Job Title	Post-doctoral Research Associate
PVN ID	HC-1904-003053
Category	Research
Location	HUNTER COLLEGE
Department	Institute for Sustainable Cities
Status	Full Time
Annual Salary	$63,686.00 - $63,686.00
Hour(s) a Week	35
Closing Date	Jun 18, 2019 (Or Until Filled)

General Description

Postdoctoral Position in Watershed/Terrestrial Organic Carbon Modeling Starting Summer, 2019

at the Institute for Sustainable Cities at Hunter College, City University of New York

APPLICATION DEADLINE MAY 10, 2019

The New York City Department of Environmental Protection (NYCDEP) manages a system of 19 interconnected reservoirs that supply drinking water to over 9 million consumers in New York City and surrounding areas. We seek to hire a postdoctoral researcher who will contribute to our efforts to develop and test models that simulate streamflow, and loading of nutrients, sediment, organic carbon, and precursors of disinfection byproducts to our water supply reservoirs. Such watershed models will be a component of NYCDEP's integrated suite of climate, watershed, reservoir, and system operations models. These models are used to investigate the effects of climate change, floods and droughts, land use change, watershed management, and reservoir operations on the NYC water supply.

Hiring will occur though the Institute for Sustainable Cities at Hunter College, City University of New York, which has a contract to support NYCDEP's efforts. Work will involve collaborative efforts with an interdisciplinary team of scientists, and will also provide opportunities for leadership in specific aspects of the research. The candidate will be based in upstate New York and work with NYCDEP staff on a day to day basis.

Position details:

Starting date: Summer 2019. Actual start depends on candidate availability

End date: December 2020 (18-month appointment with possibility of extension contingent on progress and funding)

Location: NYCDEP office in Kingston, NY, 100 miles north of NYC in the Hudson Valley region

This is a full time position with employee benefits, and is open to eligible candidates of any nationality. Visas if necessary can be arranged through the City University of New York.

Other Duties

Key tasks include the following:

Develop familiarity with NYCDEP's existing watershed models (GWLF and SWAT) that are used to simulate streamflow, nutrients, and sediment.

Develop familiarity with data to support watershed modeling, including weather, GIS, soils, land use, snowpack, streamflow and stream water quality.

Participate in NYCDEP's efforts to extend the capability of SWAT to simulate organic carbon and precursors of disinfection byproducts, and in the application of this extended model to the reservoir watersheds located west of the Hudson River.

Application of watershed models to evaluate the impact of climate change, land use change, watershed protection and management programs, and reservoir operations.

Present work at scientific meetings; publish in peered reviewed journals and in NYCDEP reports.

Qualifications

The candidate should have the following qualifications and experience:

 Ph.D. in hydrology, watershed science, geology, water resources, civil or environmental engineering, geography, or a related discipline. Candidates with a Master's degree and strong research achievement will also be considered.

 Experience with modeling of watershed hydrology and water quality is a requirement; specific experience with the Soil and Water Assessment Tool (SWAT) is preferred.

 Experience with modeling of phosphorus, nitrogen, and organic carbon cycling and export in forested and agricultural watersheds is a requirement.

 Experience with the application of models to evaluate the impact of climate change and extreme events is preferred.

 Experience with hydrologic or water quality modeling in a public water supply where precursors of disinfection byproducts are of concern is preferred.

 Programming experience in Fortran; Python, shell scripting, and/or R.

 Experience in statistical analysis of environmental data.

 Demonstrated ability to communicate research results to scientific community through peer-reviewed papers,

conference presentations and reports.

Ability to work in an interdisciplinary team environment.