

The Resource

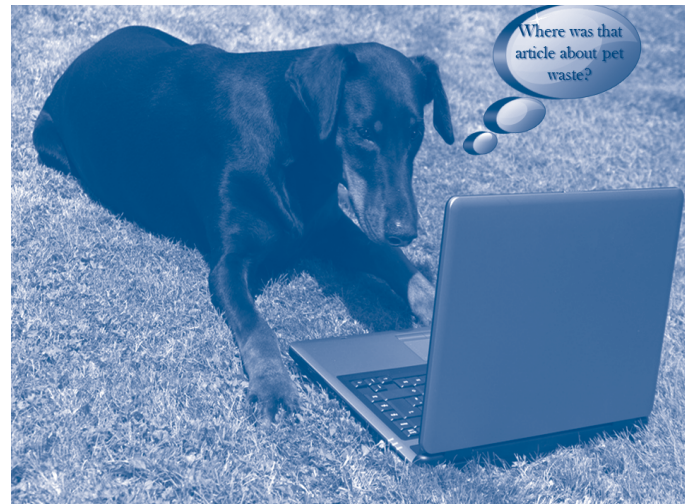
A Publication of the City of North Augusta
Stormwater Management Department

The Resource newsletter is going digital in 2014!

You may have noticed that this issue is the first *Resource* newsletter sent out this year. We are creating a new electronic version of this and other city publications. As a way to sign-up, city staff have been meeting and working to upgrade the city website. The new website will have new features including an electronic version of *The Resource* newsletter. The work is still underway and is expected to be completed in early 2014, when the new site will be available.

The website is being designed to include new features to help you

get information you need quickly and easily. You will be able to report concerns or maintenance needs directly to the right department, sign up for community events seamlessly, have easier browsing capability, and it will include more information about your city services, all while providing quick ways to sign up for automatic delivery of newsletters to your email account.



Homeowners Leaf Blower Basics

1. Leaf blowers should be run at half-throttle most of the time. Low throttle speeds reduce noise and provide more control of the equipment.
2. Leaf blowers should not be used in residential areas during unreasonable hours. (too early or too late)
3. Debris should never be blown onto adjacent property, the street, storm drains, vehicles, people or pets.
4. Leaf blowers should not be used within 10 feet of doors or windows.
5. Crews should operate only one leaf blower at a time on small residential streets.
6. Rakes or brooms should be used to loosen heavier debris, not the machine.
7. The full nozzle extension should be used so the air stream can work close to the ground.
8. The muffler, air intakes, and air filters should be routinely checked and maintained.
9. Leaf blowers should not be used to move large debris piles from one spot to another.
10. Homeowners should consider using quieter non-polluting electric leaf blowers for smaller lawns

Fall Leaves Blanketing the City -- Are Leaf Blowers the best answer to the mess?

Fall is the time of year our yards are getting covered with leaves as we are all busy hurrying about managing our households for the holidays. Tools to help us get our landscaping under control vary in size and operation from rakes and bags to bagged mowers and leaf blowers. Is the rake the better option? There are a lot of mixed reports across the country about using leaf blowers to clear leaves from our streets and yards because of the pollution and noise they create. Some communities have banned their use because of it. Air pollutant emissions from the use of many of the tools are referred to as "mobile

See "Fall Leaves" on page 2

Fall Leaves (continued)

sources” by the Environmental Protection Agency (EPA) and state environmental regulators. Mobile sources include cars, trucks, boats, lawn mowers and leaf blowers. During certain times of the year, they account for much of the air pollution in communities. The pollutants can be harmful to all of us but especially to people with breathing problems, the elderly and children. North Augusta is a community full of conscientious homeowners and city employees that routinely work outdoors to remove leaves, tall grass and debris.

Why not leaf blowers?

Whether it is the loud high-pitched sounds these machines make, the gases they put into the atmosphere, or the dust and fine particles that blow airborne, leaf blowers create bigger problems than you would think. Regardless of whether you own or use a leaf blower, you are most likely exposed to them being used in your neighborhood. The first problem, as you are most likely aware, is that these machines are loud and can create noise problems for residents especially if one is running for long periods of time. It can be difficult to have a

conversation on your deck with the constant sound of the blower going. The frustrating noise can drown out even the loudest acquaintances or a family member’s latest story. A leaf blower can emit high-pitched sounds that are considered harmful to the user with noise levels of 90-100 decibels at close range. That exceeds the EPA’s recommended maximum noise level of 80 decibels even at 50 feet (some older models are higher than 100 decibels). New machines have better noise controls. So send those older machines to the recycle bin and pick up one that is less harmful to your hearing.

The second problem with the leaf blower is the amount of gas fumes that they generate in the air. According to an article by Brian Palmer in the Washington Post in September, he reported that “one leaf blower can burn as much fuel as three trucks”. The two stroke engine in most of these machines is the culprit. They have a bad reputation because of the fuel mixture required to run them. Since the complete combustion of the materials in the fuel is never realized in two-stroke engines, carbon monoxide, nitrous oxides and hydrocarbons are all part of the mix that gets released instead of burned. A study by

Edmunds in 2011, reported that a leaf blower bought for home use, puts out more pollution than a 6,200 pound 2011 Ford F-150 SVT Raptor. They report 299 times more hydrocarbons are released into the atmosphere by the leaf blowers than those released from the truck. Now, whether that is actually the case or not, the data surely suggests that these little machines can really do damage to the air we breathe, especially in residential settings. A test between a two-stroke blower and a four-stroke blower revealed that the four-stroke machine did better, although still worse than the automobile engines.

Finally, leaf blowers send particles into the air from our yards and gardens. The particles include animal and bird droppings, pollen, fertilizers, pesticides and anything else that is bound to the sand over time. Worse still is the debris from roadways and driveways that include sediments that have bound heavy metals like copper, zinc, cadmium and others that have been left by the use of cars, trucks, tires and other equipment. Many times, these materials along with the leaves are blown to the storm drains creating clogs and also polluting our streams during storms.

Machine	Non-Methane Hydrocarbons (NMHC) Parts per million (ppm)	Nitrogen Oxides (NOx) Parts per million (ppm)	Carbon Monoxide (CO) by percentage (%)
2011 Ford Raptor Pick-Up Truck	0.005	0.005	0.276
2012 Fiat 500	0.016	0.010	0.192
4-Stroke Leaf Blower	0.182	0.031	3.714
2- Stroke 50 cc Leaf Blower	1.495	0.010	6.445

From: Edmunds Video Productions titled *Car vs. Truck vs. Leaf Blower* (December 2, 2011).

There are better options

Use newer machines that address the noise issue, use a four-stroke that combusts all the fuels, and work with leaf blowers in the safest and most efficient manner. There are now electric models just

right for smaller yards. They may not eliminate all of the issues, but as far as noise and gas emissions, the choice is better for your neighborhood. On the other hand, raking and bagging leaves may eliminate all of the problems that leaf blowers create. So if you are

able, just pick up a rake, gloves and yard bags to clear the leaves. Not only will you get the job done in roughly the same amount of time as blowing them around, but you would get some cardio and muscle exercise while you tidy up your yard.

Why saving the Savannah makes dollars and sense..

Guest Article: by Tonya Bonitatibus, Riverkeeper/Executive Director for the Savannah Riverkeeper
also published in the December issue of *Balancing the Basin*, a US Army Corps of Engineers electronic newsletter

There's no doubt about it, the Savannah River is the lifeblood of our communities. She stretches more than 400 miles, forms the state boundary between Georgia and South Carolina, and drains more than 10,000 square miles of land.

Her reach is almost perfectly cut in half—the top half largely lakes, including Thurmond Lake, the largest lake east of the Mississippi. Her bottom half is free-flowing and largely industrial. Where she meets the ocean is the fourth-largest container port in the United States.

The Savannah binds those of us relying on her waters. Both upstream and downstream users rely on one another to be responsible stewards of the water. Our economies are inseparably tied to the river, our drinking water comes from her, and for many of us, her waters supply us with our recreational activities. Without her we wouldn't be here. Making sure she stays healthy and clean is not only the right thing to do, it is unquestionably something we must do. Our health and our economic interests rely on it.

In just one day, the Savannah supplies more than 1.4 million people with fresh drinking water; receives and dilutes more than 18,000 tons of waste from industries and municipalities; and carries more than 7,000 containers through her port. River-dependent businesses and cities have supporting companies and industries, which are dependent on their services and products. Cities like Savannah, and now Hilton Head and Bluffton, S.C., are increasing their dependence on the Savannah River due to the loss of the fresh aquifer water. Being at the end of a 400 mile river, it is extremely important that those

upstream protect the resource as much as they can, and in turn it is just as important that Savannah respect the needs of those upstream when considering major changes in its varied uses of the river, such as deepening the harbor.

With each major river user there are a number of supporting businesses reliant on their success, such as the trucking companies transporting our exports to the port. The Savannah River has such a broad spectrum of uses, and a balance must be kept to ensure all needs are being met adequately.

It's cheaper to treat cleaner water. One of the greatest things about a river is its ability to clean itself. A river's wetlands and swamps serve as filters; its ground water recharges clean water; and the bugs, plants and fish eat and filter out pollutants. The longer a river flows, the cleaner it can become, and clean water is cheaper for all of us to use. Our industries rely on the river to dilute and clean their waste, and we rely on the river to supply us with healthy and safe drinking water.

Much of the pollutant load into the river comes from "point sources" such as industries. However, a large percentage of the pollutants that enter our waterways come from "non-point" sources, such as run-off from our roadways, storm drains, or backyards. This cocktail of pollutants not only can detract significantly from the health of the river; it is in direct contrast with the filtering and cleaning effect that non-developed land has.

By ensuring that we are doing what we can to reduce the negative effects of our run-off, we help keep the costs of water treatment down. This allows industries to



have access to the waste load they need while ensuring the health of our waterways for all to enjoy. The industries are obliged by law to do their part to ensure the health of the waterways; we must all make sure we are doing what we can as well.

The Savannah is a public resource. She belongs to all of us, and with ownership comes responsibility. Many of us work at the river industries or the port, or the supporting businesses that rely on the Savannah for their water and waste dilution. All of us rely on her water for our homes. But according to a 2012 report by Environment America, she is the fourth-most toxic river in the United States.

It is vital to our economy that no one use more than their fair share, and that they return what they use as much as possible. A healthy river is the cheapest to consume and use. We own the river; we should take pride in her and realize how important her health is to our lives. It is up to all of us to protect her. Learn more about the Savannah Riverkeeper at <http://www.savannahriverkeeper.org/>

Notes of Interest:

Updates to the North Augusta Water Quality Report (Baseline vs five years of sampling) and Brick Pond Park's five year study will be available on-line soon!

Species Profile

Spotted Jewelweed

Impatiens capensis

Impatiens capensis is a wonderfully unique wetland plant. It grows in abundance in certain areas of the city. These plants are unique in that they can sometimes heal human skin from exasperatingly itchy conditions. They are commonly called “spotted jewelweed”, suggesting that they are a beautiful plant. The name “jewelweed” is derived from the way water droplets pool and glisten like jewels on the leaves. Jewelweed has other common names including “touch-me-nots” due to their distinctive habit of producing exploding seed pods. The seed pods appear in the fall and dangle behind the flower attached to the same stem. When the pod is touched or brushed by animals, they immediately explode, efficiently spraying the tiny seeds in every direction insuring the next year’s population will have a chance to emerge.

Jewelweed’s velvety yellow-orange flower has red-spots (pictured above) and is about half the size of your little finger. In late summer and early fall, the three to four-foot high bush or shrub-like plant has widely separated finger sized leaves interspersed between its dangling flowers. Jewelweed plants



Photo by Dr. Thomas Barnes, USFWS

prefer shady and wooded wetland environments similar to those located along the forest edges at Brick Pond Park. There are quite a few populations throughout the park and once you spot them, you will quickly see how beautiful they are. Hummingbirds, bumble bees and other nectar drinking insects love this plant.

Jewelweed is known to help relieve and actually cure the rash from poison ivy. When a rash first appears or you are sure you were exposed to the bothersome plant prior to a rash forming, Jewelweed juice can be rubbed on skin to prevent or quickly heal the rash. It is also effective on some annoying insect bites or stings. Fortunately for these wetland plants, their preferred environment is on the edges of moist almost soggy soil

and densely vegetated thickets, keeping all but the hummingbirds, butterflies and insects from getting too close to them. In those locations, there could be other creatures lurking that you might not want to encounter, so it’s best to look from a distance. Look for the Jewelweed blooms at the park before the first frost. Once frost occurs in North Augusta, Jewelweed plants drop their flowers, leaves and pods and become very hard to find.

Learn more about this interesting plant and many other useful South Carolina native plant species growing in our area, from the SC Native Plant Society at www.scnps.org. Native plants are suited to our climate and ecology so they make perfect garden plants when the right conditions exist.

Upcoming Events in North Augusta!

Saturday, March 22, 2014	Springfest (formerly the Yellow Jessamine Festival) , will be held in downtown North Augusta all day. Look for more details soon at www.northaugusta.net
Saturday, April 26, 2014	Family Earth Day Bring the entire family to celebrate and learn about the environment from 10 a.m. to 2 p.m. at North Augusta’s Brick Pond Park
Saturday, May 17, 2014	2014 Household Hazardous Waste Collection Event (10 a.m. to 1 p.m.) at Kroger on Knox Ave. Mark your calendars!

For additional information contact:

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