

Saltwater threatens south Louisiana drinking water

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People in Plaquemines Parish are relying on bottled water.

A massive wedge of saltwater is coming up the Mississippi River, threatening drinking water for thousands in south Louisiana. This happened before in 1988, 2012, and 2022, though on smaller scales. The current saltwater intrusion is expected to last far longer — for many weeks. President Joe Biden approved an emergency declaration for the state on Sept. 27.

Freshwater flowing down the river normally prevents denser saltwater from moving upriver from the Gulf of Mexico. However, historic drought conditions affecting the entire Mississippi River Valley have caused low water levels, allowing Gulf water to move north. The long drought is intensified by human (that is, capitalist) driven climate change. Louisiana has gotten almost 20 inches less rainfall this year than usual.

On Sept. 20, saltwater overtopped the underwater barrier — or sill — constructed by the U.S. Army Corps of Engineers in July. The Corps is currently scrambling to raise it from -55 to -30 feet to buy time.

The Corps also plans to bring in 36 million gallons of water daily to dilute the river water coming into treatment facilities. This will take a lot of boats, and that solution only works for the smaller facilities. To meet the demand of the Carrollton water plant, the New Orleans Sewerage and Water Board is planning to construct a \$100-\$250 million pipeline to bring fresh water from upriver. Neighboring Jefferson Parish plans to construct two.

In the far south, saltwater has already entered the drinking water for communities in Plaquemines Parish. People there are relying on bottled water distribution centers. The parish's Boothville water treatment facility just obtained a reverse-osmosis system to remove salt. For weeks, the southern end of the parish saw tap water

salinity exceed 1,600ppm, six times the EPA's standard.

Unrelated to the saltwater intrusion — though having the same cause, i.e., drought — the system was plagued by line breaks and boil-water advisories throughout the summer as the shifting of dry ground damaged aging pipes. Saltwater intrusion is one more problem added to the pile.

This is a major environmental justice issue. The poverty level in Plaquemines is 14.5%, three percentage points higher than the national average. Twenty-two percent of the parish population is Black, with 8.4% being Latin American and 1.7% indigenous. The oil and gas industry exploits the parish's working class with Plaquemines being home to multiple refineries.

Initially, the majority of New Orleans drinking water supply was expected to be affected by Oct. 28, impacting about 1 million people. However, as of Oct. 4, the Corps reports that the wedge is moving more slowly. They now expect greater New Orleans facilities like the Carrollton and Gretna plants to remain unaffected until late November. If this new timeline holds, outcomes may be far better.

Pregnant people with health conditions like high blood pressure are at greatest risk. There are also concerns that corrosive saltwater could damage pipes and appliances, as people in Plaquemines have reported. Also troubling: The corrosive saltwater could cause toxic heavy metal releases in the New Orleans area's antique lead pipes, which are interspersed among newer infrastructure.

If the water crisis drags on, the NOLA area will be counted among other municipalities whose drinking water supply has been compromised due to systemic class violence and environmental racism. Flint, Michigan, is the well-known example, but Jackson, Mississippi, is even closer. This writer witnessed water gushing up out of the streets in Jackson in 2013 while canvassing with organizers around deceased Jackson mayor, Chokwe Lumumba Sr. In 2023, racist

disinvestment continues to make Jackson's water unsafe after climate-change-driven flooding damaged the system in 2022.

Outside the U.S., Basra, Iraq, and Alexandria, Egypt, are experiencing saltwater incursions affecting their water supply. Basra is a city of over 1 million, and Alexandria has more than 5 million residents. It is worrisome that such incursions have happened two years in a row in New Orleans and are now happening in at least two other regions at the same time. Even if the crisis in south Louisiana is largely averted, the lesson is clear: With sea-level rise and an increase in extreme weather, saltwater incursion may be a significant, and expensive, threat for the world's populations living at the nexus of river and sea.

