

Restoration on the Gila

Successes, Challenges, & Lessons Learned



Bethany Drahota
Habitat Restoration Manager
Gila Watershed Partnership

Overview

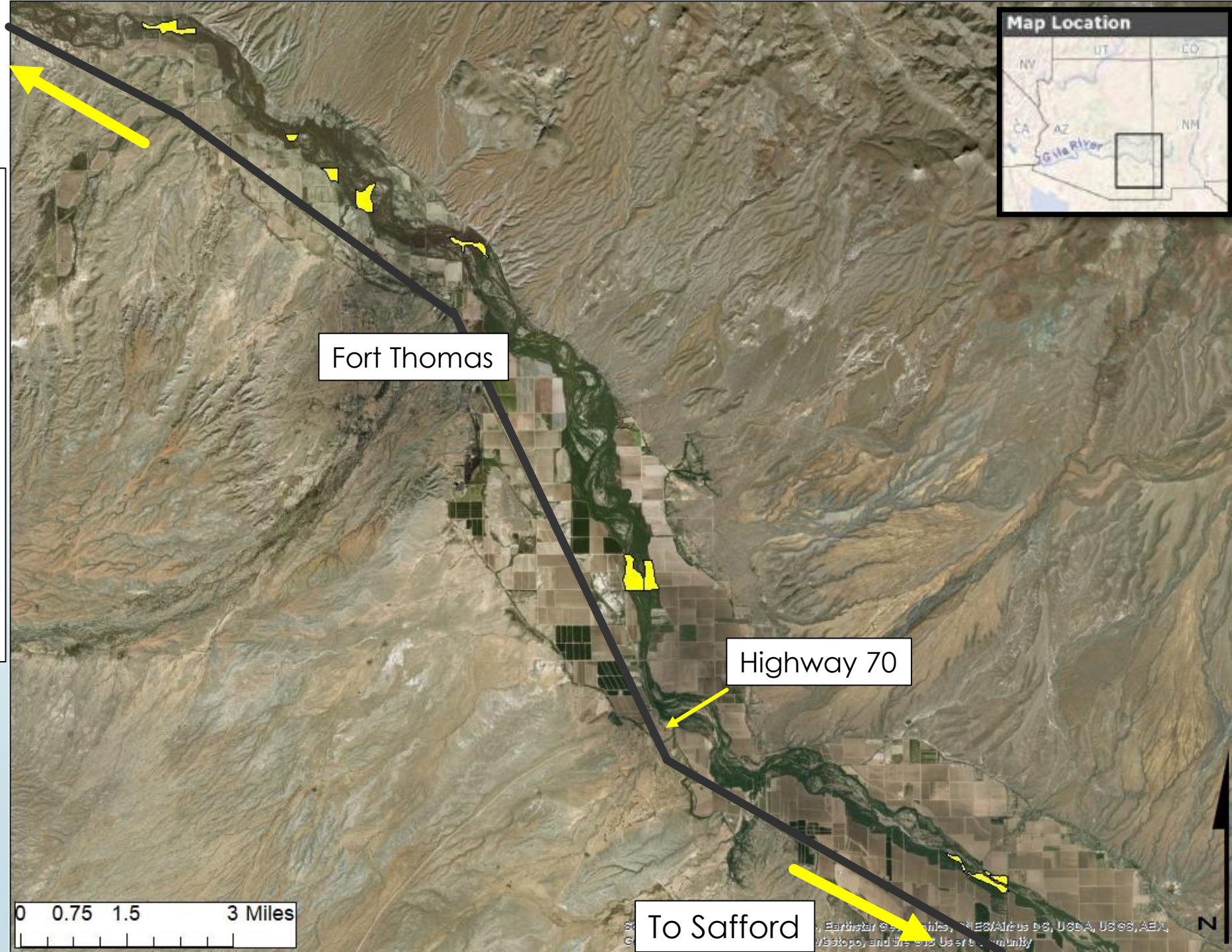
- Introduction
- Successes
- Challenges
- Lessons Learned
- New Approaches



To Phoenix

From North to South:

- **R3:** 46.0-acres
- **R8:** 9.9-acres
- **R9:** 17.4-acres
- **R10:** 47.0-acres
- **R11:** 27.0-acres
- **R14:** 61.7-acres
- **R15:** 39.6-acres
- **R18:** 56.2-acres



GWP Restoration Goals

- Broad:
 - Conserve natural resources
 - Enhance the environment
- Field:
 - Create islands of native tree species along the Gila
 - Wildlife habitat, especially for T & E species
 - Prepare for the tamarisk leaf beetle arrival



Southwest Willow Flycatcher



Yellow-Billed Cuckoo



Coyote Willow

Restoration Up to Now

- Past Seasons (2014-2018):

- 155.53-acres cut
- 57.99-acres retreated
- 52.59-acres planted

- Projected this Season (2019):

- 28.5-acres cut
- 35 to 38-acres retreated
- 33.82-acres planted
 - Plus 5 to 15-acres seeded



Partners in Success!

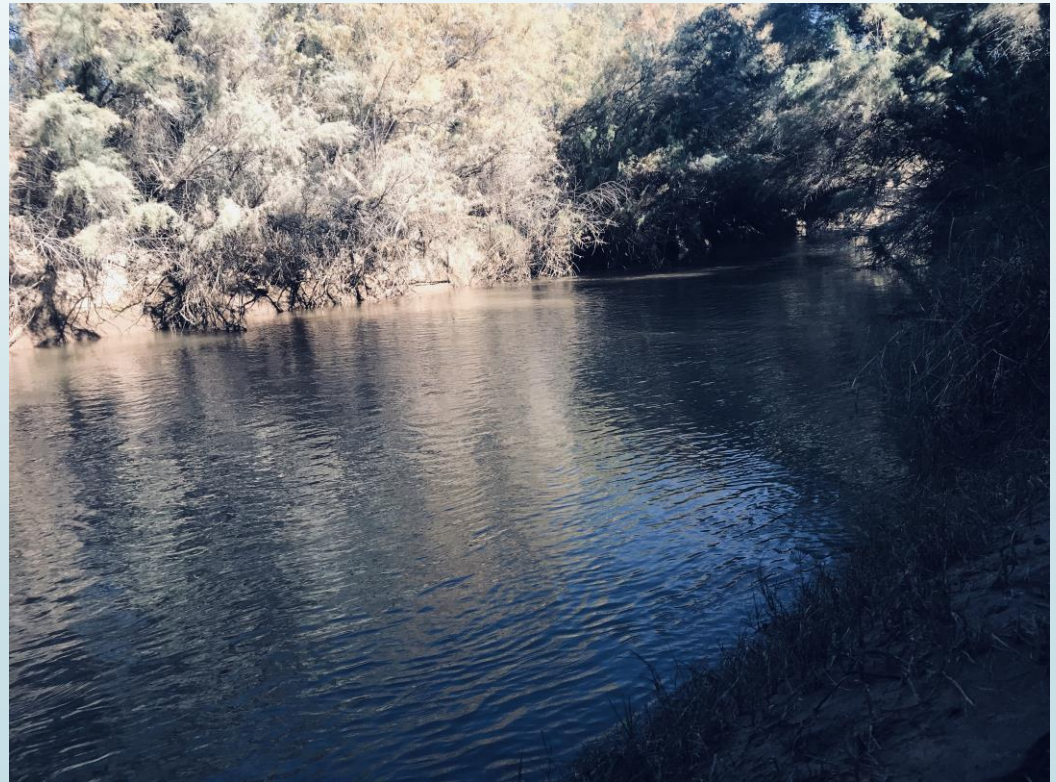
- Arizona Conservation Corps (AZCC)
- National Civilian Community Corps (NCCC)
 - San Carlos Apache Tribe
 - Fort Grant Prison Crew
 - Volunteers



Challenges!

► WATER!

- We can't take it from the river, so how do we sustain our plantings?



Challenges!

- Lack of Burning
 - Burn piles inhibit walking and limit areas for planting



Challenges!

- Strong Tamarisk Re-Growth & Secondary Weed Populations



Challenges!

► Herbivory



Challenges!

- Resource Limitations
 - Costs for Seeds, Cages, Maintenance



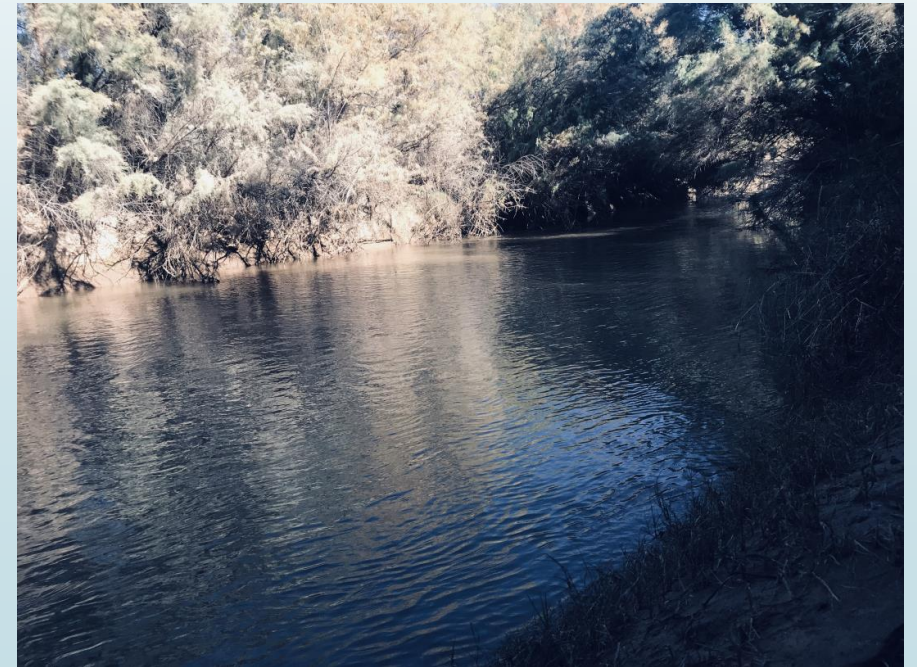
Challenges!

- Turnover creating inconsistencies
- Permitting...We're unable to work on parts of some sites because of boundary lines
- Lack of planning for planting



Lessons Learned & New Approaches

- We need to plan for water!
 - Renting water trucks and creating irrigation systems
 - Using grey water free from the county and installing meters near work sites
 - Creating deeper plant holes
 - Dry-Seeding



Lessons Learned & New Approaches

- We need to burn!
 - We're creating a burn plan that can be used yearly and to play catch up with the 3-4 years of piles present now
 - AZFFM & the Fort Grant prison crew are burning 30-acres of piles this month! (*AS WE SPEAK)

Lessons Learned & New Approaches

- We need a plan for weeds!
 - We need to hit secondary weeds harder...they need to be a bigger part of the plan
- We need to retreat tamarisk in the summer, while it's green
 - Instituting summer weed killing weeks with all the staff 3-4 times and mow down the remains in fall



Lessons Learned & New Approaches

- We need to defend our plants!



Lessons Learned & New Approaches

- We need to defend our plants!



Lessons Learned & New Approaches

- We need to defend our plants!



Photo from Arizona-Sonora Desert Museum facebook page
<https://www.facebook.com/desertmuseum>



Lessons Learned & New Approaches

- We need to defend our plants!



Photo from Arizona-Sonora Desert Museum facebook page
<https://www.facebook.com/desertmuseum>





Lessons Learned & New Approaches

- We need to get creative!
 - Caging costs mitigated with natural repellents and elk exclosures
 - Volunteer crews for planting preparation and testing new methods
- We need to plan ahead!
 - Create permanent monitoring and implementation protocols
 - Improving site access by creating temporary roads
 - Collect our own seed for next year!

QUESTIONS?

