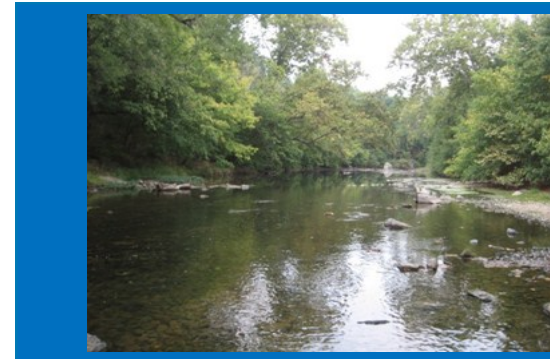




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# Smith Creek Connection

*The connection to your watershed*

June 2012

Lower Smith Creek-Gap Creek and War Branch Subwatersheds

## Smith Creek Solar Buoy Project

Written By: Luke Bradshaw

Six Massanutten Regional Governors School (MRGS) students engaged in a yearlong research project to build and deploy two solar powered water testing buoys that would be able to log water quality data on Smith Creek. The MRGS Buoy Research Team's purpose is to assist in pinpointing water quality issues in the Chesapeake Bay Watershed.

The team constructed buoys for use in Smith Creek to help monitor water quality using data loggers called "GLX Xplorer". The sensors that assist the buoys in monitoring measure conductivity, pH, and dissolved oxygen in the water. The difference in the data between the two sites at which the buoys are deployed in the creek can help determine whether or not there is pollution entering the creek between the two sites. For example if the downstream site showed a spike in conductivity that the upstream one did not, one could conclude that whatever is causing that spike is entering the creek between the two sites. These buoys were deployed at two sites chosen with landowner permission. The buoys can be moved to increase or decrease the distance between them.



### For More Information:

#### Smith Creek Coordinator:

Kathy Holm (540) 434-1404 Ext. 114

#### NRCS Field Offices:

**Harrisonburg** (540) 433-9126  
(Rockingham County citizens)

**Strasburg** (540) 465-2424  
(Shenandoah County citizens)

#### Soil & Water Conservation District Offices (SWCD):

**Shenandoah Valley SWCD:**  
(540) 433-9126 (Rockingham County)

**Lord Fairfax SWCD:**  
(540) 465-2424 (Shenandoah County)

The NRCS/USDA Smith Creek "Showcase" activities and the work of our partners within the watershed can be accessed at: [www.shenandoahrcd.org](http://www.shenandoahrcd.org) or by contacting your local NRCS or SWCD office.

### **We are coming to visit!**

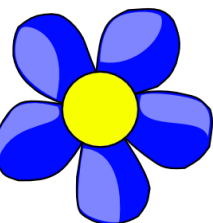
As part of the Smith Creek Showcase watershed outreach efforts, the Natural Resources Conservation service (NRCS), in partnership with the two local Soil & Water Conservation Districts and the Chesapeake Bay Foundation (CBF), is working to contact every agricultural landowner within the Smith Creek watershed. This effort is part of the outreach plan for the watershed and is designed to offer landowners the opportunity to learn more about available programs and education events. It will also provide the NRCS with a more complete picture of the agricultural land use in the watershed.

Conservation technicians from these agencies and organizations will be contacting landowners to gather this information. To schedule your inventory visit to discuss the use and management of your land please contact your local Conservation office to set up an appointment.

Simply put this means that rather than just knowing what kind of nutrients, sediments, etc., are in the creek we can know the basic area where they are coming from. This project was completed thanks to a grant from the National Oceanic and Atmospheric Administration and provided through Mary Baldwin College.

### Summer Conservation Tips

- ♦ Water your garden and yard in the evening or early morning to reduce evaporation loss
- ♦ Use rain barrels
- ♦ Test your soil to prevent over application of fertilizer





Smith Creek Family Fun Day

More than 135 kids of all ages participated in the *Family Fun Day on Smith Creek* hosted by the Friends of the North Fork of the Shenandoah River and Smith Creek Partnership on April 21 - Earth Day weekend! Held at Bill Gallucci's 50-acre farm in New Market, the event combined the intimacy of a backyard barbecue with the atmosphere of a community festival to get citizens involved in activities to enhance water quality in Smith Creek and its tributaries.

Youth and adults from New Market and surrounding areas attended the event to learn more about residential and agricultural conservation practices to reduce water pollution. Three learning stations featured hands-on activities for all ages. At the first station, visitors got to tour Gallucci's stream protection projects. Gallucci has installed exclusion fencing, a watering system, and a stream crossing with help from the Natural Resources Conservation Service (NRCS) and the Lord Fairfax Soil and Water Conservation District (SWCD). He has also planted trees to form a riparian buffer. Practices installed on the farm have already protected 8,000 feet of stream bank.

Joe Lehen, a Virginia Department of Forestry (VDOF) forester, used his tree planting demonstration to educate visitors about the role of buffers in improving water quality. The next stop on the tour was a wildlife station where Virginia Department of Game and Inland Fisheries (VDGIF) Wildlife Biologist Fred Frenzel gave guests a closer look at animals and birds that live near rivers and streams.

At the fishing station, Friends of the North Fork of the Shenandoah River volunteers showcased the Save Our Streams assessment process in Smith Creek. When they weren't fishing, participants got a closer look at the wildlife that inhabits the creek. They also learned about collecting and identifying the macro-invertebrates used as a barometer of stream health.

Strasburg District Conservationist Mike Liskey and Megen Dalton, Shenandoah Valley SWCD Manager, helped staff the Clean Water Education Tent to show visitors what they could do in their own homes to prevent water pollution and be better stewards of the land. Rain barrel and composting displays illustrated sound residential practices. The event also showcased various composting options for garden, kitchen, and other waste products.

Kathy Holm, NRCS, and Faye Cooper, Virginia Department of Conservation and Recreation (DCR), staffed the Smith Creek Partnership Station distributing literature, answering questions on partnership activities, and helping people locate their place on the watershed map.



New Pet Waste Stations at Community Park

Thanks to a grant from the VA Department of Conservation and Recreation, the New Market Community Park now has two pet waste stations which include disposal bags and receptacles for the waste. It is important that this waste is disposed of properly, otherwise rain water can wash it into drainage ditches and eventually into Smith Creek. Pet waste is one of several sources of bacteria, viruses and nutrients polluting our streams. Please help us clean up Smith Creek by cleaning up after your pet!



Funding Still Available for Conservation Programs

In association with the targeted efforts in the Smith Creek watershed, assistance is still available for water quality improvement projects.

- ♦ Funding for residential conservation practices:  
Septic tank pump-outs, repairs or replacements  
50% cost-share available (up to 75% based on income)
- ♦ Funding for agricultural conservation practices  
Stream exclusion, animal waste management, cover crops and more!
- ♦ Technical assistance and farm planning
- ♦ Grazing management planning

If you are interested in receiving free technical assistance or learning about financial assistance and incentives available to support conservation practices contact your local Conservation office.

