

http://www.paysonroundup.com/outdoors/lakes_and_streams/rim-country-streams-dwindling-toward-crisis/article_c95bb135-eece-515f-9deb-625a44c090e1.html

Rim Country streams dwindling toward crisis

Only 10 percent healthy

Pete Aleshire Sep 30, 2016



The See Canyon Spring is one of many still pristine water sources running through Rim Country — but many streams have already declined.

Pete Aleshire

They're essential;

To almost all the wildlife in the forest;

To the tourism economy of Rim Country;

To future growth and economic development;

To the growth of the Valley.

But they're in terrible shape — threatened on every side.

We're talking here about the watersheds, streams and reservoirs of the Tonto National Forest, the most vital component of a complex ecosystem sprawling across 3 million acres.

A shocking forestwide study has concluded only 10 percent of the 450 miles of stream front in the Tonto National Forest are functioning normally and fulfilling their vital role in the ecosystem. An alarming 26 percent are "impaired."

The report didn't evaluate or come to a conclusion on about a third of the stream frontage.

The Tonto National Forest's long-overdue draft assessment of the forest plan includes a wealth of data on every stream, watershed and reservoir in the forest. Most face mounting water quality problems, impaired functioning, challenges from invasive species and grave threats in the future from runaway development, resumption of mining, bacteria-spawning homes and campers, grazing and climate change.

The report did harbor hope for Payson, which is likely to avoid the declining stream flows, dwindling water table, worsening water quality and disappearing springs threatening most other areas.

In fact, Payson may find itself one of the very few areas with rising well levels, returning springs and improved stream flows — thanks to the 14,000 acre-feet annually transferred from the C.C. Cragin Reservoir to the East Verde River, with 3,000 acre-feet going directly to Payson.

But despite Payson's partial insulation from the problems of the region, Rim Country's tourism-dependent economy and groundwater dependent communities still face grave challenges when it comes to protecting the water quality and supply in the streams from contamination, siltation caused by thousands of miles of dirt roads and the looming threat of stream-smothering, erosion-escalating wildfires.

Most of the streams closest to Payson rate as threatened — some by mercury and other toxic minerals washing out of mostly abandoned mining claims, some by bacteria and nitrates leaching out of failing septic systems and human waste left by campers, most by groundwater pumping — and all of them by the threat of catastrophic wildfire.

Statewide, a century of abuse and one of the worst droughts in 800 years has killed or degraded an estimated 90 percent of the states riparian areas.

Rim Country fared better than most of the state, with streams fed by ancient water filtering down through the sandstones and limestones of the Rim. But clear cutting, overgrazing and a half century of fire suppression worked sweeping changes here as well, with the resulting thickets of trees drying up streams and springs.

The mining boom times in the 1800s and early 1900s added another twist to the grim tale, leaving behind tailings laced with heavy metals.

Here in Rim Country, dramatically increased recreational use, the septic systems of housing developments and silt washed off the 6,000 miles of dirt roads pose the greatest threat to the water quality.

The Tonto National Forest averages 1.4 miles of road for each square mile of forest — enough to pose a significant threat to most streams. Many areas near Payson have 2.4 miles of roads per square mile.

“Roads contribute more sediment to streams than any other land management activity,” concluded the report.

Meanwhile, towns like Payson and scattered subdivisions have sink wells that have

diverted much of the water that would otherwise have flowed into the streams.

The danger to the riparian areas on which 90 percent of species in the forest depend at critical portions of their life cycle has prompted the Tonto National Forest file legal efforts to protect minimum flows in most major streams in the forest.

The effort has already resulted in a guaranteed flow of .6 to 16 cubic feet per second in Christopher Creek, 2-7 cubic feet per second in the East Verde River, 43-51 cfs in Fossil Creek, 4-65 cfs in the upper Verde and 70 to 135 cfs in the lower Verde.

Applications are pending to protect minimum stream flow in Cherry Creek, Haigler Creek, Pine Creek, Tonto Creek, Webber Creek and Workman Creek — key Rim Country streams.

The report also included an exhaustive tally of the 1,800 springs and seeps plus 1,500 stock tanks in the forest — also vital for wildlife and also threatened by drought and water diversions.

The decades of abuse have pushed most streams to the breaking point.

The Forest Service assessed the health of about two-thirds of stream front in the forest and found only 10 percent healthy and functioning normally — up from 6 percent in 2010. On the other hand, 26 percent were impaired — up from 21 percent 2010. About a third are limping along ecologically.

The biggest increase in streams in the “impaired” category came after mercury levels in a 62-mile stretch of Tonto Creek rose so high the state warned people not to eat fish caught in the creek — mostly as it passes through Hellsgate.

The streams with the highest percentage of miles considered “impaired” or “not attaining” were Tonto Creek, the Lower Verde River, the middle reaches of the Gila River and the upper reaches of the Salt River.

Few of the levels pose an immediate health risk, but all raise worrisome questions about

water quality in the future. Among the water quality threats documented:

- Apache and Canyon Lakes: Low dissolved oxygen.
- Salt River: Selenium, nitrogen, phosphorous, E. coli.
- Tonto Creek: Dissolved oxygen, mercury.
- East Verde: Selenium, arsenic, boron.
- Verde: arsenic.
- Christopher Creek: E. coli.
- Pine Creek: Arsenic, dissolved oxygen, E. coli.
- Bonita Creek: Oxygen, E. coli.
- Haigler Creek: Mercury.