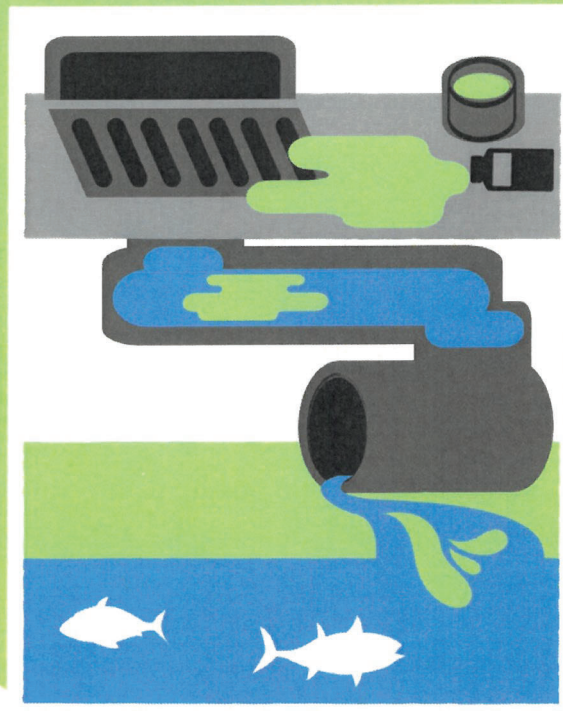


# What is an Illicit Discharge?

An illicit discharge is a **substance other than stormwater** that is released to a storm drain, swale, storm sewer, or other **system that moves, but does not treat, stormwater before it is directed into a stream, lake, or river.**



These substances are considered "illicit", or **banned**, because **they are hazardous to the health and safety of our water resources.**

**Some example sources of illicit discharges include:**

- Sanitary wastewater (e.g. water from sinks, laundry, toilets, etc.)
- Effluent from septic tanks
- Spills from roadway accidents
- Improper disposal of auto and household hazardous wastes

## Identifying Illicit Discharges

Illicit Discharges might enter the stormwater system through **direct connection** or **indirect connection**.

**Direct connections** occur when wastewater pipes are mistakenly or deliberately connected to storm sewers.

**Indirect connections** occur when **cracked sanitary sewers leak** into storm sewers or when **spills flow** or **pollutants are dumped** into drains or waterways.

Illicit discharges are most noticeable during dry weather. A storm drain or a stormwater pipe with an **unusual odor, suds, an oil sheen, or flowing water during dry weather** might be an illicit discharge.

**Contact your local form of government if you think you have identified an illicit discharge!**

## Properly Dispose of Hazardous Waste

Visit your county's website

to find information about local hazardous waste drop off programs

Learn more at  
[www.respectourwaters.org/illicit-discharge-swwt](http://www.respectourwaters.org/illicit-discharge-swwt)



RESPECT OUR WATERS



### **Floatables**

Floatables can consist of a variety of items including foam, oil sheens, sewage, and sanitary trash (i.e. toilet paper). Floatables may also be naturally occurring substances, algae, pollen, foam, and oil-like sheens.

### **Foam**

Foam can be caused by natural sources, failed septic systems, chemical spills, or soaps. Foam can pile up to several inches thick on the water surface and spread over a large area. Soap or detergent foam is usually a bright white (clean) color with a soapy smell. Most soap contains phosphate and other chemicals that can cause algae to bloom. Natural foam is not a problem. Foam is caused by the decay of leaves or organic materials. These materials release organic substances produce foam when mixed with air. Natural foam can accumulate in areas of slow moving water. Natural foam is usually light tan or brown in color, but can also be white. It has an odor that can be described as “fishy”, “earthy” or like “freshly cut grass”.

### **Oil Sheens**

Oil sheens can be caused by Petroleum, oil, fats, and grease, or by naturally occurring bacteria. Products of petroleum or mineral origin can harm the biological phase of sewage treatment and can be toxic to aquatic organisms. Products of animal or vegetable origin can block storm and sanitary sewer lines when these products solidify, attract pests, and deplete the oxygen in streams.



**Synthetic Foam**



**Natural Foam**



**Bacterial Oil-like Sheen**

### **Sewage and Sanitary Trash**

The presence of sewage and/or sanitary trash indicates a failed septic system, broken sewer line or illicit connection. The substance can appear grayish due to gray slimy algae associated with the discharge. *Improperly treated wastewater contains high levels of pathogens that can cause diseases in humans who contact the water.*



**Sewage**

### **Iron and Sulfur Bacteria**

These nuisance bacteria can deposit significant amounts of iron or sulfur, often in the form of unpleasant slimes. You may notice a pungent odor of “rotten eggs” associated with the onset of sulfur bacteria. Iron oxides are promoted through water contact with mineral rich soils and are often referred to as “hard water.” These bacteria are not human health hazards or water quality concerns.



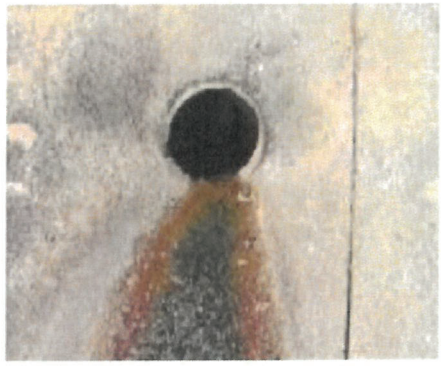
**Iron Rust Bacteria**

### **Staining**

Staining in may indicate that there is an intermittent flow related to a potential illicit connection or discharge.

### **Odor**

Strong chemical or sewage odors in a storm sewer may indicate a potential illicit connection or discharge. Be cautious of exposure to chemical or sewer gases. When in doubt, get out.



**Staining**



### **Algae**

Algae and bacteria problems are often caused by excess nutrients from fertilizers, faulty septic systems, and polluted runoff from paved areas, soil erosion, and animal wastes. Some forms of blue-green algae produce toxins that eventually break down, but they can kill fish and other animals or make humans sick.

### **Water Color**

When the water has color, this may indicate the water is polluted. Common colors associated with illicit discharges include; brown or reddish brown, usually associated with meat processing or paper mill wastes, yellow, usually associated with plating mill wastes, cloudy grey, usually associated with sanitary discharge, painting or cement and stone operations.

### **Solid Waste**

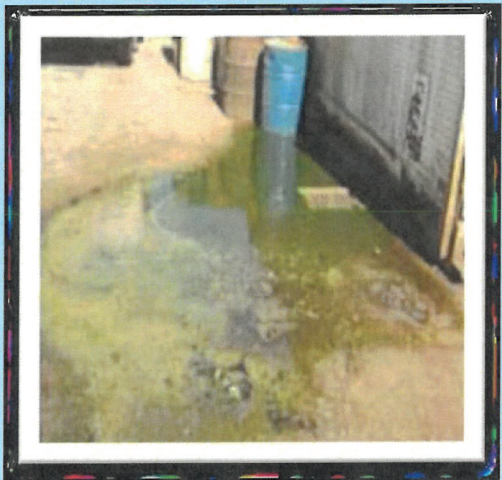
Solid wastes range from; yard waste, disposable containers, and residential trash, to abandoned electronics, construction waste, and abandoned vehicles. Solid wastes generally indicate an illicit discharge at the site and are often difficult to locate the source.

### **Structural Damage**

Cracking, deterioration, and spalling of concrete, peeling of surface paint, or corrosion of metal may indicate that there is an intermittent flow of a potential illicit connection or discharge. These types of damage could be caused by discharges that are very acidic or basic in nature. Structural damage may also be caused by poor construction, old age, and hydraulic scour.



**Algae**



**Water Color**



**Solid Waste**