



at a
glance

A WATER CRISIS IN FLINT



RUNOFF RUNDOWN:
FARMERS WORK TO
REDUCE NUTRIENTS



SEABIN



REFLECTING ON MY YEAR
OF SERVICE



GET INVOLVED:
NCDOT & STORMWATER



UPCOMING EVENTS



PIEDMONT TRIAD
REGIONAL COUNCIL

STORMWATER steward

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THE ERA OF AGING INFRASTRUCTURE

The health crisis in Flint, Michigan is a critical reminder of the importance healthy waters play in our communities. While this crisis has highlighted the need to address drinking water standards, this crisis is not unique.

For many centuries, lead was the used for water pipes because its malleability made it practical to shape. In fact, the word "plumbing" is derived from *plumbum*, the Latin word for lead. While lead piping has been replaced in most areas of the country, there are still a number of lead service lines on private property, particularly in the Northeast, Midwest and older urban areas. The cost to replace these lines alone is upwards of \$275 billion.

Overall, our rivers are in much better shape than they were in the 1950s and 60s. The water crisis in Flint stemmed not from the quality of the water in the Flint River, but chlorides (likely from road salt) which corrode metal in the pipes and plumbing fixtures that transport water into homes.



Photo: CMU Public Radio News

This crisis reminds us of the profound impact water quality has on our lives. While Flint's situation remains dire, many of our communities here in the Piedmont Triad are faced with similar challenges posed by aging infrastructure. Water, sewer and stormwater rates remain extremely low and most communities. Without a significant increase in funds, communities will continue to struggle to find the funding to provide much needed updates to their infrastructure.

You can take matters into your own hands. Learn more about how your own

community funds and manages water, wastewater and stormwater infrastructure. If your water changes color, tastes different, or is noticeably different, please contact your local health department and request testing.

We offer a number of resources on our website to help our citizens understand the importance of clean water. Please visit www.stormwatersmart.org and click on "Resources & Downloads" to check out our guides, brochures, and other educational materials.

Did you Know?

Nutrients from farms can lead to algal blooms.



Organizations like The Nature Conservancy partner with farmers to help lessen the pollution entering our water from farms.



The Clean Water Act does not allow the federal government to regulate agriculture, but the government can set water quality standards.



Leaking waste lagoons can cause contaminated groundwater.

RUNOFF RUNDOWN: FARMERS WORK TO REDUCE NUTRIENTS

Agriculture is a major industry in the United States. Unfortunately, it is also one of the biggest threats to water quality. Nutrient pollution from phosphorus and nitrogen found in manure and fertilizers can run off into local creeks and rivers, leading to significant water quality problems, eventually resulting in eutrophication, or the decrease of dissolved oxygen in the water. Ammonia (a form of nitrogen) is another byproduct of ag-

ricultural runoff which leads directly to fish kills.

Nutrient pollution is a big problem in the NC Triad region and has led to the adoption of the Jordan Lake Rules. A similar set of rules is currently being studied for High Rock Lake.

Farmers across the country are becoming increasingly aware of the impact farming practices have on water quality. Luckily, a number of them are turning to best management practices (BMPs)

like buffers, conservation tillage, crop rotation, exclusion fencing and manure storage to capture nutrients before they drain into waterways. A vegetated buffer between farming operations and waterways is one of the most cost-effective methods of reducing runoff from farming. Some farmers, however, remain skeptical and are reluctant to stray from current practices for fear of increased costs and decreased yields.

There are a number of programs available to help farmers counteract some of these costs. For more information, please contact your local Soil & Water Conservation District.

<http://www.ncagr.gov/SWC/>



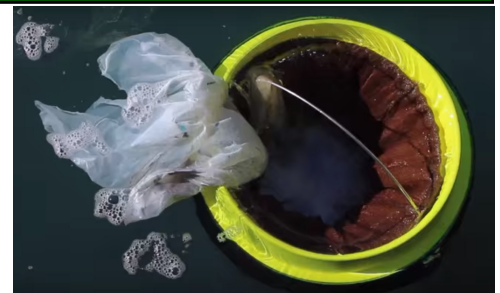
Photo: USDA NRCS

SEABIN

The Seabin Project is a startup aimed at reducing pollution in marinas, ports and yacht clubs. After raising over \$267,000 through the crowdfunding website Indiegogo, the project hopes to start manufacturing the Seabins by the end of 2016. The Seabin is still a prototype, but it uses a shore-based water pump located on a dock to draw in water. The Seabin sits on top of the water and floating debris is collected in a natural fiber bag. The project's director said that the catch bag would need to be changed once every one to two days depending on factors like rainfall. Major

supporters of the initiative include American surfer Laird Hamilton, The Echo newspaper

and the Clean Ocean Project. For more information, visit www.seabinproject.com.



seabinproject.com

REFLECTING ON MY YEAR OF SERVICE



Over the last ten months, I served as an AmeriCorps member at the Piedmont Triad Regional Council, where I was the Stormwater SMART Outreach Coordinator. Through this position, I provided education and outreach to people of all ages about water quality, pollution and storm-

water. During my service term, I educated over 5,300 students at 23 schools, seven libraries, six summer camps and two learning celebrations. I wrote 12 newsletter articles and two blog posts. I provided outreach at five community festivals and fairs. While these numbers are important, I believe that my service in our member communities will have a lasting impact. In September of 2015, I planned an Environmental Field Day for 8th graders at E. Lawson Brown Middle School in partnership with the Davidson County Soil and Water Conservation District and the US Forest Service. The two-day event allowed students to delve into their water unit and learn through hands-on activities. When I returned to Brown Middle in January of this year, I was surprised to find how much the students remembered from our activities, despite the fact that the event was held before the start of their water unit.

On my very first day as an AmeriCorps member, we worked with Earth Science students to conduct a local stream assessment by sampling for macroin-



vertebrates. A group of girls were not happy about having to get in the water and chose to watch from the bank. When I told them we had waders and that they could get in the creek without getting wet, they went out of their comfort zone. Once they were in the water and began catching the invertebrates, they didn't want to get out. It's memories and moments like this that I kept with me through my service term. The AmeriCorps program I served through, Project GEOS (Growing Environmental Opportunities through Service), is all about reconnecting people with the outdoors and removing barriers to environmental education across the state.



I have thoroughly enjoyed getting to spend the last ten months serving my community and working alongside teachers and other professionals to educate members of the community and get them outdoors and involved in environmental education.

-Kaly Clark, Stormwater SMART Outreach Coordinator, AmeriCorps Member, 2015

GET INVOLVED: NCDOT & STORMWATER

Davidson County
Randolph County
Rockingham County
Archdale
Asheboro
Burlington
Elon
Gibsonville
Graham
Green Level
Haw River
Lexington
Mebane
Oak Ridge
Summerfield
Randleman
Reidsville
Thomasville
Trinity

Public involvement is critical to the success of the Highway Stormwater Program. NCDOT depends on you to be the eyes in the field as you travel the roads of North Carolina. By being on the lookout for potential stormwater problems, you can help us prevent stormwater pollution. Even tourists can have an impact on stormwater quality. For example, recreational vehicles and boats must dispose of their waste and sanitary wastewater at dumping stations. Here is a list of some common stormwater problems we need your help with. If you see any of these problems, please report them to the proper authority by clicking on the link below or visiting the following website:

<http://www.ncdot.gov/programs/environment/stormwater/awareness/involved.html>

- **Illicit Discharges:** Unauthorized, nonstormwater discharges that can cause pollution to stormwater

drainage

- **Roadside Litter:** Nonhazardous litter that can flow to creeks and damage fish and wildlife habitats
- **Erosion:** Roadside erosion that endangers people on the roadway OR creates sediment-laden stormwater runoff
- **Flooding of NCDOT Right-of-Way:** Clogged ditches or flooding of roadways or right-of-way ditches can endanger people and often signal areas where the stormwater drainage system needs attention
- **Hazardous Litter or Spills**
- **Recreational Vehicle Dumping:** Contributes bacteria to stormwater runoff from the roadways
- **Marine Dumping:** Contributes bacteria directly into lakes and rivers

LOOK FOR STORMWATER SMART AT A EVENT NEAR YOU

4/23/16 — Mebane Dogwood Festival

5/6/16 — First Friday Concert Series, City of Graham

5/7/16 — Lexington Multicultural Festival

5/13/16 & 5/14/16 — Summerfield Founder's Day

6/3/16 & 6/4/16 — Oak Ridge Annual Ridge Fest

6/17/16 & 6/18/16 — North Carolina Food Truck Championship at Commerce Square in Randleman



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PIEDMONT TRIAD
REGIONAL COUNCIL

Stormwater SMART was created by the Piedmont Triad Regional Council (formerly Piedmont Triad Council of Governments) to help Phase II communities comply with National Pollution Discharge Elimination System (NPDES) and Jordan Lake Public Education and Outreach requirements. Stormwater SMART is supported through dues paid by member governments.