

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.

February 2013: Agua Fria River

The Agua Fria River flows from Arizona's undeveloped, forested higher elevations to the state's largest metropolitan area, where it is usually dry. This diverse watershed includes a largely hidden treasure: just east of Interstate 17, Agua Fria National Monument encompasses nearly 71,000 acres of the river's watershed, protecting fragile riparian ecosystems and some of the most significant prehistoric sites in the American Southwest.

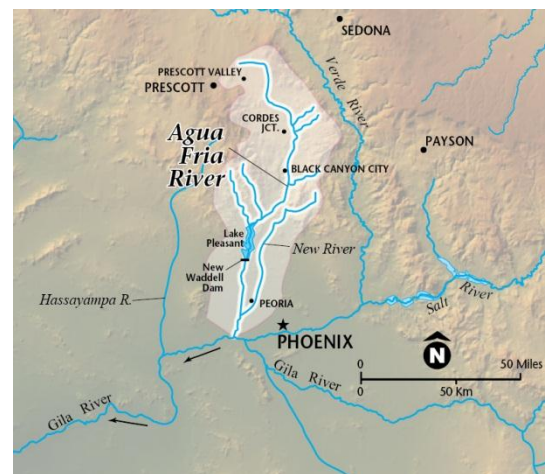
The monument's nearly 450 archeological sites – many of them located in inaccessible, rarely visited areas – represent the Perry Mesa Tradition, which began in approximately 1100 A.D. when indigenous people left the lowlands of Arizona to settle at higher elevations on mesas flanking the canyon of the Agua Fria. The sites contain remnants of stone pueblos and extensive rock art. Around 1500 A.D., the people of the Perry Mesa Tradition abandoned these villages, possibly due to drought.

Geography. The 120-mile long Agua Fria River originates approximately twenty miles northeast of Prescott and flows generally south past the communities of Prescott Valley (where it is joined by Lynx Creek) and Dewey-Humboldt. Throughout this first stretch, the Agua Fria flows only intermittently during spring runoff and large storm events.

South of Dewey-Humboldt, the river flows year-round due to inflow from springs and seeps until just north of the town of Mayer. The Agua Fria passes from the west to the east side of Interstate 17 north of Cordes Junction (only rarely flowing in this area), and is soon joined by Yellow Jacket Creek and Sycamore Creek.

Below Sycamore Creek, the river enters the Agua Fria National Monument, managed by the Bureau of Land Management. The monument encompasses the canyons of the Agua Fria and its tributaries, which include valuable riparian habitat, as well as the semi-desert grasslands on the surrounding mesas. This largely untouched monument stands in vivid contrast to the metropolitan Phoenix area and surrounding communities just 30 miles to the south. Within the monument, the river flows year-round in two distinct reaches.

The river is dry as it flows out of the monument and back to the west of I-17, passing through Black Canyon and Black Canyon City and briefly becoming the border between Maricopa and Yavapai counties. In this stretch, the river is joined by many tributaries, and passes through the Agua Fria Wildlife Preserve, managed by the



Top image: Watershed of the Agua Fria River in relation to other Arizona rivers. **Bottom image:** Detail of the Agua Fria watershed.



Agua Fria River. Photo courtesy of Scott Jones.

Maricopa County Parks Department, shortly before flowing into Lake Pleasant. This artificial reservoir, created by the New Waddell Dam, stores flows from the Agua Fria and Central Arizona Project (CAP) water transported from the Colorado River. Below the dam, the Agua Fria flows only when water is released during major flood events.

Approximately four miles below the dam, near the city of Peoria, CAP operates the Agua Fria Recharge Project, which uses a four-mile stretch of the Agua Fria streambed to infiltrate CAP water into the ground to recharge the underlying aquifer.

The Agua Fria joins the Gila River west of Phoenix, south of the community of Avondale. Near where the (often dry) Salt, Gila, and Agua Fria Rivers converge, the Tres Rios wetlands are created by treated wastewater released from the 91st Avenue Wastewater Treatment Plant.

Ecology. The Agua Fria watershed is home to many species, including:

- Endangered native fish, such as desert pupfish and Gila topminnow, which historically were found throughout the watershed and have recently been introduced in some isolated springs;
- Other rare and protected species, such as Mexican spotted owl, Gila chub, and southwestern willow flycatcher; and
- Coyotes, antelope, bobcats, javelina, bald eagle and many other mammals, reptiles, fish, and birds.

Uses of water resources in the Agua Fria watershed include:

- Municipal groundwater use by the communities of Prescott Valley, Black Canyon City, Cordes Junction, and Mayer;
- Municipal use of CAP water (stored in Lake Pleasant) in the Phoenix metropolitan area;
- Recreational use, particularly at Lake Pleasant, a popular area for boating and other activities;
- Agricultural groundwater and surface water use throughout the watershed; and
- Ranching, with over 500 stockponds in the upper watershed.



Threats to the Agua Fria include:

- Stress to lakeside and downstream riparian habitat due to the dam-regulated water levels in and releases from Lake Pleasant;
- Degradation of river resources due to many factors, including erosion, substantial groundwater pumping (which dries springs and other surface water), and regional drought.

Efforts to reduce threats to the Agua Fria have gained momentum in recent years as the population in the watershed continues to grow. The Agua Fria Wildlife Preserve and Agua Fria National Monument have each undertaken efforts to educate visitors in order to protect the natural and cultural resources of this watershed into the future.

