

Fish killed after more than a million gallons of drinking water spills into Comal River

Chlorine attacks gills of fish and other organisms

By Steve Knight | The Herald-Zeitung/Apr 29, 2021 Updated Apr 29, 2021

An undetermined number of fish were killed last week after a drinking water main burst and sent more than a million gallons of chlorinated water into the Comal River, New Braunfels Utilities officials said.

Crews discovered a break in an 18-inch main potable water line near the intersection of Lakeview Boulevard and Klingemann Street on April 21, according to Melissa Krause, NBU's chief communications and strategy officer.

Krause said about 1.5 million gallons of water from the main break discharged with some of that making its way into nearby Blieders Creek and from there flowed into the Comal River.

"Unfortunately, the chlorine in the potable water did cause that fish kill," she said. "We are working with a biologist from the Texas Parks and Wildlife Department. He's been assessing the situation. We also contacted the Texas Commission on Environmental Quality, and we're working with them. We're here to do whatever is necessary to help with the recovery process."

NBU officials said aging infrastructure was the cause of the water main break.

Travis Tidwell, a pollution biologist with the Texas Parks and Wildlife Department who was on the scene, explained how treated drinking water containing chlorine can cause a fish kill.

"This is because the chlorine molecules attack the gills of aquatic organisms and cause chemical burns that affect their ability to take in oxygen," Tidwell said. "This not only affects fish but other gill-breathing organisms like amphibians, crustaceans and aquatic insects."

He said that the impacts are particularly lethal in the immediate area of the discharge, especially if the organisms can't escape in time.

"The lethality of chlorine is typically short-term, as the chlorine off-gasses into the atmosphere in a day or so and also becomes diluted in the surrounding waters," he said.

The estimate of the total number killed is still under review, Tidwell said, but the species of fish affected included Bluegill, Red-spotted Sunfish, Largemouth Bass, Mexican Tetra, Mosquitofish, Green Sunfish, Redbreast, Longear Sunfish, Sailfin Molly, and Flathead Catfish.

Krause said NBU has initiated a system-wide risk analysis to identify any of the systems that might be at risk for chlorinated water reaching waterways and design mitigation strategies.

But it will take time to conduct that analysis, she said.

"I really haven't seen something like this happen with a water main," she said. "If it were a sewer main, that's a different story because the sewage consumes the oxygen so quickly, that could cause a fish kill, but in this case, it's likely that the fish kill was caused by the chlorine burning their gills. It's a very unfortunate situation, but we're here to help and respond in every way we can."