



Project Briefing

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Young Citizen Scientists: School-based water monitoring project



- Science students at participating high schools gain hands-on knowledge of water analysis, chemistry and ecosystem balance.
- Teachers are trained and certified in the GA DEP [Adopt-a-Stream](#) program to conduct water quality monitoring,
- SMRK relies on the schools for important data collection. The program is currently in operation at Charlton and Camden high schools in Georgia; Hilliard and Fernandina Beach high schools in Florida; with the goal of adding Baker High School in the near future.
- For full report, click [here](#)

Summary

Water quality monitoring programs at local high schools are currently one of our most successful outreach initiatives. Funded primarily by the Rayonier Community Fund Grant, teachers are trained in Adopt-a-Stream bacterial and chemical monitoring protocols and then take groups of students to perform regular monitoring. The program is currently in operation at Charlton and Camden high schools in Georgia; Hilliard and Fernandina Beach high schools in Florida; with the goal of adding Baker High School in the near future.

Project Updates:

2020	With our support, students at Charlton County High School began regular water quality monitoring on Spanish Creek.
2018-19	Project expanded to new schools: Fernandina Beach High School - Egan's Creek; Hilliard Middle-Senior High School - Little St. Mary's;
2015	St Mary's River Management Committee piloted a program at Camden County High School. Environmental Science teachers were trained and certified in the GA DEP Adopt-a-Stream program to conduct bacterial and chemical water quality monitoring,

Project Details:

In 2015, a school-based water quality monitoring program was piloted by the St. Mary's River Management Committee at Camden County High School. Environmental Science teachers were trained and certified in the GA DEP Adopt-a-Stream program to conduct bacterial and chemical water quality monitoring, including analysis of dissolved oxygen, water temperature, pH, nutrients, salinity and turbidity. This data is submitted to Georgia's Adopt-a-Stream website, where it can be accessed by both the public and the St. Mary's Riverkeeper to enable ongoing assessment of the health of our river. Through this program, students learn the chemical characteristics of the river and the impacts that various contaminants have on the health of the river. They also learn to appreciate the importance of clean water as a natural resource for human well-being, and hopefully become future stewards of a healthy river ecosystem.

Funded primarily by the Rayonier Community Fund Grant, the St Mary's Riverkeeper expanded our high school outreach program to two high schools in Nassau

County in the 2018 -2019 school year. Teachers trained in Adopt-a-Stream bacterial and chemical monitoring protocols at Fernandina Beach High School and Hilliard Middle Senior High oversee student sampling at Egan's Creek and the Little St Mary's River, respectively. In addition to the benefit of added outreach and education, bacterial monitoring on Egan's Creek has shown high levels of *E. coli*, and continued monitoring there aids the riverkeeper in building a large dataset for this problematic area. In the fall of 2019, the St Marys Riverkeeper and the St Marys River Management Committee also established a similar program at Charlton County High School. Charlton County acquired funding through a DNR Coastal Incentive Grant to determine the source of fecal coliform in the 303(d) listed Spanish Creek watershed. With the aid of the Riverkeeper, students and teachers at Charlton County High School perform the bacterial water quality monitoring needed throughout the Spanish Creek watershed.