

maintains or operates their own water supply; all data centers are currently purchasing water from local municipalities and governments.

Incentives: Since 2018, in addition to any local incentives, the state of Georgia has offered sales and use tax exemptions for “computers, emergency backup generators, air handling units, cooling towers, energy storage or energy efficiency technology.”⁸ The Georgia General Assembly recently renewed these state incentives through 2031.

4. What challenges do data centers present?

All data center campuses require energy and water for cooling systems to keep the computer equipment from overheating. As data center campuses grow and serve AI operations, energy and water demands can increase significantly. 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, or the data is protected by non-disclosure or other legal agreements.

Assessing an individual data center campus’s impact is difficult because each data center is uniquely sized, may operate different cooling systems, and will require different amounts of energy and water.

Challenge #1: Cooling & Water

Data center water demand and consumptive use are largely unknown. Do we have enough water for the emerging data center construction boom?

The Project Arrowhead facility *proposes* to consume a significant volume of water. Aside from the water metric details included in this DRI, the public has no idea how much water data centers *actually demand and consume* once they are operational. There are no requirements for reporting actual demand and consumption for this resource intensive industrial sector.

In this letter, water demand means how much potable municipal water the facility requires for daily operation. Water consumption means how much water is lost (e.g. via evaporation) in the cooling process and water that is not returned to a wastewater treatment plant and the Chattahoochee River or other original water source.

At peak operation and full buildout in, the Project Arrowhead data center campus will demand 50,000 gallons of water per day (18,250,000 gallons of water per year) from the Floridan Aquifer. Of the 50,000 gallons of water the proposed facility will demand daily, the data center campus will consume at full buildout 20,000 gallons of water per day (7,300,000 gallons of water per year)—this consumed water will presumably be evaporated in the data center cooling process and not returned to the environment. The remaining 30,000 gallons of water per day (10,950,000 gallons of water per year) will be wastewater discharged into the Alapaha River via an individual National Pollution Discharge Elimination Permit (NPDES). Only one other data center in Georgia is operating in a similar fashion (Google, Douglas County); another has been granted a NPDES permit (Microsoft, Fulton County); and at least one other is seeking a NPDES permit (Equinix, Inc., Henry County).

⁸ <https://georgia.org/competitive-advantages/incentives/tax-exemptions>