

# Green TEAM

quarterly newsletter



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WINTER 2018

# spotting pollution



Urbanized areas produce a high volume of stormwater runoff due to the number of impervious surfaces, such as roads, parking lots, and rooftops. When it rains, stormwater flows over these surfaces towards the nearest storm drain or conveyance and collects various amounts of pollutants like sediment, nutrients, oil and grease, heavy metals, or harmful bacteria.



**Unlike wastewater, stormwater is not treated and flows directly into our streams.**



## Construction Sites

Sediment is one of the top pollutants in Tennessee. While natural erosion does account for some, this pollution is accelerated from the increase in construction activities. As stormwater flows over the site, it can pick up sediment, debris, and chemicals from the loose soil and transport them to nearby storm systems or directly into our lakes or streams. There is currently over 150 active construction sites in Franklin... that's a lot of sediment!

**Click here for a map of all active construction!**

One of the biggest responsibilities that Stormwater Management has is inspecting all active construction sites at least once a month. If a site is out of compliance or is causing further impairment to our water resources, enforcement actions are taken.

**If you see a construction site sending sediment-laden water into a storm drain or stream, report it!**



## Fertilizers

Nutrient-impaired streams are sourced primarily from over-fertilized agricultural farms and residential lawns and gardens. Unabsorbed nutrients are washed into storm drains and the nearby waterbody, causing large algal blooms, which can create harmful effects on people, birds, and aquatic life.



## Trash and Debris

Yard debris and trash are not only a source of stormwater pollution but a cause of localized flooding by clogging storm drains, blocking culverts, or creating debris dams in channels. Picking up trash along your neighborhood streets and keeping yard waste out of roadside conveyances can go a long way!

see stormwater pollution? click **HERE** to report!



# DID YOU HEAR THE SCOOP ABOUT POOP??



A letter from the editor

**I get it, poop is gross!** I love my dog (or just about any other dog I see) and I try to take her with me as much as I can. But one thing I do not love is picking up after her.

While not picking up after your dog itself seems harmless, albeit smelly and gross, it is actually really *ruff* on the environment. Improperly discarded pet feces does have an effect on our local water quality. Pet waste contains nutrients such as nitrogen and phosphorus which can cause algal blooms in our lakes and streams. If this becomes bad enough, it can reduce the oxygen levels and create a state called **eutrophication**. Pet feces also contains (surprise!) bacteria and parasites. Just to name a few: *roundworm*, *salmonella*, *Giardia*, *E. coli*... all of which can be transmitted to humans or other animals. Just one gram of doggy doo-doo can contain up to *23 million* fecal coliform bacteria, and in some cases cause serious health problems.



I always try my best to clean up my dog's #2 whenever nature calls, but like I said, I get it! Sometimes poop happens. However, making the conscious effort to clean up after your pet is not only your responsibility as a pet owner, but as a member of your watershed community as well.

**Let's take the 'scoop the poop' pledge together!**





The Old Farmer's Almanac may have predicted this year's winter will be warmer and wetter than usual, however that doesn't mean you shouldn't have a bag of salt in preparation. Being Tennessee, freezing temperatures, ice, and snow seems to pop up just about whenever it wants!



Winter weather conditions can cause icy roads and walkways which create dangerous conditions for drivers and pedestrians. The most common solution used by municipalities, businesses, or homeowners is deicers. Deicers work by lowering the freezing point of water to promote faster melting. There are several type of deicers but the most frequently available for purchase are chloride-based deicers: [sodium chloride](#), [magnesium chloride](#), and [calcium chloride](#).

While these deicers are effective at clearing roadways and walkways of ice and snow, they can also have negative effects on the environment if used improperly. Once dissolved, the melting ice and snow becomes stormwater runoff and enters into roadside ditches or the storm infrastructure. As all stormwater runoff leads to our local streams and rivers, these deicers are washed into waterways and create stressful, sometimes lethal, conditions for aquatic ecosystems.

**Follow these best management practices (BMPs) to minimize your environmental impact:**

- Shovel snow and ice early before applying a deicer agent
- Follow the manufacturer's instructions before application, and use only what is needed. **Never over apply!**
- Do not apply in or near waterways
- Opt for less harmful deicers, such as an acetate-based deicers which are biodegradable and less toxic to aquatic life and vegetation
- Remove melting ice or snow slush often to prevent refreezing
- Do **not** dispose of ice or snow slush in waterways, roadside ditches, or in street gutters



# stormwater highlights



We love engaging the public to become educated about and involved with their local watershed, whether it is visiting classrooms or organizing stream clean ups! This past year Stormwater Management has been a part of several events:

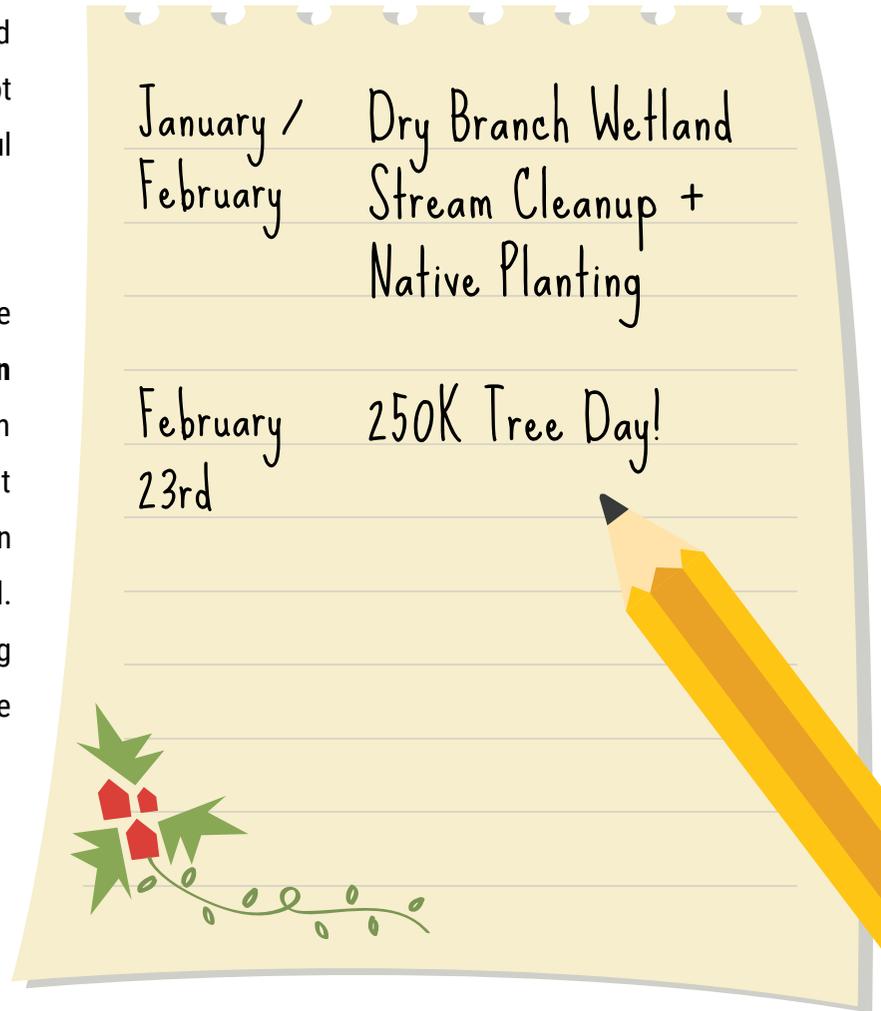
- Attending City events such as Family Day and Arbor Day where we can hand out educational material, fun giveaways, or native wildflower seed packets
- Participating in 250K Tree Day, a state-wide initiative with the Tennessee Environmental Council to plant 250,000 native tree seedlings across Tennessee
- Partnering with Keep Williamson Beautiful to organize native plantings, stream cleanups, and invasive removals. **KWB volunteers removed over 600lbs of trash from Dry Branch!**
- Partnering with Cumberland River Compact to rally groups to adopt local streams and organizing stream cleanups. **CRC organized a stream cleanup and removed over 500lbs of trash from Mallory Branch!**
- Visiting BGA Lower to teach students about pollution and the importance of keeping our rivers clean
- Visiting Franklin High to teach AP Environmental Students about aquatic microorganism and macroinvertebrates





We've wrapped up our events for this year, and boy was it a lot! But that doesn't mean we're not looking forward to 2019 and all the wonderful things we have planned.

This coming January and February we are continuing to work with **Keep Williamson Beautiful** on our Dry Branch Wetland Restoration Project. Keep an eye out for event announcements! We are also participating in 250K Tree Day again this year on February 23rd. Last 250K Tree Day we planted 500 trees along the Harpeth River at Harlinsdale Park, and we're aiming to plant even more in 2019!



If you, your family, school, local business, or community are interested in organizing an watershed event or in-class education, contact Stormwater Management

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thank you!

That's all for our first winter issue. Stay updated for our spring newsletter in **March!**

