RESEARCH FOUNDATION CUNY

Careers at RFCUNY
Job Openings

Job Title	Post-doctoral Researcher
PVN ID	HC-2002-003504
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, test and apply models of this water supply system. NYCDEP's integrated suite of climate, watershed, reservoir, and system operations 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. We have developed and applied one, two, and three-dimensional models which simulate hydrodynamics and the fate and transport of temperature, turbidity, eutrophication, and pathogens in our reservoirs. We are seeking a talented scientist or engineer to help us improve and enhance these reservoir models.

Position details:

- Starting date: our target is Spring 2020; actual start depends on candidate availability. Initial appointment will be 18 months, unless a different appointment is negotiated with the candidate. If work during the initial appointment is satisfactory, extension 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 nationality. If necessary, visas can be arranged through the City University of New York.

Application Instructions:

Please include a letter of interest and curriculum vitae.

Application deadline is March 7, 2020.

Other Duties

Candidates with experience in any of the following areas are of interest; experience with all of these areas is not required:

1. Simulation of eutrophication and related nutrient and organic carbon cycling in the water column and sediments of lakes and reservoirs.
2. Experience with modeling of the fraction of organic carbon compounds that are precursors to disinfection byproducts
3. Application of reservoir models to simulate lake/reservoir stratification and water quality under extreme hydrologic conditions (floods and droughts) that may occur under current and future climate conditions.
4. Use of water quality models to guide the optimal operation of a system of water supply reservoirs.
5. Development and application of alternatives to process-based reservoir models, including machine learning or artificial neural network approaches.

The selected candidate will be expected to present work at scientific meetings; publish in peer-reviewed journals, and contribute to NYCDEP reports. Hiring will occur though the Institute for Sustainable Cities at Hunter College, City University of New York (CUNY), which has a contract to support NYCDEP's modeling program. Work will involve collaborative efforts with an interdisciplinary team of scientists and engineers, and will provide the opportunity for leadership in specific aspects of the research. The candidate will work with NYCDEP staff and other CUNY researchers on a day to day basis.

Qualifications

The candidate should have the following qualifications and experience:

- D. in civil or environmental engineering, water resources, environmental chemistry, hydrology, limnology, or a related discipline. Candidates with a Master's degree and a strong record of research will also be considered.
- Experience in handling, statistical analysis, and presentation of large environmental datasets, and with software to facilitate such work
- Experience with writing software code to implement new or modified models
- Software experience such as MatLab, Fortran, Python, shell scripting, and/or R.
- Demonstrated ability to communicate research results to the scientific and water quality management community through peer-reviewed papers, conference presentations and reports.
- Ability to work in an interdisciplinary team environment.