

# Tombstone's 130-year water odyssey

By Justin Sayers

The Tombstone Epitaph

In the desert, water is life. It can be troubling for a town like Tombstone to rely mainly on a 130-year-old pipeline desperately in need of repairs.

"It is an engineering wonder because it's lasted about 130 years plus," Tombstone Mayor Stephen Schmidt said.

Tombstone moved closer to beginning repairs on the system early last month. On Nov. 5, Tombstone residents voted to issue and sell bonds to provide the town with up to \$1 million to be used to improve the city's water system. It was approved with 213 of 408 voters approving.

According to the ballot, "These bonds will be issued as General Obligation Bonds and the issuance of these bonds will result in a property tax increase sufficient to pay the annual debt service on bonds, unless the governing body provides for payment from other sources."

While Schmidt isn't sure when the city will see the money from the bonds, the passing of the ballot measure will po-



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The 26-mile-long pipeline ruptured in a 2011 wildfire and the city has had to make patchworks repairs.

tentially be the start of needed repairs to the water system. The city is dealing with temporary repairs made in 2011 after the Monument Fire in the Coronado National Forest.

Regardless, the \$1 million from the bonds won't nearly be enough to pay to fix everything, as the current water system is in worse shape than it was before an earlier fire in 1977, Schmidt said. Parts of the water system are slowly becoming unusable.

Tombstone, which still relies primarily on gravity-fed spring water, originally got water through a pipeline from Sycamore Springs, located about eight miles north of the city, in the late 1870s, according to Schmidt. But there wasn't enough water to supply the town long-term.

"That's probably one of the reasons the town had 110 bars back then, cause there was no water to drink," Schmidt said.

At issue is a dispute between Tombstone and the U.S. Forest Service over the city's right to make repairs to its water pipeline. Tombstone is claiming it has the right to make emergency repairs to its water pipeline, based on an interpretation of the 10th Amendment, which addresses the balances between federal and state powers and is often invoked in matters involving certain claims of sovereignty over federally owned land, especially in the West.

The U.S. Forest Service is arguing that the government has the duty to restrict intrusive activity on federal land. So the government has sought to block necessary repair work on the Tombstone pipeline involving heavy machinery, including motorized vehicles.

In 1881, the Huachuca Water Company built the current 26-mile-long, 7-inch pipeline to bring water to the Huachuca Mountains. The engineer who built the system had worked for Standard Oil, so he had background with oil pipelines.

"It was kind of an enginee-

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ing miracle because you get to figure you're taking water and it's coming from about 6,500 to 7,000 feet up and dropping down to the river about 400 feet," Schmidt said. "So there's a lot of pressure and everything else involved in it."

The city of Tombstone bought Huachuca Water Company in 1946, according to Schmidt. Later that year, they drilled the first of three eventual wells.

The pipeline is made primarily out of steel, with the exception of some parts that were replaced with PVC pipe, according to Schmidt. The majority is laid on the ground or close to it, with some sections, like around the area of Murray Springs, suspended above ground.

The pipeline dumps into a million gallon reservoir, which is then passed through a filtration system and into the city's pipes, Schmidt said.

In 2000, the Environmental Protection Agency lowered the standards for arsenic from 50 parts per billion to 10 parts per billion, according to Schmidt. As a result, one of the city's wells became nonoperational because its arsenic levels were too high. The two remain under the benchmark, but one hovers around 10 parts per billion.

"The city really only has one well that they pump directly into the system," Schmidt said.

In 1977, there was a fire in the Huachuca Mountains, eventually leading to damage to the springs, Schmidt said. Because of the fire, there was no vegetation to absorb the runoff from record-breaking monsoon rains, according to Schmidt. Damage to the pipeline was a result of boulder and mud tumbling down the mountain and crushing the water system. This is essentially what happened again in 2011.

The difference between the two fires is that back in 1977, the city was able to make repairs to the pipeline without any trouble, according to Schmidt. Now, the National Forest Service, which controls the area within where the pipeline is located, is preventing the town from using machinery to repair the damaged pipeline. Essentially, if Tombstone wants to fix the pipeline, it has to be done without machinery.

The city recently put a temporary repair on the water system, so they are currently primarily running off water from the springs, Schmidt said.

Right after taking over as mayor, Schmidt said that the Goldwa-

ter Institute, an organization that often takes libertarian positions, called to offer to do preliminary work and research for \$125,000 and then the rest of the work at no charge. They found that the city has the deeds to 25 springs in the Huachuca Mountains, but only 5 or 6 are used to supply water to the town, according to Schmidt.

After the 2011 Monument Fire, Arizona governor Jan Brewer declared a state of emergency for Tombstone and gave the city \$50,000 for repairs, Schmidt said. The city eventually spent \$118,000 and was given \$87,000 by the state.

The lawsuit, which is essentially for the right to make repairs to the pipeline in the Coronado National Forest, is moving forward, according to Schmidt. However, he said that there is no timeline for when it will be completed and the town doesn't know how long they're going to want to fight it.

"No one has really questioned whether we own the property," Schmidt said. "The major is fight is over the right-of-ways."

The city owns a 50-foot right-of-way on each side of the pipeline, Schmidt said. The issue is that the pipeline goes through areas owned by the National Forest Service.

However, Schmidt said that the rights of way are in jeopardy with the lawsuit, as the National Forest Service can win the rights to the area covered with Tombstone pipeline either through an out-of-court settlement or a court decision.

Before the Goldwater Institute helped with the lawsuit, the city already had Strickland & Strickland working on the case, according to Schmidt. The firm found that Tombstone actually owned 25 springs in the mountains, much more than they had originally thought.

Businessmen said that they would pay for Smith, Currie and Hancock to join the case, but they were only able to raise \$5,500 by selling Tombstone bottled water.

Smoked Bear, an organization dedicated to cleaning and maintaining forests, began a shovel

brigade to help with the repairs. There has been some dispute about the amount such efforts raised in donations toward lawyer's fees. Schmidt said that the organization presented the city with two checks that added up to \$2,100. He said the amount was inadequate.

The firm eventually got in a dispute with the Goldwater Institute over who was going to lead the case, so the city informed them that they would no longer be in need of their services. Smith, Currie and Hancock sent the city a bill for \$55,500, resulting in another \$50,000 of expenses for Tombstone.

The Goldwater Institute on March 30, 2012, filed a deposition that states its position on the issue is as follows: "Despite the manifest emergency facing the desert-parched City of Tombstone, Defendants are refusing to allow Tombstone to take reasonable emergency action to repair its century-old Huachuca Mountain water infrastructure.

"Instead," the deposition continues, "they are enforcing fealty to an arbitrary, capricious and unlawful interpretation of federal law by requiring Tombstone to use hand tools and suggesting using horses to restore its water supply. This conduct violates Tombstone's sovereignty as a political subdivision of the state of Arizona because it deprives the City, its residents and visitors of essential municipal property, adequate fire suppression capabilities, and safe drinking water."

Representatives from the Coronado National Forest did not respond for comment.

As for what needs to be done, Schmidt said that less than half of the pipeline needs to be repaired. While the city completed temporary repairs to the pipeline on April 6, 2012, the water situation has only "been stabilized to a point," Schmidt said.

If the one well goes out, the city is done, according to Schmidt. All the buildings are built with a common wall, which is a major fire hazard.

"If you got no water coming from the springs and only one pump you can use to put into the system, it isn't very good," Schmidt said. "That could be an

emergency situation." Making things worse is the fact that there has been a lot of misinformation about Tombstone's water system in the Huachuca Mountains in adjacent towns and cities, Schmidt said. So much so, that he wrote a letter in the Sierra Vista Herald on May 15, 2012.

"It is hard for me to believe that the city of Sierra Vista, Fort Huachuca and even the Green Coalition are not jumping up and down one the desk at the head of the forestry service," the letter read. "One would think being a declared State of Emergency that help, or at least letting Tombstone get in and make permanent repairs and then get out, would be the priority."

Schmidt said that the city owns the rights to a well site down on the San Pedro River, which has been decommissioned. However, it was used as a source for emergency river after the 1977 fire for four years.

The two city wells pump out of a different aquifer than the San Pedro River, which is being relied on more by the city of Sierra Vista as its population continues to grow.

Schmidt has discussed the possibility of repairing the well sites at the San Pedro River in the case that the monsoons knock out the temporary repairs. Therefore, the surrounding areas should be mad at the National Forest Service and not at Tombstone.

"The Monument Fire happened in the Huachuacs, but in reality it's probably hurt the town of Tombstone more than it's hurt any other community in Cochise County," Schmidt said.

Because of the small width of the pipe, the majority of the water from the mountains does not go into the pipeline, according

to Schmidt.

Schmidt also said that rumors have made their way into Tombstone as well. He said that Tombstone residents have blamed the high arsenic level on mining, which is not true, as it is a naturally occurring element.

Because the current plan is only temporary, Schmidt said the city is hoping to complete permanent fixes to the water system. Tombstone has had to keep making temporary repairs to the pipeline because of vandalism, among other issues.

According to Schmidt, the first project that needs to be completed in order to fix the system is implementing a blending plan with the Arizona Department of Environmental Quality.

In order for the city to be able to use all three wells, the water has to be blended with spring water and filtered before it could be put into Tombstone's water system.

Since there currently is no monitoring or control on the blending, Tombstone has to completely redo the system, Schmidt said. They want to make it completely electronic to eliminate human error. Engineering estimates that the blending plan will cost about \$250,000.

Schmidt said that the city hopes to start construction as soon as possible. Plenty of other sections of the pipeline are in need of repair, which will likely have to be completed step-by-step, Schmidt said.

Part of the pipeline is buried under the San Pedro River and is corroded, according to Schmidt. The city will either replace the pipe or suspend it above the river. Other parts of the pipeline are broken underneath the road and were replaced with PVC, Schmidt said.

The pipeline also needs pressure reducing valves and the houses in Tombstone need new meters, Schmidt said. According to Schmidt, the lowest point of the pipeline has about 2,500 pounds per square of pressure.

A preliminary engineering report of the repairs by Gaset Fleming, the city's engineering firm, estimated that the entire project would cost about \$2.6 million, according to Schmidt. The first phase, which would tie all 25 springs into the pipeline, would cost \$640,000.

The report was sent to U.S. Department of Agriculture Rural Development, which guaranteed \$500,000 with no matching funds, \$660,000 with 25 percent matching costs and the rest with a 1 percent loan interest. However, they said would not give funds as long as the springs were involved in litigation.

Despite the low productivity of the water system, Schmidt said that the town has no plans to place restrictions on water.

"Here in Tombstone if you want to do that, you just raise the water bill," he said.

The city used 72 acre feet, or roughly 23.5 million U.S. gallons of water in 2012, according to Pat Kelly of Tombstone Public Works. The water system is stabilized when the springs produce 150 gallons per minute, Schmidt said.

However, a lot of that can be lost quickly due to breaks in the line and water tapping, among other factors. When Schmidt first took over in 2012, he said that 45 percent of the water that was metered was lost.

"There is a lot of maintenance that really needs to be done," Schmidt said. "As far as right now, it's stabilized but it's still not very good," Schmidt said.



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Mayor Stephen Schmidt

## FIRE PERIL: 'TOMBSTONE IS A TINDERBOX'

Besides the urgent need for adequate drinking water safe from possible arsenic contamination in town wells, serious concerns have been raised about Tombstone's ability to fight building fires, given a limited existing water supply.

According to a court filing by the Goldwater Institute in support of Tombstone's suit against the federal government, "Tombstone is a tinderbox because of the all wood structures located within its six-block historical business district. The wood structures are especially flammable because of a shared attic that exists between them."

The filing said that the only structure in the historic district that has a sprinkler system is the Bird Cage theater. It also cites a fire that generated 200-foot flames on Dec. 8, 2010 and destroyed Six Gun City, a restaurant and bar at Toughnut and 5<sup>th</sup> streets and said: "If any of these embers landed on roofs in the historic district, those buildings could have easily caught fire. Even with the fire contained to the area around Six Gun City and two fire engines on site to fight the blaze, it took 20 minutes to knock down [put out] the fire ...."

With a spread of such a fire into the historical district in spring or summer, "the city would not have enough water flowing to maintain adequate water pressure and supplies" to suppress it, the Goldwater Institute said.