On-Campus Water Reuse: Reliability & Readiness

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Abstract. Water main breaks across the country highlight concerns about the safety of an aging water infrastructure. The current water needs in Atlanta rely on a system designed almost 140 years ago that has been cobbled together ever since. Atlanta's 1600+ miles of pipe is in need of constant repair, to minimize the loss of service associated with infrastructure failure. Atlanta is currently funding infrastructure upgrades with a \$350 M program and on-campus water reuse can help augment these efforts. It takes a lot of water to create energy and energy systems on university, government and corporate campuses require resiliency and redundancy to guarantee uninterrupted service. Environmental and infrastructure challenges are forcing utilities to reconsider exposure to risk as it relates to water supply for HVAC and utilities. Many institutions are looking to secure their operations through innovative water reclamation systems, while maintaining industry leading treatment results. These institutions demonstrate how campus-wide wastewater reclamation provides cost savings, reliability and N+1 readiness in the midst of 21st century water stresses. This presentation will offer case studies of installations at major universities, illustrating the key characteristics of an innovative and impactful business model, including: Assessing appropriate water management solutions based on specific environmental, economic, and social conditions present on each campus; Minimizing dependence on an aging infrastructure through decentralized reclamation and reuse; De-risking operations, while helping to resolve collective municipal infrastructure and environmental issues; and Addressing regulatory and public relations issues associated with non-potable reuse.