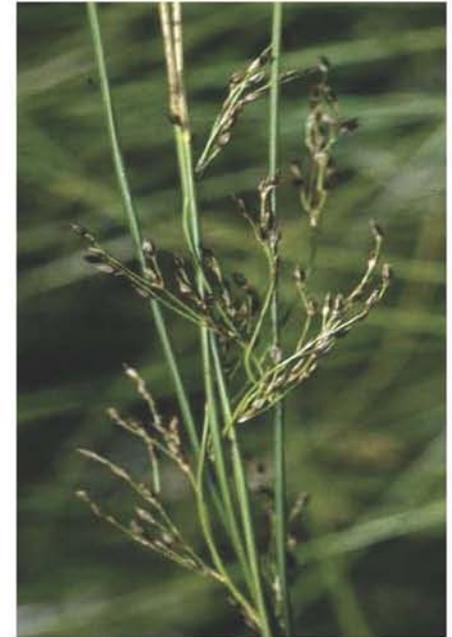
Desert Saltgrass

Distichlis spicata (L.) Greene



Baltic Rush

Juncus arcticus Willd. *spp.*
littoralis (Engelm.) Hulthen



Poverty Weed

Iva axillaris Pursh

Photos Courtesy of CalPhotos assessed
November 3, 2008

Natives Under Serious Consideration

■ Common Name	Scientific Name	Palatable to Cattle
■ Saltbush Fourwing	<i>Atriplex canescens</i>	Yes
■ Saltbush Shadscale	<i>Atriplex confertifolia</i>	Yes
■ Saltbush Quailbush	<i>Atriplex lentiformis</i>	No (low)
■ Indian Ricegrass Rimrock	<i>Achnatherum hymenoides</i>	Yes
■ Inland Saltgrass	<i>Distichlis spicata</i>	No (low)
■ Squirreltail	<i>Elymus elymoides</i>	Yes
■ Wheatgrass Thickspike	<i>Elymus lanceolatus</i>	Yes
■ Wheatgrass Slender	<i>Elymus trachycaulus</i>	Yes
■ Wildrye Basin Magnar	<i>Leymus cineris</i>	Yes
■ Wildrye Creeping Shoshone	<i>Leymus triticoides</i>	Yes
■ Alkalai Sacaton	<i>Sporobolus airoides</i>	Yes
■ Sand Dropseed	<i>Sporobolus cryptandrus</i>	Yes

Irrigation



The site will be irrigated from February through May with 0.25 inches per week.

Monitoring

The site will be monitored, throughout the wet season and into the beginning of the dry season to compare treatments.



Prioritizing Sites for Restoration



1st Priority

-Some sites are just starting to experience tamarisk establishment

-Some of these sites are no longer viewed as favorable to grazing (undesirable native species)

2nd Priority

-Some are closer to wells

Treatments for Site Types

- Low infestations

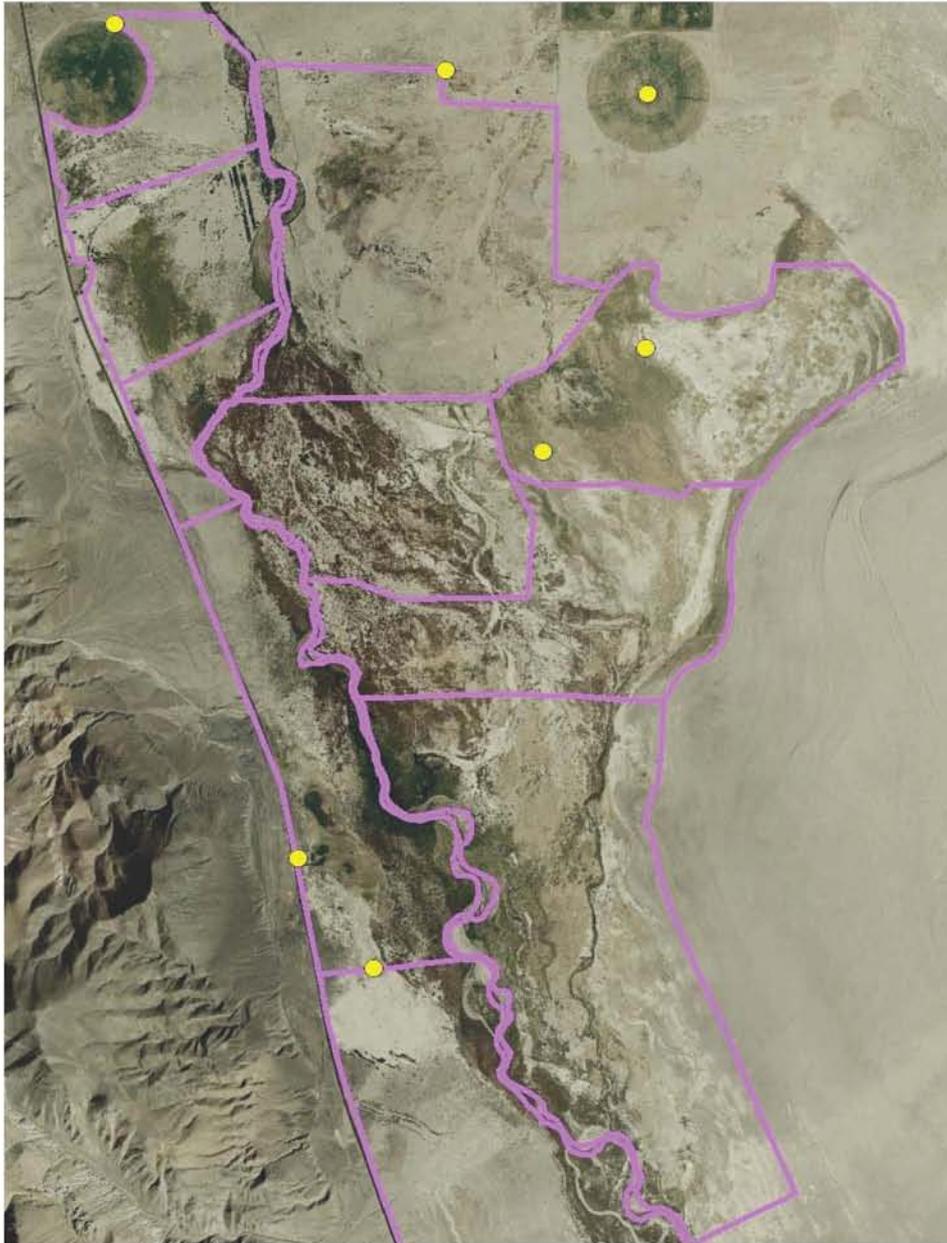
Tamarisk removal and follow-up herbicide treatments may be sufficient.

- High infestations with access to water

Tamarisk removal, herbicide treatments and irrigated plantings.

- High infestations without access to water

Lowest priority...



Prioritization by Location

Partners



Walker River Paiute Tribe



 **NRCS** Natural Resources Conservation Service

Great Basin Irrigation

