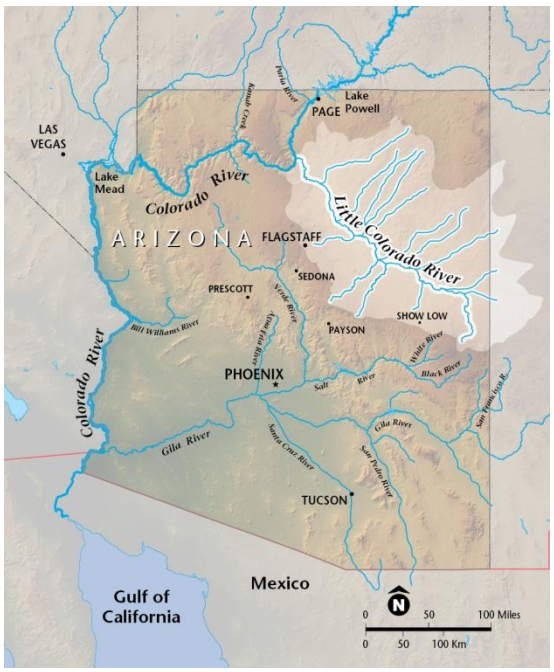
# Celebrating Arizona's Rivers

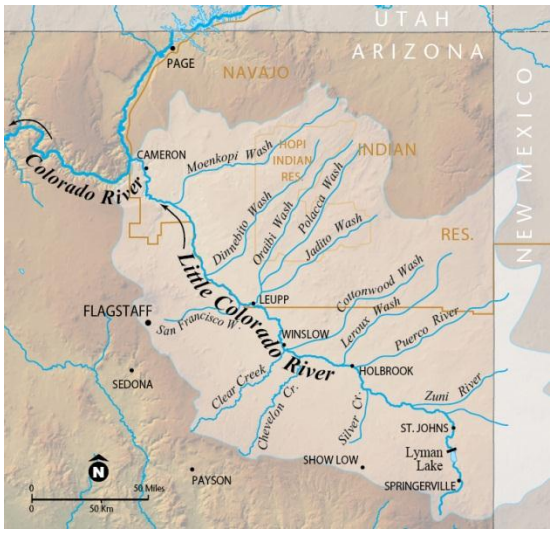
*Each month during Arizona's centennial year, we will profile a different river in celebration of the state's precious natural resources. From the mighty Colorado to the smallest ephemeral streams, these waterways have supported Arizona's people and places for thousands of years. With good stewardship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

## May 2012: The Little Colorado River

Deep in the Grand Canyon, a travertine spring bubbles up from the banks of the Little Colorado River, not far from its confluence with the Colorado. This spring, called *Sipapu,* is sacred to the Hopi people. It is also a source of the otherworldly blue water that contrasts dramatically with the waters of the Colorado where the two rivers meet.

This meeting point is a place of cultural and historical confluence as well. On the south bank of the Little Colorado, just upstream from the confluence, is a small "cabin" tucked into a sandstone cliff – actually the remains of an Ancient Puebloan cliff dwelling that miner Ben Beamer discovered and began to occupy in 1890. Beamer sought gold and silver, but found copper and asbestos, which he mined with limited success. Like the Ancient Puebloans before him, Beamer cultivated crops along the river, and the trails he established are still used today by backcountry hikers to explore a region that remains nearly as isolated as it was during Beamer's time.



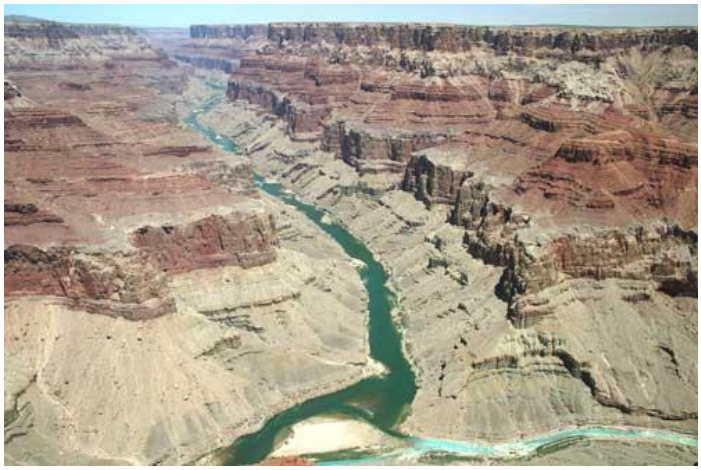




**Top Image**: Watershed of the Little Colorado and its tributaries in relation to other Arizona rivers. **Bottom image**: Detail of the Little Colorado River watershed.

***Geography.*** The Little Colorado River watershed spans over 27,000 square miles and covers 19 percent of the state of Arizona – a significant drainage area that also includes a small portion of western New Mexico, as well as Navajo, Hopi, and Zuni tribal lands. The river originates in the White Mountains of eastern Arizona, where its east and west forks join in a canyon near the town of Greer at an elevation of over 8,000 feet. It flows northwest past Springerville before creating Lyman Lake, a man-made reservoir and state park.

Due to diversions and groundwater pumping, much of the Little Colorado's channel below Lyman Lake is now dry, with several notable exceptions where tributaries and springs create consistent flows. As the river continues its northwest course away from Lyman Lake, it is joined by several tributaries, including Silver Creek, which creates a short stretch of year-round flow. It then passes just south of Petrified Forest National Park before reaching the town of Holbrook, the Painted Desert, and the Navajo Nation, and is joined by its two largest tributaries, Chevelon Creek and Clear Creek.

Shortly after entering the Navajo Nation, the river plummets 185 feet at Grand Falls, which roars to life during spring runoff and summer storms. Between the city of Winslow and the Navajo community of Luepp, the river's channel has shifted back and forth over the span of a mile in the last 75 years. This migration, combined



The confluence of the Little Colorado and the Colorado River. Image courtesy of the National Park Service.

with the dramatic flooding characteristic of desert rivers, has caused serious damage to infrastructure in the area over the last 40 years, and mapping efforts are underway to reduce the threat to the lives and property of the many people who live within one mile of the river.

Near Cameron, the gorge becomes very rugged, reaching depths of up to 2,000 feet as it continues west. In its final stretch, the Little Colorado flows year-round, fed by Blue Springs and Sipapu, heavily mineralized springs that create spectacular travertine dams and waterfalls and give the river a turquoise color. The Little Colorado flows into the Colorado 80 miles below Lake Powell in Grand Canyon National Park, having traveled 315 miles and dropped over 5,000 feet in elevation.

***Ecology.*** The Little Colorado River watershed supports over 5,000 acres of streamside wildlife habitat, varying from alpine meadow to desert cottonwood groves, and includes:

- Breeding grounds for the endangered humpback chub, a small fish dependent on the river's warm waters. In 1911, explorer Ellsworth Kolb camped near the confluence and observed, "The fins and tails of numerous fish could be seen above the water. The [humpback chub] were spawning… The Colorado is full of them; so are the many other muddy streams of the Southwest." Today, with the Colorado's water temperature severely lowered due to Glen Canyon Dam, and other river habitat lost throughout the Southwest, these fish are found in only a few streams.
- Habitat for numerous other endangered species, including the Mexican gray wolf, Southwestern willow flycatcher, black-footed ferret, and California condor.

***Use.***

- At Lyman Lake and the three Greer Lakes, the Little Colorado supplies water for irrigation to White Mountains communities.
- Lakes and flowing stretches of the river are used for fishing, boating, and camping; at its western end, the river's gorge provides hiking access to some of the most remote terrain in Arizona.

***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 Little Colorado include:

- Continued reductions in flow due to diversions and groundwater pumping, which leave the river dry in areas that previously supported extensive wildlife habitat.
- Loss of native vegetation and springs due to falling groundwater levels, as well as increased severity of flooding and water pollution related to land use practices throughout the watershed.
- Extended drought and wildfires, which contribute to outbreaks of pine bark beetles that kill large numbers of trees, increasing erosion and other damaging effects on the watershed.

Restoration and protection efforts along the Little Colorado include projects funded through the Arizona Water Protection Fund, which focus on invasive species removal, fencing of fragile areas, revegetation, and stream restoration; and the revival of wetlands at the sacred site of Zuni Heaven.

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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