

Highland Creek

Water Walk

MILLIKEN PARK

Welcome to the Highland Creek Water Walk. On this walk, we will learn about the flow of water through the neighbourhood and how actions you can take at home can protect water at its source. Discover how being a water keeper contributes to a greener, healthier, more beautiful community.



Approximate Time: One hour.



Distance: 2 kilometers.



Level of Difficulty/Accessibility: The walk is on level trails with hard or wood-chip surfaces. If necessary, wheelchairs and strollers can avoid the woodchip trails areas relatively easily.

Getting there: Milliken Park is located just east of the Milliken Community Recreation Centre (4325 McCowan Road). Ample parking is available in the parking lot located off Steeles Avenue, just east of McCowan Road.



By TTC: From the Scarborough Centre Station, take the 129 McCowan North bus towards Steeles Avenue. Exit at the Steeles Avenue East stop and walk east along Steeles Avenue. The parking lot will be the first driveway on the right.

Getting home: The walk route returns to the starting point. Exit the parking lot onto Steeles Avenue and walk west to McCowan Road. Take the 129 McCowan North bus towards Scarborough Centre.



1 Stormwater Run-off

The walk begins in the parking lot located off Steeles Avenue, just east of McCowan Road. If you are coming from the Milliken Community Recreation Centre, follow the path east, staying to the left of the parking lot and pass the pond. The parking lot will be on your right.

Look for the storm sewer grate along the southeast corner of the parking lot and listen for the sound of water flowing below ground. The hard, hot surface of the parking lot sheds rain **run-off** (also called **stormwater**) almost instantly, draining into a storm sewer grate and flowing through an underground pipe to Milliken Pond. Milliken Pond provides an opportunity for the stormwater to slowly leach into the ground. However, there are many places along Highland Creek where the storm sewer system carries run-off directly to the Creek. In these areas, the large influx of water into Highland Creek causes erosion and degraded water quality.

Today, some parking lots are being built using **permeable paving** to permit rainwater to **infiltrate** into the ground. **Swales**, or grassy depressions, can also be created between the parking rows to collect run-off and allow it to soak into the ground. These types of “green” installations help to manage run-off where it falls, at the “lot level”, in order to reduce the amount of stormwater going to Highland Creek and Lake Ontario.

What you can do: Help manage stormwater at the lot level! There are many water-wise features that can be incorporated into a yard or garden that may even help you save money on your water bill. As you continue along this walk, actions that you can do at home to help protect Highland Creek and green your neighbourhood will be highlighted.

2 Milliken Pond

Staying on the paved path, continue walking west towards Milliken Pond and stop on the wooden viewing platform.

Milliken Pond was built in a low-lying area where a country stream once flowed through a landscape of forest and farmland. As the surrounding area was developed, many of these streams were buried underground and now flow south to Highland Creek in pipes.

Designed as a **stormwater management pond**, Milliken Pond collects and retains stormwater, allowing it to slowly drain into an underground pipe where it then flows to Highland Creek. As the stormwater flows across hard surfaces such as roofs, sidewalks, roads, and parking lots, it collects dirt, grease, grit and litter. These pollutants and sediments are carried to Milliken Pond. Take a look around the pond and notice the large stands of cattails and vegetation growing around the edges. These aquatic plants are the first line of defense for clean water, helping to cleanse the stormwater of some of the pollutants.

Further, as the stormwater flows over hard surfaces towards the pond, it is heated by dark surfaces and the sun. Unlike the cooler water of a natural pond, Milliken Pond's warm water promotes the growth of algae, which depletes the amount of oxygen in the water. Aquatic plants and animals need this oxygen for survival. The fountain in the pond, while attractive, is also designed to add oxygen to the water and help control algae growth.

Look around the pond and try to spot some of the wildlife that calls Milliken Park home. There are many species of birds, fish, and

even turtles. Pollution-tolerant fish, such as Koi, carp, and catfish are common, and the occasional basking turtle is likely a non-native species called a *Red-eared Slider*, which would have been released from a home aquarium.

What you can do: *Never release aquarium pets to the wild, as these species are likely not native to this area and disrupt the native vegetation, resulting in poorer water quality.*

3 Pond enhancements

Exit the wooden viewing platform and continue walking south along the trail on the east side of Milliken Pond. Head towards the stone viewing platform on your right.

This viewing platform and others like it around the pond have been constructed to allow park visitors to access the pond edge, or **riparian zone**, without causing erosion and protecting the rest of the shoreline for frogs, birds, and other insects. Sections of the shoreline have been re-graded to create a gentle slope and provide habitat for fish that rely on this shallow area for feeding on aquatic plants. Native plants, including shrubs, wildflowers, and grasses have been planted along the bank to help with stabilization, provide wildlife habitat and reduce the amount of mowed grass to discourage geese. This is a particularly good area to spot birds and dragonflies feeding on insects. In the summer months you may notice birds such as swallows swooping above the pond to catch a meal.

Other naturalization efforts in the park include the eastern side of the park that has been planted with native trees and shrubs by volunteers as part of the City of Toronto's Trees across Toronto program.

What you can do: *Don't feed the geese. Canada geese are attracted to the mowed grass which they eat. Their droppings, besides being unpleasant to see, contribute to the poor water quality of Milliken Pond.*

4 Stormwater flow

Return to the formal trail and continue walking south and stop when you come to the fork in the trail.

From here, stormwater from Milliken Pond flows through underground storm pipes towards the southeast corner of the park (near the intersection of Middlefield Road and Passmore Avenue), and eventually to Highland Creek in Morningside Park. A visit to Morningside Park will reveal great erosion scars along the river's course, a result of the large influx of water from the storm sewer system from areas without stormwater management features such as Milliken Pond. Work on the watercourses is currently being carried out by Toronto Water to mitigate these problems.

What you can do: *Install permeable paving and plan a tree or shrub! The use of permeable paving for driveways, patios, and parking lots encourages infiltration and reduces the amount of stormwater going to Highland Creek; while trees and shrubs slows the flow of water and temporarily store runoff, promoting infiltration and helping to decrease flooding and erosion downstream. Trees also help by taking up nutrients and other pollutants from soils and water through their roots, transforming these pollutants into less harmful substances.*

5 Milliken Forest

Continue north along the trail from the viewing platform and turn left onto the wood chip trail into the forest. This is one of the few larger patches of forest in the upper reaches of the Highland Creek watershed that have survived urban development. Do you notice a difference in temperature in the forest? On a hot day, the shade of the large trees helps to cool the air, and in the winter months trees can block the chilly wind. Forests also cool the air through transpiration (the evaporation of water from plant leaves).

Other nearby forests includes Brimley Woods and L'Amoreaux Park. Larger nodes of forest, such as the one found at L'Amoreaux Park, offer interior forest habitat for sensitive species that require nesting and foraging locations away from the forest edges and from predators and competing species.

Notice the signs identifying the large basswood, maple and beech trees. As mature trees fall over, they decompose on the forest floor, helping to replenish soil nutrients and sustaining a healthy **understorey** of saplings ready to grow tall and replace mature trees as they fall.

What you can do: *Plant a tree on your property! Trees can have the same moderating effect on your home's indoor environment, and can save you cooling and heat expenses. Deciduous trees, such as maple and birch, can help cool your house in the summer by providing shade; while warming your house in the winter by allowing the sun to pass through the leaf-less branches. Coniferous trees, such as pine and spruce, can provide an energy-saving windbreak when planted on the cooler, north side of the house.*

6 Backyard Gardens

Walk through the forest. At the fork in the path, stay along the trail to the right, and head out of the forest. Turn right at the fork in the paved path.

Notice the many backyard gardens of homes beside the path. Can you tell which of these gardens are watered with treated tap-water and which are watered by nature through rain barrels and disconnected downspouts? Gardens for food and flowers need water – why not take advantage of the free water supply every time it rains? The fresh, free, rainwater collected in your rain barrels can be used to water your lawn, garden, potted plants, and hanging baskets.

What you can do: *Disconnect your downspout and direct water onto your lawn or garden, or use a rain barrel to capture water. This free water supply can save you money and reduce stormwater runoff. Toronto's downspout disconnection program can show you how to disconnect your downspout.*

7 Rain garden

Turn left at the fork in the trail and head towards the Milliken Park Community Recreation Centre. A **rain garden** has been installed on both sides of the main entrance. Although not visible, the downspouts from the community center direct the rainwater runoff from the roof into the rain garden. The stone-lined depression collects stormwater and allows it to infiltrate into the ground, reducing the amount of water that flows away from the building and into the storm sewers. In natural settings, up to fifty percent of rain infiltrates the ground while in highly built-up city settings, with paved surfaces and roofs, as little as fifteen percent infiltrates

the surface. Milliken Park is somewhere between these two extremes.

What you can do: *Rain gardens can add a fun and attractive feature to your yard or garden and helps reduce run-off. Directing water from your disconnected downspout into a rain garden allows the water to slowly infiltrate the ground while reducing the amount of water flowing to Highland Creek.*

8 Children's Garden

Walk towards the east end of the Milliken Park Community Recreation Centre and look for the Children's Food Garden. This food garden is part of a small-scale teaching program that helps children learn the value of growing food, tending their garden, preserving water and enjoying the fruits of their labour. Full-scale community gardens exist nearby where you can reserve a family garden plot.

What you can do: *Plant a vegetable garden and savour a truly homegrown meal! Toronto residents interested in community gardening can call 311 for more information on a community garden in their area.*

9 Renaturalized Area

Return to the formal trail and walk east, staying to the left of the parking lot. At the fork in the trail, go left and stop at the stand of trees.

The area to the north has been naturalized with the help of community volunteer plantings. Near the stream is an area where sapling trees and shrubs have been planted by volunteers and mowing has been discontinued. At the top of the hill is an area that has been seeded and maintained as an upland meadow, with native grasses and

meadow flowers. These naturalized areas attract native wildlife - during warm months this area teems with butterflies, small sparrows and other grassland birds. Look for bees and other insects that pollinate the flowers. Without these **pollinators** many plants would not flower and fruit.

What you can do: *Plant a wide variety of native plants to beautify your garden and contribute to natural regeneration. Visit www.trca.on.ca/yards for inspiration, information and tools required to create naturally beautiful lawns and gardens.*

Thank you for taking the Highland Creek Water Walk. We hope you found inspiration to become a Water Keeper and contribute

to a greener, healthier, more beautiful neighbourhood. Why not help others become water wise users? Take your friends, family, and neighbours on a Water Walk of Milliken Park to learn about the importance of keeping water where it falls.

From here, you can return to the starting point by following the trail west. If you came by car, the parking lot will be on your right hand side. If you came by TTC, the trail will take you out to Steeles Avenue where you can walk west to McCowan Road to catch the **129 McCowan North bus to Scarborough Centre**. You may also choose to return to the Milliken Park Community Recreation Centre where there are a number amenities and community programming available for the public.

Trail Users' Guide

- Users of these trail guides are responsible for their own safety and well being.
- Be aware of cyclists and other trail users at all times.
- Walk with others.
- Keep your children in sight at all times.
- Trails may involve stairs and slopes.
- Trails may not be lit or cleared of ice and snow.
- Stay on the trails or mown areas; do not leave them at any time.
- Cross roads only at intersections, lights or crosswalks.
- Keep your pet on a leash and clean-up after it.
- Do not pick, damage, or plant any vegetation.
- Beware of poison ivy: "Leaflets of three, let it be."
- Respect and do not feed wildlife.
- Do not light fires.
- Leave nothing behind.
- Washrooms operate seasonally.
- Avoid the trails during and after a storm; water levels can rise suddenly.
- Wear footwear for pavement, loose or broken surfaces and bare earth.
- Wear clothing to suit the weather and protect against insects.
- Carry drinking water.

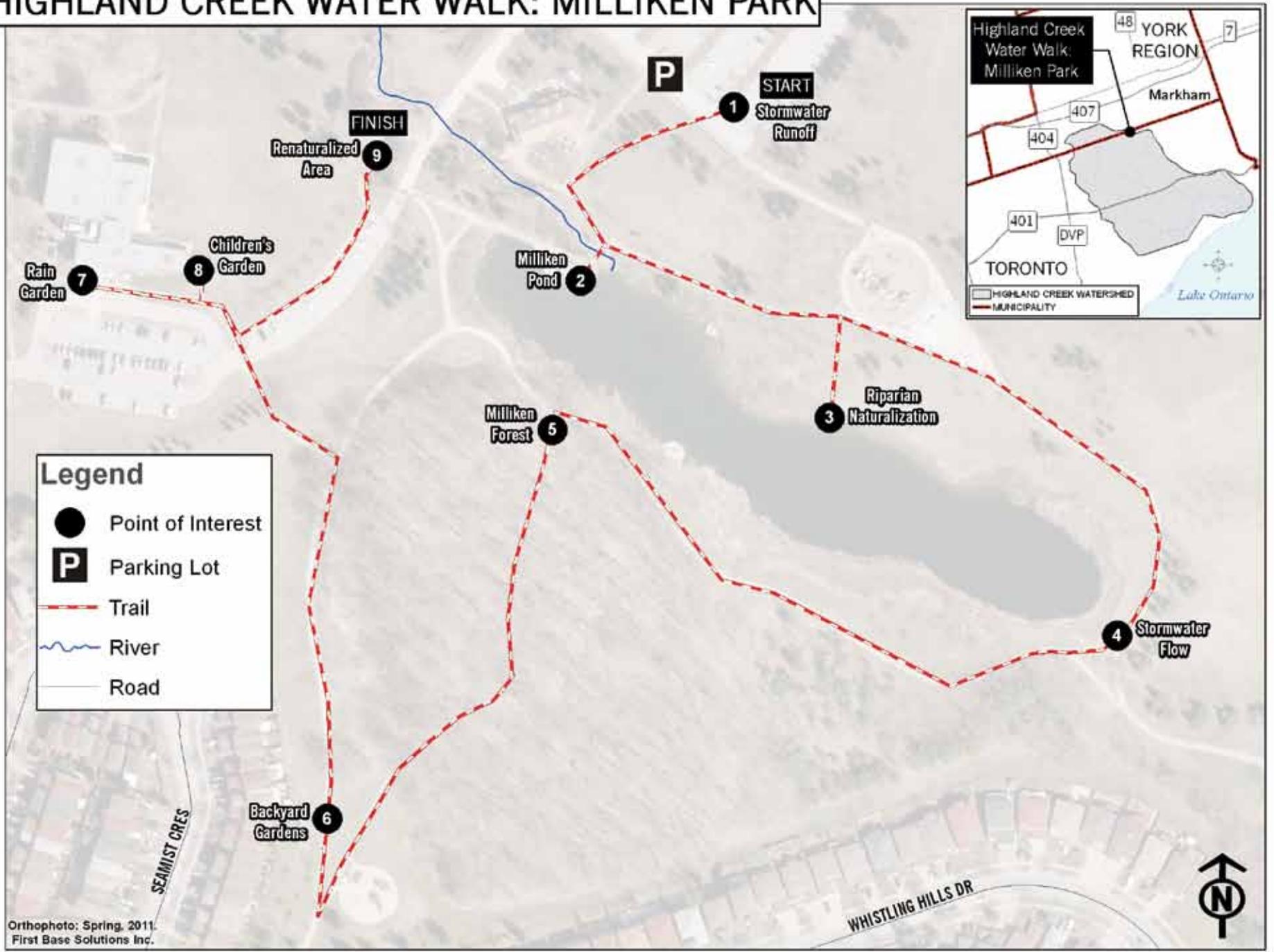
For more information on the Highland Creek Watershed, visit www.trca.on.ca/highland

Highland Creek
Watershed

TORONTO AND REGION
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Prepared by Toronto and Region Conservation, in collaboration with the City of Toronto.

HIGHLAND CREEK WATER WALK: MILLIKEN PARK



Legend

- Point of Interest
- P** Parking Lot
- - - Trail
- ~ River
- Road

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First Base Solutions Inc.

