

Environmental leader sounds alarm on Upper Verde River flow

By STAN BINDELL, For the Review
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Russ Pilcher with the Sierra Club’s Water Sentinels measures the flow of the Upper Verde River June 15, 2025. (Stan Bindell/For the Review)

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Gary Beverly, chairman of the Sierra Club’s Yavapai Group, is sounding the alarm that the Upper Verde River flow is at an all-time low flow, and if it continues to decrease at the same rate that it will dry up in about two decades.

The Water Sentinels of the Sierra Club’s Yavapai Group checks the water flow once a month with various volunteers.

Checks on the water flow last summer and June 15 this year showed the continuing decrease in water flows. The US Geological Survey has been checking the water flow at mile 9.8 known as the Paulden Gage since 1963. The water comes in from the groundwater from the Big Chino Aquifer.

“The base flow is the most essential metric on the Upper Verde River,” he said. “One day without water is a very bad day for a fish.”

The Water Sentinels have been checking the water flow on the Upper Verde River since the 2007, and the seasonal low flow has been decreasing each year. USGS determined the base flow in 1940 was at 28 cubic feet per second. In 2024, the base flow was 13 cubic feet per second.

On June 15 the Water Sentinels calibrated the gage and found it was flowing at 17 cubic feet per second. The flow numbers from the data is critical information, the calibration was off showing 11 cubic feet per second, and the USGS is using the information to calibrate the gage. The lowest flows are measured at the end of June or early July before the monsoons.

"The river is now at 46% of our predevelopment flow," he said.

At mile 26 of the Upper Verde River, which is at Perkinsville Bridge, the flow is much less than at Paulden. Sometimes as low as eight cubic feet per second. Beverly said this could be due to evaporation along the river banks.

Beverly, who has worked on Upper Verde River issues for 20 years, attributed the low flows to two factors. First, the Big Chino aquifer is decreasing due to increasing temperatures. Thus recharge is reduced into the aquifer. The second is groundwater pumping.

Beverly said the increasing temperatures are due to climate change. \

"This is difficult to fix. Climate change is a global problem that there is little local control in the short run," he said. "The only part we can control is groundwater pumping."

There are three areas to address with groundwater pumping.

First, Beverly said, it would be a disaster if Big Agriculture were allowed to come in and pump groundwater like it has in other parts of the state. The state legislature is the one body that can address this.

Second, there has to be some concern about the population growth in Paulden. Beverly emphasized he doesn't want to stop growth there, but there has to be a more concerted effort for water conservation. The Yavapai County Board of Supervisors can encourage more water conservation for this unincorporated area.

Third, Beverly said, the possibility of groundwater exports needs to be addressed, as the state legislature has authorized allowing about 18,000 acre- feet of groundwater per year to be pumped from the Big Chino to Prescott.

"This has not been done yet, but if it is done it has to be mitigated," he said.

One way to mitigate would be to buy out existing irrigation. He said another solution is conservation easements. The Nature Conservancy and SRP was awarded a \$20 million grant from the Natural Resource Conservation District for a conservation easement where land would be purchased along with the water rights to that land.

"That would maintain open space and pronghorn habitat," he said.

Beverly said the grant may be eliminated due to federal cutbacks and even if it goes through it would only address 10% of the land that's needed.

Beverly said the Upper Verde River, ranging 25 miles from Paulden to Perkinsville, must be protected because it's among the best riparian areas in the state. He said this portion of the Upper Verde contains critical habitat for three fish species, two snakes and one bird: The Yellow-billed Cuckoo.

Arizona Game and Fish manages the river as a native fish area.

Wildlife is abundant here with elk, mule deer, javelina, black bear, cougar and raccoons. Birds, bats, frogs, beaver and otter also enjoy the river.

Beverly said the long term solution is a political one. Beverly serves on the executive committee of the Citizens Water Advisory Group (CWAG), which is working with state legislators to protect the river, especially by water management. He added that a proposed regional water authority could work to protect the base flow of the Upper Verde River.

"We need to elect officials who will work to protect the river. It's the only perennial running river in the state," he said.