



# American Conservation Experience

2900 North Fort Valley Road, Flagstaff, AZ 86001

## ACE Project Report for Landward Foundation

**Title of Project:** Little Colorado River Valley Conservation Area Riparian Restoration

**Project Partner:** Landward Foundation

**Location:** Babbitt Ranches, Little Colorado River Valley Conservation Area

**Dates:** 1/22/2020 - 3/25/2020

**Crew Supervisors:** Emily Reboulet, Matthew Kleberg, Josh Langdon, Ian Mills, Kyle Brownrigg, Kiersten Bonesteel

**Days worked:** 56

**Total Crew Hours:** 4,293

### Crew Demographics:

#### **Breakdown by Gender:**

Male: 25

Female: 15

Undeclared: 4

#### **Breakdown by Race:**

White American: 33

American Indian or Alaskan  
Native: 1

Asian American: 3

Not Identified: 3

Undeclared: 4

#### **Breakdown by Age:**

**18:** 2      **25:** 2

**19:** 1      **26:** 7

**20:** 1      **27:** 2

**21:** 2      **28:** 1

**22:** 6      **29:** 1

**23:** 3      **30:** 1

**24:** 3      **Undeclared:** 20



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## Accomplishments:

- 4.25 acres of tamarisk cut stump treated
- 55 burn piles constructed
- 4 Russian olive trees cut stump treated

## Fencing:

- 13 braces installed
- 1.7 mi new wire installed
- 1 farm gate installed
- 149 t-posts installed
- 0.24 miles of fence line brushed



(Left) Ariel image of the 6-acre Landsward restoration site, before project work began. Individual cottonwood trees stand out as bright green versus the dark green tamarisk. North is at the top of the photo.



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The project location is roughly 1.5 miles north of the current Northern Arizona University's Little Colorado River Southwestern Environmental Garden Array (SEGA) Site north of Flagstaff, AZ. By removing invasive tamarisk we hope to create a refuge area for native flora and fauna while lessening the density of potential wildfire fuel sources.





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Left: Two corps members work together after being taught how to properly mix herbicide to prepare our chemical for modified cut-stump treatment. By mixing the herbicide with basal oil they create a solution that will be easily absorbed by tamarisk.



Left: One of our sawyers clearing our a corridor for the proposed fence line. Our sawyers high stump first before low stumping for the herbicide treatment. The herbicide must be applied shortly after the cut is made or the chemical won't be absorbed.



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Tamarisk forces native plant species to compete for resources such as water, sunlight, and soil nutrients. By removing the tamarisk from around native cottonwoods (Left) and desert olive our hope is to lessen their need to compete for vital resources while creating a defensible area against fire threats.

Swampers hauled away the debris and constructed burns piles (Right). These piles had to be constructed two chains (132 ft) away from any standing tamarisk and cottonwoods.





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Right, one of our corps members fills one of the many tools that were used for application. Over the course of this project the crews utilized backpack sprayers, hand sprayers, and squeeze applicator bottles.



Herbicide also included a red or blue dye that helps identify which stumps have been treated. For cut-stump treatment (Left) only the cambian layer of the tree needs to be sprayed. This is the same for modified cut-stump, but in addition to the cambian layer we would also treat the outer bark of the stump.



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(Left) Prior to constructing the fence line corps members had to remove invasive camelthorn and grasses so that wire could be run without obstruction.

Before T-posts could be set and wire run, the corner braces had to be installed. These braces (Right) were set into concrete to increase their strength and durability. These vertical posts were paired with two additional angle bracers.





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(Left) Prior to setting the brace with concrete corps members checked to ensure that the brace was standing straight.



(Left) Concrete being poured into the post hole prior to adding water to set the post.





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(Left) Setting the supporting angle posts for corner braces.



(Left) Corps members line out and set t-posts that will help support the wire. The process here is referred to as "Shooting the Line." One person stands at the brace and directs those working with them where to place the post .



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(Above)

One of our newest crew leaders with his crew after an 8-day hitch filled with chainsaws, herbicide, fencing, and a lot of laughs.