



at a
glance

E-CYCLE!



RUNOFF RUNDOWN:
BENEFITS OF WETLANDS



THE ABBOTTS CREEK
ARM OF HIGH ROCK LAKE



LOWER ABBOTTS CREEK
WATERSHED PLAN



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PIEDMONT TRIAD
REGIONAL COUNCIL

STORMWATER steward

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E-CYCLE!

What is E-waste?

It's not uncommon to wake up to a clock radio, turn on the television, check your email and make a phone call before breakfast. Technology is an essential part of our lifestyle. However, these devices are upgraded so often we end up scrapping a load of electronics in the process. This is known as electronic waste (e-waste).

Electronic waste contains "heavy metals". It takes only a small amount of these hazardous materials to contaminate an area's soil or water supply. Materials found in E-waste including glass, copper, aluminum, plastic and other components can often be reused.

How Does E-waste Affect Our Water?

Unlike regular waste, e-waste that ends up in a landfill can leach toxic substances into the soil and ground water. As water and other precipitation filters through the trash, fluids become concentrated. This is known as "leachate." If leachate gets into our soil and water, it poses a dangerous threat to wildlife and humans.

Effective July 1, 2011

To protect the health of North Carolina residents, the General Assembly passed Session Law 2010-67. The law establishes an electronics recycling program for the State of North Carolina with shared responsibility between manufacturers, retailers, local and state government, and consumers. The



law includes a ban on the disposal of computer equipment and televisions in local landfills effective July 1, 2011.

How Can You Reduce Electronic Waste?

- 1) Research your options and buy the best quality you can afford.
- 2) Consider donating old electronic devices. If that's not an option, RECYCLE!
- 3) Education. Share your knowledge to reduce e-waste.

For a list of recycling locations near you visit: <http://portal.ncdenr.org/web/wm/sw/electronics/consumer-information>

E-WASTE IS THE FASTEST GROWING MUNICIPAL WASTE STREAM IN THE US



TVs: Those big, boxy televisions that preceded flat screen televisions were approximately 20 percent lead, or 4 to 8 pounds per unit. Even a small amount of lead can seriously impact the environment.

Cell Phones: Not many of us hang on to our cell phones when our contract runs out. That's a lot of cell phones to dispose of! While the body of a cell phone often contains lead, it's the battery that's most dangerous. Cell phone batteries contain nickel and cadmium. Cadmium is a human carcinogen that causes lung and liver damage.

Computers: Whether you're using a laptop or desktop, your computer likely contains high amounts of lead, cadmium, and mercury.

DID YOU KNOW?

- Two thirds of all fish consumed worldwide are dependent on coastal wetlands at some stage in their life cycle.
- As many as one-half of all North American bird species nest or feed in wetlands.
- Although wetlands cover only about 5 percent of the land surface in the lower 48 states, they are home to 31 percent of plant species.
- Constructed wetlands are among the most effective stormwater practices in terms of pollutant removal and they also offer aesthetic and habitat values.

RUNOFF RUNDOWN: BENEFITS OF WETLANDS

Wetlands are areas of land that are inundated or saturated with water for long periods of time. Wetlands generally include swamps, marshes, bogs and similar areas.

The Problem:

People drain and develop wetlands, reducing or eliminating habitat and the important water quality benefits wetlands provide.

Benefits of Wetlands:

Wetlands are like a bath tubs, they store up to a million gal-

lons of water before letting it slowly absorb into the soil or releasing it into a nearby stream. Because wetlands absorb and store water, they reduce the frequency and intensity of flooding.

Wetlands also filter out contaminants leaving surface water cleaner than when it entered the wetland. Wetlands filter out nutrients and other contaminants including oil and heavy metals. While small amounts of nutrients are important for



Many herons nest in wetlands

aquatic ecosystems, too many nutrients causes excess algal growth which is unsightly, smelly and harmful to the ecosystem.

Wetlands provide an essential link in the life cycle of 75 percent of the fish and shellfish commercially harvested in the U.S. making wetlands an important piece of the fishing industry.

For more information visit: www.stormwatersmart.org



Wetlands provide habitat to species in all seasons.



HOW MUCH ARE WETLANDS WORTH?



- Wetlands filter out contaminants equivalent to the amount filtered by a \$5 million treatment plant.
- In the USA, floods damage an average \$2 Billion worth of personal property. Reducing the occurrence of flooding wetlands can save the USA money.
- More than 82 million Americans spent \$108 billion on recreation activities including hiking, fishing, birdwatching, photography and hunting at wetland locations.
- Income can be derived from trapping furbearers, either by direct sale of their pelts or by leasing wetlands for the fur harvest. The nation's harvest of muskrat pelts alone was worth \$124 million in 2004.

The dollar value of wetlands worldwide is estimated to be \$14.9 trillion dollars.

THE LOWER ABBOTTS CREEK ARM OF HIGH ROCK LAKE

Would you like Stormwater SMART to present to your civic or community group? If you live in one of our member communities, Stormwater SMART programs are available at no charge. Contact us at (336) 294-4950 to set up a Stormwater Education Event Today!

Lower Abbots Creek

When it rains, water from Midway, Lexington and even Thomasville flows into the Abbots Creek Arm of High Rock Lake in Davidson County. Lower Abbots Creek is a “sub-basin” of the Yadkin River Basin. A sub-basin is simply a smaller watershed within a larger watershed, or area of land where all of the waters drain to one point.

Problems Facing Abbots Creek

Lower Abbots Creek (from Lake Thom-a-Lex to High Rock Lake) is listed as impaired by the US EPA for high turbidity (sediment), copper levels and poor biological habitat. The Creek also has a history of low oxygen levels. Conditions worsen closer to High Rock Lake, where nutrient and pH levels rise, threatening the recreation and wildlife of the Lake.

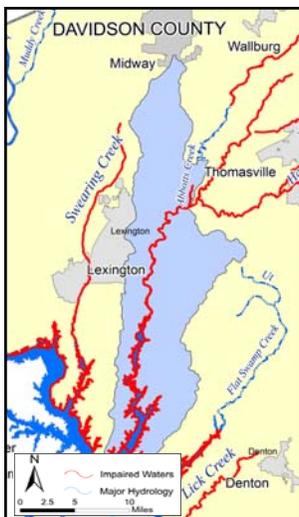
The data gathered through the Lower Abbots Creek Watershed Plan shows that the highest impact comes from Rich Fork Creek, a smaller tributary that flows into Ab-



Highly eroded streambanks along Lower Abbots Creek result in too much dirt in the water!

botts Creek. The Rich Fork Creek headwaters are highly urbanized with large areas of impervious land. When rain is not able to soak into the soil because of hard surfaces like roads and parking lots, water runs over the land and into the nearest creek. Not only does water carry pollutants like fertilizer, pet waste and litter, the volume and force of the water rips vegetation leaving exposed dirt which washes into the water. Eroded stream banks are common throughout Rich Fork and Abbots Creeks. For more information on what you can do to prevent erosion, please visit us at: www.stormwatersmart.org.

LOWER ABBOTTS CREEK WATERSHED RESTORATION PLAN



The Piedmont Triad Regional Council worked with Davidson County, the City of Lexington, and other stakeholders to develop a plan to improve the water quality in Lower Abbots Creek and ultimately, High Rock Lake. While we know why the Creek is impaired it required field work to determine where the pollution is coming from. We used advice from citizens, water quality monitoring information, and mapping to determine where the trouble spots are. Please visit our project website at www.abbottscreekwater.org or give us a call at (336) 294-4950 for more information.

Top 5 recommendations to improve water quality:

- Implement the Rich Fork Creek Watershed Plan
- Address Non-Point Source Pollution (illegal dumping, pet waste, etc.)
- Promote Development in Uptown Lexington
- Improve Watershed Stewardship using DC FISH, Stormwater SMART and NC StreamWatch opportunities
- Retrofit existing sites to allow more water to absorb into the ground.

GET INVOLVED: 25TH ANNIVERSARY OF NC BIG SWEEP

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

NC Big Sweep is Celebrating 25 Years of Environmental Stewardship in 2011!

North Carolina Big Sweep's purpose is to rid our environment of litter by promoting environmental education and coordinating an annual statewide cleanup event.

Our main event will take place at **Buddle Creek Landing on High Rock Lake at 9am.**

While cleaning trash from the banks of the Lake is valuable, it's important to remember where that trash comes from. Litter and other pollution washes into streams throughout the County. These streams carry trash for miles before eventually depositing it into High Rock Lake. While we can't be everywhere at once, we'll provide materials and support you if you would like to clean up a stream behind your house, church, school, or other public area.

Litter affects our health, our economy, and our wildlife. Just last year 461,708 pounds of trash(1,119 football fields five feet deep in litter) was removed by volunteers in North Carolina. This amount of trash is col-



Students clean trash from the shores of High Rock Lake

lected **EVERY YEAR** and represents only a small portion of what's out there.

Join us on **October 1st, 2011** as we celebrate 25 years of cleaner streams in North Carolina. Visit the NC Big Sweep website; www.ncbigssweep.org to find volunteer opportunities across the State.

Please wear comfortable old clothes (you will get dirty), bring sunscreen, snacks and drinks, insect repellent and sturdy, closed toe shoes. Stormwater SMART will provide gloves, bags, trash grabbers, and other necessities.

LOOK FOR STORMWATER SMART AT A EVENT NEAR YOU.

8/13/2011	Pet Sense (Reidsville)
8/27/2011	Native Plant Presentation (Summerfield)
9/10/2011	Bush Hills Festival (Archdale)
9/17/2011	Carousel Festival (Burlington)
9/24/2011	Everybody's Day Festival (Thomasville)
10/01/2011	Asheboro Fall Festival
10/01/2011	Big Sweep on High Rock Lake
10/08/2011	Gibsonville Fall Festival
10/08/2011	Reidsville Fall Festival
10/15/2011	WOOF Stock (Burlington's City Park)
10/22/2011	Lexington BBQ Festival (Lexington)
10/29/2011	Randleman Nascar Days



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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) Public Education and Outreach requirements. Stormwater SMART is supported through dues paid by member governments.