

Cease the Grease: Keeping stormwater safe from sanitary sewer overflow

The 411 on FOG

Did you know that approximately fifty to eighty percent of sanitary sewer backups are caused by fats, oils, and grease (FOG) that are poured down the drains? Sanitary sewers are designed and installed with sufficient diameter to carry the normal waste discharges from homes or business. When FOG and other cooking by-products are poured down kitchen sinks and drains, they cool and slowly accumulate on the interior of the sewer pipes. Over time, this accumulation of FOG restricts the flow and causes blockages in the sewer, which can result in overflowing manholes or backups into basements. FOG that makes its way into streams and waterways is difficult to clean up and does not decompose easily. Oils and grease prevent oxygen from entering surface water and can create a chemical oxygen demand, which consumes dissolved oxygen. The lack of dissolved oxygen in water stresses aquatic plants and organisms.



Clogs in sanitary sewer pipes can result in an expensive call to a plumber and significant damage to our streams and waterways. When wastewater cannot make its way through the sewer pipes, it overflows into our homes, streets, lawns, and ultimately into our storm drains. Sanitary sewer overflows (SSO) have the potential to send millions of gallons of untreated wastewater and raw human sewage into creeks and rivers that flow into the Chesapeake Bay. Earlier this month, a sewer line clogged by grease, trash, and other debris flooded more than 13,000 gallons of untreated wastewater into the Gwynns Falls in Baltimore. Sewage overflow and chronic leaks are a major cause of nutrient pollution in the Chesapeake Bay and are harmful to the wildlife that it supports.

Maryland Takes Action

Due to the aging sewer infrastructure in the Baltimore/Washington DC area, instances of SSOs are becoming more frequent. In 2014, the Department of Public Works recorded 600 sewer overflows in Baltimore's sewer system.

To assist in reducing pollution to the Chesapeake Bay, the U.S. Environmental Protection Agency, Maryland Department of the Environment (MDE), and other local citizen groups have issued consent decrees to various counties in Maryland (Prince George's County

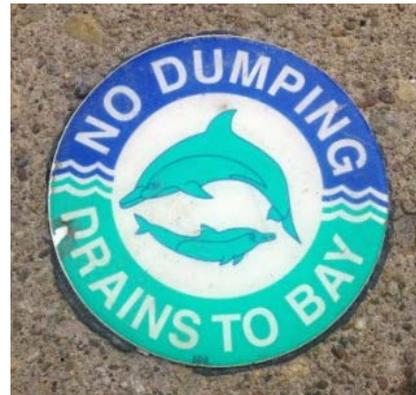
included). These consent decrees will require wastewater utilities to identify, repair, or replace problem areas within their sewer systems. Please refer to the bottom of the page to see other resources for tracking water quality, a map of sewage overflows in and around Baltimore, and MDE's Maryland reported Sewer Overflow Database.

FOG Myths: Busted!

<i>It's ok to wash grease with dish soap.</i>	FALSE: Soap may break up grease or other animal based fats, however, it loses its effectiveness downstream, allowing the grease to solidify on sewer pipe walls.
<i>Running hot tap water will help grease float in the sewer pipe.</i>	FALSE: Running hot water will not help grease float through the sewer pipe. The grease cools as it flows through the pipe and becomes solid again.
<i>Pour cooking oil at room temperature.</i>	FALSE: Cooking oils, such as canola and olive oils, float on water and adhere to the sewer pipes. It is best to avoid pouring oil down the drain altogether to avoid potential sewer blockages or overflows.

You can help keep FOG out of stormwater by following these steps at home:

- Don't dump oil, grease, or fat down sinks, floor drains, or stormwater drains. If not recycled, domestic cooking oil should be poured into a sealable container and placed in the trash.
- Cover outdoor grease and oil storage containers, locate them away from stormwater drains or streams, and protect dumpster and trashcan contents from rainwater by using covers and lids.
- Recycle petroleum products (waste motor and transmission oil, coolants, hydraulic fluid, etc.), cooking oil, and grease whenever possible.



Visit the websites below for more information FOG, water quality, and SSOs:

<http://www.bluewaterbaltimore.org/learn/harbor-alert/>

<http://www.baltimoresun.com/bal-ten-years-of-sewage-overflow-in-the-baltimore-area-20150917-htmlstory.html>

<http://www.mde.state.md.us/programs/water/overflow/pages/reportedseweroverflow.aspx>

<http://www.stormwaterok.net/Documents/EducationalMaterials/GCSA-Fat%20Oil%20and%20Grease%205-11.pdf>