

Job Title	Post-doctoral Researcher
PVN ID	HC-2002-003503
Category	Research
Location	HUNTER COLLEGE
Department	Institute for Sustainable Cities at Hunt
Status	Full Time
Annual Salary	\$63,686.43 - \$63,686.43
Hour(s) a Week	35
Closing Date	Apr 04, 2020 (Or Until Filled)

General Description

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, and organic carbon, 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 through 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 collaboration with an interdisciplinary team of scientists and engineers, 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: As soon as a suitable candidate is available.
- End date: The initial appointment will generally be 18 months, although a longer duration may be granted. If good progress is made, extension of the appointment for a period of not less than 12 months may be granted.
- 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 If necessary, visas can be arranged through the City University of New York.

Application Instructions:

To apply, include a letter of interest and curriculum vitae.

Application deadline is MARCH 7, 2020.

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
- Develop familiarity with data to support watershed modeling, including weather, GIS data (soils, land use, DEMs), streamflow and stream water
- Participate in developing methods/models to simulate terrestrial sources and production of organic carbon, loading of organic carbon to downstream reservoirs, and in the application of this extended model to water supply
- Application of watershed models to evaluate the impact of climate change, land use change, watershed protection and management programs, and reservoir
- Present work at scientific meetings; publish in peer-reviewed journals, and contribute to production of NYCDEP

Qualifications

Preferred qualifications and experience:

- 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
- Experience with modeling of nutrients, and organic carbon cycling and export in forested and agricultural watersheds is preferred.
- Programming experience in Fortran; Python, shell scripting, and/or
- Experience in statistical analysis of environmental data.
- Demonstrated ability to communicate research results to scientific community through peer-reviewed papers, conference presentations and

- Ability to work in an interdisciplinary team