At a Glance

The EPA laboratory in Athens, GA is a recognized leader in advancing and implementing scientific knowledge, and providing scientific and technical support tailored to environmental concerns and issues in the Southeast U.S. The laboratory uses sound science to provide scientific understanding of complex issues and environmental data for decision makers at the regional and national level. The laboratory also contributes to the local economy in Athens and the surrounding region, and staff are actively engaged in the local community.

Science: EPA is a world-class science organization. The scientists and engineers in Athens have a far-reaching impact on decision making at local, regional, and national levels. EPA's Region 4 lab is ISO 17025 accredited for laboratory, field, and forensic operations. It is the only EPA Regional facility with both the field and laboratory components that is also a certified drinking water laboratory. The Office of Research and Development's (ORD) Athens research lab provides cutting-edge tools to understand how pollutants enter, change, and move through and across ecosystems. The science conducted by the laboratory is used to design and implement effective strategies to monitor and mitigate potential exposure to those pollutants.

Community Engagement: Regional scientists and engineers conduct environmental studies to support decision making on a large variety of projects in communities across the 8 southeast states.

Economic Impacts: The Athens facilities create $17.3 million in disposable income from federal jobs and spends an additional $5.9 million in expenditures on contracts, grants, supplies and equipment. These dollars are injected into the local economy annually as workers buy goods and services in the community, supporting additional jobs and spending and increasing overall economic output for the community.

Did you know?

- Region 4 and ORD are working to consolidate their facilities at EPA owned space in Athens, GA. This consolidation will promote coordination between these two important laboratories and save taxpayers' money by not leasing space.
- ORD/Athens Participates in the ORD Guest Worker program by hosting guest researchers to conduct independent studies and/or receive training from staff on the use of specialized laboratory equipment.

Athens Laboratory Impacts by the Numbers

Athens (Clarke County), GA		
185 Total jobs at the laboratory	**17th**[1] Largest employer in Athens	**134** Federal jobs on-site
$23.2 million Annual payroll, on-site contractors and grant dollars supported by labs	**26** Post-doctoral, student, and visiting researchers on-site	**400** State and local environmental professionals participating in training course at the lab each year

[1]http://www.athensbusiness.org/major-employers.php

ATHENS, GA LABORATORY

US EPA ORD & REGIONAL LAB

EPA's laboratory in Athens, GA will house EPA Region 4's Science and Ecosystem Support Division and laboratories that are part of EPA ORD's National Exposure Research Laboratory in a single facility to support both research and a regional science needs. Below are examples of science being conducted under each of these organizations.

The National Exposure Research Laboratory

Scientists at the Athens laboratory conduct research to explain how environmental pollutants change and move in ecosystems such as watersheds. The research is conducted through field, laboratory, and computer modeling studies.

Characterizing the Movement and Transformation of Pollutants in Watersheds and Ecosystems

EPA scientists in Athens are developing innovative techniques to measure and model how pollutants move and transform in the watersheds and ecosystems. These techniques have recently been applied to major issues of national importance, such as understanding and informing monitoring plans and remediation efforts in response to the Gold King Mine spill in Colorado. This modeling found the river system returned to the levels that existed prior to the release and contamination of metals have moved through the river system to Lake Powell.

Virtual Beach Model

EPA scientists in Athens have developed Virtual Beach, a software suite that uses data on beach location, local hydrology, land use, wave height, and weather to create models that can predict bacteria and other waterborne pathogen outbreaks at saltwater and freshwater beaches before they happen. Using Virtual Beach, beach managers can issue same-day beach closures or health advisories to protect the health of swimmers and the surrounding community. The tool has been extensively tested and used at both freshwater and saltwater beaches, including beaches in the Great Lakes region, the Gulf Coast, the Southeastern U.S., and Puerto Rico. The model's predictions have allowed beach managers to act quickly to close beaches when pollutants and pathogens threaten their waters.

Region 4 Science and Ecosystem Support Division

Everglades Water Quality Study

In cooperation with Florida International University and the EPA Region 4 Water Protection Division, Regional scientists conducted a comprehensive survey of the Florida Everglades as part of a recurring Everglades ecosystem assessment program. Approximately 6,000 continuous data values for mercury, phosphorus, sulfur, soil thickness, and associated environmental parameters were generated. EPA's sampling approach is the only multi-media program in the Everglades that produces data with known confidence about environmental conditions across the entire Everglades over space and time. The survey results showed reductions in sulfate and methyl mercury in surface water, and total mercury in mosquitofish.

Proctor Creek Water Monitoring Activities

In cooperation with others, Regional scientists have been conducting a water quality study in the Proctor Creek Watershed in Atlanta, Georgia. Proctor Creek is currently impaired due to presence of fecal bacteria.

The main objectives of the study are to document current baseline conditions of the water quality, identify any additional areas or pollutants of concern. Water and sediments have been analyzed for a variety of constituents for seven of the eight events completed to date. Fish have been sampled for parameters of concern to human health via consumption, with a follow-up study to be conducted this summer. Once complete EPA will identify any additional areas or pollutants of concern, share data and information regarding the condition of the streams in the watershed, and work cooperatively with other groups to translate the science and work to provide information on options to address concerns.