

## **Quality Assurance and Quality Control: The McKenzie Patrice Croom Flint Community Lab**

The Flint Community Water Lab — the first community-based laboratory of its kind in the world — provides Flint residents with a trusted resource for free water testing for lead and other metals.

The Flint Lab is operated and run by Flint residents, high school and college students, providing important education and citizen science opportunities that promote STEM education, exposure to technical career opportunities, and workforce development. In addition to Flint-wide water testing, the Flint Community Lab serves as a hub for resident outreach and access to social services to promote public health and healing while restoring public confidence in tap water in individual homes.

The Flint Community Lab has developed written protocols and is adopting a formal quality assurance/quality control program based on U.S. Environmental Protection Agency (U.S. EPA) Quality Assurance Project Plan guidelines for collecting and analyzing drinking water samples. The analytical methodology employed is based on the U.S. EPA method for the analysis of lead and other metals in drinking water (EPA M. 200.8: Determination of Trace Elements in Waters and Wastes by Inductively-Coupled Plasma - Mass Spectrometry). Flint Community Lab staff are receiving training from ThermoFisher Scientific in equipment operation to conduct the analysis. Routine field- and laboratory-quality controls and regular blind proficiency testing will provide checks to ensure that the information and results provided to community members are reliable, precise, and accurate.

Individual data and testing results are considered private information and will only be shared with the community member. Where permission is granted, results from the program may be reported in summary form to share overall findings with the community. The results from the Flint Community Lab are for informational purposes to help residents make decisions about filtration and use of their tap water. Results may not be used for legal purposes or compliance with regulatory requirements.

As part of the learning and technical training program, the Flint Community Lab will pursue U.S. EPA certification for lead testing over the next 18-24 months following the determination of a laboratory method detection limit (MDL) and successful completion of proficiency testing.