“THE IMPACTS OF URBAN INFRASTRUCTURE ON HYDROLOGY & IN-STREAM BIOGEOCHEMISTRY”

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ABSTRACT
Urban infrastructure has changed the paths and reservoirs of water in our landscape, subsequently impacting the amount of water in streams and thus the ecosystems of those streams. My research aims to quantify these impacts, thinking about how urban infrastructure is altering hydrology, especially at baseflow, and what these alterations do to nutrients and in-stream metabolism. This seminar will expand on three examples of these interactions, including drivers of baseflow magnitude and variability in urban environments; impacts of wastewater treatment plants on in-stream metabolism; and nutrient processing around urban beaver dams.

BIOGRAPHY
Dr. Ledford is a water scientist who studies human-influenced systems in some of the most altered places on Earth: urban ecosystems. She received her BA in Earth Science from Vassar College before completing her PhD in Earth Science at Syracuse University, focusing on urban hydrology. She then completed a post-doctoral fellowship at Temple University before starting at Georgia State University. Her research is funded by NSF, the USGS, and corporations including Microsoft, with the end goal of building a new paradigm of urban hydrology that expands on the impacts of heterogeneity on flow paths and nutrients. Along with studying urban hydrology, she also focuses on addressing justice and equity in the earth sciences and hydrology, through her work on the Board of Directors of CUAHSI, hosting the GeoGRExit database, and working to make the GSU Geoscience graduate program one of the inaugural programs in the AGU Bridge program.

ZOOM INFORMATION:
https://vanderbilt.zoom.us/j/93414570069?pwd=dXlwSHl1TDhhYzlxNFJ5SnN5ZHdiQT09
Meeting ID: 934 1457 0069
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