

Water Pollution in Nashville, Davidson County

Have you ever seen a puddle of automotive fluid that has dripped or spilled onto a parking lot, driveway, or road? Have you ever seen dumpsters, trash cans, and garbage trucks leaking their contents onto a road or parking lot? Have you ever seen mud draining from construction sites or other graded areas into road ditches or streams? Well, chances are you can answer yes to most of these questions as these and other sources of water pollution are chronic problems in urban environments to include within Metro Nashville.

When it rains, spilled automotive fluids and various other pollutants are flushed off parking lots, roadways, driveways, and mowed lawns and flow into storm drains, ditches, and streams. Certainly, one oil spill in a parking lot by itself may not represent a significant source of pollution, but when combined with other widespread sources of water pollution from urban land uses, it accumulates to the point of causing degradation of our water resources.



According to the U.S. Census Bureau, there are over 600,000 people living in Metro Nashville. Given the number of people commuting to work in Nashville, it is estimated that at any given time, there are over one million people within Metro Nashville. As one of the largest developed cities in the mid south, Metro Nashville contains an estimated 26,200 acres of impervious surfaces such as parking lots, driveways, and roadways. This area would equate to approximately 1,310 Tennessee Titans' stadiums. Spills and other water pollution are especially damaging if they occur on paved surfaces since nearly 100% of the materials drain from these surfaces when it rains. Just imagine for a minute if there was one oil spill or one leaky dumpster on every acre of paved surface. That would mean there would be over 26,000 different sources of pollution to our streams. As bad as this sounds, the unfortunate reality is that there may be many more sources of water pollution that are impacting water quality. As our city continues to grow and develop, the need to be aware of potential water pollution-causing situations will be ever-increasing.

It is Metro Nashville's goal to reverse this trend and eliminate pollution at the source. The only way to accomplish this goal is to educate residents, businesses, and industries on the causes of water pollution. Whether you are simply a resident in Nashville or work in the county, Metro needs your help to identify and report potential pollution concerns as well as to perform your daily routines in a manner that does not impact water quality. Below you will see some examples of typical pollution sources that occur throughout the county along with some suggested Best Management Practices (BMPs) that can be followed to prevent pollution.

For questions on water pollution or to report any water quality concerns, please call the Metro Water Services - Stormwater NPDES Office at 615-880-2420 or 615-313-PURE. Concerns can also be emailed to: StormWaterQuality@nashville.gov





Improper Vehicle Washing

- Commercial or industrial facilities should make sure all wash water is not allowed to be discharged from their site.
- If the facility has to perform washing outside, the wash water discharge should be captured and properly disposed of on-site, to include possibly routing it to a sanitary sewer drain.
- Residents are encouraged to wash vehicles at an approved wash facility with drains that route to the sanitary sewer via an oil/water separator. Citizens washing their vehicles at their homes are encouraged to wash them within grassy areas so wash water discharges are assimilated by vegetation.



Improper Parking Lot Cleaning

- Before washing a parking lot, if possible, dirt and grime should be swept and collected with the material disposed of in a dumpster. For large parking lots, a commercial street sweeping contractor could be used to routinely clean the lot.
- Land owners should avoid pressure washing off lots. Pressure washing lots, even if soap is not used, can dislodge particles and other contaminants that would not be dislodged during a normal rain event.
- If pressure washing (soap or no soap) or rinsing off a lot with the garden hose and cleaner is necessary, all wash water should be captured and disposed of properly. If visible oil is present in wash water, oil absorbent pads can be used to remove oil prior to disposal



Pavement Cut Wet Saw Discharge

- When performing general grounds maintenance activities, consideration should be given to stormwater runoff.
- Pavement cuts, pavement sealing, and other maintenance activities should be performed in the dry with no impending rain forecast.
- Sediment in wet saw discharges should be filtered through appropriate BMP devices before draining to the storm drain.
- Raw, untreated wet saw discharge should not be allowed to enter storm drains or sanitary drains.



Mop Water and Other Inside Cleaning Agents

- Mop water and any other inside cleaning agents should never be dumped outside or into the storm drain.
- Even Biodegradable cleaning agents can seriously degrade water quality and should never be disposed of into outside drains.
- In disposing of cleaning agents, please refer to the label instructions.



Automotive Fluids

- Care should be taken to reduce the chance of motor oil, antifreeze, and other automotive fluids from draining to storm drains and creeks.
- Whenever possible, try to do automotive maintenance activities indoors.
- If maintenance has to be performed outside, be sure to perform the maintenance in the dry (no rain) as far away from storm drains and streams as possible. Also be sure to have absorbent materials on hand if spills occur.
- Any spills or leaked fluids should be treated immediately with an approved absorbent material. Absorbent used to clean spills should be collected and properly disposed of in the trash.



Poor Dumpster and Grease Bin Housekeeping

- Dumpster and grease bin areas should be kept clean at all times.
- Employees should be trained on proper disposal methods and a routine inspection program should be established by each facility to ensure dumpster and grease bin areas stay clean.
- Employees should note if dumpsters are leaking which should be reported to the waste company immediately.
- Employees should always check to see if dumpster lids are closed to prevent rain water from contacting materials inside, which minimizes the potential for materials leaking out during the hauling process



Pet Waste

- **Pet owners should always make an effort to pick up all pet waste and properly dispose of it in the trash.**
- **Pet owners or kennels should never wash down outside floors or dog cages without collecting and disposing of all pet waste first.**
- **Pet waste should be picked up daily to prevent waste materials from being washed from sites into a storm drain or stream.**



Improper disposal of grease or other food materials onto the ground

- **Food waste and byproducts should be collected and disposed of in proper containers.**
- **Employees should be trained on proper disposal procedures.**



- **Inside floors should never be washed to the outside.**
- **Inside floor drains should always be routed to the sanitary sewer.**



Broken or overflowing sanitary sewer cleanouts

- Sanitary sewer clean-outs should be properly capped at all times.
- Sanitary sewer clean-outs should be routinely inspected to make sure they are not damaged.
- Broken or failing septic or sanitary lines should be repaired immediately.



Illegally plumbed sanitary drains to creeks or storm drains

- All sanitary sewer drains shall be connected to the appropriate sanitary sewer service. When connecting into Metro Water Services lines, sewer connection permits must be obtained from Metro Water Service. For information on sewer connection permits, call (615) 862-4600.
- Sanitary sewer drains should never be pumped to storm drains or streams.
- Septic tanks should be routinely inspected to make sure they are functioning properly.



Chemicals Stored Outside with Materials Leaking or Exposed to Stormwater.

- Whenever possible, store all oil, paint, gas, or other chemical containers under a roof structure.
- If these materials have to be stored outside; make sure all caps and lids are sealed tightly, no material residue is located on the outside of the drum or can, and that the materials are covered with plastic, a tarp, or other water-proof material.
- If spills do occur, all material should be cleaned up immediately as indicated on label instructions.



Sediment Runoff from Soil Disturbing Activities.

- All soil disturbing activities shall have proper controls to prevent sediment runoff into storm drains and streams.
- For most soil disturbing activities of more than 10,000 square feet and filling activities of more than 100 cubic yards, a grading permit must be obtained from the Metro Water Services Stormwater Office.
- For more information about soil disturbing activities, grading permits, and general Erosion and Sediment Control Practices, please call the Metro Water Services Stormwater NPDES Office at 615-880-2420.



Chemical Application to Lawns

- All property owners should take precautions during the application of fertilizers, pesticides, herbicides, and fungicides.
- Lawn chemicals shall be applied at the ratios per product labels. Over-application does not necessarily produce greener and fuller lawns and can cause significant nutrient loadings and other pollution concerns in streams.
- Chemicals should never be applied to lawns during rain or when rain is within the immediate forecast. Chemicals that wash from a yard are a waste of money and add to the pollution loading of our streams.
- Property owners should specifically minimize the application of materials near storm drains and streams. Only certain chemicals are approved for water application (See Product Label).



Illegal Dumping of Concrete

- Illegal dumping of concrete, rinsing off concrete truck trays, or rinsing off other tools such as wheel barrels, trowels, and buckets directly into a storm drain or creek can cause significant pollution impacts.
- Most large construction sites have designated treatment areas for concrete trucks to wash out their trays.
- Residents shall report any illegal concrete dumping to the Metro Water Services Stormwater NPDES Department at 615-313-PURE or 615-880-2420.
- Concerns can also be emailed to: StormWaterQuality@nashville.gov



Litter and Illegal Dumping Reaching Streams

- **Dumping trash in unapproved sites can cause significant water pollution concerns. Permitted landfills are designed to prevent contaminated runoff from reaching our waterways. Illegal dump sites are usually on properties that have no measures in place to prevent site runoff.**
- **Illegal dumping activities should be reported to the Metro Public Works Department by either calling 615-862-8750 or going to the following web site:
http://www.nashville.gov/pw/illegal_dumping.asp**
- **Businesses, industries and residents should endeavor to eliminate trash on their property. All areas should be inspected routinely with all trash such as grocery bags, plastic bottles, etc. being picked up and disposed of in the garbage. Garbage not disposed properly could be blown or washed off the property into our streams.**

Techniques for Commercial/Industrial Facilities to Prevent Stormwater Pollution

- 1. Make sure your property is free of any contaminants that have the potential to wash into the storm water drainage system (storm drains, ditches, roads, parking lots, etc.) or stream during a rain event.**
- 2. Maintenance personnel should never dump anything directly into a storm drain or into an area that will route to a storm drain or ditch, even if they feel the substance is “biodegradable”.**
- 3. Food Services staff should make sure that all waste grease is dumped neatly into the grease recycling receptacle and that no material is spilled onto the ground. If there is a spill, clean with a dry absorbent.**
- 4. Make sure all dumpsters are covered, plugged and sealed and that they aren’t leaking food waste or other liquids.**
- 5. Never pressure wash the lot or any other contaminants into a storm drain or ditch. Any time a lot is washed, the contaminated wash water must be contained and captured and disposed of properly.**
- 6. Groundskeepers should never dump grass clippings, leaves, or tree trimmings into storm drains, ditches, or streams.**
- 7. Make sure that anyone working on the property follow the same guidelines. For example, if a contractor is hired to perform a task such as kitchen hood vent cleaning, it is the site owner’s responsibility to make sure this contractor recovers and properly disposes of any grease or cleaning chemicals produced during this activity and does not allow those materials to migrate into the storm sewer system or stream.**
- 8. Make sure any ground disturbing activities are properly managed to prevent soil erosion and sediment loss from the site via runoff.**
- 9. Create your own housekeeping plan that is site-specific to the individual property (based on use patterns) and educate employees. Housekeeping plans should include frequent inspections of problem areas such as chemical storage areas, dumpsters, grease bins, and parking lots for general trash.**
- 10. Lastly, but most importantly, educate all staff members on what an illicit discharge is and how to report the illicit discharge to the Metro Waters Services - Stormwater NPDES Office at: 615-880-2420 or 313-PURE. Concerns can also be emailed to: StormWaterQuality@nashville.gov**