

1. Introduction

Public interest in data centers has grown considerably over the last year. These facilities have become more visible due to their increasing demands on our electric infrastructure and water resources, their growing physical size, and their community and environmental impacts.

Data centers are buildings filled with computer equipment to process internet traffic, facilitate cloud computing and artificial intelligence, and store increasingly massive amounts of digital data.

It should be no surprise that data centers are a central topic among Georgians: current data center development all over Georgia—when taken as a whole—is unprecedented. Data centers are operating or proposed in at least 43 of 159 counties and in 11 out of 14 of the state’s major river basins. For example, new data centers would add at least 90 million square feet of new construction requiring about 30 million gallons of water a day in just the Chattahoochee River Basin. That is how much water Georgia Power’s Plant McDonough and the City of Gainesville are each authorized to withdraw from the Chattahoochee River and Lake Lanier every day. Statewide, the data center buildout we know about could increase industrial water demand by seven percent.

Among the unprecedented challenges, today’s large data centers can require massive amounts of energy and water for cooling systems to keep the computer equipment from overheating. However, we do not know with certainty how much because data center operators, and energy and water providers, are not required to report demand or usage. And parsing out proposed demands from actual needs remains a moving target. Land disturbance during the construction phase as well as noise and other issues have also sparked an unprecedented level of community engagement.

The Georgia Water Coalition (GWC) has been tracking data center development as communities organize to address construction and operation in Georgia, Virginia, and other states.¹ The GWC has basic concerns and questions:

- ❖ When it comes to water consumption: How much water does each data center need, how do we balance these needs with other demands, is there enough, and do we have accurate information for future planning in a region known for drought and conflict over water supply that advanced all the way to the U.S. Supreme Court?
- ❖ When it comes to energy: After Georgia Power shuttered coal-fired power plants on the Altamaha, Chattahoochee, and other rivers, we witnessed a reduction in the amount of water used to generate electricity. How will new data center demands, the delayed retirement of coal plants, and the anticipated expansion of natural gas and oil generation at Georgia Power and other facilities affect future water supply availability?

¹ Dawn Lim and Josh Saul, “Blackstone’s data-center ambitions school a city on AI power strains,” [Bloomberg](#) (December 8, 2024); Dave Williams, “Cryptocurrency mining stirs concerns across rural Georgia,” [Capitol Beat News Service](#) (May 31, 2024); Atlanta Regional Commission, [The Effects of Cryptocurrency Mining on the Atlanta Region](#) (July 20, 2022); and Southern Georgia Regional Commission, [Model Ordinance for Cryptocurrency and Data Mining](#).