New York City Independent Budget Office

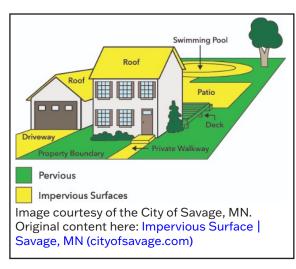
BO Explains

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What are Stormwater Fees?

Water-related services are essential for a community's quality of life. These services include delivering clean drinking water, removing sewage from buildings, and managing stormwater by maintaining and improving underground infrastructure. Water authorities or local governments are typically responsible for carrying out these services.

The increased frequency and severity of rain events in recent years have overwhelmed many municipal sewer systems, damaging both public and private properties and leading to negative environmental implications. Policymakers and environmental advocates in New York State have proposed stormwater fees based upon the types of surfaces present on a property as a potential solution.



Impervious Surfaces Increase Stormwater Runoff

When rain falls, it either lands on a pervious or an impervious surface. **Pervious surfaces**—like lawns, gardens, and sand—can absorb and retain water (albeit at varying rates) during precipitation events and then gradually release it back into the water cycle. Conversely, impervious surfaces are hard surfaces that prevent water from soaking into the ground, such as roofs, pavement, metal, and wood. Since impervious surfaces cannot soak up water, they generate stormwater runoff. **Stormwater runoff** is water from precipitation that flows on impervious surfaces until it reaches a pervious surface or drains into a sewer system or waterway.

Excessive Stormwater Runoff Causes Environmental Damage

As stormwater runoff flows to a sewer system, it collects material in its path including animal waste, oil and grease, pesticides and fertilizers, and other potential pollutants, while also causing flooding, soil erosion, and property damage. Jurisdictions can either have a municipal separate storm sewer system (MS4), a combined sewer system, or a combination of both. An **MS4** has two distinct pipes, one pipe conveying stormwater from storm drains to local waterways and one pipe conveying sewage to the wastewater treatment facility (WWTF). In a **combined sewer system**, stormwater and sewage share the same pipes. On days with heavy precipitation, stormwater and sewage enter the same pipe simultaneously and flow to the WWTF for a cleaning process before being discharged. The mixture of raw sewage, stormwater, and garbage can overwhelm the system and lead to combined sewer overflow. **Combined sewer overflows** (CSOs) occur when wastewater exceeds the WWTF capacity, forcing the facility to dump large quantities of raw untreated sewage and stormwater into local watersheds.



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To comply with water regulations set by federal and state governments, local governments must invest in **stormwater management**, which is the process of controlling stormwater runoff that comes from impervious surfaces. For example, the New York City Department of Environmental Protection (DEP) is expected to spend \$1.6 billion on two CSO retention tanks and associated community infrastructure for the Gowanus Canal, with an anticipated completion date of 2027. DEP is also working on a \$1.5 billion CSO storage tunnel for Flushing Bay, with an anticipated completion date of 2035. These projects are often called **grey infrastructure**, which feature man-made materials like metal and concrete to make gutters, drains, and retention basins. Green infrastructure is another solution to stormwater management. **Green infrastructure** projects use natural materials such as plantings, mulch, and sand to capture, filter, and retain stormwater runoff until it can naturally reenter the water cycle, helping prevent CSOs and mitigating stormwater property damage. The combination of trees and plants along with engineered soils and sediments under the surface allow for efficient consumption and drainage of water. The need for grey and green infrastructure projects is increasing with the effect of climate change, and both can come with significant costs. This is leading many jurisdictions to think about how they generate revenue to fund stormwater management projects.

Consumption-Based Water Bills are Inequitable for Stormwater Management

Currently, most jurisdictions in New York do not bill property owners separately for stormwater management. Instead, jurisdictions use revenues generated from metered water and sewer bills based on the amount of clean water consumed, property taxes, or both. Neither water consumption nor property values reflect a property's contribution to stormwater runoff, creating a disconnect between the revenue being generated and stormwater management costs. For instance, when metered water revenue is used to pay for stormwater management projects, properties like parking lots that have large impervious surfaces which contribute to stormwater runoff—but use little or no metered water, pay almost nothing towards the cost of stormwater management. Similarly, when property taxes are used, parking lots may pay very little for stormwater management because they are less developed and therefore may have lower property taxes assessed. When these properties underpay for their contribution to stormwater runoff, those costs are borne by other properties, creating an inequitable distribution of stormwater management costs.

Stormwater Fees Reflect a Property's Contribution to Stormwater Runoff

Thousands of U.S. jurisdictions have moved to charge separate stormwater fees for costs associated with stormwater management, at least 15 of which have populations above one million. Most stormwater fees are calculated using the impervious surface area of a property because they are a proxy to reflect a property's contribution to stormwater runoff. Stormwater fees often provide designated revenues for stormwater management, which enhances transparency and allows for adjustments to stormwater charges based on the needs of the stormwater management system.

The City of Ithaca is the only municipality in New York State with a general stormwater fee, which it adopted in 2014. Since then, no other New York municipality or county has followed suit, despite interest and advocacy from various jurisdictions, including New York City. One concern municipalities may have in implementing a general stormwater fee is the ambiguity surrounding legal authority of localities to implement stormwater fees (Ithaca's fee has not been challenged in court). The 2023-2024 legislative session in Albany includes a proposal (A4019/S4169) to address this ambiguity by explicitly authorizing "local water and sewerage authorities to charge fees for surface runoff."