

Title: Implementation and function of green stormwater infrastructure: insight from the site to the city

Abstract: Over the last several decades, it has become clear that urbanization has had major adverse impacts on the hydrology and water quality of downstream water bodies. An increasingly popular solution for managing stormwater has been implementation of green stormwater infrastructure solutions, such as retention ponds or bioswales. Here I discuss some of my work at the site scale evaluating biogeochemical function of stormwater detention and bioretention basins. I'll also discuss insights at the city and watershed scale around types of green infrastructure being implemented, watershed-scale hydrologic function, and new strategies for planning implementation for the future.

Bio: Dr. Lauren McPhillips is currently an Assistant Professor co-appointed in the departments of Civil & Environmental Engineering and Agricultural & Biological Engineering at Penn State University. Her work broadly focuses on hydrology and biogeochemistry in the built environment, with a particular interest in green stormwater infrastructure. She has a BS in Science of Earth Systems and MS and PhD in Biological and Environmental Engineering from Cornell University. She was also a Postdoctoral Fellow for the Urban Resilience to Extremes Sustainability Research Network based at Arizona State University, and has previously worked for the US Geological Survey as a hydrologic technician.