PFAS Monitoring and Response in Georgia

Background and Goals of the Proposed Project

The Georgia Environmental Protection Division intends to use USEPA multipurpose grant funds to support the development and implementation of a statewide PFAS monitoring strategy. The following specific tasks will be supported with USEPA multipurpose grant funds:

(1) Provide technical support for the development of a PFAS monitoring strategy.
(2) Update and, where necessary, develop data layers to capture relevant information summarizing:
    a. Previous Federal, State, and local sampling efforts,
    b. Locations of drinking water intakes and source waters, and
    c. Locations of known or potential sources.

    This data layer will be updated periodically as GA EPD gathers more information about the nature and extent of PFAS contamination in Georgia.
(3) Receive training and develop the capacity for GA EPD-led PFAS sample collection and assessment.

PFAS Background

Per- and polyfluoroalkyl substances (PFAS) are a large group of chemicals that are chemically and thermally stable and show resistance to heat, water, and oil. As a result, they have been used in the manufacture of carpeting, clothing, furniture upholstery, cookware resistant to water, grease or stains, and paper packaging for food and other materials. They are also used for firefighting and in several industrial processes. The same properties that make PFAS useful in everyday items also result in PFAS persisting in the environment.

PFOA and PFOS are abbreviations for perfluorooctanoic acid and perfluorooctanesulfonic acid, respectively. These long chain fluorinated organic chemicals are types of PFAS. Of the thousands of PFAS chemicals, only a handful have been studied extensively, with PFOA and PFOS being the most studied PFAS substances (CDC ATSDR webpage access January 13, 2020). According to the Center for Disease Control's Agency for Toxic Substances and Disease Registry (CDC ATSDR), some human epidemiological studies on PFAS exposure provide evidence that certain PFAS may affect growth, learning, and behavior of infants and older children; lower a woman's chances of getting pregnant; interfere with the body's natural hormones; increase cholesterol levels; affect the immune system; and increase the risk of certain cancers.

Scientists continue to research the health effects of PFAS exposure using both epidemiological data and laboratory animal studies.

Regulatory status of PFAS

Regulatory limits have not been established for PFOA or PFOS under either the Clean Water Act (CWA) or the Safe Drinking Water Act (SDWA). Instead, they are currently addressed through unregulated contaminant monitoring and health advisories from USEPA.

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In November 2016, USEPA issued Health Advisories for lifetime exposure to PFOA and PFOS. This health advisory level was set to offer a margin of protection for all Americans throughout their life from adverse health effects resulting from exposure to PFOA and PFOS in drinking water. The advisories were based on the latest peer-reviewed science and were adopted to provide the officials, who have the primary responsibility for overseeing these systems, with information on the health risks of these chemicals, so they can take the appropriate actions to protect their residents. The health advisories do not establish regulatory limits.

The health advisory levels for PFOA and PFOS in drinking water were set at 70 parts per trillion. When both PFOA and PFOS are found in drinking water, the combined concentrations of PFOA and PFOS are to be compared with the 70 parts per trillion health advisory level.

The Federal government continues to address the PFAS issues. USEPA published a PFAS Action Plan in February 2019 outlining short-term and long-term goals for the agency in conducting research on PFAS, regulating PFAS with documented adverse health outcomes, and communicating the research on PFAS to the general public. The CDC ATSDR continues to implement epidemiological studies of the impact of PFAS, including a Multi-State Health Study, the Pease Study, and PFAS Exposure assessments.

Previous monitoring efforts

The 2012 Unregulated Contaminant Monitoring Rule (UCMR 3) required assessment monitoring for PFOA and PFOS along with 19 other contaminants. All public water systems serving more than 10,000 people (i.e., large systems) and representative public water systems serving 10,000 or fewer people (i.e., small systems) monitored for those compounds during a 12-month period between 2013 and 2015. In Georgia, hits for PFOA were reported for Calhoun, Rome, Summerville, Chatsworth, and Dalton Utilities, hits for PFOS were reported for Rome and Chatsworth. None of the other water systems in Georgia involved in the UCMR detected any PFOA or PFOS in any of their samples.

Georgia and USEPA have been assessing surface waters in the Coosa basin to determine the extent of potential PFAS contamination since 2012, and recently, limited samples have been taken on wastewater effluent, biosolids, and landfill leachate as well. In addition to the preliminary information from UCMR3, GA EPD's and USEPA's instream water quality monitoring has identified measurable levels of PFOA and PFOS in portions of the Chattooga and Coosa Rivers.

This project will build on those previous monitoring efforts by summarizing and synthesizing current information and developing a logical, stepwise path forward to assessing the scope of PFAS contamination in Georgia.

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Tasks for the Proposed Project:

The propose project will include three tasks:

Task	Deliverable	Schedule
(1) Provide technical support for the development of a PFAS monitoring strategy.	PFAS Monitoring Strategy document Environmental compliance specialists will perform the following tasks to aid the development of this document: - Conducting file review - Running database queries - Entering data and conducting QA/QC	Draft: February 2020 Final: June 2020
(2) Update and, where necessary, develop data layers to capture relevant information. This data layer will be periodically updated as GA EPD gathers more information about the nature and extent of PFAS contamination in Georgia.	ArcGIS Map with the following data layers: - Locations of Federal, State, and local sampling efforts - Results of Federal, State, and local sampling efforts (including UCMR3) - Locations of drinking water intakes - Locations of known or potential sources (for example, facilities' NPDES outfalls, landfills, etc).	ArcGIS base map: April 2020 Updates: Quarterly
(3) Receive training and develop the capacity for GA EPD-led PFAS sample collection and assessment.	At least one PFAS monitoring team	Training (with EPA): January 2020 Training (EPD monitoring staff): March 2020 Team SOP Development: June 2020

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BUDGET DETAILS[1]

A. SALARIES AND FRINGE BENEFITS

Personnel Total	**$74,855**

B. EXPENSES

Expenses Total	**$0**

C. Contractual

Contractual Total	**$0**

TOTAL DIRECT COST:	**$74,855**
TOTAL INDIRECT COST:	**$0**
TOTAL COSTS:	**$74,855**

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[1] Salary and fringe for associated Environmental Compliance Specialist positions were included in the Performance Partnership Grant (PPG) application. These positions are noted in the PPG budget category documents as being for the Multipurpose Grant.