COLLEEN O'BRIEN

PH.D. CANDIDATE | CIVIL & ENVIRONMENTAL ENGINEERING

environmental engineering & sciences

1. Where are you from?
I grew up outside of Boston in Gloucester, Massachusetts.

2. Where did you get your undergrad degree from and what was your major? Do you have a MS?
I studied Environmental Engineering and French as my undergrad at USC and then did my Master's in Water Resources Engineering at Tufts University.

3. What attracted you to engineering?
Growing up, I always enjoyed science and being outside and was really curious about the environment. In high school, I took a class in ecology and my teacher really encouraged me to look into environmental engineering. At the time, I didn't really understand what environmental engineering was but as I started to take classes, I really enjoyed the mix between ecology and the environment and this problem-solving aspect that engineering brings.

Colleen O'Brien

4. What attracted you to pursue a Ph.D. in your specialty area?
I was working at an engineering consulting company doing a lot of projects on stormwater management and I became really interested in green infrastructure and how we could design green spaces to manage stormwater and reduce flooding. Occasionally, I would get to work on a green infrastructure project at my former job, but they weren't that common, and I really wanted to focus on doing that type of work full time, so a Ph.D. felt like a great opportunity to really get to dig into that topic. A lot of the work related to green infrastructure also tends to be very multidisciplinary involving urban planners, ecologists, anthropologists, and engineers, and working in that type of environment really interested me as well.

5. How do you explain your thesis research to a non-scientist?
My research looks at how different types of green spaces capture and store stormwater, thereby reducing flooding, and the factors that influence how much water they can store, such as the size and scale, the vegetation and soil characteristics, and the type of green space.

6. What attracted you to NU?
The research that the Packman Group is doing really excited me! It is very interdisciplinary, with a lot of opportunities to work with partner organizations and do research, outside what I think is often classified as stereotypical engineerings, like working with social scientists and bringing in survey and interview data. The opportunity to work on projects like this was something I hadn't seen or heard of in a lot of other places and felt like a really good fit for my interests and the type of work I'd like to do in the future.

7. What has been the highlight of your time at NU and CEE?
I've had the chance to work with a lot of amazing local partner organizations, like The Nature Conservancy, The Academy for Global Citizenship, and Citizens Greener Evanston. Getting the opportunity to make connections and build relationships with the folks working at these organizations and doing really incredible environmental work at the local level has been really rewarding.

COLLEEN O'BRIEN

PH.D. CANDIDATE | CIVIL & ENVIRONMENTAL ENGINEERING

environmental engineering & sciences

8. What has been the most challenging aspect of your graduate school experience?
I was really nervous about sharing my ideas and research results with others at the start of my Ph.D. and developing the confidence to work independently and really have ownership over projects was challenging in the beginning, but I've been really lucky to have very supportive advisors, labmates and fellow Ph.D. students in my cohort who have made it an easier adjustment and helped me feel a little more comfortable sharing my research and getting feedback.

9. Can you tell us about your experience being mentored or mentoring others?
I feel fortunate to have so many incredible mentors who have helped make my Ph.D. experience a positive one. In addition to my co-advisors, Aaron Packman and Bill Miller, Vidya Venkataramanan, a former post-doc at Northwestern, and Jennifer Jenkins, a project manager at one of our partners, The Nature Conservancy, have been incredibly patient and helpful mentors and have taught me a lot about what being a good mentor looks like.

10. What are your interests or hobbies outside of your research?
I love spending time outside, running the lakefront trail, and swimming in the lake in the summer! I'm also really interested in science policy and enjoy being involved with groups like the Science Policy Outreach Taskforce (SPOT).