TOWN OF GLENVILLE, NY STORMWATER MANAGEMENT

Organic Material & Hydrocarbons in Stormwater



Effects of Organic Material & Hydrocarbons in Stormwater

Stormwater runoff flows into storm drains and ditches from rooftops, streets, bare soil, and lawns. On its way to the drain, it can pick up several pollutants. Hydrocarbons and organic material are both described as stormwater pollutants. When organic material, such as leaves and lawn waste, ends up in stormwater, it can carry fertilizers and pesticides into the water in which it is discharged. This pollution can then cause disruptions in the water body, such as increased algae production and biological damage to species that inhabit the area. The introduction of hydrocarbons, particularly petroleum hydrocarbons, into stormwater can cause similar problems. Often, an increase in the concentration of hydrocarbons in stormwater relates to the development of urban areas. The entrance of hydrocarbons into aquatic ecosystems can not only degrade water quality but also cause loss of habitat and reduce species diversity.



Hydrocarbons

Hydrocarbons are chemical compounds that are often used as fuel. Some common examples include petroleum, methane, and propane.



Organic Material

Organic material refers to carbon-based compounds found in nature. Examples include leaves, lawn clippings, and manure,

help?

How can you

- Never dump ANYTHING down storm drains— it's illegal!
- Use lawn chemicals—pesticides and fertilizers—sparingly.
- Keep any lawn waste— grass clippings, leaves, and debris— out of the street.
- Wash your car on grass/soil instead of on your driveway.
- Dispose of oils and fuels using the appropriate method, which is usually labelled on the product.

Citations

"Leave It on the Lawn." Dept. of Environmental Conservation, New York State, www.dec.ny.gov/chemical/8816.html.

"NPDES Stormwater Program." EPA, Environmental Protection Agency, 6 Aug. 2020, www.epa.gov/npdes/npdes-stormwater-program.

Stormwater Management. New York State Department of Transportation, www.dot.ny.gov/divisions/engineering/environmental-analysis/water-ecology/stormwater-management.

• https://www.dot.ny.gov/divisions/engineering/environmental-analysis/repository/Rest Area Poster.pdf.

Strassler, Eric, et al. Preliminary Data Summary of Urban Storm Water Best Management Practices. U.S. Environmental Protection Agency, Aug. 1999, https://www.epa.gov/sites/production/files/2015-11/documents/urban-stormwater-bmps_preliminary-study_1999.pdf.

Image Citations:

Body, Nicolas. "A Healthy, Well-Balanced Soil Is Rich in Organic Matter, Increasing the Nutrients Available for the Plants." FreshPlaza, 4 Dec. 2019, https://well-balanced-soil-is-rich-in-organic-matter-increasing-the-nutrients-available-for-the-plants/.

Fugere, Danielle. Why Exxon's Commitment to Methane Reduction Matters. As You Sow, 30 Nov. 2017, www.asyousow.org/blog/2017/11/30/why-exxons-commitment-to-methane-reduction-matters.

"Stormwater Pollution." Clean Water Action, 20 Dec. 2017, www.cleanwateraction.org/features/stormwater-pollution.