“REIMAGING URBAN WATERSHED MANAGEMENT: SMART CITY APPROACHES & THE ULTIMATE PRIZE”

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ABSTRACT
The world is increasingly urbanizing. By 2050, approximately two thirds of the world’s population will live in urban areas. This represents a critical concern for surface waters and ecological systems worldwide. Urban runoff is responsible for a host of perturbations, from erosion to ecological degradation to a fundamental shift in hydrology. These impairments have been deemed the “urban stream syndrome,” a term that encapsulates this slate of effects on waterways. Combining this with the specter of climate change and the deterioration of infrastructure in the United States, we face a daunting challenge as to how to sustainably manage urban water systems into the future. In this seminar, recent research into “smart” stormwater will be highlighted, where sensors, real time control, and data analytics are used for a variety of tasks from improving green infrastructure function to informing maintenance tasks. Ultimately such tools may unlock a host of new possibilities, allowing a systems approach to urban watershed management and the promise of improved outcomes.

BIOGRAPHY
Dr. Hathaway received his PhD from North Carolina State University in 2010, where he studied the fate, transport, and removal of indicator bacteria in urban stormwater runoff. After a brief research fellowship at Monash University in Melbourne, Australia, and nearly two and half years at one of the nation's leading ecological design and consulting firms, he joined the Department of Civil and Environmental Engineering at the University of Tennessee. Dr. Hathaway is a recipient of the National Science Foundation CAREER award and serves as an Associate Editor for the Journal of Environmental Engineering. He is an elected member of both the ASCE EWRI Urban Water Resources Research Council Core Group and the International Water Association Joint Committee on Urban Drainage.

ZOOM INFORMATION:
https://vanderbilt.zoom.us/j/97180630742?pwd=NWhVKzFlc3B6cDVNYzZab0EvSTJUQT09
Meeting ID: 971 8063 0742
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