Celebrating Arizona's Rivers

Each month during Arizona's centennial year, we will profile a different river in celebration of the state's precious natural resources. From the mighty Colorado to the smallest ephemeral streams, these waterways have supported Arizona's people and places for thousands of years. With good stewardship and thoughtful planning, they will continue to flow into Arizona's next 100 years.

April 2012: The Salt River

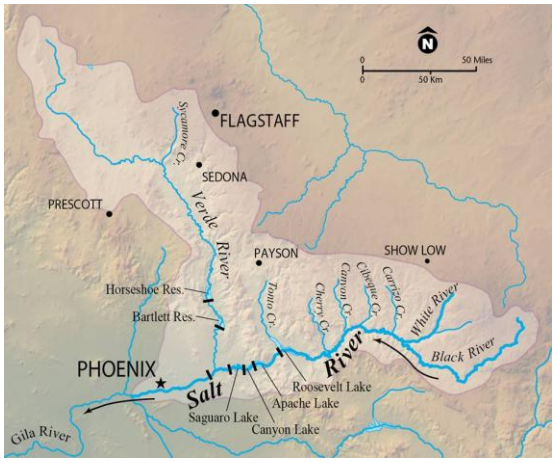
If the Colorado River can be said to be the "lifeblood of the West," the Salt River is the lifeblood of Phoenix and the surrounding communities. The story of the Salt is symbolic of the many faces of Arizona, from the river's journey through a rugged and spectacular canyon wilderness to its essential role in cultivating the farms, industries, and development that gave rise to the sixth largest city in the U.S. in the unlikely landscape of the Sonoran Desert.

In the late 1860s, a copper boom brought a flood of fortune seekers to Arizona, including prospector and farmer Jack Swilling. It is said that when Swilling noticed the remnants of canals constructed by the ancient Hohokam people, he realized the irrigation potential of the Salt River Valley. "Swilling's Ditch" was completed in 1868 and was the first modern diversion of the Salt. The subsequent series of projects undertaken to ensure a water supply for the valley eventually became part of the Salt River Project (SRP). Today, SRP supplies water and power to many of the over four million people in the Phoenix region.

In addition to enabling the growth of Arizona's largest urban area, the Salt and its tributaries support diverse ecosystems and some of the most dramatic landscapes in the state.

Geography. Roughly 100 miles east of Phoenix, the Salt River is formed by the confluence of the Black and White Rivers. Numerous streams drop away from the high, forested elevations of the Colorado Plateau and the White Mountains, churning through cataracts and waterfalls before joining the river.

From its origin, the Salt flows west through Native American lands and a remote wilderness area, and then through a series of dams and reservoirs that provide water and power to the Phoenix metropolitan region. The first and largest dam, Roosevelt, completed in 1911, created Roosevelt Lake and secured a reliable water supply for Phoenix.



Top Image: Watershed of the Salt River and its tributaries in relation to other Arizona rivers.
Bottom image: Detail of the Salt River watershed.

Immediately below Roosevelt Dam, the Salt flows through three more dams and reservoirs, and is then joined by its largest tributary, the Verde River, from the north. Below this confluence, the Granite Reef Diversion Dam distributes water to canals that flow to the Phoenix area. Due to these diversions, the Salt now rarely flows below Granite Reef and along its course through Phoenix.

The Upper Salt River. © Steven Love/123RF.COM.

In 1999, Tempe Town Lake was created through the construction of dams within the dry river channel, and was filled with water transported from the Colorado River.

At the western edge of the Phoenix region, treated effluent from five cities is discharged into the Salt, and the flowing river once again creates a large area of riparian habitat just before its confluence with the Gila River.

Ecology. The dramatic elevation range of the Salt River watershed – from mountainous headwaters above 10,000 feet to desert reaches at 1,200 feet – supports many vegetation zones and eight distinct biotic communities. This watershed contains the highest concentration of continuously flowing streams in Arizona. Species reliant on the Salt and its tributaries include:

- Numerous endangered birds, such as the Mexican Spotted Owl and Southwestern Willow Flycatcher;
- The endangered Apache Trout, Arizona's state fish, as well as many other endangered fish species; and
- Rare species such as the Yellow-billed Cuckoo, Northern Mexican Gartersnake, New Mexico Meadow Jumping Mouse, and Chiricahua Leopard Frog.

Use.

- The Salt River Project, a multi-purpose Reclamation Project, provides water to its shareholders and ten municipalities for urban and agricultural use.
- Water for municipal, industrial, and agricultural purposes is also diverted from the Salt and its tributaries higher in the watershed.
- The river provides many recreational opportunities, including whitewater rafting in its remote wilderness area; hiking in tributary canyons; fishing and boating on reservoirs; and inner-tubing along stretches close to Phoenix.

What You Can Do For Arizona's Rivers

- Join a local watershed group
- Participate in restoration, monitoring, or advocacy activities
- Visit our organizations' websites for information and action alerts
- Enjoy an Arizona river—and tell your state legislator about it

Threats to the Salt River include:

- Overuse and increasing competition for river, tributary, and groundwater resources throughout the watershed which do not leave sufficient water to support river ecosystems;
- Land use activities that threaten water quality;
- Prolonged regional drought and global climate change, which reduce seasonal runoff from snowpack; and
- Catastrophic wildfires that cause erosion and watershed degradation.

Various efforts to restore degraded stretches of the Salt are underway. For example, within the City of Phoenix, the Rio Salado Habitat Restoration Project utilizes urban runoff and groundwater to restore a five-mile stretch of riverbed. Completed in 2005, this area provides environmental education and economic development opportunities along a revitalized riverbed – reflecting a significant shift in the conception of the urban river from a source of desiccated blight to an ecological and economic asset.

EDF Environmental Defense Fund — Finding the ways that work

H_2O Sentinels — Sierra Club, Founded 1892

Grand Canyon Trust

Sonoran Institute

Western Resource Advocates

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