

## Environmental Science Graduate Program Seminar Series



winston.201@osu.edu

Dr. Winston's research focuses on the sustainable management of water in urban areas, with particular interests in hydrology, water quality, and stormwater management. He has worked on many research projects related to quantifying and modeling the effects of Low Impact Development and Green Infrastructure strategies. These novel techniques, such as bioretention and permeable pavement, are currently being installed as part of the Blueprint Columbus project.



## Ryan Winston, PhD

Assistant Professor Food, Agricultural, and Biological Engineering Civil, Environmental, and Geodetic Engineering Ohio State University

Smith 3150 | 1 - 25- 19 | 3:00 pm - 4:00 pm

Green Infrastructure: Quantifying Improvements in Runoff Hydrology and Water Quality

Stormwater management is evolving from a pipe and pond mentality to include the management of stream health and water quality. These additional goals have led to innovation and investment in new treatment technologies. However, these techniques need to be assessed so that we can quantify the return on investment and make wise decisions with the resources spent on stormwater management. This seminar will focus on results of field monitoring and modeling of green infrastructure practices, including bioretention and permeable pavement. In it, we will develop an understanding of the factors which influence their hydrologic and water quality performance. This seminar will provide attendees with an overview of how stormwater is typically managed and an understanding of novel techniques that are being advanced at Ohio State to manage stormwater as a resource as opposed to a nuisance.