

The Resource

A Publication of the City of North Augusta
Stormwater Management Department

What's That Stuff in the Water?

Red stains, red-orange slimy masses, oily films and foam are commonly observed in streams in this area. This office receives frequent calls about "unnatural stuff" in our creeks. Very often the causes are natural and not at all the result of pollution. Summaries of common but "odd looking" phenomena found in our streams are presented below with guidance in determining whether the cause is natural or the result of pollution.



Condition	Causes
Green water coloration	Algae are present in all streams. Slow moving streams and stagnant pools of water may turn green with an over-abundance of algae. Excessive algae populations may be caused by nutrients from fertilizer runoff, sewage or phosphorus from detergents.
Brown or black water	Especially in the southern portion of the city, streams (ex. Horse Creek) may have a very dark coloration. This appearance is due to tannins released from the decomposition of leaves, as well as acids released from heavily organic soils, hence the name "blackwater stream". Incidentally, the Edisto River, portions of which are located in Aiken County, is the longest free-flowing blackwater river in North America.
Red-orange slime or reddish coloration of the stream bed	This is a completely natural phenomenon. The reddish coloration is the result of bacterial action on iron. When water emerges from the ground, especially after passing through high iron soils, the combination of iron, oxygen and bacteria results in a bloom. These blooms, while often unsightly, are harmless. This phenomenon may also be observed where groundwater surfaces through cracks in concrete, creating rust colored stains. The bacteria often produce a sheen that may appear oily.
Colorful sheen on the water surface	This type of sheen is often the result of the natural bacterial breakdown of organic matter. A simple test differentiates sheen caused by bacteria from sheen caused by oil. A bacterial film will fracture when disturbed (i.e. by dropping a pebble in it) while sheen that is the result of an oil product will flow back into place as if it had not been disturbed. Generally a petroleum odor will also be present if pollution is the culprit.
Foam	Foam is generally due to the mixing of air with organics. It most often occurs in the fall when leaves drop (organics) and may be exacerbated by fast moving water and wind that contributes to the mixing of air and organics. Natural foam may build up against obstructions like log jams. Natural foam usually has a fishy or earthy odor while foam from pollution often has a fragrant or soapy odor and is usually localized near its point of discharge (often a pipe with an illicit connection including laundry water).
Muddy water	Muddy water is usually the result of very heavy stream flows following heavy rains or improper sediment controls on nearby construction sites.
Rotten-egg odor	The rotten-egg smell is most likely hydrogen sulfide gas (H ₂ S). H ₂ S is a natural product of organic decomposition in wet environments such as swampland. H ₂ S is also produced in wastewater, so the odor could indicate sewage pollution.

If you suspect the "weird stuff" that you encounter in a stream within the city is the result of pollution, contact the Stormwater Management Department at (803) 441-4246.

Species Profile

Bottlebrush Buckeye –

Aesculus parviflora

The Bottlebrush Buckeye is a wide-spreading shrub native to South Carolina. Currently listed as a Regional Species of Concern by the South Carolina Department of Natural Resources, a protected population may be found in the Savannah River Bluffs Heritage Preserve just beyond the city limits of North Augusta. The native habitat of this plant is river bluffs and banks as well as wooded hillsides within the piedmont and coastal plain of the state. This shrub may reach up to 12 feet in height and grow even wider. Propagation is by seed and profuse suckering.



Oregon State University

Endangered Bottlebrush Buckeye

As a home landscape plant, this species offers numerous benefits. Flowers attract hummingbirds and butterflies. Small mammals consume the large brown seeds. Ornamental benefits include showy “bottlebrush-shaped” flowers of one to two feet in summer and beautiful yellow leaves in the fall. Wild specimens should never be collected; however, nursery stock is available and may be found by an online search or by contacting a local nursery. The bottlebrush buckeye prefers rich, well-drained soils. It is tolerant of acidic and alkaline soils and tolerates a wide range of light conditions, though partial shade is best.

References:

SCDNR Rare and Endangered Species List, www.dnr.state.sc.
Noble Plants Database, www.nobleplants.com.

Household Hazardous Waste Collection

Saturday, March 13 • 9:00 – 11:00 a.m.
Crossroads Market (Kroger) Shopping Center



The Stormwater Management Department is sponsoring a Household Hazardous Waste Collection at Crossroads Market (Kroger) Shopping Center on Martintown Road. The event will be Saturday, March 13, from 9:00–11:00 a.m.

Representatives of a national hazardous waste handler, volunteers from the Department of Health and Environmental Control, and city staff will be on site to provide residents an opportunity to safely dispose of unwanted paint, motor oil, pesticides, solvents and other potential pollutants.

Carolina Yards and Neighborhoods Seminar Scheduled

March 16 and 18 • 6:00 - 8:00 p.m.
North Augusta Community Center

The Stormwater Management Department will host its second Carolina Yards and Neighborhoods seminar March 16 and 18, from 6:00-8:00 p.m. at the North Augusta Community Center. Carolina Yards and Neighborhoods is a public education program of the Clemson University Extension Service. The program is free but space is limited. For more information or to register, call 803-441-4246 or 803-649-6297.



Kids Earth Day 2004

Saturday, April 24 • 10:00 a.m. - 2:00 p.m. • Lions Memorial Field

Mark your calendars now for Kids Earth Day 2004. This free, family event will take place Saturday, April 24, from 10:00 a.m. - 2:00 p.m. at Lions Memorial Field. Brought to you by the City of North Augusta, the SRS Pollution Prevention Team and SCDHEC. Call 803-441-4224 for more information.



For additional information contact:

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