

BACKGROUND

2021-Present
Climate Resiliency Engineer II
Weston & Sampson

2020-2021
Green Infrastructure and
Stormwater Staff Engineer II
Hatch

2019-2020
Water Resources Staff Engineer II
Kleinfelder

2018-2019
Water Resources Engineering Intern
Aldrich + Elliot

2017
Wastewater Engineering Intern
Fuss & O'Neill

EDUCATION

2019
Bachelor of Science
Environmental Engineering
University of Vermont

PROFESSIONAL REGISTRATION

ISA Certified Arborist® No-7583A
Vermont, Engineer-in-Training
LEED Green Associate Accredited

Doris currently serves as a Climate Resiliency Engineer and Certified Arborist for Weston & Sampson's Water group. She is responsible for providing technical assistance for urban forest resiliency plans, vulnerability assessments, climate baseline and projection analyses, low-impact designs and stormwater solutions, and state-wide resilience standards development. Doris specializes in integrating natural resources as well as built infrastructure into planning decisions and designs.



SPECIFIC PROJECT EXPERIENCE

Resilient Urban Forest Master Plan and Urban Heat Island Assessment, Lowell, MA.

Co-manager for the project, coordinating with the client and community partners to achieve project goals. Leading the field data collection effort for city-owned trees and working with community partners to aid in data collection through a Survey123 application. Reviewing field data and existing urban heat island data to identify priority planting areas, and preparing a master plan and maintenance guidelines for the City. (ongoing)

Climate Change Vulnerability Assessment, Department of Conservation and Recreation (DCR), Boston, Massachusetts.

Provided technical assistance to support the assessment of the climate change vulnerability of DCR owned and managed properties. Attended client meetings to discuss project goals, performed ArcGIS analysis of assets; and evaluated assets' exposure, sensitivity, and adaptive capacity to identify vulnerabilities associated with multiple climate hazards: coastal flooding, precipitation, heat, winter weather, and wind. Developed a vulnerability assessment tool to be used by DCR on future assessments of additional properties. Prepared recommendations for additional studies.

Resilient Massachusetts Action Team (RMAT) Technical Assistance Contract, Statewide, Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA).

Technical team member for the RMAT project that will advance priority actions from the State Hazard Mitigation and Climate Adaptation Plan (SHMCAP) for climate resilient projects throughout the Commonwealth. Responsible for exposure data analysis and testing the beta tool.

Installation Energy and Water Plan, Massachusetts Army National Guard (MA ANG), Massachusetts.

Applied the SHMCAP hazard data to the Massachusetts's Army National Guard assets into an integrated GIS tool to assess vulnerability of mission critical energy and water infrastructure. Developed existing conditions reports for over 20 sites to provide a basis of understanding for programmatic and design recommendations to improve resiliency and reduce risk to the assets.

Experience with Prior Employers

Stormwater Management and Streetscape Improvements, Somerville, Massachusetts. Worked on a collaborative team of engineers and landscape architects to mitigate flooding through the installation of green infrastructure in highly impervious areas. Work included delineating sub-catchments for potential green infrastructure locations, followed by sizing and placing infrastructure based on optimized loading ratio calculations. Details, designs, and maintenance plans were drafted for bioretention basins, tree trenches, subsurface infiltration trenches, and porous pavement. Oversaw construction, tree installation, and final plantings. (with previous employer)

Urban Forest Field Assessments, Cambridge, Massachusetts. Led a field team to survey existing tree canopy for tree health, height, and diameter-at-breast-height to inform future planting and construction decisions. Field assessments included identifying canopy gaps and providing recommendations for placement of new trees and nature-based solutions. (with previous employer)

Urban Forest Canopy Assessments, Throughout North America. Worked on a diverse team of spatial analysts editing large LiDAR datasets. Projects included assessments comparing impervious and pervious surface areas, quantifying forest canopy growth / loss over time, and development of land-use datasets. (with previous employer)