



South Carolina Groundwater Backgrounder

Google's proposed groundwater usage is deemed sustainable, representing less than 1% of total McQueen Branch aquifer flow in the data center area.

As Google seeks to expand our data center in Berkeley County, South Carolina, we anticipate needing more power to run the servers, and more water to cool them.

From the start, we've been committed to saving water in the broader region by running data centers in a highly energy efficient manner. Since power generation typically includes using water for cooling purposes, being energy efficient translates to greatly reduced embedded water usage. In addition, we developed Groundwater Best Management Practices (BMP) for conserving water in our site's cooling tower operations. These practices are documented with the South Carolina Department of Health and Environmental Control Bureau of Water.

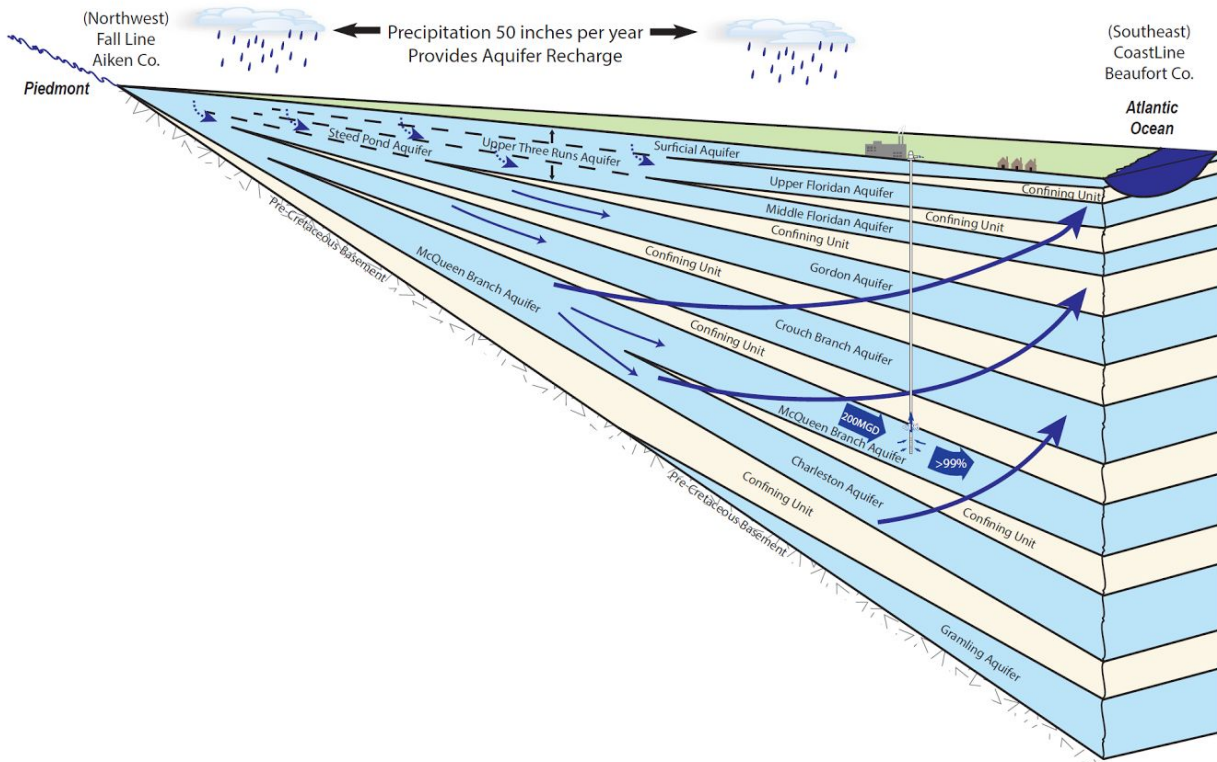
In 2016, Google applied for a permit to withdraw groundwater from the McQueen Branch aquifer, one component of the Coastal Plain groundwater resource system in the data center vicinity. We conducted thorough due diligence to ensure that the proposed groundwater usage would be sustainable and not harm the aquifer. This includes tests and projections based on those used by the U.S. Geological Survey.

The results indicate that over 200 million gallons per day (MGD) of naturally recharged groundwater flows through the McQueen Branch aquifer in the data center area¹. This is the case even with established users such as the town of Mount Pleasant and Nucor Steel pumping groundwater to meet their respective needs. Google's proposed groundwater withdrawal of 1.5 MGD is less than 1% of that flow. Furthermore, any groundwater that is not withdrawn by the pumping of wells from the McQueen Branch will naturally discharge through shallower aquifers and into the Atlantic Ocean.

The full results are summarized in the groundwater permit application that was submitted to the South Carolina Department of Health & Environmental Control. Based on these results, Google believes that our proposed groundwater use will be sustainable.

¹ When modeling the groundwater being pumped by other well users, we used data from 2004 because it was the best available data at the time. That data is conservative, because more groundwater was being pumped from this McQueen Branch aquifer in 2004 than is being pumped today.

NATURAL GROUNDWATER MOVEMENT SHOWING INSIGNIFICANCE OF GOOGLE'S PROPOSED GROUNDWATER USAGE



Increased water usage at the Google data center in Berkeley County, South Carolina, would amount to 1.5 MGD, less than 1% of the McQueen Branch aquifer flow in the area.²

² Source: Modified by Leggette, Brashears, & Graham, Inc. from Figure B37 of United States Geological Survey Professional Paper 1773.