

The water supply in South Africa's second largest city, Johannesburg, has been unreliable for a long time, and presently poses a large threat. The citizens of Johannesburg access their water through the Vaal dam, which is 46 miles from the city. The dam is also below the city -- approximately 300 meters. The city is reliant on pumps, and other technologies to access this water. In the past there have been issues with the pumps, and the dam, which has made it difficult for people to get water. In 2018 the city was close to a "Day Zero," which would mean the taps would have to be shut off, and water would have needed to be brought in via trucks. This would have been unbelievable on such a large scale. While most burgeoning cities are built near rivers Johannesburg was built near gold mines. With all this in consideration getting water can be tricky. However, many advocates believe they may have a solution. The Jukskei River, which begins as a very tiny stream that eventually goes out to the Indian Ocean, is close enough to Johannesburg so that it could be a viable water source. Although the river is heavily polluted, if cleaned it could be an excellent solution for providing water to the citizens of Johannesburg. The river runs through urban developments with heavy concrete, lots that have been abandoned, and sections that are abundant with invasive species. Many people also live along the banks of the river, due to poor infrastructure, which adds to some of the pollution. People have found dead dogs and guns in the river, and water tests have reported extremely high levels of E.-coli. Cleaning up the river is the first step. Not only does it require additional treatment to allow for drinking, but also it would only provide water to one-fourth of the residents in Johannesburg. Education is important, and continuing mass cleanups would help engage the community. While there is a lot to be considered, cleaning up the river would help health, hygiene, and pollution.