Water Quality Scientist

The Community Science Institute (CSI) (www.communityscience.org), a not-for-profit 501(c)3 organization in Ithaca, NY, partners with 30 groups comprising over 250 volunteers to monitor streams and lakes in Central New York State, producing regulatory-quality data in our state-certified environmental testing lab and disseminating them publicly free of charge. We seek an individual who combines wet chemistry skills with an interest in public service and communicating results and trends of long-term data sets to diverse audiences in our region.

Our mission: We foster and coordinate water quality monitoring in partnership with community volunteer groups. Our goal is to provide the general public as well as local, state and federal government agencies with a better understanding of shared water resources through regulatory-quality data capable of informing local and regional watershed management.

How we pursue our mission: We partner with and coordinate volunteer groups to support their collection of stream and lake samples from early spring to late fall. Volunteers transport samples to our lab with chain of custody documentation for certified testing of nutrients, salt, suspended solids, pathogenic bacteria, cyanotoxins and other parameters. Results are disseminated online in our uniquely accessible and educational public database (www.database.communityscience.org).

We conduct biological monitoring of streams based on benthic macroinvertebrate (BMI) abundance and diversity, partnering with volunteers of all skill levels and posting the results on our website to provide an indication of the health of stream ecosystems (www.communityscience.org/biological-monitoring-2/).

Each summer we train and coordinate over 90 “HABs Harrier” volunteers in our Cayuga Lake Harmful Algal Bloom (HABs) Monitoring Program to patrol the Cayuga Lake shoreline for HABs. Volunteers collect samples of suspicious blooms and transport them to our lab with chain of custody documentation. If the presence of cyanobacteria is confirmed under the microscope, our lab determines the concentration of microcystin toxin and posts the results on our Cayuga Lake HABs map within 24 to 96 hours of sample collection (www.communityscience.org/volunteer/harmful-algal-bloom-monitoring/). Our HABs map has received over 20,000 views each year since 2018.

We offer fee-based, certified drinking water testing services for the Cayuga Lake region and count the Tompkins County Health Department and Cornell University as well as dozens of businesses and hundreds of private homeowners among our clients. In this way we provide a valuable service to our community while earning fees that help support our nonprofit mission.

283 Langmuir Lab/Box 1044 95 Brown Road Ithaca NY 14850 Voice/Fax 607 257 6606
Certified Water Testing **NYSDOH-ELAP #11790** **EPA Lab Code NY01518**
Stephen Penningroth ***Executive Director*** ***<info@communityscience.org>***

About the Position: The position is responsible for performing a variety of water quality assays according to standard operating procedures (SOPs) and including data quality controls such as calibration checks, blanks, duplicates and matrix spikes. The successful candidate will receive extensive on-the-job training in order to gain proficiency in the manual methods employed in our lab. The intensity of lab work is seasonal with roughly 75% of samples analyzed between April and November and the balance in the winter months. During the busy monitoring season, the position is devoted to laboratory analyses approximately 80-90% of the time. During the winter, the Water Quality Scientist can devote roughly 50% of their time to data analysis and communication. For example, they might write an article for our Water Bulletin newsletter describing nutrient status and trends in a Cayuga Lake tributary stream monitored by one of our volunteer partnerships since 2009, or an article describing chloride results in another monitored stream that suggest groundwater contamination from road salt. Results of data analyses can also be communicated in the form of public presentations to general audiences as well as written reports to local and state government agencies. The hybrid nature of the Water Quality Scientist position aligns with CSI's mission to produce regulatory quality data as well as to communicate what those data mean for managing water resources effectively and sustainably.

Examples of Responsibilities and Opportunities of the Position:

- Perform wet chemistry procedures such as uv-vis spectrophotometry, titration, gravimetry, enzyme-linked immunosorbent assays (ELISAs), and microbiological assays.
- Provide advice on how to investigate water quality issues from a scientific viewpoint, including educating the public on sample collection and appropriate testing.
- Report water quality data and provide context to the public about trends or compliance concerns that may pose public/ecological health risks.
- Participate in short term in-house projects to improve existing lab procedures or acquire new lab methods or in collaborations with academic scientists with the potential for contributing to peer-reviewed research.

Minimum qualifications:

- Bachelor's degree in Chemistry, Environmental Science, Biology, or related discipline.
- Three semesters of chemistry lecture and lab with a B average.
- Ability to take initiative, work independently, solve problems in the lab and pay painstaking attention to detail.
- Comfortable working as a member of a small team and supporting teammates.
- Evidence of excellent written and oral communication skills.
- Enthusiasm for CSI's mission.

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Enhancing qualifications:

- Additional chemistry credits or research experience,
- Background in statistics, GIS, science education or communication.
- Customer service or business experience.

Hours, compensation, and benefits: Full-time, 40 hours/week. Hourly rate $18.00–$21.00, depending on qualifications. Time-and-a-half for overtime. Seven paid federal holidays and ten paid free/vacation days per year. Vacation time is flexible and may include both paid and unpaid leave, depending on availability of other staff to cover the workload. Health insurance and pension plan are available.

Application: Please email your resume, a cover letter stating why you are interested in the position, and three questions you would ask about the Community Science Institute if you were invited for an interview to: Dr. Stephen Penningroth, Executive Director, Community Science Institute, info@communityscience.org. **Please note: A cover letter and three questions are required as part of this application process.** Applications will be accepted until the position is filled.

Inclusion statement: We encourage qualified applicants from historically underrepresented groups in the sciences to apply. We will fully consider all qualified applicants without regard to race, culture, ethnicity, national origin, gender, gender identity or expression, sexual orientation, age, religion, lifestyle, marital status, or veteran status.

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