



TOWN +GOWN: NYC

**Extreme Weather and Smarter Solutions
July 15, 2024, 1-3 PM (Remote)**

Agenda

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| 1:00—1:15 PM | <u>Welcome and Introduction</u> Thu-Loan Dinh/NYC DDC |
| 1:15—1:40 PM | <u>Combating Extreme Weather with Smarter Solutions</u> Patrick Parault/AKRF |
| 1:40—1:50 PM | <u>Brief Q+A on Presentation</u> |
| 1:50—2:15 PM | <u>Stormwater Inequity in Urban Areas: Citizen Science, Sensor Data, and Policy Analysis</u> Michael Sansone and Rashed Al Sakarnah/Illinois Institute of Technology—College of Civil, Architectural, and Environmental Engineering |
| 2:15—2:25 PM | <u>Brief Q+A on Presentation</u> |
| 2:25—3:00 PM | <u>Open Discussion</u> |

Biographies

Patrick Parault is a professional engineer and Senior Vice President at AKRF, a leading environmental, planning, and consulting firm based in New York City. Patrick has over 23 years of planning and design experience with nearly ten years focused on stormwater and resiliency projects primarily in New York City. Patrick leads AKRF's Climate Resiliency and Adaptation practice that supports various City agencies including New York City Department of Design and Construction, Department of Environmental Protection, and Department of Transportation, among others, for whom he leads stormwater and green infrastructure designs such as the City's Cloudburst program that focuses on mitigating the effects of high intensity storms. Patrick's experience also includes the management and technical oversight of DEP's Citywide

Stormwater Masterplan, interior drainage planning and design for East Side Coastal Resiliency, Bellevue Hospital Resiliency, and for the Financial District and Seaport Climate Resilience Master Plan. With a background in modeling, planning, and stormwater design, Patrick has and continues to support New York City agencies by leveraging data to make informed decisions towards the design and construction of critical infrastructure that will improve the quality of life for New Yorkers.

Michael Sansone is a research assistant at the Illinois Institute of Technology's College of Civil, Architectural, and Environmental Engineering, pursuing a coterminous Bachelor of Science in Civil Engineering and Master of Engineering in Urban Systems Engineering. Prior to his time at IIT, Michael was a research assistant at the Department of Energy's Argonne National Laboratory in the Energy Systems and Infrastructure Analysis Division. His research interests include the use of Geographic Information Systems (GIS) and spatial data to inform issues of equity and environmental justice.

Rashed Al Sakarnah is a graduate student with a bachelor's degree in civil engineering from the University of Jordan, and he is currently pursuing a master's in environmental engineering at the Illinois Institute of Technology. Rashed works as a research assistant and is involved in multiple research projects, including one focusing on energy efficiency in wastewater treatment plants using machine learning to develop models, and another involving stormwater research, where he works on sensors measuring the water table in stormwater manholes.

Thu-Loan Dinh, P.E. Assistant Commissioner at New York City Department of Design and Construction (DDC), where she oversees an annual capital program comprising more than 120 capital projects and valued at approximately \$4 billion. She supports DDC's traditional duties installing new water mains and sewers for the NYC Department of Environmental Protection (DEP) while also building streets, sidewalks, and new public plazas for the NYC Department of Transportation (DOT). She will also continue work in vital new programs in DDC's Infrastructure Division related to coastal resiliency, roadway improvements and structural capacity in City neighborhoods. Assistant Commissioner Dinh was previously Director of Design for DDC's Coastal Resiliency Program, where she was responsible for a \$2 billion portfolio of cutting edge coastal protection projects including East Side Coastal Resiliency ([ESCR](#)) and its companion project Brooklyn Bridge-Montgomery Coastal Resiliency ([BMCR](#)). Together, the two projects are creating a 3.2-mile-long flexible flood barrier in New York, protecting more than 150,000 residents from future tidal flooding and coastal storms while enhancing numerous parks and open space areas with better recreational opportunities.