How one Ontario city doubled its stormwater funding

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A typical detached home in Mississauga has about 267 square meters of hard surface area.

By David Nesseth

It took five years of behind-the-scenes legwork before the Ontario city of Mississauga made a dedicated stormwater fee a reality. But now, just two years after its debut, the City is collecting more than double the dollars it collected when the system was severely underfunded as part of the annual property tax bill, which had residents paying more than their fair share and commercial properties far less.

Under Mississauga's former property tax bill system for stormwater, management of its some 51,000 storm drains, which tackle rain and snow, received anywhere from \$6 to \$16 million per year. In the City's first year using the stormwater fee, which is calculated on an individual property basis through hard surface area, the fee brought in \$32 million. Following its first year of implementation, the City has now reached \$40 million through the fee, said Dr. Victoria Kramkowski, Stormwater Charge Program Coordinator for the City of Mississauga.

"This is transformative for us," Kramkowski told an audience at the Federation of Canadian Municipalities' (FCM) Sustainable Communities conference in Ottawa on February 7, 2018.



When stormwater financing was lumped in annually with the City's property tax bill, 69% of the dollars raised came from residential properties. Under the new system, that number has dropped to 40%, with

commercial and institutional properties paying the lion's share.

Based on a 2016 report from the Environmental Commissioner of Ontario, just 35% of Ontario municipalities recover the full costs of managing stormwater. Meanwhile, rapid urbanization continues to increase the total area of hard surfaces contributing to stormwater runoff.

Some 1,600 cities in the U.S. and Canada have stormwater fees, according to data from the Smart Prosperity Institute, a policy think-tank based at the University of Ottawa. Sara Jane O'Neill, a senior research associate with the institute, also addressed stormwater fees at the FCM conference, where she discussed the challenges of changing public perception around stormwater fees, which in all but about eight Ontario cities, is lumped in with property tax.

"With property taxes in general, you get that competing between different services to fund stormwater versus fire service or roads or education," said O'Neill. "You can't make any headway because you're always fighting for a minimum budget."

O'Neill said some people wrongly view a stormwater fee as a sneaky tax instead of what it actually is – a transparent billing for how a property influences drainage. It's also a potential incentive, she added, for an individual to green their home or business with the added bonus of lowering their stormwater fee.



Stormwater collection illustration. Photo credit: City of Mississauga.

"I heard at one point we were trying to tax God's work ... or tax the rain," said O'Neill. "It's often the invisible service ... until it floods," she added. "It's not water coming out of a pipe; you can't measure it."

So, how does the City of Mississauga measure its stormwater fee? Every property undergoes a stormwater fee assessment where the City determines the number of billing units of hard surface for the property. About 267 square meters of hard surface is the average amount for a typical detached home in Mississauga, according to Kramkowski. The City then multiplies that figure by the annual stormwater rate, which is \$104 per unit. For residential properties, the City uses total roof area to help determine the total amount of hard surface expected on a property.

The City performs aerial imagery of the City on an annual basis, which is used by a number of purposes in addition to calculating hard surface. This includes elements such as pavement, disturbed soil, gravel and other impervious surfaces.

Based on the imagery, properties are slotted into one of five tiers ranging from a small home to a large home. The largest residential property would max out at about \$176 on an annual basis.

Kramkowski said City staff takes pride in its Online Stormwater Estimator tool, where residents can simply key in their address to calculate their stormwater fee themselves. If they want, they can even type in the

address for the local mall and discover that charge as well. Again, said Kramkowski, it's all been in the name of transparency.

"It's been a rocky road, but a very rewarding one," said Kramkowski, who noted that it's important for a municipality to have a political champion for a stormwater fee so that the public and businesses can be educated about why the fee is a fairer assignment of cost than a flat-fee system.

Mississauga initiated a stormwater financing study in 2011. The fee eventually came into effect in January 2016 as a line on the Region of Peel water bill sent out quarterly.

"You cannot over communicate that that stormwater fee is coming," warned Kramkowski, who also suggested that municipalities ensure their data management capabilities are ready to handle a stormwater fee. "These systems can't just be changed on a dime."

While there was some public backlash when Mississauga first introduced its stormwater fee, Kramkowski said she's pleased to note that the conversation has turned from "Why are you doing this?" to "What are you doing with my money?"

Kramkowski said that part of making the transition to the fee system a success was launching a public awareness campaign to improve literacy around the very nature of stormwater management.

Learn more about how Mississauga's drainage system works by clicking here.

David Nesseth is a writer for Environmental Science & Engineering Magazine.

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