

Water Use, Restrictions & Savings: Mississauga Lawn Irrigation Analysis

Peel's 2026 water rates, the outdoor-watering rules that actually apply, and a seasonal savings model for typical Mississauga lawns

REPORT	RR-2026-MIS-02 · August 2026
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ABSTRACT

This report assembles the Region of Peel's published 2026 water and wastewater rates, the outdoor-watering rules that genuinely apply in Mississauga, and published outdoor-use statistics, then models how much water a typical Mississauga lawn consumes across a growing season and what eliminating that irrigation is worth. Every input is drawn from a cited public source; every modelling assumption is stated where it is used.

We find that irrigating a 500 sq ft lawn through a 24-week season uses about **27.9 m³ of treated Lake Ontario water (roughly \$66 at Peel's 2026 combined rates)**; that Mississauga has **no standing lawn-watering bylaw** — only voluntary guidance, plus emergency bans such as Bolton's 72-hour mandatory restriction in August 2025; and that the honest cash case is modest, because **\$453.86 of a typical annual bill is fixed charges** no lawn decision can touch. The stronger case for eliminating irrigation is restriction resilience and an end to the waste the U.S. EPA puts at up to 50% of outdoor water use.

KEY FINDINGS AT A GLANCE

\$2.37/m³

combined water +
wastewater marginal cost,
Peel first tier, 2026

27.9 m³

modelled seasonal
irrigation for a 500 sq ft
lawn (24 weeks)

\$66/yr

water + wastewater cost of
that irrigation at 2026 rates

up to 50%

of outdoor water lost to
wind, evaporation and
runoff (U.S. EPA)

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1 Mississauga's water system and the 2026 rate structure

Mississauga's drinking water comes from Lake Ontario, treated at two Peel-owned shoreline plants in the city — Arthur P. Kennedy (Lakeview) and Lorne Park — which together produced over 208 billion litres in 2024 [9]. Water, wastewater and the City's stormwater charge all arrive on one Region of Peel bill, so the full cost of running a sprinkler has several parts (Table 1).

Effective April 1, 2026 (By-law 66-2025, Schedule B), single-unit residential customers pay **\$1.1308/m³** for the first 50 m³ in each billing period and \$2.4321/m³ above it; wastewater is billed separately at \$1.4538/m³ on 85% of metered use — a combined marginal cost of about **\$2.37/m³** in the first tier [1][2]. A typical meter also carries \$81.24 per quarter in fixed charges, and a medium detached home pays \$128.90/yr in stormwater charges keyed to rooftop area [1][7].

Table 1 — Components of a Mississauga residential water bill, 2026. Sources: [1][2][7].

Component	Basis	2026 charge
Water, first tier	first 50 m ³ per billing period	\$1.1308/m ³
Water, second tier	above 50 m ³ per billing period	\$2.4321/m ³
Wastewater	85% of metered water use	\$1.4538/m ³
Fixed service delivery	typical 5/8–3/4 in meter, water + wastewater	\$81.24/quarter
Stormwater charge	medium detached rooftop tier (151.1–194 m ²)	\$128.90/yr

Figure 1 puts this in proportion: on the Section 3 model, roughly **\$454 of a \$520 annual bill is fixed or rooftop-based**; the lawn's entire marginal footprint is the remaining \$66.

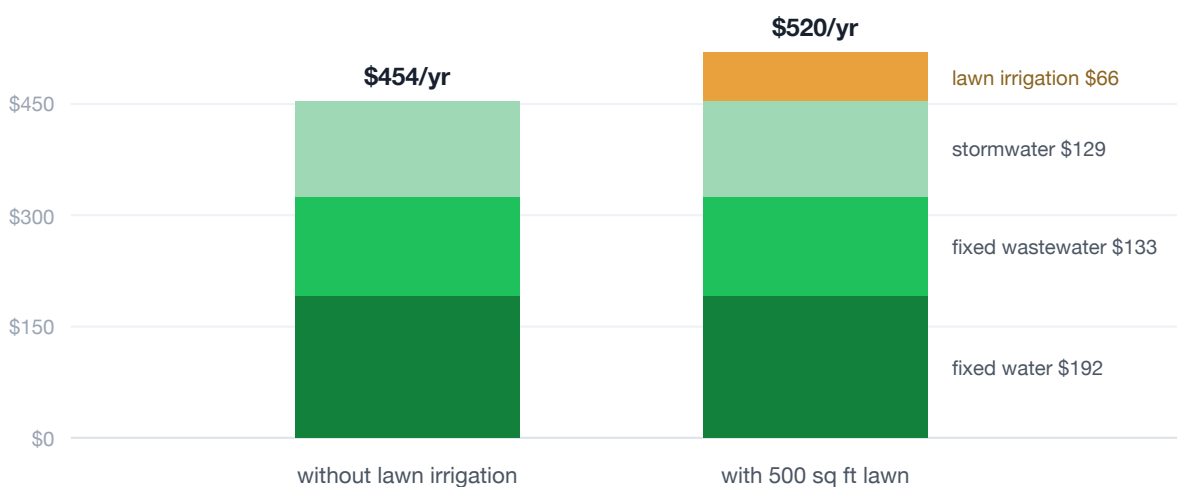


Figure 1 — Anatomy of a Mississauga water bill at 2026 rates, annualized. Only the amber segment changes when a lawn stops being watered. Derived from [1][2][7]; assumptions in \$M.

2 Outdoor watering rules: guidance, not a standing bylaw

Residents searching for a Mississauga lawn-watering bylaw will not find one. Neither the City nor the Region of Peel maintains a standing seasonal or odd/even watering schedule; Peel's outdoor conservation page offers **voluntary guidance only** — water before 10 a.m. or after 7 p.m., run systems for roughly half as long in spring and fall as in peak summer, and water less often but more deeply [3].

Mandatory restrictions are reserved for declared supply emergencies. The region's most recent example came in August 2025, when a watermain break in Bolton triggered a **72-hour mandatory ban on all outdoor water use, with fines for non-compliance** [4]. The distinction matters for lawn owners: compliance is voluntary in a normal summer, but it can become compulsory, overnight, when infrastructure fails or drought deepens.

LOCAL CONTEXT — THE RULES A LAWN LIVES UNDER

Voluntary most summers; instantly mandatory in an emergency. Under Bolton's August 2025 order, a natural lawn either went unwatered for 72 hours or its owner risked a fine. An artificial lawn is indifferent to both states — it needs no exemption and generates no compliance risk.

3 How much water a lawn actually uses

The U.S. EPA's WaterSense program puts outdoor use at **more than 30% of average household water consumption**, and estimates that **as much as 50% of outdoor water is lost to wind, evaporation and runoff** from inefficient irrigation — water that in Mississauga is treated at a Lake Ontario plant, pumped, metered, billed, and never reaches a root [5][9]. A poorly maintained automatic system can waste up to 25,000 gallons (about 94.6 m³) a year — more than three seasons of modelled irrigation for a 500 sq ft lawn [5].

For a seasonal model, this report applies the widely used horticultural guideline of 2.5 cm of water per week across a 24-week southern Ontario growing season (May to mid-October) — a stated assumption, not a measurement (§M). That is 60 cm of depth per season, or **0.6 m³ per square metre of lawn**. Applied to the reference 500 sq ft (46.5 m²) backyard lawn, the model yields 27.9 m³ per season.

Mississauga's climate softens but does not remove the need. The Pearson Airport climate station records 785.9 mm of annual precipitation, well distributed across the year, with August the wettest month at about 78 mm [6]. But summer rain arrives in intense convective bursts — on July 16, 2024, roughly 106 mm fell across the city in about four hours [10] — much of which runs off rather than soaking in, while July's average high of 27.1 °C drives evaporation between storms [6].

4 The savings model for a typical Mississauga lawn

Table 2 applies the Section 3 model to three lawn sizes spanning Mississauga's typical backyards, from compact newer subdivisions to deep lots in established neighbourhoods [11]. Even the largest case stays comfortably inside Peel's first pricing tier, so the \$2.37/m³ combined first-tier rate applies throughout; ten-year figures are simple undiscounted sums.

Table 2 — Modelled seasonal irrigation and cost by lawn size, Peel 2026 rates. *Derived; assumptions in \$M.*

Lawn	Area	Seasonal irrigation	Cost/season	10-yr, undiscounted
Compact yard	300 sq ft (27.9 m ²)	16.7 m ³	≈\$40	≈\$396
Typical backyard	500 sq ft (46.5 m ²)	27.9 m ³	≈\$66	≈\$660
Large or deep lot	700 sq ft (65.0 m ²)	39.0 m ³	≈\$92	≈\$923

Two honest conclusions follow. First, the cash saving from eliminating lawn irrigation is real but modest — about **\$40 to \$92 a year**. Second, it is the only part of the bill a homeowner can eliminate at all: the fixed \$453.86 in service-delivery and stormwater charges remains regardless (Figure 1). Water savings alone will never pay for a turf conversion at 2026 rates; they are one component of the broader ownership-cost case examined in our companion report, RR-2026-MIS-01.

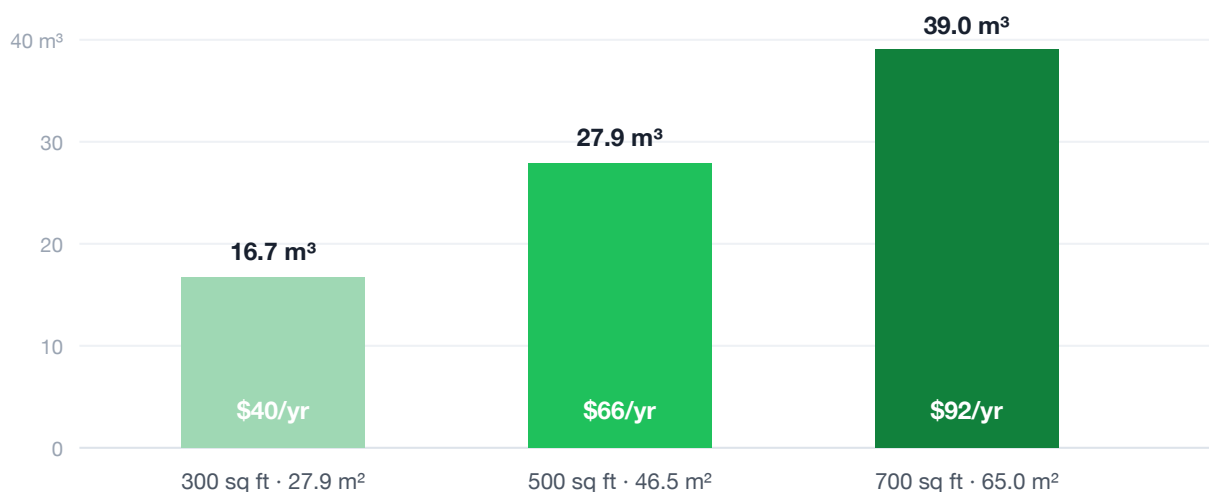


Figure 2 — Modelled seasonal irrigation volume per lawn size (bars, left axis), with the annual water + wastewater cost at Peel's 2026 first-tier combined rate of \$2.37/m³. *Derived from [1][2]; assumptions in \$M.*

5 Drought summers and restriction-proofing

Mississauga's rainfall statistics hide the real problem: timing. August is nominally the wettest month at about 78 mm, yet summer precipitation arrives in bursts too intense for soil to absorb. The city has now recorded two 100-year storms in a single month — roughly 106 mm in four hours on July 16, 2024, then 128.3 mm on August 17, 2024, the rainiest single day ever measured at Pearson [6][10]. A lawn can flood on Tuesday and be parched within a fortnight.

In that pattern, the binding constraint on a natural lawn is rarely a bylaw — it is behavioural. Peel's guidance (morning or evening watering, halved run times outside peak summer, deeper but less frequent soaking [3]) asks owners to do precisely what drought-stressed grass tempts them to ignore. Each July, the practical choice is between a browning lawn, creeping toward the second-tier rate, and watering against guidance. Artificial turf removes the triangle entirely: it needs no irrigation to stay green, it is unaffected if an emergency ban like Bolton's is declared, and its only water use is occasional rinsing.

Scale, honestly stated: if every one of Mississauga's 90,660 single-detached homes irrigated a 500 sq ft lawn on this report's model, the seasonal total would be about 2.5 million m³ — roughly 1.2% of the 208 billion litres the two Lake Ontario plants produced in 2024 [9][11]. Eliminating lawn irrigation is a household-level saving and a resilience measure, not a fix for regional supply.

One caveat deserves note. Synthetic surfaces run hotter than living grass in sun, and where owners choose to cool turf by rinsing, some of the modelled saving is given back — in one arid-climate study, water-cooling artificial turf demanded as much water as natural turf in that environment [12]. Mississauga's humid, lake-moderated summers are far from arid, but the honest saving is the volume a household would genuinely have irrigated, not a theoretical maximum.

LOCAL CONTEXT — NO REBATE, AND THE STORMWATER CHARGE STAYS

Mississauga's stormwater credit program (up to 50%) covers only non-residential and multi-residential properties; residential rain-barrel, rain-garden and permeable-pavement incentives were considered in the City's five-year review and rejected because administrative costs would outweigh benefits [7][8]. And because the stormwater charge is keyed to rooftop area, converting a lawn does not reduce it. Homeowners should treat any "water rebate" pitch for lawn conversion with scepticism.

M Methodology & data sources

This is a desk-research report. Published figures were collected in August 2026 from the sources listed under References: the Region of Peel's 2026 rate pages and By-law 66-2025 Schedule B, Peel's outdoor water-conservation guidance and its August 2025 Bolton restriction notice, U.S. EPA WaterSense statistics, Environment and Climate Change Canada climate normals (Toronto Pearson Int'l A, 1981–2010), the City of Mississauga's stormwater-charge pages and program review, Peel's South Peel Water Quality Report 2024, the City's 2024 extreme-rainfall update, and the 2021 Census via the City's planning data hub.

Stated assumptions (not sourced facts): (i) irrigation model — an actively maintained lawn receives 2.5 cm of water per week over a 24-week southern Ontario growing season, i.e. 0.6 m^3 per m^2 per season (a widely used horticultural guideline); (ii) all modelled irrigation falls within Peel's first pricing tier; (iii) wastewater is charged on 85% of metered use, giving a combined first-tier marginal rate of $\$2.3665/\text{m}^3$, rounded to $\$2.37$; (iv) lawn sizes of 300/500/700 sq ft follow the project ranges published in GTA installer guides; (v) ten-year figures are undiscounted nominal dollars. Derived figures combine these assumptions with the cited rates (volume = area $\times$ 0.6; cost = volume $\times$ $\$2.3665$); changing any assumption changes the results proportionally.

Limitations

The irrigation model is a guideline-based planning estimate: real households water less, more, or not at all, and Mississauga's 785.9 mm of well-distributed annual precipitation reduces irrigation need in normal summers. EPA figures are U.S. national averages used for context, not local measurements. Because Mississauga has no standing watering bylaw, restriction scenarios are illustrative of declared emergencies rather than routine seasons. Synthetic surfaces can run hotter than living grass, and any rinsing or cooling reduces net savings. This report is not an engineering, agronomic or financial assessment of any specific property.

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CITE THIS REPORT

Artificial Grass Mississauga Research (2026). *Water Use, Restrictions & Savings: Mississauga Lawn Irrigation Analysis*. AGM Research Series RR-2026-MIS-02, Mississauga, Ontario.
<https://artificialgrassmississauga.ca/research/water-savings-artificial-grass-mississauga/>

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