

SC WaterWays

answering today's water resource challenges for future generations

Illicit Discharges and Water Pollution

Mary Cafilisch, Water Resources Agent, Clemson Extension

October 2012

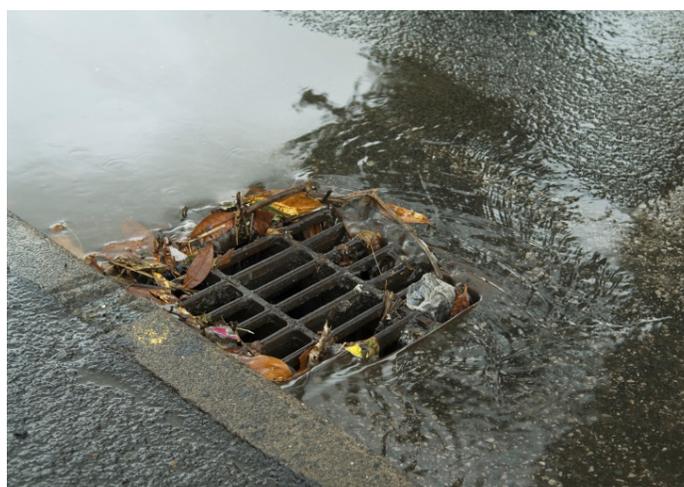
What is an illicit discharge?

Having enough clean water is important to everyone. However, sometimes chemicals, waste, and other pollution end up in streams and rivers, making the water no longer safe for families. When this happens, on purpose or by accident, it is called an illicit discharge. The Environmental Protection Agency (EPA) defines an illicit (or illegal) discharge as any discharge into a storm sewer system that is not composed entirely of rainwater.

The storm sewer system is the collection of storm drains, pipes, and ditches that carry water from roads, parking lots, and homes to natural bodies of water. This infrastructure is different from the sanitary sewers that take wastewater from your home or business (for instance, from a sink, toilet or floor drain) to a wastewater plant where it is treated. Storm sewers take untreated water directly to streams and lakes. The purpose of storm sewer infrastructure is to move rainwater away from streets and buildings as efficiently as possible to prevent flooding. As rainwater enters storm drains, it can easily carry pollution from parking lots, streets, and lawns, such as litter, oil or fertilizer. Such pollution is linked to negative health and environmental impacts on waterways that we use for drinking water, fishing, swimming, shellfish harvesting, and so on.

How does an illicit discharge happen?

Illicit discharges can happen when pollutants are poured directly into a storm drain, ditch, or stream, as well as when pollutants are left out on the ground and



Storm drains carry rainwater directly to rivers and streams.

picked up by runoff. Illicit discharges can also happen when a physical connection (like a pipe) is installed to carry pollutants from a source into a storm sewer system without a permit. An example might be a pipe connecting a house's dishwasher to a storm drain. This is unlawful: the only allowable discharge to a storm drain is rainwater along with a few specific non-stormwater discharges identified below.

It is essential that we all recognize the difference between sanitary and stormwater pipes, know how to identify suspected illicit discharges and contact the appropriate authority, and do our part in minimizing the likelihood of illegal discharges to our shared water resources.

Examples of illicit discharges

The following should never go into storm drains or ditches, or onto the ground.

- Connections from washing machines, dishwashers or sinks
- Paint, cleaners or chemicals
- Overflowing sanitary sewers
- Leaking septic tanks and failing septic fields
- Oil, gas and car fluids
- Cooking oil and grease
- Litter and illegal dumping

What is NOT considered an illicit discharge?

Most cities and counties allow these exceptions to illicit discharge laws:

- Landscape irrigation
- Individual residential car washing
- Air conditioning condensation
- Water from crawl space pumps
- Water from fire-fighting activities
- De-chlorinated pool water
- Rising ground waters or springs
- Uncontaminated pumped ground water
- Discharges from potable water sources
- Foundation and footing drain water

How do you identify an illicit discharge?

Several signs indicate when an illegal discharge has occurred.

First, is there a change in the appearance of the stream, river or pond? The water might be cloudy, discolored, or have an oily or soapy sheen. There may be a foul odor, excessive algae growth or even dead fish.

Second, look for suspicious pipes emptying onto the ground or directly into storm sewers or streams. These pipes may be coming from floor drains, sinks, dishwashers, washing machines, or other sources of wastewater in buildings. This is surprisingly common in older homes, and sometimes the homeowner is not even aware of these connections.

One way to identify illicit discharge pipes is size. A storm sewer pipe is generally larger than 6 inches in diameter (although roof drains and sump pump pipes, both of which are legal, may be smaller).

Third, take note of pipes to a stream or pond that have running water when there has been no rain in the past 3 to 5 days. Remember, storm sewers should only carry rainwater. "Dry weather discharges" could be carrying pollution.



Illicit discharges may be easily identified by the public when the water from a pipe or within a ditch has an unusual color or odor, or a cloudy, soapy or oily appearance. This stream has been polluted by paint, which is an illegal discharge, affecting water quality, habitat, and aquatic life.

How do you report an illicit discharge?

Every county, city and town has its own rules about stormwater discharges. Most charge a fine to individuals or companies who illegally discharge pollutants into storm sewer systems or natural water bodies. Your community also wants to hear from you if you see that an illicit discharge has occurred or is occurring. Contact your local stormwater or public works department and let them know right away. Be prepared to give the address and details about the evidence you saw. You can photo-document what is going on in your stream too. Many communities may also have a stormwater hotline, one-stop phone number, or ombudsman's office to which to report violations.

It is very important that you do your part and report pollution when you see it. While local officials want to prevent illicit discharges, they cannot be everywhere at once. Therefore, communities rely heavily on citizens to raise a red flag on violations. By working together, citizens and local officials can make a positive difference in keeping our water clean and healthy for families in our communities and for future generations.



Quick action to call the appropriate authority may result in identification of both the pollutant and the polluter.

Content reviewed by Scottie Ferguson, Stormwater Manager, Pickens County; Jerry Dudley, Compliance Superintendent, City of Florence; Katie Giacalone, Coordinator of Carolina Clear, Clemson University

www.clemson.edu/public/carolinaclear



Carolina Clear is a program of Clemson University's Public Service Activities. Information is provided by Faculty and Cooperative Extension Agents. Clemson University Cooperative Extension Service offers its programs to people of all ages, regardless of race, color, sex, religion, national origin, disability, political beliefs, sexual orientation, marital or family status and is an equal opportunity employer.