What is “Watershed Wise”

“Watershed Wise” is a way of life. It’s about our everyday activities and how those actions affect the environment surrounding us. Activities such as doing the dishes with phosphate-free detergent in your dishwasher to reduce the amount of nutrients in our environment & bringing your own reusable bag to the store, composting your food scraps to make soil, are ways to protect the environment. Each family, each home, and each individual can make little choices that add up to make a major difference in our environment.

You may be asking yourself, “Do I live in a watershed?” If you live on planet earth, you live in a watershed! A watershed is the land that drains into a water body such as a river, stream, lake, or ocean. We who live in Watauga County are lucky to be at the headwaters of four major watersheds, the Watauga, New, Catawba, and Yadkin River basins (see picture below). Since we live in the mountains and we know that gravity works all of our streams flow down the mountain and into larger river systems. For example, the Watauga River flows west into Tennessee and converges with many rivers until it finally makes its way to the Mississippi River. So how we treat our water in the High Country affects many people and wildlife down stream.

Being “Watershed Wise” extends to your gardening and landscaping. Thinking about water usage, how water flows off of your property, the chemicals and fertilization used, using native plants, providing food and habitat for critters, reducing runoff and reducing toxins are ways to protect our rivers, streams, and groundwater resources. As soon as the rain water flows off your roof and into a drain or ditch and into a creek, it’s gone and we can no longer use it!

Watershed Wise Gardening concepts include:
• Rain Gardens
• Backyard Wetlands
• Xeriscaping
• Native meadows
• Bird and Butterfly gardens
• Rain barrels / Cisterns
• Streamside Forests (riparian buffers)
• Fertilization – soil testing to reduce nutrient loads.

Gardening and landscaping with wildlife in mind.
Law Enforcement officials and river conservationists collected a large amount of drugs during Watauga County’s first ever prescription drug take back event on Saturday, October 3, 2009. The hugely successful event captured approximately 40,000 pills, 12 gallons of liquid medication, 2000 sharps-needles, syringes and lancets, and a glucose meter.

More than 18 volunteers and 8 members of law enforcement from the Watauga County Sheriff’s Department, the State Bureau of Investigation, Blowing Rock, Boone and Seven Devils Police Departments participated in the joint operation at four separate locations.

Approximately 56 people turned in their expired, unwanted and unused medications for safe destruction. Drugs collected included hydrocodone, oxycodone, blood thinners, anti-allergens, iodine, insulin, antibiotics, steroids, hormones, anti-depressants, cough syrup, topical creams, over-the-counter medications, flu vaccinations, heart, blood pressure, cancer and heartburn medicine and even some pet medications. Boone Patrol Officer Toby Ragan said, “I feel it was a great success, and it will probably be an annual event now that we see the outcome of what was produced today.” More than one and a half 55-gallon drums were filled with drugs dropped off by residents in the region.

"I am so happy y'all are doing this,” said one participant [names are withheld to protect anonymity]. “It makes so much sense for the health and well being of our kids and the planet - what a wonderful program." Other positive responses to the event included "I needed to get rid of the out-of-date drugs because I don't want prescription drugs around my teenage son” and "Thank you so much for doing this. I didn't know what to do with all these drugs. I am so grateful that our law enforcement is pro-actively keeping prescription drugs out of teenagers’ hands."

Community partners who helped make the event such a great success included the MountainKeepers, Watauga River Conservation Partners, Boone Drug, Watauga County Recycling/Solid Waste Department, Watauga Riverkeeper/Appalachian Voices, Food Lion, The National Committee for the New River, MPrints, NC Cooperative Extension Service, Precision Printing, the Smoky Mountain Center, Towns of Boone, Blowing Rock and Seven Devils, the Watauga County Sheriff's Office, Boone Police, the State Bureau of Investigation, Blowing Rock Police, Seven Devils Police, the Drug Enforcement Administration, and Appalachian State University.

Next Take-Back Collection Day: May 22, 2010
**BigSweep River Clean Up**

Thank you to all the volunteers who got stinky, dirty, and wet, from picking up trash in the high country’s waterways. It is amazing what a group of people can accomplish in a few hours working together!

Volunteers set an all-time record this year with pounds of trash collected. 172 volunteers covered the river from Foscoe down to Guy Ford Rd in Bethel. Over 6,000 pounds of trash was extracted from the Watauga River and its banks, including everything from lawn mowers, car parts, bed springs, kids toys, construction materials, and of course a large volume of beer bottles and cans. Volunteers harvested 15 tires, some with the rims and hubcaps still intact.

Thank you to all of this year’s Watauga River Clean Up Sponsors, Partners, and Volunteers: River and Earth Adventures, Appalachian Angler, Watauga River Anglers, Foscoe Fishing Company, Upper Watauga Riverkeeper, Watauga River Conservation Partners, High Country Waste Solutions, GDS, PACT, Footsloggers, EarthFare, Mast General Store, Watauga County Sanitation, MountainKeepers, Watauga County DOT, Valle Crucis Community Park, ASU First Year Seminar Students, Teaching Fellows, the Outdoor Residential Learning Community, the ASU ACT program, and many more community volunteers.

**Rain Garden Certification Program**

As homeowners and property managers become more aware of the issues of stormwater management, many of them are choosing to manage the runoff from their homes and businesses with rain gardens. Rain gardens are shallow depression landscape features that can effectively collect and treat stormwater and reduce localized flooding. Rain gardens can be integrated into the existing landscape as a retrofit or be included in the initial landscaping plan. To effectively manage stormwater, rain gardens must be accurately sized and properly constructed. This workshop will present a simple method for sizing and designing rain gardens and detail proper construction techniques.

As a result of this training, you will understand why stormwater needs to be managed; understand the principles of rain garden location, design, construction and maintenance; be able to select appropriate vegetation, tour several local rain gardens; and be eligible to take a test at the conclusion of the training to be certified in rain garden design and construction. Continuing Education Credits: 8 contact hours for Landscape Architects. For more information visit [www.bae.ncsu.edu/stormwater/training/raingarden.html](http://www.bae.ncsu.edu/stormwater/training/raingarden.html).

Once you have passed the test, you will be listed on the website as a Certified Residential Rain Garden Professional. Dates will be posted shortly, or call 264-3061 for more information.
Sponsored by the High Country Women’s Fund, the second year of Watauga LEAD was not only educational, but inspirational as well. The participants of the program attended a week-long summer camp and continue monthly meetings throughout the school year where they engage in diverse activities related to science and agriculture as well as develop their leadership, teamwork, scientific inquiry, and service learning.

During the week of summer camp, the girls learned many facets of environmental science, animal science, health science, plant and soil science, and water science. These pictures show the girls testing the oxygen levels in the stream, pH, conductivity, temperature, and studying the stream biology.

Watauga LEAD helped the Grandfather Mountain Rangers with a crayfish study on the slopes of the mountain, went to a vet’s office to observe a procedure, went horseback riding, went to the ASU physiology lab and panned for gold in the New River with Dr. John Callahan. The grand finale of the week was a canoeing experience where the girls guided themselves down the New River.

Through a ropes course session, girls experienced the challenges of problem-solving - both at the group and individual levels. They learned how to work cooperatively with one another to meet a common goal and mastered the art of communicating and listening during the process.

After completing several rigorous ropes challenges, the girls described what they had learned such as the importance of trusting one another, the necessity of working together to solve problems, and the value of encouragement to help every-
“Watershed-Friendly” Cleaning!

To get you started on being watershed wise, Extension is promoting the Clean Home, Clean Watershed “watershed-friendly” home starter kit. The U-Mix-It Safe Spray bottles are available at the Cooperative Extension along with recipes on how to make homemade solutions using inexpensive natural ingredients such as vinegar, baking soda, lemon juice, essential oils, and other natural cleansers and disinfectants.

The spray bottles are made in the USA from 25% recycled plastic milk containers. The “watershed-friendly” recipes are printed directly onto the plastic where they will never wash off and are always available for quick and easy reference. These unique kits make it easy and fun for households to adopt safer alternatives that will help keep pollutants out of our nation’s watersheds. The bottles are available at the Cooperative Extension for $2.50 each. All proceeds go toward the Watauga LEAD program.

High School Creek Studies

Every spring and fall you can find all of the 9th grade earth science students learning about Winkler’s Creek water quality through hands-on creek experiences. This past September approximately 200 students learned about the macro invertebrates that live in the stream as water quality indicators. They found mayflies, stoneflies, caddisflies among other creek critters in the seine nets. Winklers Creek borders the school’s property. This makes a terrific outdoor classroom for the students to gain practical science experiences.

Blowing Rock Middle School Students Learn Water Quality at Julian Price Park

Cold water and fall temperatures captivated the students of Wendy Smith’s class as they learned about biological and chemical components that make clean water streams at Julian Price Park. Students broke into small groups to work on dissolved oxygen, temperature, pH, and macro invertebrates dwelling in the creek.
The Beech Creek Bog is part of the headwaters of the Watauga River Watershed and was protected by the state from development about five years ago. This bog is known as the sixth highest elevation bog in the world and a home to rare and endangered species. This is the second time the Watauga River Conservation Partners (WRCP) has led an educational tour of the bog. Park Ranger Andy Sicard and Naturalist Jesse Pope led some very informative tours throughout the bog. It was a beautiful day and quite an adventure.

The Watauga River Conservation Partners meet the first Monday of the month at 5pm at the Agricultural Conference Center in Boone. Call 264-3061 for more information.

The Watauga River Conservation Partners and volunteers from Watauga High School’s Mountain Alliance started a stabilization project this past spring by planting livestakes along Cove Creek to grow a streamside forest. This fall the project was completed by stabilizing the upper section of property with more brush bundles, coconut fiber and live stakes. The creek will benefit by this vegetation in many ways with increased shading and temperature moderation, habitat for wildlife, in and out of the creek. The roots will also hold the soil in place reducing sedimentation.

While we were working we found an old piece of machinery that weighed approximately 400 lbs. and were able to get it out of the creek!
Mountain Keepers Pocket Ash Trays

MountainKeepers have given away over 1,300 pocket ash trays that are made out of 100 recovered resources.

*There are over 176,000,000 pounds of discarded cigarette butts in the United States each year.*

*One cigarette butt in two gallons of water will leak toxic chemicals within an hour of being exposed to the water.*

*Cigarette filters are not made of cotton and they do not biodegrade. They are made of compressed fibers of cellulose acetate (a plastic similar to photographic film). Each filter contains a bundle of 12,000 tiny fibers painted white with titanium dioxide, which can be likened to shoe polish.*

*Our earth home is being used as an ashtray by over a billion smoking human beings. Silence lends consent. Please, don’t hesitate, help educate!*  

*Stop by the Extension office to pick up a pocket ash tray to use for yourself or your friends.*

www.MountainKeepers.org

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Watershed Watch Partners:

- NC Cooperative Extension
- North Carolina State University
- Appalachian State University
- Watauga River Conservation Partners
- NC Clean Water Management Trust Fund
- Western North Carolina Alliance
- A&T State University
- MountainKeepers
- Watauga RiverKeeper / Appalachian Voices
- Watauga Soil and Water Conservation District
- National Committee for the New River
- Towns of Newland, Boone, Banner Elk

North Carolina Cooperative Extension Service

Watauga County Extension Center
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