Tour the Lower Salt River Restoration Project

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Where is the Salt River?

The Salt River forms at the confluence of the Black and White rivers, and is a tributary of the Gila River. The Salt River is about 200 miles long and flows through Eastern Arizona, making its way through Mesa, Tempe, and South Phoenix. The Lower Salt River is located just 40 minutes away from Phoenix, making it a popular recreation destination.

By exploring the map to below you can follow the Salt River's path down to the Phoenix metropolitan area starting with the Black and White Rivers. The Salt River flows through the Salt River Canyon Wilderness Area as well as the Tonto National Forest.

Earthstar Geographics

20 mi

Powered by Esri

1 The White River

The White River is formed by both the North and East White River Forks which eventually merge near Fort Apache, Arizona to create the main branch of the White River. The river is a 16-mile tributary of the Salt River.

2 The Black River

The Black River is 114 miles long and forms in the White Mountains. The Black River merges with the White River forming the Salt River.

3 Confluence of the Black and White Rivers

The Salt River begins at the confluence of the Black and White Rivers.

4 Upper Salt River

This is the last section where the Salt River flows freely for 125 miles before reaching Theodore Roosevelt Lake. Here the Salt River flows the entire length of the Salt River Canyon Wilderness.

5 Theodore Roosevelt Lake

Theodore Roosevelt Lake is the first of four reservoirs created by the Salt River Project on the Salt River. The lake is formed by the Theodore Roosevelt Dam and is the oldest reservoir created by the Salt River Project.

6 Apache Lake

4 miles downstream of Theodore Roosevelt Lake is Apache Lake. Apache Lake was formed in 1927 from the Horse Mesa Dam, which is also a part of the Salt River Project.

7 Canyon Lake

Further downstream from Apache Lake lies Canyon Lake, another reservoir on the Salt River. It was formed by the Mormon Flat Dam.

8 Saguaro Lake

The last of the 4 reservoirs on the Salt River was created by the Stewart Mountain Dam in 1930. Just beyond this reservoir begins the Lower Salt River.

9 Lower Salt River

The Lower Salt River begins at Stewart Mountain Dam and flows through the Lower Salt River Recreation Area. This section of the river flows past the Granite Reef Dam ending in Tempe Town Lake. It is also one of the most visited National Forest areas in the US.

Why is the Salt River Important?

Historically, the Salt River was an important water source of the Hohokam who constructed several irrigation canals for agriculture. The Hohokam's intricate canal network became the precursor to Arizona's modern day canal system. Today the Salt River supplies Phoenix's metropolitan area with up to 60% of its irrgation and drinking water needs!

Aside from helping provide the Phoenix metropolitan with essential resources, it is also famous for its recreational activities and wild horses. The Lower Salt River which is located about 40 minutes outside of Phoenix in Northeast Mesa is a popular spot for visitors to engage in recreational activities. These activities range from tubing, kayaking, fishing, hiking, horseback riding, bird watching, and wild horse viewing.

The Cactus Fire of 2017

The Cactus Fire began on April 25, 2017 and lasted four days ultimately burning over 800 acres of the Lower Salt River on the Tonto National Forest. A large portion of the Lower Salt River Reacreation Area was damaged during the fire. While the fire changed a beloved area by many Arizona natives and tourists alike, it also helped shine a light on the impact of invasive plant species. One such species is tamarisk (*Tamarix chinensis*), which had been established in the area for decades. The 232 acres that were dominated by tamarisk were also the most severely burned.

What does this tell us about invasive species? The presence of these nonnative species poses a significant threat to the biodiversity of this riparian habitat but they also have the ability to change fuel properties. Changing fuel properties can

in turn affect a fire's intensity and how much of an area it burns.

By playing the video to the right you can see the damage caused by the Cactus Fire.

Response to the Cactus Fire of 2017

In response to the Cactus Fire and the need to reduce the presence of invasive plant species, the Lower Salt River Restoration Project (LSRRP) was established in 2018. The LSRRP has a long-term objective of limiting the presence of invasive plant populations within the 2017 Cactus Fire burn scar and increasing the abundance and diversity of native plant populations. To help reach this objective the area has been broken up into 5 different phases which are described below. To monitor the project site LSRRP uses Unmanned Aircraft Systems(UAS), more commonly known as drones.

Aerial imagery collected from the drones is then utilized to aid in the continuation of the restoration project through vegetation classification and analyses.

2018 Phase 1

Work began in 2018 within a treatment area of 70 acres.

2019 Phase 2

Work began in 2019 within a treatment area of 100 acres.

2021 Phase 3

Work began in 2021 within a treatment area of 140 acres.

2022 Phase 4

Work is scheduled to begin in the Fall of 2022 within 15 acres of the Phon D. Sutton Recreation Area.

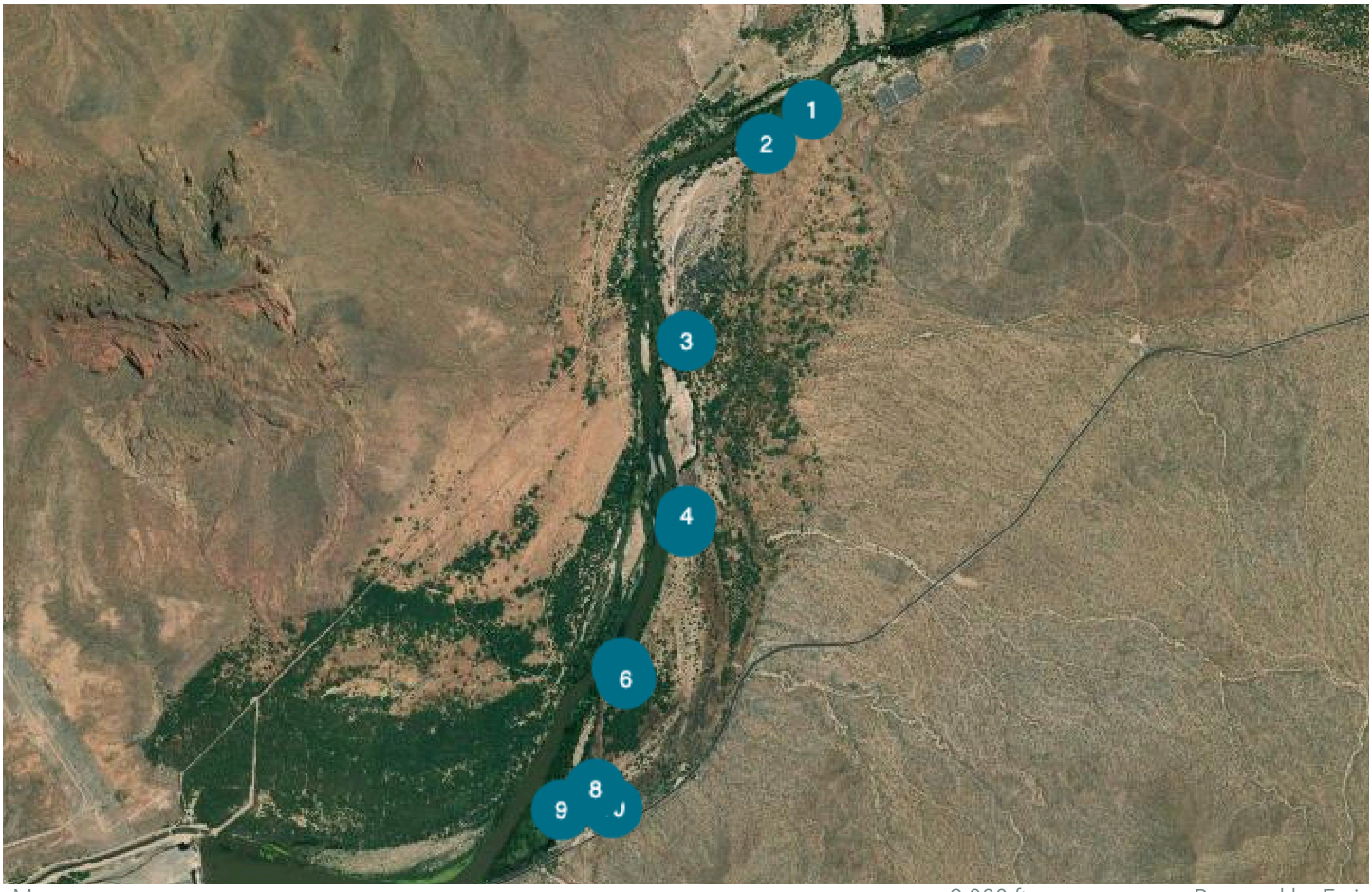
2023 Phase 5

Work is scheduled to begin in 2023 within 60 acres of the Coon Bluff Recreation Area.

Let's Take a Tour

Now that you're familiar with the Salt River and the Lower Salt River Restoration Project why don't we take you on a tour? This tour will take you through a popular social trail along the Lower Salt River showcasing important parts of the

LSRRP. We'll cover 4 out of the 5 Phases in this tour, important vegetation communities, and restoration areas.



1 Phase 4

To begin our tour we will start by passing through Phase 4. The goal here is to limit the presence of invasive plant populations within the Phon D. Sutton Recreation Area and increase the abundance and diversity of native plant populations.

2 Phase 3

Just a bit further down we'll head into Phase 3 and enter the Cactus Fire burn scar. The goal of this phase is to limit the presence of invasive plant populations within burn scar and increase the abundance and diversity of native plant populations.

3 Mesquite Bosque

Right here we're coming across a native vegetation community of mesquite. Unfortunately mesquite has experienced a serious decline over the last century. Why is mesquite important?

Mesquite is an important habitat and food source for wildlife from insects to birds and large mammals. It reduces runoff and filters pollutants and sediment from entering waterways. It also has nitrogen fixing capabilities which increases nitrogen in the soil making it available to neighboring plants.

Currently the LSSRP is focusing on conserving and expanding this vegetation community.

4 Phase 2

Heading into Phase 2 you'll enter into the second largest restoration phase covering 100 acres of the project site. The goal here is also to limit the presence of invasive plant populations and increase the abundance and diversity of native plant populations.

5 Passive Restoration

Restoration of this area relies on passive methods in which invasive plant species such as salt cedar are removed. This method of assisted natural regeneration allows native species to repopulate themselves by removing the competition factor associated with invasive plant species.

6

Phase 1

Here's the 70 acres where LSRRP started back in 2018! Once again LSRRP's goal is to limit the presence of invasive plant populations and increase the abundance and diversity of native plant populations.

7 Riverside Planting Area

The focal species of this planting area is the Coyote Willow. The goal here is to promote populations of Coyote Willow which provide an important habitat in the middle canopy underneath larger trees. These trees also form dense root networks that help to stabilize stream banks.

8 Salt Cedar Monoculture

Salt cedar is nonnative and was intentionally introduced in North America nearly a century ago. This plant can quickly outcompete native species forming dense monocultures. These stands lack the biodiversity found in diverse native ecosystems. Both living and dead material are extremely flammable posing a significant fire threat.
It's most prevalent in waterways where stream flow has been impaired.

9 Cottonwood/Willow Riparian Forest

The cottonwood/willow riparian forest was historically one of the most abundant riparian ecosystems in the low elevation rivers of the southwest. Today they are increasingly rare and represent one of the most threatened forest types in the U.S. Ecologically this community provides critical habitat to wildlife species, decreases erosion, promotes bank stability, and provides shade decreasing temperatures for both terrestrial and aquatic species. It also slows
water runoff, increasing infilitration and recharging groundwater systems. Work on the LSRRP focuses around conserving and expanding this vegetation community.

10 Upper Terrace Planting Area

The focal species here are Mesquite, Freemont Cottonwood, and Gooddings Willow. The objective here is to plant these trees in areas where the groundwater can be reached at groundwater levels of 4-5ft, trees grown in longpot containers can be planted. These trees have 2-3 ft long root masses which when planted at the correct depth can immediately contact groundwater.

Thanks for coming on the tour!

If you would like to learn more about the Lower Salt River Restoration Project click the link to the LSRRP's official website. If you're feeling a little more adventurous and want to explore the project site yourself feel free to check out the Lower Salt River Restoration web app also linked below. The LSRRP web app is meant to serve as a "semi-guided" tour once you're on the site.

LSRRP Website

LSRRP Web App