

Turf vs Natural Grass in Caledon: A 10-Year Lifecycle Cost Analysis

Establishment, maintenance, irrigation and climate-adjusted ownership costs for a typical Caledon property, modelled over a ten-year service window

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Artificial Grass Caledon Research publishes data-driven local studies on residential landscaping, water use and outdoor surfaces in Caledon and the Greater Toronto Area. This report is provided free for information purposes.

ABSTRACT

This report compares the full ten-year lifecycle cost of a natural lawn against an artificial-turf lawn on a typical Caledon property, using only published figures — a GTA installer's 2026 price guide, Ontario sod-supplier pricing, the Region of Peel's 2026 water and wastewater rates, and Environment and Climate Change Canada climate normals — with every modelling assumption stated where it is used. The reference property is a 500 sq ft backyard lawn.

We find that a mid-grade artificial lawn costs **\$7,500–\$9,000 installed** against roughly **\$1,000 to establish sod**, but that the natural lawn then carries a recurring maintenance stack of about **\$1,516 per year when professionally serviced**. Over ten years the artificial lawn totals **\$9,250**, the serviced natural lawn **\$16,160**, and a do-it-yourself natural lawn **\$4,160 plus roughly 300 hours of the owner's time**. Break-even against serviced care arrives in about **five years**; against DIY care it does not arrive at all in cash terms.

KEY FINDINGS AT A GLANCE

\$12–22

per sq ft installed,
published GTA 2026 price
range for Caledon

27.9 m³

seasonal irrigation for a
500 sq ft lawn (24-week
model)

\$6,900

ten-year saving vs serviced
natural lawn care (500 sq
ft)

≈5 yrs

break-even vs
professionally serviced
lawn care (500 sq ft)

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1 The comparison frame: boundaries and method

Caledon occupies a distinctive position in the GTA: a rural-urban mix of acre-plus estate lots, horse farms and newer suburban subdivisions, with 76,581 residents across 23,699 households [1]. Detached homes represent 75–100% of sales in most Caledon communities [1], and the Town projects growth from its current population to about 300,000 by 2051, with roughly 67,000 new housing units needed [2]. Today's large turf backyards in Palgrave or Caledon East therefore coexist with a wave of smaller-lot new builds around Bolton, Mayfield West and the Highway 413 corridor — meaning lawn areas, and the economics of maintaining them, vary more widely here than in most Peel municipalities.

This report applies a ten-year total-cost-of-ownership (TCO) frame to one reference property: a **500 sq ft (46.45 m²) backyard lawn**, the mid-range size in published GTA project guides. The system boundary includes establishment (sod or turf installation), recurring inputs (irrigation, mowing, fertility, aeration and overseeding) and routine upkeep. Quality residential turf products carry warranties of up to 15 years, so a ten-year window sits conservatively inside the surface's expected service life. Excluded: the cash value of the owner's time (reported separately), property-value effects, and end-of-life disposal. Where a figure is an assumption rather than a published fact it is marked (A) and listed in \$M.

2 Establishment costs: sod vs artificial turf

Establishment is where the two surfaces diverge most sharply. A listed Peel-area supplier prices Kentucky Blue Grass sod at \$7.99 per 10 sq ft roll — about **\$0.80/sq ft**, falling to ~\$0.69/sq ft on orders of 70+ rolls — material only, with site preparation and laying labour extra [4]. Published GTA pricing for artificial turf, from an installer serving the Caledon area, runs **\$12–22 per sq ft installed**: backyards \$12–20, pet turf \$14–22, and putting greens \$20–35 per sq ft [3]. The same guide notes that a typical 400–700 sq ft yard totals \$5,000–\$12,000 fully installed [3].

Table 1 — Establishment cost for a 500 sq ft Caledon lawn, by option. Sources: [3][4]; (A) = assumption, \$M.

Option	Basis	Unit cost	500 sq ft total
Sod, material only (Kentucky Blue Grass)	published supplier list	\$0.69–0.80/sq ft	≈\$350–400
Sod installed, incl. prep + labour	(A) — see §M	≈\$2.00/sq ft	≈\$1,000
Artificial turf, backyard grade	published GTA guide	\$12–20/sq ft	\$6,000–10,000
Artificial turf, mid grade (reference)	published GTA guide	\$15–18/sq ft	\$7,500–9,000
Artificial turf, premium	published GTA guide	\$19–22/sq ft	\$9,500–11,000

The reference project used throughout this report is the mid-grade band at its \$16.50/sq ft midpoint: **\$8,250 installed**, against **≈\$1,000** to establish sod — an upfront gap of \$7,250 that the rest of this analysis works to close, or not.

3 The annual maintenance stack

A natural lawn is a subscription, not a purchase. Table 2 itemizes the recurring annual stack for the reference lawn under two natural-lawn regimes — professionally serviced care and do-it-yourself care — against artificial turf's upkeep. Mowing-service, fertilizer-program and aeration prices are stated assumptions (A) calibrated against published Ontario guides; §M lists them all.

Table 2 — Itemized annual maintenance stack, 500 sq ft lawn. *Water: [6]; all other figures are assumptions (A), §M.*

Component	Natural, serviced	Natural, DIY	Artificial
Mowing (service / own equipment & time)	\$1,200 (A)	time only (A)	—
Fertilizer & weed control	\$150 (A)	\$150 (A)	—
Aeration & overseeding	\$100 (A)	\$100 (A)	—
Irrigation, 27.9 m³ at Peel 2026 rates	\$66	\$66	—
Rinse, brush, infill top-up	—	—	\$100 (A)
Annual total	\$1,516	\$316 + ~30 h	\$100

The water line is derived, not assumed: the irrigation model in §M (2.5 cm/week over a 24-week growing season on 46.45 m²) yields **27.9 m³ per season**, billed at Peel's 2026 single-residential base rate of \$1.1308/m³ plus wastewater at \$1.4538/m³ on 85% of metered use — a combined ≈\$2.37/m³, or about **\$66 per season** [6]. Caledon properties on private wells pay no volumetric water bill at all [6], which removes this line entirely. Artificial turf is not maintenance-free: published guidance notes it still requires regular raking, patching and periodic cleaning — the \$100/year upkeep line reflects that.

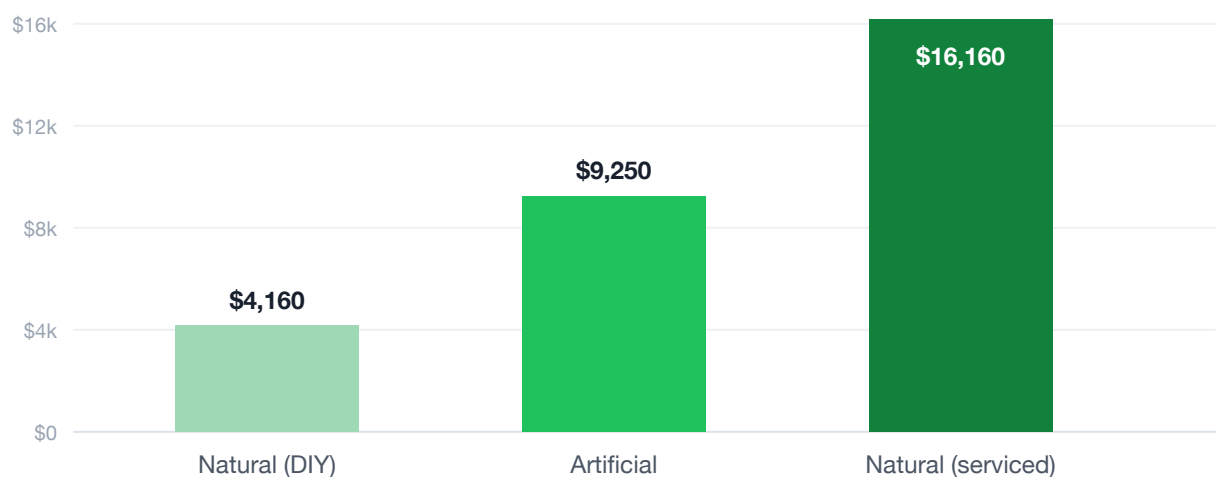


Figure 1 — Ten-year total cost of ownership, 500 sq ft Caledon lawn, three regimes. DIY excludes the value of ~300 hours of owner time. *Derived from [3][4][6]; assumptions in §M.*

4 Caledon climate stressors

The maintenance stack in Table 2 is a fair-weather budget. Caledon's climate, measured at the adjacent Toronto Pearson ECCC station, regularly adds unbudgeted repair work to a natural lawn. The 1991–2020 normals record 806.8 mm of annual precipitation, a July average high of 27.4°C and a January average low of –8.9°C [7] — a swing that stresses turfgrass at both ends: summer heat drives irrigation demand and dormancy, while freeze-thaw cycles and snow cover produce winterkill patches that need spring overseeding or re-sodding.

Recent extremes illustrate the volatility. Summer 2024 was the wettest on record at Pearson — 475.8 mm of rain — and the July 16, 2024 storm alone dropped 143 mm in 24 hours across Peel Region, causing riverine, urban and basement flooding [8]. Caledon logged only 2 flooding-related calls that month (versus 302 in Mississauga and 170 in Brampton), but Bolton was named one of the highest-priority areas in Peel's Downspout Disconnection Program to cut basement-flooding risk [8]. Saturated lawns under that kind of rainfall turn to mud under foot traffic, and re-sodding worn or killed patches is a real, if irregular, natural-lawn cost; this report excludes it from the base case and flags it in §M.

LOCAL CONTEXT — BOLTON'S FLOOD EXPOSURE

Downtown Bolton sits on the Humber River and is a TRCA-designated flood-vulnerable area with its own flood-preparedness program [9]. For riverside properties, a natural lawn saturated by a 143 mm storm is essentially unusable for days; an artificial lawn with an engineered base drains and recovers far faster, though turf is not itself a flood mitigation measure.

On the dry side, Peel Region has no permanent seasonal lawn-watering bylaw: its guidance is voluntary — water before 10 a.m. or after 7 p.m., and water less frequently but deeply [5]. The U.S. EPA estimates that more than 30% of household water use occurs outdoors and that as much as half of outdoor irrigation water is lost to wind, evaporation and runoff [10] — in Caledon, water that is billed at the combined $\approx \$2.37/\text{m}^3$ (or at the $\$2.4321/\text{m}^3$ upper tier once quarterly use exceeds 50 m^3 [6]) and never reaches a root. The Town secured 379.87 acres of Greenbelt lands into public ownership in October 2025, reinforcing that a large share of Caledon's land base is protected countryside where estate lawns are the norm.

5 Ten-year total cost of ownership

Figure 2 accumulates each regime year by year. Against serviced care, the artificial lawn's \$7,250 upfront premium is recovered at about **\$1,416 per year** (\$1,516 serviced stack minus \$100 turf upkeep), crossing just past **year five**; by year ten it is roughly **\$6,900 ahead**. Because the mowing-service line is largely flat regardless of lawn size, smaller projects break even faster: a 300 sq ft conversion recovers in about 3.1 years, the 500 sq ft reference in 5.1, and a 700 sq ft project in about 7.0 (derived; \$M). Against DIY care, the artificial lawn never catches up in cash — the DIY owner's costs are mostly time.



Figure 2 — Cumulative ownership cost, 500 sq ft Caledon lawn, years 0–10. The artificial and serviced-natural curves cross just past year five. *Derived; assumptions in \$M.*

6 Beyond cost: time, consistency, restrictions

Three non-cash factors complete the comparison. **Time:** DIY care costs roughly 30 hours per season — about 300 hours over the window (assumption) — which is what the DIY bar in Figure 1 leaves out. **Consistency:** the artificial lawn stays usable through heat-dormancy weeks, post-storm saturation and winterkill season, and carries no exposure to watering restrictions, voluntary or mandatory [5]. **Honesty requires the reverse side:** artificial surfaces absorb more solar radiation and run hotter than living grass in sun, and they remove a patch of habitat. No Caledon or Peel rebate offsets either choice — searches for a lawn-replacement or water-wise landscaping rebate returned no Ontario programs — so the decision is purely private economics.

M Methodology & data sources

This is a desk-research report. Published figures were collected in August 2026 from the sources under References: Wikipedia's Caledon census profile, the Town of Caledon's housing and Greenbelt pages, a GTA installer's 2026 price guide, a Peel-area sod supplier's list prices, the Region of Peel's 2026 water and wastewater rates and conservation guidance, Environment and Climate Change Canada 1991–2020 climate normals for Toronto Pearson (the nearest long-term ECCC station to Caledon), Peel's July 2024 severe-weather council report, TRCA flood-risk documentation for Bolton, and U.S. EPA WaterSense statistics. No site measurements, surveys or product tests were conducted.

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 (a widely used horticultural guideline); (ii) sod establishment ≈\$1,000 for 500 sq ft (Van Beek's material ≈\$0.80/sq ft plus site prep and laying labour); (iii) mowing service \$1,200/season; (iv) fertilizer/weed control \$150/yr; (v) aeration/overseeding \$100/yr; (vi) turf upkeep \$100/yr; (vii) DIY time ≈30 h/season. Derived figures combine these assumptions with cited rates: seasonal irrigation = $46.45 \text{ m}^2 \times 0.6 \text{ m} = 27.9 \text{ m}^3$; water cost = $27.9 \text{ m}^3 \times (\$1.1308 + \$1.4538 \times 0.85) \approx \66 ; break-even = $\$7,250 \div \$1,416 \approx 5.1$ years. Sensitivity to project size (Section 5): break-even for 300 sq ft ≈ 3.1 years (install \$4,950 vs \$600 sod; gap $\$4,350 \div \$1,416$); for 700 sq ft ≈ 7.0 years (install \$11,550 vs \$1,400; gap $\$10,150 \div \$1,416$).

Limitations

Prices are published planning figures, not quotations; actual quotes vary with access, soil and product. The irrigation model is a guideline-based estimate — real households water differently, Caledon properties on private wells pay no volumetric water bill, and the Town's 806.8 mm of annual precipitation reduces irrigation need in normal summers. Irregular natural-lawn repair costs (re-sodding after winterkill or flood damage) are excluded from the base case, which is therefore conservative in turf's favour. Ten-year figures are undiscounted nominal dollars; disposal and property-value effects are out of scope. This report is not an engineering, agronomic or financial assessment of any specific property.

R References

1. Wikipedia — Caledon, Ontario (2021 Census of Population figures). https://en.wikipedia.org/wiki/Caledon,_Ontario (accessed August 2026).
2. Town of Caledon — Housing (growth projections, housing mix targets). <https://www.caledon.ca/en/town-services/housing.aspx> (accessed August 2026).
3. Design Turf — Artificial Grass Cost in Toronto (2026 Guide). <https://designturf.ca/artificial-grass-cost-in-toronto/> (accessed August 2026).
4. Van Beek's Garden Centre — Kentucky Blue Grass Sod Roll pricing. <https://www.vanbeeks.com/kentucky-blue-grass-sod-roll> (accessed August 2026).
5. Region of Peel — Peel Region encourages residents to practice smart watering habits this summer. <https://peelregion.ca/press-releases/peel-region-encourages-residents-practice-smart-watering-habits-summer> (accessed August 2026).
6. Region of Peel — Current water rates (effective April 1, 2026). <https://peelregion.ca/water/water-billing/rates-charges/current-water-rates> (accessed August 2026).
7. Environment and Climate Change Canada — Canadian Climate Normals 1991-2020, Toronto Pearson Int'l Airport. http://climate.weather.gc.ca/climate_normals/results_1991_2020_e.html?searchType=stnName_1991&txtStationName_1991=toronto&searchMethod=contains&txtCentralLatMin=0&txtCentralLatSec=0&txtCentralLongMin=0&txtCentralLongSec=0&climate_id=6158731&dispBack=0 (accessed August 2026).
8. Region of Peel — Peel Region Response to July 2024 Severe Weather Event (Council report, Sept 12, 2024). <https://pub-peelregion.escrimemeetings.com/filestream.ashx?DocumentId=34599> (accessed August 2026).
9. Toronto and Region Conservation Authority — Living in a Flood Vulnerable Area: Downtown Bolton. <https://trca.ca/conservation/flood-risk-management/flood-risk-area-bolton/> (accessed August 2026).
10. U.S. EPA WaterSense — Statistics and Facts. <https://www.epa.gov/watersense/statistics-and-facts> (accessed August 2026).

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