Emory University's Water Reclamation System Embodies the Triple-Bottom Line

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Abstract. Over the last decade, sustainable water management has become a critical issue for the metro-Atlanta region, which has struggled with drought, legal disputes over supply, and EPA consent decrees on water quality issues. As a pioneer, community leader, and home of the renowned Center for Global Safe Water, Emory University is seeking to comprehensively address local and global water challenges. Wastewater reclamation and reuse helps extend the life cycle of water by turning a waste into a resource. It provides a number of environmental, social, and economic benefits, including cost savings, risk mitigation, pollution abatement, and a reduced dependence on community water infrastructure. Emory's on-campus facility, which relies on complex adaptive ecosystems to break down nutrients and pollutants in water, is one of the most sustainable forms of treatment available. The robust ecological treatment process produces a very high quality effluent that meets all federal, state and local regulations while consuming very little energy relative to traditional wastewater treatment systems. The recycled water will then replace potable water that is being used to heat and cool Emory's buildings as well as flush toilets. Flexible site integration, a compact footprint and a natural aesthetic also enable the facility to complement Emory's campus. This presentation will discuss the strategy behind Emory's water conservation efforts, how wastewater reclamation evolved from those efforts, and the multi-faceted benefits the facility will provide to many community stakeholders. The planning, permitting, design and construction logistics of the project will also be reviewed.