



Job Title: Water Quality Coordinator
Compensation: Competitive with local rates
Type: Full-time
Duration: Commitment of 3+ years
Reports to: Director of Technology
Location: San Miguel de Allende, Gto, Mx.

Caminos de Agua: Organizational Description

Caminos de Agua's mission is to improve human health and community well-being through adequate and affordable access to clean water. We work to provide open-source water solutions with communities in our watershed in Central Mexico, and leverage those solutions for others confronting similar water challenges around the globe. We work in partnership with local communities, leading research institutions, and other diverse actors to innovate and implement water solutions that create adequate access to safe, healthy drinking water supplies. Our core programs include water quality monitoring, development of water technologies, community implementation of water and sanitation solutions (i.e. rainwater harvesting systems or composting toilets), educational programs, and coalition and network building. We also train aspiring, socially-responsible engineers, scientists, and other young professionals and interns looking to make social and environmental impacts in their work. Caminos de Agua (Caminos) is a registered 501(c)(3) nonprofit in the U.S. as well as a Mexican Asociación Civil (A.C.).

In Central Mexico, where Caminos de Agua is based, the majority of drinking water comes from the *Alto Río Laja aquifer*. Overexploitation of groundwater resources has become widespread, mainly driven by a dramatic increase in irrigated agriculture of water-demanding crops in the past decades. As a result of dropping aquifer levels, contaminants occurring naturally in the deeper layer of the aquifer – such as arsenic and fluoride – are becoming prevalent in the wells that have not run dry. This is linked to a host of health problems, including dental and skeletal fluorosis, developmental disorders in children, skin problems, and even several types of cancer. Around the globe, upwards of 300 million people, 21 million in Mexico alone, are affected by arsenic and/or fluoride in their drinking water supplies.

Since 2012, we have continuously sampled and tested nearly 600 sites throughout the region, and we work closely with grassroots organizations like United Communities for Life and Water (CUVAPAS) and Pozo Ademado Community Services (SECOPA) to inform rural communities of water quality issues. We collaborate closely with international and national research institutions and universities to perform and validate these studies. We also partner with the National Water Quality Inventory (INCA) to share and visualize national water quality data. We are moving toward also incorporating other indicators into our monitoring program, including scarcity, historical water access, cost, and community water conflicts in order to develop a more complete understanding of regional water issues.



Water Quality Coordinator

We are looking to hire a team member to coordinate our Water Quality Monitoring Program. The Water Quality Coordinator manages the day-to-day functions, such as client service, sample management, water quality analyses and lab work, coordination of and with laboratories (internal and external), coordination with national and international university and institutional partners, and the development and implementation of water quality and other related studies. Responsibilities also include community interaction and/or coordinating with our community outreach and education team to sample community water sources and deliver water quality information to local communities. The Water Quality Coordinator is also responsible for directly managing, or coordinating the management of, our water quality forms for testing services and our interactive water quality map, which includes: data management, database back-end, and data visualization. This person would also promote Caminos' water quality initiatives in order to contribute towards our goal to better understand the regional water situation.

This position is overseen by, and reports directly to, the Director of Technology.

Duties and Responsibilities

The responsibilities of the Water Quality Coordinator might include (but not be limited to):

- Research and strengthen our understanding of water conditions in our region;
- Sample water from various locations of the Alto Río Laja Watershed and in surrounding areas;
- Manage programs and relationships with university and institutional partners to work on local and national water testing initiatives;
- Coordinate urban water quality testing, including private water testing and client services;
- Perform laboratory analysis in-house, including colorimetry, electrochemical methods, bacteriological analysis, and others;
- Explore and implement additional testing needs for existing and emerging contaminants;
- Coordinate with external laboratories;
- Analyse and interpret water quality results and generate water quality reports;
- Clearly communicate about the water quality situation with a variety of stakeholders;
- Participate in meetings with community organizers and users in matters related to water quality and/or water quality monitoring.

Experience and Qualification Requirements

- Bachelor's in science or engineering (preference to individuals with a water background);
- Fluent in either English or Spanish with working proficiency of the other;
- Experience working in a laboratory setting, including water analysis;
- Knowledge of laboratory techniques and procedures;
- Customer service experience;
- Demonstrated problem solving skills and critical thinking;



- Data management and basic statistical analysis;
- Basic coding knowledge;
- Driving license;
- Dedication to technology development for social justice and the principles by which we work;
- Be able to work full-time in San Miguel de Allende, GTO.

Additional Preferred Qualifications

- Experience working in the field with rural communities;
- Comprehensive understanding of chemistry;
- Knowledge of electrochemical testing methods;
- Experience with coding (JavaScript/Google App Script, Zapier, website development);
- Knowledge of GIS;
- Public speaking and presentation skills.

To Apply

Applications due June 1, 2021. To apply, send a cover letter and CV to the Director of Technology, Allie Reiling, at: alexandra@caminosdeagua.org.

See more information about Caminos de Agua at: www.caminosdeagua.org