



Connect to Planet

Consider a future where connected cars produce more efficient traffic patterns on crowded city streets. Connected buildings are smart enough to reduce their own energy use. Learn how our technology is turning potential into reality. Smart businesses and smart cities are here.



Water Management

Materiality Assessment Topics: Company water use

Issue Summary

Water is essential to life. It is a vital resource for environmental and social sustainability, and economic prosperity. Reducing water use and managing this resource wisely is critical.

Our Position

We have a responsibility to actively manage and reduce our water use wherever possible. Water is crucial for our operations, and our largest water use is to cool many of the facilities that house our network equipment. Water supply challenges can have an impact on our business operations.

Data Highlights

2017 Key Performance Indicators

	2012	2013	2014	2015	2016	2017
Absolute (gallons)	3.282B	3.11B	3.046B	3.089B	2.702B	2.600B
Water Intensity (gallons/ \$ thousand revenue)	25.75	24.18	23.15	21.04	19.87	19.74
Water Intensity (gallons/ petabyte network traffic)	62,853	49,007	39,918	26,821	25,225	19,250



Our Action

Water is deeply important to the communities we serve and to our own operations. The network that forms the core of our business requires a controlled and cooled environment, and water is a critical input to the cooling equipment we use to create these conditions. We're working to manage our own water use, and at the same time we're supporting the development of water management technology for customers and other organizations.

Our Operations

Water Management

Analysis of our water footprint has shown that our water use is concentrated in a small number of facilities.

- Our top 125 water-consuming facilities constitute almost 50% of our overall water consumption; and
- 40 of these 125 sites are in “high” or “very high” water stress regions, as determined by the World Business Council for Sustainable Development’s (WBCSD) [Global Water Tool](#).

Modeled after our Energy Scorecard, we've created a Water Scorecard to guide the tracking and management of water usage at our facilities and to identify water-saving opportunities using an intuitive grading system. The AT&T Water Scorecard includes using the WBCSD Global Water Tool to evaluate water risk in the next 5 years.

Through our Water Scorecard, we evaluated our top 125 water-consuming sites at the facility level across the country and found that cooling towers, which use evaporation to begin the mechanical cooling cycle, provide our biggest water-saving opportunity and best financial return. These pieces of equipment, which help chill large buildings, account for 25% of an office building's daily water use on average¹ — and they account for an even larger percentage in buildings such as data centers. Learn more as Tim Fleming, Director of Sustainability Integration at AT&T, [explains](#) how cooling towers function and why they are water-intensive.

In 2017, AT&T's water conservation efforts included:

- 28 projects yielding annualized water savings of 2,623,447 gallons. This includes 1 landscaping project in Sacramento, Calif., 4 sink aerator projects in Indiana, and 1 steam trap replacement project in Chicago.



- AT&T also began a separate smart-irrigation product introduction with our Internet of Things (IoT) team at 40 facilities, generating savings of 16.7 million gallons of water over a 6-month period.

Water Goal

AT&T has committed to reducing our electricity consumption relative to data growth on our network by 60% by 2020, and we look forward to doing the same with water. We are committed to reducing the water consumption of our company relative to data growth on our network by 60% by 2020 (using a 2013 baseline).²

Since 2013, when we set our first water goals, we've seen an overall annualized water savings of 352 million gallons. In addition, we realized 1.052 million kWh of annualized electricity savings associated with the introduction of free-air cooling projects and the reduction of mechanical refrigeration. The reduction of mechanical refrigeration is important to include, as those technologies consume a great deal of water.

Developing Solutions

AT&T products and services can also help others manage their water use. Our company provides connectivity for monitoring systems so that users can monitor their water use remotely and in real time.

For example, we work with [HydroPoint](#), a provider of smart water management solutions, to help customers remotely monitor and manage their irrigation systems in real time. With products for new installations and existing system retrofits, HydroPoint offers a cost-effective solution that helps customers reduce water consumption by an average of 40%. AT&T launched this smart water solution at 40 of our facilities in 2017, and in a 6-month period saved 16.7 million gallons of water and more than \$60,000. Learn more about [AT&T and HydroPoint](#).

AT&T has teamed-up with [WaterBit](#) to make automated irrigation easier for growers. As part of this collaboration, AT&T is providing highly secure connectivity and IoT services to WaterBit's autonomous, cloud-based irrigation solution. The smart irrigation solution helps farmers increase their yield and conserve resources, and its in-field data collection of soil moisture and nutrients gives farmers near real-time insight into crop conditions.

We also worked with [PrecisionKing](#), whose RiceKing sensors enabled by AT&T IoT Connectivity have been placed across farmers' rice fields where they read water levels once an hour, allowing for 24-hour monitoring. Concurrently, the PumpKing remote monitors allow farmers to set customized parameters to remotely turn pumps on and off. Connected RiceKing water-level sensors, along with Whitaker Farms' other conservation practices, have helped reduce their



water usage by up to 60%, while the connected PumpKing controls have reduced pump energy usage by 20–30%.

Working with Suppliers

Although we are not experiencing significant direct water risks from our supply chain, water is critical to our suppliers' operations, and any impact they experience due to water risk may affect our future business operations. During 2017, we transitioned from our Supplier Sustainability Assessment to the third-party QuEST Sustainability Assessor. Included in this assessment is a resource efficiency section with questions on maturity of materials, energy and water efficiency programs.

For more information on all our efforts with suppliers, please see our [Engaging Our Supply Chain](#) issue brief.

¹ https://19january2017snapshot.epa.gov/greeningepa/water-conservation-epa_.html

² For the purposes of tracking progress toward our goal, we are holding refrigerants, engines and portable generators steady in an effort to align performance with actual emissions changes and avoid an inaccurate representation of our progress.