

OBJECTIVE

Develop sustainable solutions for urban environments through advanced modeling and low impact design

SKILLS AND EXPERIENCE

Client Service Manager, Innovyze

2018 – 2019

- + Responsible for developing and maintaining relationships to grow business in the water/wastewater industry in the Western United States. Worked with water utilities, consultants, and municipalities for system improvement using modeling software, **asset management** plans, and live data analytics. Point lead on RFPs, hosting seminars, and conference attendance. Frequently traveled to major partners in Colorado, Washington, Oregon, and Arizona. Doubled on-targeting bookings. **Sales Engineering** support provided.

Regional Sales Manager, Bentley Systems

2017 – 2018

- + Responsible for sales and customer relationships for the Haestad **hydraulic/hydrology modelling** software in the Eastern United States and Canada. Valued for my extensive knowledge of the software and ability to guide clients to solutions. Extensively traveled growing my professional network and presented at key conferences such as EWRI and AWWA.

Engineering Consultant, Mott MacDonald

2014 – 2017

- + Designed water/wastewater systems in the Philadelphia area. Worked with clients through conception to 100% design. Key projects include multiple neighborhood-wide stormwater sewer systems draining to surface green stormwater infrastructure practices and underground infiltration basins. Example Project: <https://bit.ly/2GaXaEU>
- + Skilled in hydraulic/hydrological modeling and drafting software (**Civil 3D/AutoCAD**)

Research Associate, Drexel University

2011 – 2017

- + Managed 15 **green infrastructure** pilot projects in New York City and Philadelphia with a focus on urban hydrology, stormwater management, and remote monitoring. Oversaw research assistants, maintain partner relationships, submit research grant proposals, manage budgeting and equipment purchasing. Projects are collaborative with the NYC Department of Environmental Protection, NYC Parks and Recreation, Boston Water and Sewer Commission, and local community organizations. Publication: <https://www.chijournal.org/C455>
- + **Engineering Teaching Fellow** and **Adjunct Professor**. Courses include Differential Equations, Hydrology, Hydraulics, Physics: Light and Wave Optics, Physics: Electricity and Magnetism, and the Freshman Engineering sequence.

EDUCATION

Drexel University, PhD Environmental Engineering

2017

MS Civil Engineering, BS/MS Environmental Engineering, Cum Laude

2012

University of Sheffield, Study Abroad

2008

PROFESSIONAL ORGANIZATIONS

Water Environmental Federation
American Society of Civil Engineers

American Water Works Association
American Water Resource Association

PUBLICATIONS

- S Jeffers, F Montalto, “Modeling Urban Sewers with Artificial Fractal Geometries” - Journal of Water Management Modeling, 2018, <https://www.chijournal.org/Content/Files/C455.pdf>
- S Jeffers, F Montalto, “Using artificial sewer networks to study the role of green stormwater infrastructure in reducing runoff during both historic and future changed precipitation” - (under review)
- S Jeffers, F Montalto, “Applying river basin scaling laws to urban catchments” - (under review)
- SM Jeffers, “Using Fractal Geometries to Understand Urban Drainage Networks and Green Stormwater Infrastructure Development” - Drexel University PhD Dissertation, June 2017, <https://bit.ly/2GaXKCA>
- L Smalls-Mantey, S Jeffers, FA Montalto, “Uncertainty in Predicted Neighborhood-Scale Green Stormwater Infrastructure Performance Informed by field monitoring of Hydrologic Abstractions” - AGU Fall Meeting Abstracts, 2013
- SM Jeffers, “Characterization of the rainfall-runoff response of an urban combined sewer catchment using observed and analytical methods”, Drexel University Master’s Thesis - 2012, <https://bit.ly/2lkSyNH>

PRESENTATIONS

- SCADAWatch Arizona User Group Meeting, Event Organizer and Lead for Real Time Analytics, City of Mesa, December 11th, 2018 <https://www.innovyze.com/en-us/about-us/blog/arizona-user-group-meeting>
- Arizona State University Guest Lecturer for Hydrosystems Engineering Graduate Seminar, Tempe, AZ, October 24th, 2018
- World Environmental & Water Resources Congress Speaker, “Understanding green stormwater infrastructure with fractal based sewer models”, Minneapolis, MN, June 3rd, 2018
- Halfmoon Education Professional Development Lecturer, “ Urban Storm Sewer Design”, Fairfax, VA, March 23rd, 2018
- Guest Lecturer, “*Protecting our Water with Green Infrastructure... The way I see it*”, University of Massachusetts, Boston, Hydrology, November 21th 2016
- Conference Oral Presentation, “*Quantifying green stormwater infrastructure with hydrologic abstraction*”, Green Infrastructure and Water Management in Growing Metropolitan Areas Conference, University of South Florida’s Patel College of Global Sustainability, January 14th 2014
- Guest Lecturer, “*Protecting our Water with Green Infrastructure... The way I see it*”, New York University Tandon School of Engineering, Methods in Studying Urban Environment, April 2nd 2014

SELECTED ENGINEERING PROJECTS AT MOTT MACDONALD

Grays Ferry Neighborhood Disconnection SMP, Philadelphia Water Department (PWD)

This project involves implement Stormwater Control Measures (SCMs), for mitigating the impact of the impervious cover (streets and sidewalks) on the combined sewer system and to prevent frequent combined sewer overflows (CSO's). The design is to reroute stormwater from a 22.7 acre combined sewer drainage area in the Grays Ferry neighborhood to a large underground stormwater basin within Lanier Park. Responsible for stormwater calculations and hydrologic modeling of the system, design of the system, contract drawings, cost estimates, and specifications. <http://www.phillywatersheds.org/Lanier%20playground>

Hestonville Neighborhood Disconnection SMP, PWD, Philadelphia, PA

Similar to the Grays Ferry project, this project reroutes stormwater from a 15.5 acre combined sewer drainage area in the Hestonville neighborhood to large underground stormwater basins within Conestoga Park in West Philadelphia. The stormwater basins have over a 1 million gallon combined capacity. The water is slowly released at manageable rates back into the combined sewer reducing the peak flow during a rain event. Responsibilities include stormwater calculations and hydrologic modeling of the system, design of the system, contract drawings, cost estimates, and specifications.

Cohocksink Playground Stormwater Basin, Stormwater Conveyance System and Surface GSI Systems, PWD, Philadelphia, PA

Another neighborhood stormwater disconnection SMP project in North Philadelphia where stormwater from a 20 acre combined sewer drainage area will be rerouted to a large underground basin. Responsibilities include preliminary design of the system, on-site sewer surveys, and will be responsible for detailed design work as the project moves forward.

Green Stormwater Infrastructure Master Specification, PWD, Philadelphia, PA

As part of ongoing efforts to improve Philadelphia Water Department's Green City, Clean Waters Program, there is a push to standardize contract specification. This includes technical writing to sections of the master specification while researching pertinent information to be included for future projects.

The College of New Jersey Stormwater Inlet Cleaning, PWD, Ewing, NJ

Annual stormwater permitting requires The College of New Jersey to maintain their on-campus stormwater inlets. Tasks include surveying the campus stormwater inlets to determine required cleaning, coordinating with cleaning crew, and creating a report to be used in the permitting process.

PROFESSIONAL REFERENCES

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