Water Conservation

After a series of severe droughts and several increases in water and sewer rates, Georgia Institute of Technology has begun investigating ways in which the campus can reduce its water consumption. The Office of Facilities Management has recently focused its efforts on the Institute’s restroom facilities and has successfully completed several water conservation initiatives.

Low Flow Urinals

Georgia Tech began its urinal replacement program by installing 308 automatic, one pint urinals with electronic flush valves throughout several buildings on campus. To estimate how much water Georgia Tech saved by replacing the urinals with more water efficient units, the Energy Conservation team conducted a usage survey of 10 academic, administration, and support buildings on campus.

Caleb Morris, a student researcher from the College of Engineering, helped install the new urinals and carried out the usage survey by placing infrared sensors above the urinals for one week. The results of the survey were then used to estimate the average weekday and weekend usage for all 308 urinals that were replaced. The team estimates that these urinals are flushed roughly 2.2 million times annually. By replacing these urinals and flush valves with electronic one pint models, Georgia Tech is expected to save 5,300 gallons of water per day and $54,000 a year in water and sewer costs. It was also estimated that the project’s pay-back period will be 3.4 years.

With a short pay-back period and significant expected savings, Georgia Tech hopes to replace more urinals on campus as part of its water conservation goals.

Cistern Storage

Several buildings on campus have cisterns that collect stormwater run-off, rain water, and condensate from heating and cooling systems. This harvested gray water is used for irrigation. The current total capacity of the cisterns on campus is roughly 1.4 million gallons, collectively.