

WATERSHED ECOLOGY CENTER

Serving the upstate metropolitan region of South Carolina, the Watershed Ecology Center is encouraging watershed awareness through education and community outreach. The Center places special emphasis on watershed conservation, water quality, and the study of organisms living in the area encompassed by a watershed.

The Center serves as a repository for regional ecological information, providing education and research assistance to individuals, communities, and governmental organizations. The Center is also dedicated to providing research opportunities for the faculty and students at the University of South Carolina Upstate.

Watershed Ecology Center - Research

- Water Quality
- Pacolet River
- Lawson's Fork
- Upper Broad River
- Biodiversity Studies
- Cowpens Battlefield
- King's Mountain
- Population Studies
- Nerodia (Water Snakes)
- Turtles (Duncan Park, Spartanburg)

Watershed Ecology Center - Service

Education programs are provided for the Spartanburg Water System, Startex, Jasper, Duncan Water District, Greer Public Works and Spartanburg County.

Watershed Ecology Center - Educational Programs

Under the direction of Dr. Jack Turner, the Watershed Ecology Center began its educational outreach program in 2001, serving students in K-8th grade. Each year the Center contacts more than 10,000 students in Spartanburg County and offers a variety of water-related, grade-specific programs designed to meet and correlated to the South Carolina science standards, including:

Hurray for Habitats! (First grade)

This hands-on program uses live animals to introduce students to the concept of habitat and the need to preserve our local aquatic habitats.

Water, Water Everywhere (Second grade)

In this activity from *Access Nature*, participants raise their awareness about how little water is actually available for human use, discuss how humans use water, and formulate ideas to conserve water. Two hands-on activities reinforce concepts covered.

Marsh Munchers (Third grade)

This program uses a salt marsh as an example of the interconnectedness of aquatic ecosystems. The program teaches the concepts of food webs, camouflage, and mimicry through a fun *Project Wild Aquatic* game involving the entire class.

The Water Cycle - An Incredible Journey (Fourth grade)

Through the use of an engaging game from the *Project Wet* curriculum, students are challenged to answer questions like "Where will the water you drink today, be tomorrow?" in their quest to understand the water cycle.

Wise Up About Watersheds (Fifth grade)

In this hands-on program, students learn about the watershed we live in and are introduced to the concept of non-point source water pollution. Using "Waste Not, Want Not" from the *Water Sourcebook* curriculum and the EnviroScape watershed model, students see how a watershed becomes polluted as each student is asked to add various pollutants to the models.

Talkin' Trash (Sixth grade)

Using an EnviroScape landfill model, students get an in-depth look at how a landfill is designed. They learn about what happens to their garbage when it leaves the curb. They will also be introduced to the innovative process of converting waste to energy used by BMW and Waste Management.

From H to OH! (Seventh and eighth grades)

In this activity from *Healthy Water Healthy People*, students simulate the creation of acids and bases; manipulate acidic and basic solutions and discuss how acid rain is formed. Students explore runoff pollution and how pH of water can affect weathering of the Earth's surface and stream health.

Other educational outreach programs of the Watershed Ecology Center include: *Rocks Speak*, *H2O Below*, *Macro What?* and *Green Driver*, where high school students learn about the environmental responsibilities associated with driving a car, with particular emphasis on changing their oil.

Watershed Ecology Center - Service Centers

The Educational programs are provided for the Spartanburg Water, Startex-Jasper-Welford-Duncan Water District, Greer Public Works, City and County of Spartanburg, Woodruff Roebuck, and Blue Ridge Rural Water District.

Watershed Ecology Center - Community Outreach

Adopt-A-Stream – Offering Certification Workshops for volunteer citizen water quality monitors in Spartanburg County following a QA/QC protocol established by SC DHEC and approved by the EPA.

Rain Barrels – Through a partnership with the Coca-Cola Bottling Company, Spartanburg County Storm Water Management and the Watershed Ecology Center, rain barrels and installation kits are provided to Spartanburg County residents at workshops throughout the county, free of charge.

Community Events – The WEC participates in community events such as Earth Day celebrations and Discover Your Watershed which are designed to highlight environmental issues and strategies in a fun and inviting way.

Storm Drain Marking – To help raise community awareness of non-point source water pollution, the Watershed Ecology Center has been marking storm drains county-wide, with the message that anything going down the storm drain will flow into a nearby stream or other body of water.

Community Outreach Series – The WEC provides a selection of watershed-related programs for any group, club, organization, or Home Owners Association in Spartanburg County, free.

Summer Camps – One week of educational fun for students going into grades 1-6! Camp Discovery offers campers fun, games, experiments, craft projects, and hands-on activities with artifacts and visits from animals from the Center to ensure that campers have fun while learning. Camps are located on the USC Upstate campus and run from 9am to 12 noon, check the website for the date and topics of this year's camps!

Watershed Ecology Center - Academic Outreach

Each grade-specific program meets State Educational Standards for that grade and that subject.

For a full listing of the Educational Programs or more information about any of the other opportunities seen here, please visit the Watershed Ecology Center's website, email wec@uscupstate.edu, or call 864.503.5728.