

Did you know that many local streams and the Susquehanna River are impaired by priority organic compounds (POCs)? This means there are enough chemicals in surface waters that they accumulate in fish tissue and harm aquatic life. There is also a risk that POCs are contaminating groundwater supplies, which threatens our drinking water supply. Municipalities with MS4 Permits and regulated outfalls that discharge stormwater runoff into impaired streams must take action to identify the sources of POCs.

What is a POC?

POCs are chemical compounds in which one or more atoms of carbon are linked to atoms of other elements, most commonly hydrogen, oxygen, or nitrogen. Organic compounds are all around us as many modern materials are partially composed of them. They include gasoline, diesel fuel, petrochemicals, agrichemicals, coatings, cosmetics, detergent, dyestuff, pharmaceuticals, plastics, and rubbers. Increasing amounts of POCs, especially pharmaceuticals (drugs), are entering the water supply and threatening aquatic and human health.

How Do They Harm Water Quality?

POCs can contaminate drinking water and surface water when they are:

- ▶ Dumped down interior drains and storm drains
- ▶ Flushed down the toilet
- ▶ Discarded directly into streams or onto the ground surface.

While some POCs that enter surface streams and rivers can evaporate into the air, those that enter the groundwater system via leaky and/or broken pipes can persist in groundwater supplies for many years, even decades.

How Can You Tell if a Local Stream is Contaminated with Excess POCs?

The easiest way to determine whether stormwater runoff is contaminated with POCs is to conduct water sampling during a storm event downstream of a regulated outfall. Collecting water samples from stormwater runoff downstream of a suspected source of POCs can reveal whether the stormwater discharge is polluted. Common land uses that can be identified as potential sources of POCs include industrial and commercial development. In fact, even historical land uses, such as old industries and railroads, can be the source of POC contaminants in groundwater.

All MS4 municipalities that discharge stormwater runoff via a regulated outfall to a stream impaired by POCs must develop an inventory of all suspected and known human sources of POCs and complete an investigation of each suspected source to be submitted with the Pennsylvania Department of Environmental Protection MS4 Annual Report due by September 30, 2022.



WE CAN HELP!

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