THE TEXAS TRIBUNE August 13, 2013

## **Environmental Concerns Rise as Brazos Levels Fall**

THE BETSY AMANDA LEHMAN '77 MEMORIAL AWARD FOR EXCELLENCE IN JOURNALISM, 1st Prize Elizabeth Koh '15

GLEN ROSE — At 840 miles long, the Brazos River is a lifeline for municipalities that pump water, industries that use the water for manufacturing plants and farmers who have relied on the river to irrigate their crops. But like many other rivers in the state, it has seen the drought take its toll.

"It's still beautiful," said Ed Lowe, a Granbury resident and president of Friends of the Brazos, as his canoe scrapes along the bottom of the Brazos riverbed on a humid August afternoon. But, he said, "in terms of the flow, it's just lower." Along some parts of the river, it is too shallow to canoe.

And concerns over water levels in the Brazos, which stretches from Texas' South Plains to the Gulf of Mexico, have sparked debate over who gets to use it, how much should be used and how much should be left to keep the river healthy.

Two-thirds of the state is experiencing severe to exceptional levels of drought, and state reservoirs are at about 60 percent of their water capacity. Some water users on the Brazos have already seen water pumping suspensions and other cuts. Amid the struggle to divvy up water, environmental activists have raised concerns that issues regarding threatened wildlife and damage to the river's ecosystem are being pushed to the backseat.

Like many of Texas' rivers, the Brazos is controlled by agencies that parcel water out to users based on when they first laid claim to the river water, and water rights holders increasingly fight over how much each deserves.

Environmental advocates have fought for decades to ensure that rivers retain the amount of water that they say maintains their ecological health.

In 2007, lawmakers passed a bill that set up a system to determine the necessary environmental streamflows in Texas rivers. But Texas Commission on Environmental Quality officials also say that they have a legal duty to protect the rights of water holders.

The TCEQ has had to strike a balance between where rights holders can be accommodated and where cutbacks are needed, said Ken Kramer, the water resources chairman for the Lone Star Chapter of the Sierra Club. In some cases that balance has been skewed, he added, saying that TCEQ's recently determined flow standards for the Guadalupe-San Antonio river basin were "not adequate" to care for fish and wildlife as well as the area's river systems.

TCEQ officials say that the standards they set are adequate for maintaining the health of the rivers.

The Brazos' environmental flow standards are set to be decided next year. They will come from recommendations made by a committee comprising representatives of different users along the river and a team of scientists.

The push and pull between water rights and environmental needs on the Brazos are "sort of a microcosm of a lot of the water issues we're dealing with in Texas right now," Kramer said.

Because of the Brazos' length, the drought and growing water needs of Texas' population particularly strain the river's ecosystems by decreasing its amount of flow.

Instead of contributing to the river's environmental streamflows, much of the water is being used for needs like irrigation and industrial cooling, especially in the summertime, said Gene Wilde, a biology professor at Texas Tech University. These season-specific demands are changing when and how strongly rivers flood, damaging the surrounding environment and wildlife, he added.

Because of the length of the Brazos, "how extreme this is varies from area to area," Wilde said.

Low flows in the river increase salinity levels and decrease oxygen levels, which can make the water hostile to native species and help invasive ones – like golden algae, which releases damaging toxins – thrive.

The toxins are particularly damaging for fish such as the sharpnose and smalleye shiners, Wilde said. The sharpnose and smalleye shiners, which are minnow fish that live in the upper region of the Brazos basin, have also been threatened by the lower flows in the river, he added.

"[The fish] spawn eggs that have to be kept afloat to hatch — they're not quite buoyant," he said. "They'll settle to the bottom if there isn't any current" and die, he added.

As a result, the two species have struggled to maintain a toehold in the river despite recent conservation efforts during the last two years, said Cindy Loeffler, the water resources manager for coastal fisheries with Texas Parks and Wildlife. The fish nearly went extinct during the height of the 2011 drought, when the upper Brazos dried up.

Human activities along the Brazos have also been curtailed. The drop in water levels on the Brazos has meant fewer opportunities to boat, fish and enjoy other forms of recreation, Lowe said.

Residents around North Texas' Lake Granbury, one of three lakes created by damming on the Brazos, have also seen their riverfront properties dry up as the lake levels receded this summer.

But the struggle to balance water uses shows no signs of receding. The Brazos River Authority, a quasi-public state agency that controls much of the water in the river, has filed for a systems operations permit that would draw an additional 125,000 to 150,000 acre-feet of water from the river.

The permit, if approved, would hurt both the environment and humans who have already suffered from low flows, opponents say.

"I can walk all the way across the lake and not go over the waist [in water]," said Lake Granbury resident Keith Favre at a public hearing on the permit in Waco last month.

Favre, who lives on the lake, has seen the value of his property drop, he said. "I don't know if I'm ever going to recover from it," he added. "How are you going to protect my portion of the water?"

Matt Phillips, a spokesman for the river authority, said that although the condition of the reservoirs does not look good, "at the end of the day, these reservoirs were functioning for the purpose they were created."

"We've got to continue to supply water ... to meet people's basic human needs," he said. "There's really not a choice."

Phillips stressed that the Brazos River Authority had worked with the TCEQ and Texas Parks and Wildlife to preserve necessary environmental flows.

"When having to make the decision between providing water and allowing people to ride Jet Skis and boats, we don't have the ability to let people go without water," Phillips said.

Farmers along the Brazos are also clashing with the TCEQ over a water suspension order that has left some irrigated farmland along the river dry.

Some environmentalists suggest the path to preserving the Brazos and its surrounding ecosystems lies in greater water conservation efforts among all water users.

"We are in a water crisis that is caused by drought and made worse by wasteful water use," said Luke Metzger of Environment Texas, an advocacy group. Conservation efforts — from subsidizing more efficient appliances to fix leaks in municipal water systems — is "the cheapest thing we can do, it's the fastest thing we can do," he said. "It's the top priority."

But environmental advocates agree that substantial changes are unlikely without drastic change.

"Rivers are just so many things and they have value to human beings but I think that some people...see it as a commodity," Lowe said. "We have some responsibility as citizens to pass it on to future generations."

The real struggle to keeping the Brazos healthy is "balance," Loeffler said. "It will take sitting down and thinking about things differently, and actually planning for both, rather than getting all the water that you can at this point."