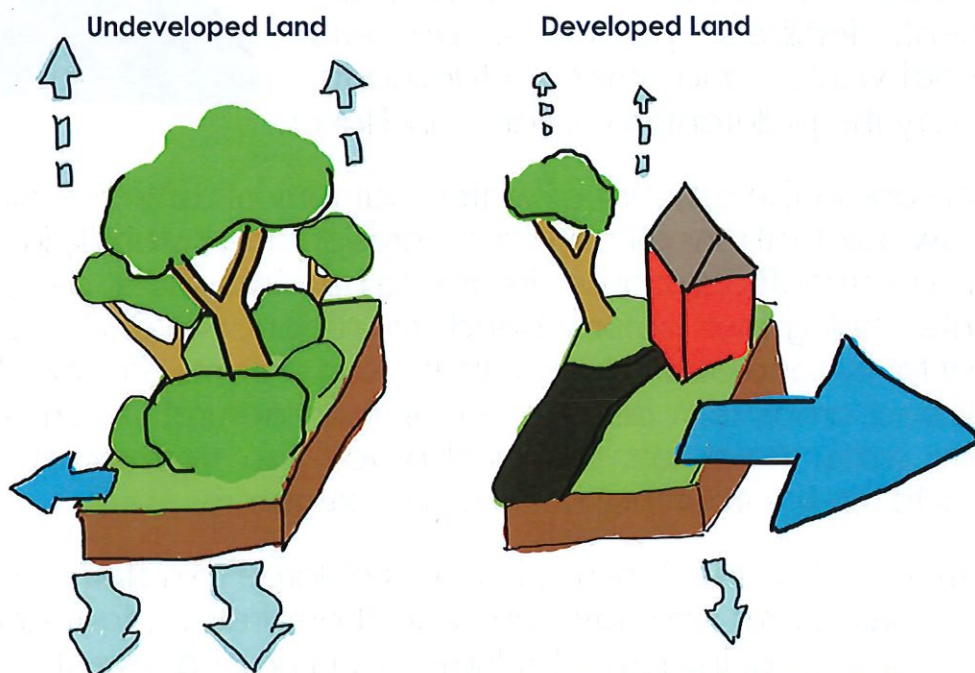


What is Stormwater?

Stormwater is the water that runs off the land after precipitation, either rain or snowmelt. Rain or snow can drain down into the soil (called infiltration), evaporate back into the atmosphere, be used by plants, or flow into streams or water bodies. The water that runs off the land to streams or lakes is referred to as stormwater runoff.

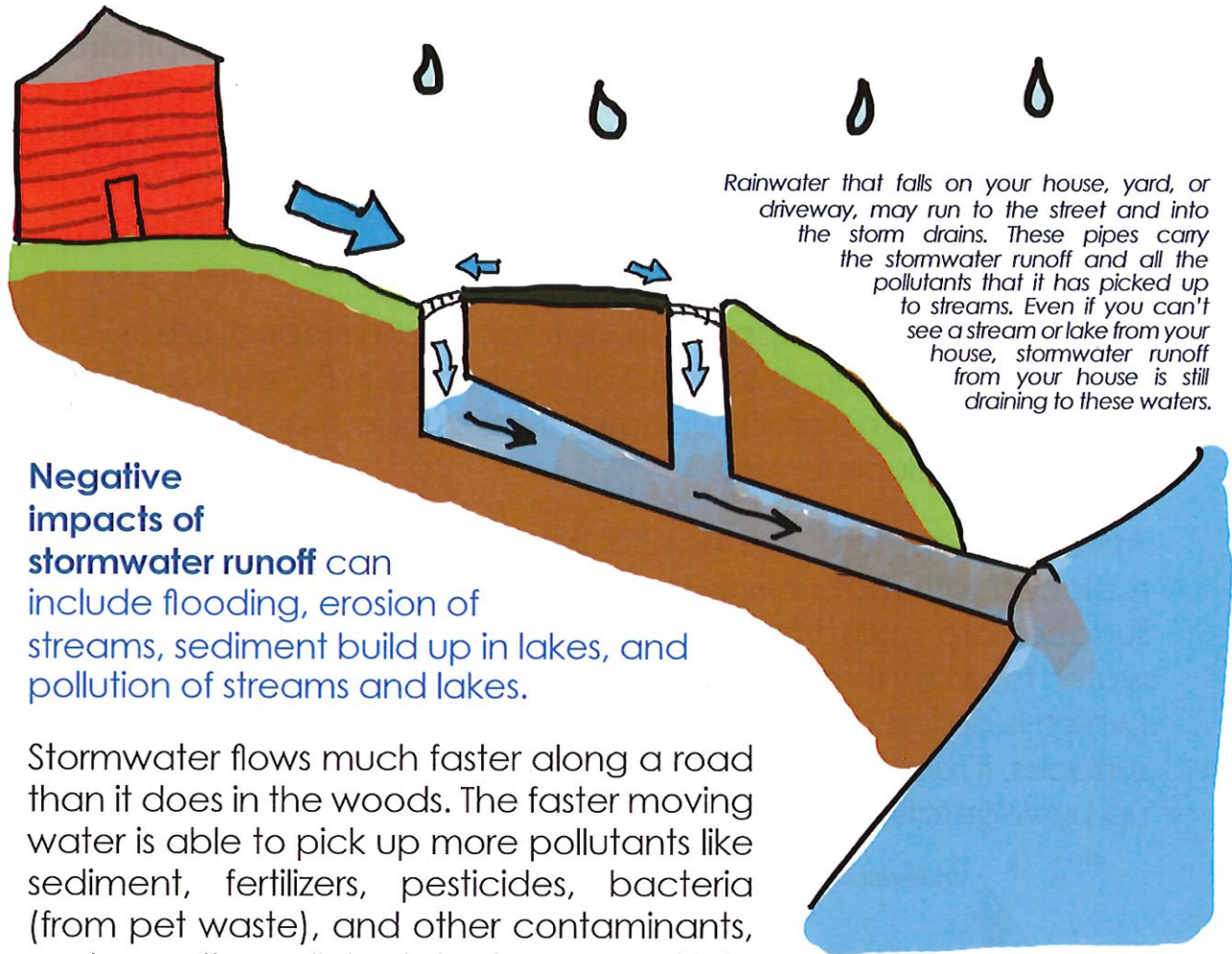
Stormwater runoff happens in natural, undeveloped areas, but typically only for larger storms. For most areas in Pennsylvania that are wooded or natural meadows, it takes about an inch or more of rain to produce runoff.

After development, the natural wooded or meadow areas are replaced with roofs, driveways, sidewalks, and streets. These hard surfaces are called impervious surfaces, and they do not allow water to drain through them, unlike how rain can drain into soil (which is called a pervious surface). When rain falls on impervious surfaces, it runs off rather than infiltrating into the soil or being taken up by vegetation.



When it rains on an undeveloped piece of property, much of the rainwater infiltrates into the soil or is evaporated back into the atmosphere. When vegetation is replaced with streets, driveways, sidewalks, houses, and lawns, less rainwater is able to infiltrate or return to the atmosphere, and more of the rain turns into runoff.

Why should you care about Stormwater Management?



Rainwater that falls on your house, yard, or driveway, may run to the street and into the storm drains. These pipes carry the stormwater runoff and all the pollutants that it has picked up to streams. Even if you can't see a stream or lake from your house, stormwater runoff from your house is still draining to these waters.

Negative impacts of stormwater runoff can include flooding, erosion of streams, sediment build up in lakes, and pollution of streams and lakes.

Stormwater flows much faster along a road than it does in the woods. The faster moving water is able to pick up more pollutants like sediment, fertilizers, pesticides, bacteria (from pet waste), and other contaminants, and carry the pollutants to streams and lakes.

An increase in the amount of water that runs off after development and how quickly it runs off can cause erosion and instability in streams. Stormwater runoff can cause streams to become wider, deeper, and straighter, losing their natural bends (or meanders) and decreasing habitat for fish and other animals that live in streams. Stormwater from developed areas can also be hotter than natural stream sources. Warmer water holds less dissolved oxygen so stormwater can be harmful to fish like trout that need more oxygen.

It's easy to notice the flooding impacts of large rain storms, but over time, smaller storms can have an impact on streams, too. Across the state, about 95% of the rainfall volume occurs in small events (less than 2.4 to 3.2 inches depending on your location.)