

Walhalla students participate in water monitoring program

Ninth-graders learning through Adopt-A-Stream



FILE PHOTOS

Skyla Peay collects water to be tested from the stream running along the nature trail at Walhalla High School. This is part of an effort the school is involved in through the Adopt-a-Stream program.

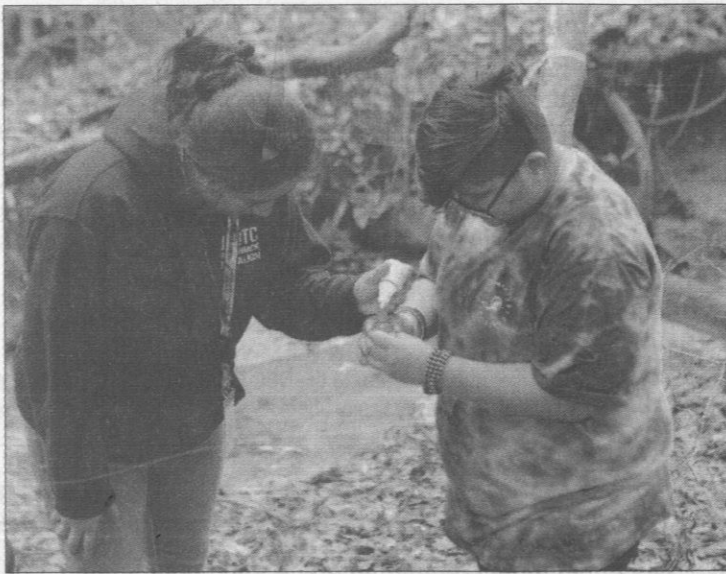
WALHALLA — A group of Walhalla High School ninth-graders are taking steps to improve the physical and internal health of Williams Creek as part of its connection to the Adopt-a-Stream program.

The creek, which is on school property and runs along the 1.2-mile nature trail cleared by students nearly a year ago, is a partnership effort with Clemson University, the state Department of Health and Environmental Control (DHEC) and the Georgia Environmental Protection Division. Walhalla High is participating in water quality monitoring through the Adopt-a-Stream program, with the Georgia Adopt-a-Stream program recognized as an exceptional model for volunteer surface water monitoring data collection, organization, training and procedures.

The purpose of the program is two-fold: to coordinate a citizen science data collection effort that is consistent in its implementation, collection and publicly available storage of surface water and ecological parameters and serving to engage the public in watershed management science and water resources stewardship.

Science teacher Amanda Gladys, who is coordinating the effort, said South Carolina DHEC, Clemson University through its Center for Watershed Excellence and the Georgia Environmental Protection Division entered into a voluntary agreement based on the mutual desire to build and maintain the South Carolina Adopt-a-Stream volunteer surface water monitoring program.

"Georgia is the one who developed the program, and Clemson Extension has taken charge of it," Gladys said. "It's a versatile program in which anyone — children,



Walhalla High School students Erika Cantero and Addy Stephens test water.

students or kids as a group — can go together, and it is a way to physically monitor the health of the stream."

In 2003, the Green Steps Schools designation was created as part of South Carolina's Resource Conservation Challenge. This environmental education initiative encourages individual schools to take annual steps toward becoming more environmentally responsible, and Walhalla High School teachers are taking on the Green Steps challenge.

"Kids have to look at problems and determine whether things are good, bad or intermediate," Gladys said. "We're actually focused on using the Adopt-a-Stream program as a focal point to what we're doing, and it complements the standards for biology."

Students are learning about the habitat and parameters that determine the physical health of a stream while being trained to collect dissolved oxygen, conductivity, water temperature, pH and fecal chloroform. One hundred students are in the program, and data is being collected throughout the school year with a new set of students taking part each semester.

"As a teacher, it's been

amazing to work with students and watch them develop their understanding and take it all in and feel this connection," Gladys said. "It's great to be doing something that's legitimate with a university we partner with that a lot of students dream of going to. It's nice for them to be doing something that's legitimate and just nice to be able to step outside of the box and go outside. That's really something nice when you can step outside and do something like this."

Thanks to grant funding, the school will be able to receive its own water quality kit.

Assistant principal James Powell said the newly constructed walking trail has allowed environmental science projects to be conducted at the school.

"Without it, I don't think we would be able to be in a place to do such kinds of learning opportunities," Powell said. "This is kind of a stepping stone for us to be able to take classes outside. We also have three environmental science classroom teachers who, instead of using a projector and board, are able to do what this curriculum is all about — hands-on experience.

"It's pretty nice when you can take something and apply it. It's not easy — it takes more work for a teacher and dedication, but I think the end result is worth it."

By conducting outdoor learning opportunities, Powell said, "It's less student memorization and more about applying things and making a real-world connection."

The assistant principal said students taking part in protecting water quality through this program gives them a feeling of ownership.

"Half of the watershed is on our property and we need to teach them to be good stewards of the land and teach them about watershed and pollution," he said. "I love seeing kids take ownership of this campus. It started with the trail and is now extending into the classroom."

Garet Kelly said he enjoys the opportunity to get outside the traditional classroom setting and experience the environment up close.

"It's nice to see what it's all about," Kelly said. "I learned how to take the temperature of the water, feel the air and learn about organisms, what they eat and what they do."

Nate Lee said he most enjoys learning about water quality.

"Science has always been one of my favorite subjects in school," Lee said. "I enjoy the experiments and getting to know more things that apply to science."

Grace Burch said she has learned a lot about dissolved oxygen, pH and water quality.

"I love everything science and math related," Burch said.

Gladys said she is pleased with how the school has responded to the Adopt-a-Stream program and believes it will be a part of the school for some time.

"The trajectory on this course is solid, and I think we will be doing this next year," Gladys said.