



The Resource

View past issues of
The Resource on-line at
www.northaugusta.net

A Publication of the City of North Augusta
Stormwater Management Department

Know Your Watershed: Pole Branch and Fox Creek



Pole Branch and Fox Creek basins are located adjacent to each other in the northern part of town (see map). A watershed basin is an area of land to which water drains to a common location. The map on the left shows that Pole Branch basin has a network of streams that all drain to one larger stream. Fox Creek basin also has a network of streams. They both converge at the lower reaches and become one stream that empties to Savannah River. The Pole Branch basin extends across our community taking up a large part of North Augusta in Aiken and part of Edgefield counties. Pole Branch drains over 4,300 acres of mostly developed property.

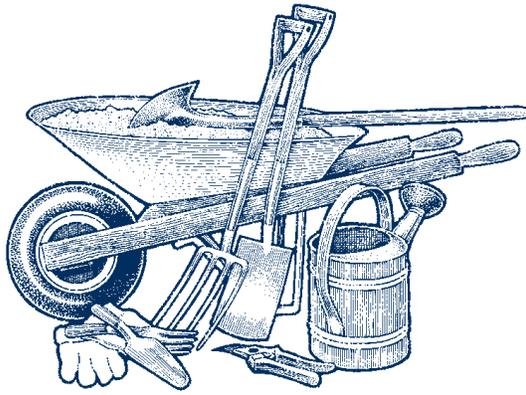
A lot of human activity and impervious surfaces (asphalt, rooftops and concrete) are located within Pole Branch basin. If you compare it to Fox Creek basin (top portion of map), you see the level of developed land

is much lower there. Pole Branch is what is referred to as a higher density developed basin and Fox Creek, a lower density developed basin. The water quality of these areas is being studied. The results are not surprising, Pole Branch water quality and stream integrity suffers much more than in Fox Creek.

These basins discharge into the Savannah River upstream of the I-20 overpass, a location that is above the North Augusta drinking water intake pumps. Pollutants entering these basins will be washed down to the river and potentially impact each one of us by being drawn into the water treatment plant. Higher pollutant loads entering the plant creates higher costs to clean the water for drinking. This increases the responsibility of all of us that live, work and travel within the watershed to protect it.

The Pole Branch watershed will continue to be monitored for pollutants during dry weather and during wet weather. The study includes looking at the physical condition of the streams and the main branch of the watershed. The data being gathered from the study will be used to determine how we can do a better job protecting this watershed in the future due to its critical location. Do your activities impact Pole Branch or Fox Creek watershed? If so, be aware of how you can help to protect it from negative impacts.

Summer Gardening Tips to Protect Streams



Many of us are beautifying our yards this time of year and we want to remind everyone of simple things you can do to prevent pollution from entering our streams and creeks during rain events.

- Mow your lawn at the proper height for the type of grass you have. Consider using a non-gas powered mower to prevent air quality problems during hot days if you have a small lawn. The SWMD can provide a discount coupon to replace your old gas powered mower with a new electric mower. Contact (803) 441-4246 for more information.
- Do not place grass clippings on the street un-bagged. All waste must be bagged prior to placing on the street.
- Use integrated pest management (IPM), see Resource, Spring 2006. Know what specific pest you want

to get rid of before applying pesticide. The wrong pesticide may be a waste of money and could cause more harm than good by killing beneficial insects.

- Apply pesticides, herbicides and fertilizer during dry weather only so that it doesn't wash to a stream during a rain event. Always check the weather forecast first.
- Fertilize your gardens and lawns taking care not to over-do it. Have your soil tested to see how much

you need and always make sure not to overspray or place fertilizer on solid surfaces.

- Wash your vehicles on the grass or at a carwash and not on the driveway or road. This will prevent runoff of soaps and other chemicals to storm drains and nearby creeks.
- Pick up trash when you see it to prevent it from washing down the storm drain.
- Reduce, reuse and recycle anything that you can and if you can't use something, pass it on to someone that needs it, instead of throwing it away.
- Properly dispose of all hazardous chemicals. Follow the label instructions or bring it to the annual Household Hazardous Waste Collection event each May.

If you come accross a snake, leave it be:

About 8000 snake bites are reported each year in this country. The American Association of Poison Control Centers (AAPCC) has reported only one death from moccasin envenomation since its first annual report in 1983. Other reports and studies show that over half of the bites that occur happen when the person was trying to catch the snake or trying to kill the snake. The venom is just as potent and dangerous when the snake is dead, so leave a dead snake be.

Belvedere Elementary Fifth Graders Conduct Research at Brick Pond Park

The final field trip of this school year for the Brick Pond Park Education Program took place on Wednesday April 20th with over one-hundred fifth grade students from Belvedere Elementary attending. The students had a fantastic day exploring the history of North Augusta at the North Augusta Arts and Heritage Center and discovering the ecological wonders that exist at Brick Pond Park.

Belvedere Elementary is the third group this school year to become part of the Brick Pond Park Education program. The program has been established by the city with the help of Aiken County school board members Ray Fleming and Keith Liner, North Augusta Elementary School, the University of South Carolina – Aiken, Silver Bluff Audubon, Augusta State University and many volunteers that

continue to provide expertise during the adventure. The goal of the program is to enhance learning and understanding of local environmental issues by providing a hands-on activity that helps them to grasp concepts of math, science, history and solutions to environmental problems.

Earlier this year, North Augusta Elementary and Hammond Hills

Belvedere Elementary Fifth Graders Conduct Research at Brick Pond Park (*continued*)

Elementary took part in the program. This was the first year that the city provided three outings for local schools. Next school year, we will also be offering three events on a first come-first served basis for fifth graders. Eventually, we plan to expand the program to seventh grade as well.

During the trip the students discussed

and learned new information regarding water quality, stormwater pollution, environmental balance and the history of our community. They also had the opportunity to conduct experiments to help determine the health of a newly established wetland ecosystem. Experiments at the park included looking at macro-invertebrates (bugs) living in the water, studying water

quality with test instruments, using microscopes to see tiny critters and what their presence might mean, studying birds and their habitats and also soil and erosions impacts.

If you are interested in the program please contact us at (803) 441-4246 or by email at stormwater@northaugusta.net.



A student checks the oxygen level in a water sample.

Upcoming Events:

Saturday, May 14, 2011

*Household Hazardous Waste Collection Event,
10 a.m. to 1 p.m. at Kroger on Knox Avenue.*

June 6th – July 1st, 2011

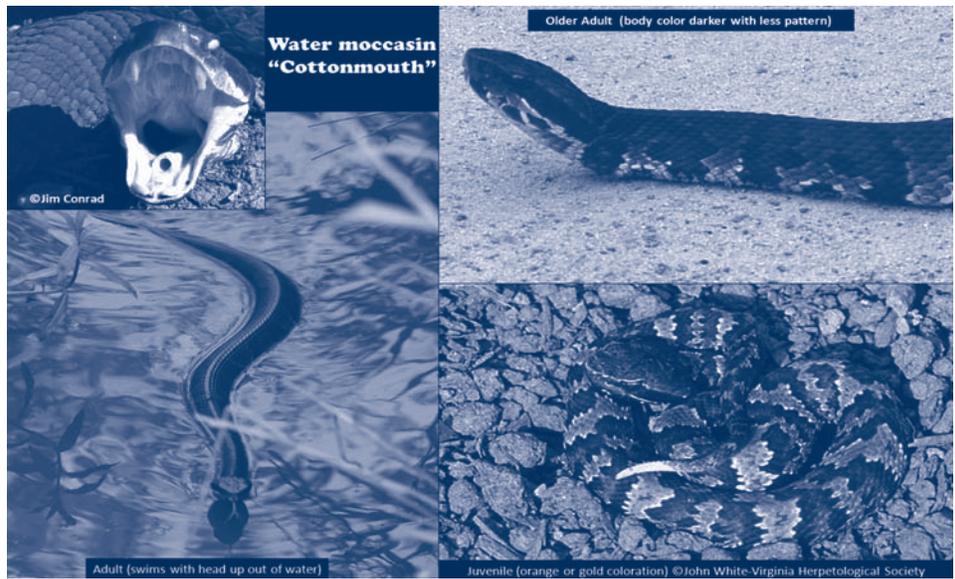
Summer Adventure Camp: Kids love adventure camp where they get to swim, play, explore, and learn. Sign up by May 13th for the lowest rate of \$85.00 per week of camp. After that the price is \$100.00 per week. For more information call: (803) 441-4302

Species Profile:

Water Moccasin / Cottonmouth Snake (*Agkistrodon piscivorus*)

Water moccasins (or cottonmouths) *Agkistrodon piscivorus*, are venomous semi-aquatic snakes of the *Viperidae* or pit viper family and they live in our area. There are 41 native species of snakes in South Carolina and only six are venomous. Water moccasins (fishing snakes) are usually the most feared snakes living around ponds, lakes, streams, and wetlands. Their venom and bite is painful and frequently requires a long recuperation. Living among water moccasins are five completely harmless types of water snakes. Many of these harmless snakes are killed in fear. Learning more about this species is important for your safety as you work and play outdoors.

By understanding behavior and markings, you can usually tell the difference between a harmless animal and one that is potentially dangerous. The water moccasin is a heavy bodied snake with a triangular head that is wider than its neck. They can grow two to four feet in length (2-4 ft.). Males are larger than females and both of them have dark blotches on the undersides of their body. Water moccasins have elliptical pupils in the eye (cat like) unlike common water snakes that have very round pupils. The moccasin has "pits" for heat sensing below each eye. Both the moccasin and water snakes have heavily keeled (has a raised center ridge) scales. Color variation can be seen throughout their life and range. While older adult snakes are darker, the young are brightly



patterned orange, gold, or tan and have a yellow tip on their tail that they wiggle to attract prey. Very prominent in most all moccasins is a "cheek stripe" of a darker brown color from the eyes toward the back of the head, resembling a Zorro mask. But the mask may not be as obvious in an older specimen.

The water moccasin swims with most of its upper body above the water. Water snakes swim below the surface with just their head above the water. Moccasins bask on land, stumps or logs and are found crawling across the land (far from water). Unlike the water snakes, they do not climb up to higher branches, so they are usually not a snake you find falling into your boat. They enjoy meals of fish, lizards, small turtles, baby alligators, mammals, and other snakes including water moccasins. The female has a litter of live young (1-20 babies) every few years. Alligators, hawks, and large turtles prey upon the moccasin, but humans are their biggest threat.

Another indication of whether you are dealing with a harmless water snake or a dangerous water moccasin is that the

water snakes usually take off in fright when a human approaches them, and if in the water will dive out of sight. A moccasin generally does not flee, it will stay put. Do not attempt to disturb or handle a venomous snake. Water moccasins are aggressive toward any threat and will not tolerate being harassed. Once they feel threatened they will generally warn you by coiling up and opening their mouth (agape) as if to bite, revealing a cottony looking inside and/or vibrating their tail (water snakes do not do this). This is your notice to move away to a safer location. Be aware that they can't see well when they are about to shed their old skin (eyes look cloudy or blue) making them more dangerous and aggressive.

The best rule of thumb is to give all snakes plenty of room when you run upon them and go another way. Learning to identify the dangerous snakes that live in our area is important to you and your family, and it is important to the snake's safety as well. You can learn more about wildlife in our area at www.northaugusta.net on the stormwater department webpages.



For additional information contact:

Tanya Strickland, Environmental Coordinator
City of North Augusta
Stormwater Management Department
P.O. Box 6400 • North Augusta, SC 29861-6400
(803) 441-4246
stormwater@northaugusta.net

