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Report says Guadalupe in danger

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Danger.

That's the word the National Wildlife Federation uses to assess the environmental outlook for the Guadalupe River's San Antonio Bay.

In a just-released analysis of Texas bays, NWF warns that the Guadalupe, which carries fresh water and nutrients vital to the whooping crane and the other wild critters of San Antonio Bay, is "seriously threatened" by the demands of cities, industry, agriculture and other upstream water rights holders.

Because of those demands, the Guadalupe River could cease to flow into San Antonio Bay during prolonged dry periods, the NWF predicts in its report "Bays in Peril."

The conservationist group's report states that Texas hasn't done a very good job of protecting the Guadalupe and other rivers.

Most water-use permits, it says, were issued without any consideration of how much flow should be left in the river to protect the fish and wildlife that depend on healthy bays and estuaries for food and shelter.

"It is less and less likely that our estuaries can remain healthy unless we take affirmative steps now to protect them," the NWF says. "Texas estuaries remain last in line - not just physically but also legally - to get a share of freshwater from our rivers."

The organization suggests that Texas lawmakers can protect the rivers and bays by setting aside river flows that haven't already been claimed so that those flows will remain available for fish and wildlife.

The state could also fund the purchase of existing water rights permits from willing sellers and then dedicate those rights to fish and wildlife, the group says.

Steps can also be taken to improve water-use efficiency to support more people with the same amount of water, NWF says.

"If we can use water more efficiently and find ways to set aside some water for coastal flows, we can keep the estuaries productive for years to come," the NWF says in its report.

The federation also suggests dedicating water from not fully utilized water-rights permits to the protection of river flows. It may even be possible to arrange for temporary conversions during drought periods, NWF says.

The dedication of "re-use" water - or treated wastewater - to river flow purposes could also be beneficial, says NWF, which is concerned that certain water-right holders are increasingly holding onto their re-use water for use or sale for such things as golf-course irrigation or industrial needs, rather than returning it to rivers.

Here's how the NWF arrives at its danger rating for San Antonio Bay:

Current use of Guadalupe River water by permit holders is about 339,000 acre-feet, according to the NWF, which cites state figures. An acre-foot is 325,851 gallons.

But existing water-use permits along the Guadalupe authorize a total of 651,000 acre-feet of diversions - almost twice the amount of current use, the federation says.

With the population growing and permit holders increasingly tending to sell the water rights they aren't using, full use of existing water permits is coming closer and closer, the NWF believes.

To make matters worse, the NWF says, more permit holders are holding on to their "re-use" water.

NWF bases its "danger" rating on the assumption that all permit holders will take their full authorized amount of water and that 50 percent of the re-use water now being returned to the Guadalupe will be retained by permit holders.

"While this 'future-use' scenario may seem somewhat hypothetical, we believe these conditions are likely to be seen in the not-too-distant future," NWF says in its report.

For San Antonio Bay, the result would be a 250-percent increase in the number of times freshwater inflows are estimated to fall below what are called "drought-tolerance levels" over 50 years.

During such periods, inflows would not be adequate to keep salinity levels within state-determined parameters for key species, resulting in stressful conditions and in reduced reproduction and survival, the group says.

To arrive at its 250-percent figure, NWF calculated that, under "naturalized conditions," or conditions that would exist without withdrawals, dams and other human alterations, the river would fall below drought-tolerance levels just twice in 50 years.

Droughts are natural and species can survive them, the NWF notes.

But when the future-use scenario is applied, the river would fall below drought-tolerance levels seven times over 50 years - an increase of 250 percent from the two times under naturalized conditions.

NWF says species would be less likely to be able to survive the more frequent human-use induced water shortages.

The conservationist group also points out that its 'danger' ranking may even be understated because it does not take into account any new Guadalupe River water-rights permits.

For instance, the NWF notes that the developers of the Lower Guadalupe Water Supply Project in the Victoria area are seeking a permit for an additional 289,000 acre-feet of Guadalupe River water. The developers have said they would dedicate water from that permit to the environmental needs of the Guadalupe's bays and estuaries.

The NWF also didn't calculate into its ratings the possible reductions in the amount of water

flowing into the Guadalupe from Edwards Aquifer springs.

But the group expressed concern that overpumping of groundwater from the Edwards could affect the springs and that there are open questions about where legislatively mandated pumping caps will be met. If not, the result would be even lower levels of freshwater flowing into San Antonio Bay, the NWF says.

Other bays

The NWF also places "danger" forecasts on Matagorda Bay, Corpus Christi Bay, Galveston Bay and Sabine Lake.

The federation's forecasts for Copano/Aransas Bay and the Upper Laguna Madre are "good."

"The results of the analyses are troubling, with five estuaries receiving a 'danger' ranking," the NWF says. "The vast majority of Texans want strong protections for Texas rivers and estuaries. If we can get that message to state and local leaders, we can pass on to future Texans the same beauty and bounty from Texas bays that we inherited."

The National Wildlife Federation bills itself as the nation's largest member-supported wildlife conservation organization, claiming more than four million members and supporters.

NWF describes itself as founded in 1936 and committed to educating and empowering people from all walks of life to protect wildlife and habitat for future generations.

In Texas, NWF's focus is on restoring clean rivers and estuaries; conserving wetlands, springs, and natural river systems; protecting wildlife populations; promoting sustainable land and water use; and educating children and adults about the natural world.

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