

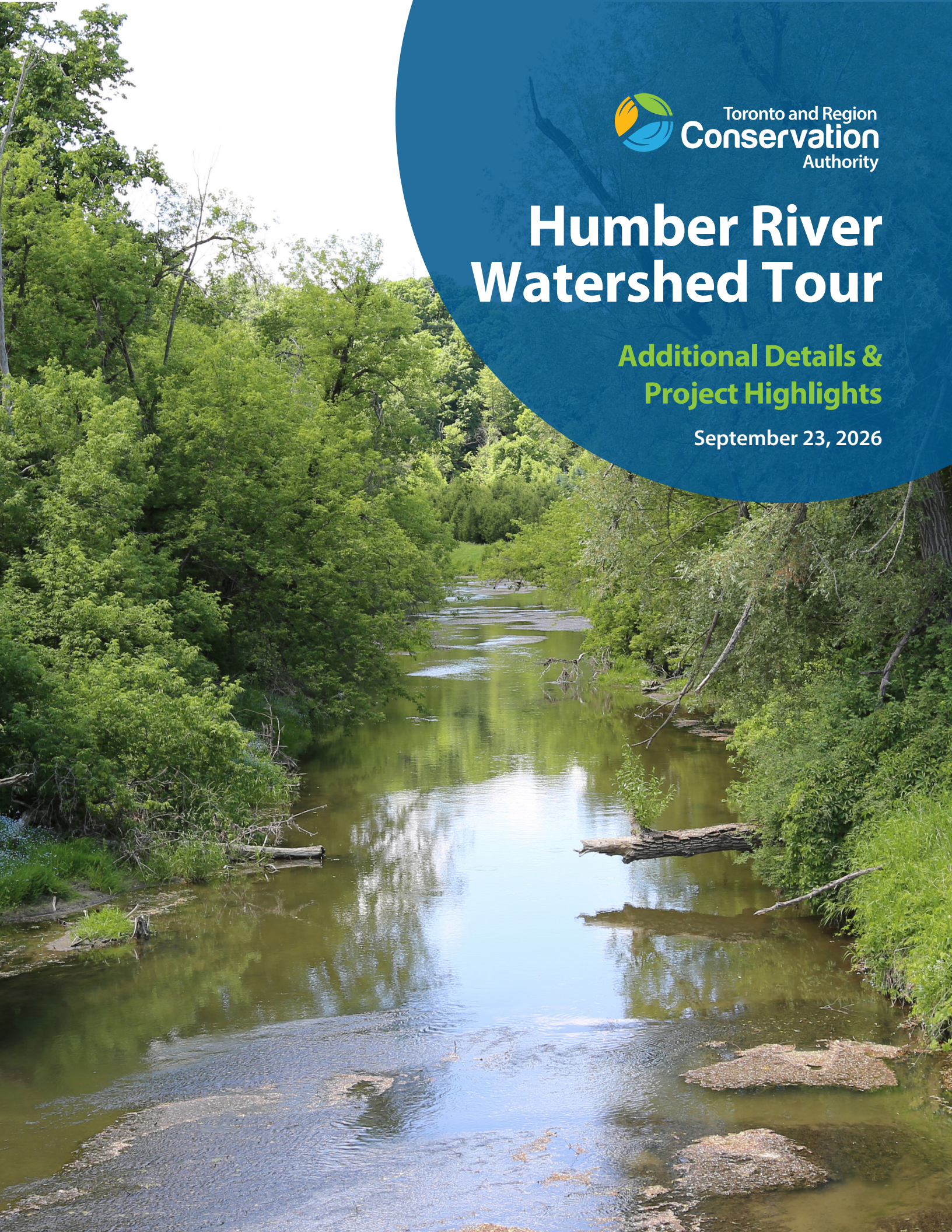


Toronto and Region
Conservation
Authority

Humber River Watershed Tour

**Additional Details &
Project Highlights**

September 23, 2026



Land and Water Acknowledgement

We respectfully acknowledge the lands and waters within the Humber River watershed are Treaty Lands and Traditional Territories of the Mississaugas of the Credit, Six Nations of the Grand River, and the Williams Treaties First Nations. These lands are also the Traditional Territories of the Wendat Nation and are now home to many diverse First Nations, Inuit, and Métis peoples.

Through our work with lands and waters, Toronto and Region Conservation Authority (TRCA) appreciates and respects the history and diversity of these lands and is grateful to have the opportunity to work and be in relation with this territory. We are also grateful for the continued work of many First Nations and Indigenous peoples, who are the original and current caretakers of these lands and waters.

We humbly acknowledge our responsibility to respect First Nations' rights and Indigenous perspectives, elevate Indigenous voices, and honour our relationships with First Nations and Indigenous peoples.

Integrated Watershed Planning

Integrated Watershed Planning provides a comprehensive and collaborative framework for understanding the current and potential future conditions of the watershed and identifying priority actions to improve watershed health and build resilience to land use and climate change impacts. It focuses on four thematic areas that influence watershed health, including **natural hazards (flooding and erosion), natural heritage and urban forest, water resources, and water quality.**

While watershed plans do not make land use or infrastructure planning decisions, they provide critical watershed-based information that can help inform various planning processes and other municipal and TRCA initiatives such as managing flood and erosion risks, climate adaptation, ecosystem restoration and management, stormwater management, sustainable rural land use, urban revitalization, and low impact development and green infrastructure implementation.



Humber River Watershed Plan (HRWP)

The HRWP is a multi-year collaborative project between TRCA, Mississaugas of the Credit First Nation, and Humber River watershed municipalities, including the City of Brampton, City of Richmond Hill, City of Toronto, City of Vaughan, Dufferin County, Peel Region, Simcoe County, Town of Aurora, Town of Caledon, Town of Mono, Township of Adjala-Tosorontio, Township of King, and York Region. Engagement with other First Nations and Indigenous communities, stakeholders, and the public is also an integral part of the process and helps inform the HRWP through valuable input.

The HRWP provides a realistic and action-oriented framework to support the long-term health, sustainability, and resilience of the watershed. It is based on robust science and meaningful engagement with collaborators, stakeholders, and the public. The HRWP will be finalized for approval/endorsement from collaborating partners in 2027. Collaborative implementation, tracking, and reporting on the success of the plan will continue over the next decade to create a safe, healthy, and resilient Humber River watershed for current and future generations.

Humber River Watershed Tour

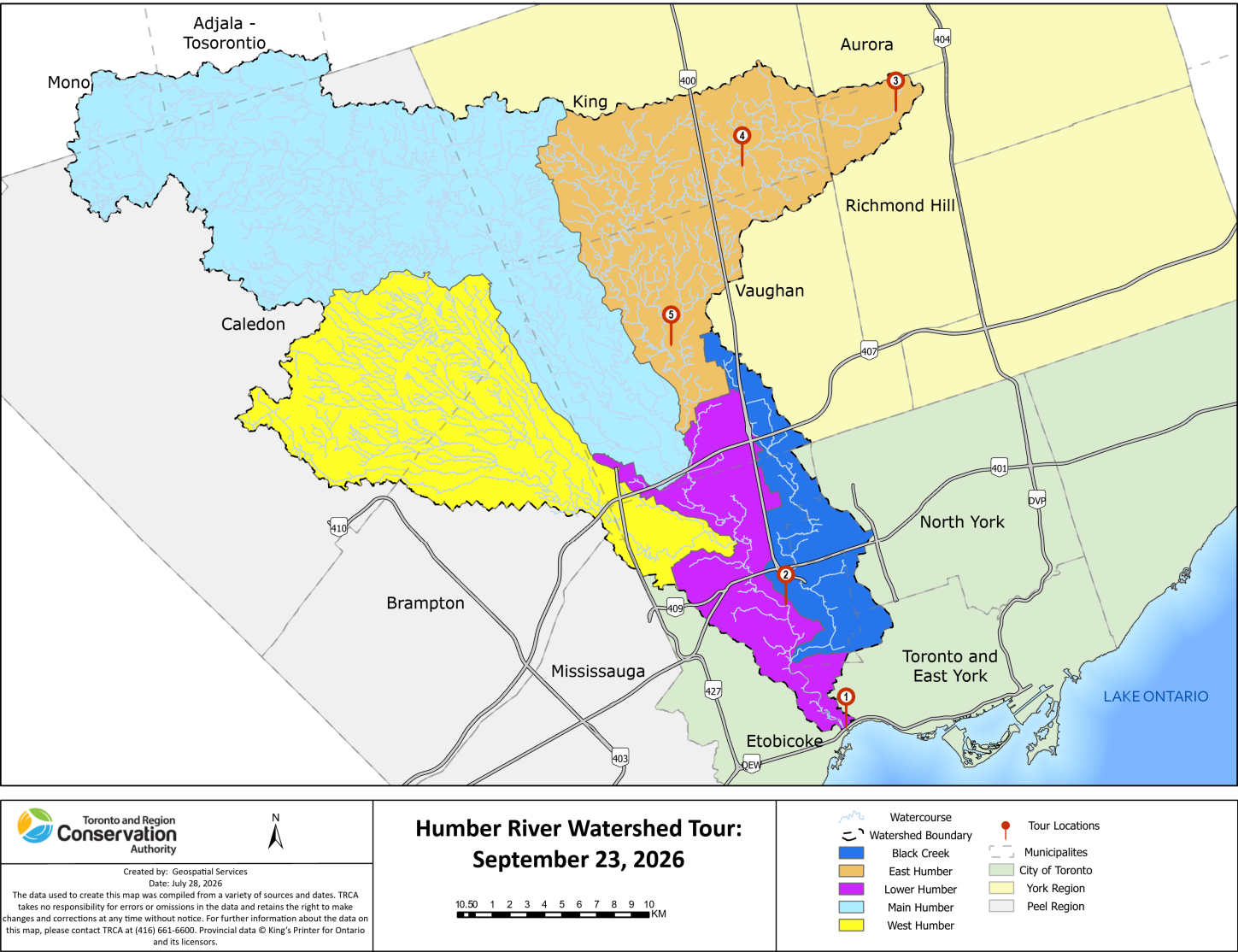
The Humber River Watershed Tour (September 23, 2026) is designed to showcase the key messages, partnerships, critical issues, and opportunities identified in the HRWP, which are also highlighted in the [**HRWP Factsheets**](#).

The tour consists of 5 key sites within the lower, middle, and upper east portions of the watershed (in the City of Toronto, York Region, City of Richmond Hill, City of Vaughan, and Township of King). They extend from the more rural headwaters in the northeast (e.g., Lake Wilcox Park) to urban areas in the south (e.g., mouth of the Humber River at Humber Bay Arch Bridge).

Through these sites, and conversations enroute, we will explore the Humber River watershed and discuss the key issues and opportunities related to the four key thematic areas of watershed health, including managing natural hazards risks, protecting, restoring, and enhancing natural heritage and the urban forest, and improving water resources and water quality, as land use and climate continues to change.

This handout provides the details of the 5 sites included in the tour for your reference. In addition, it highlights several other significant projects and sites across the Humber River watershed that demonstrate the key messages of the HRWP. While these additional sites could not be included in the tour due to time constraints, they are included here for further reading and exploration at your leisure.

Humber River Watershed Tour Sites for September 23, 2026



SITE 1: Humber Bay Arch Bridge (City of Toronto)

SITE 2: Raymore Park (City of Toronto)

SITE 3: Lake Wilcox Park (City of Richmond Hill)

SITE 4: King Township Municipal Centre (Township of King)

SITE 5: Kortright Centre for Conservation (City of Vaughan)

TOUR SITE 1



View of Humber Bay Arch Bridge at the mouth of the Humber River.

Humber Bay Arch Bridge (City of Toronto)

The health of upstream areas within the Humber River watershed—including rivers, streams, inland lakes, and groundwater systems—directly influences downstream ecosystem and community health, including that of Lake Ontario. Urban runoff carries nutrients, sediments, and other pollutants from the land into watercourses, where they are transported downstream, affecting water quality, drinking water sources, and biodiversity. By recognizing and managing these interconnected systems, integrated watershed management helps protect water quality, ecosystem health, and community well-being throughout the Humber River watershed and the Lake Ontario basin.

The Humber River valley is part of the Carrying Place Trail, an ancient Indigenous travel, trade, and communication route that connected Lake Ontario to Lake Simcoe. Archaeological evidence indicates Indigenous Peoples have lived, travelled, hunted, and traded along this corridor for thousands of years. The design of the Humber Bay Arch Bridge incorporates Indigenous-inspired elements, including turtle and canoe motifs, recognizing this rich cultural heritage and the enduring relationship of Indigenous Peoples with the Humber River and Lake Ontario.

Humber Bay Park and the Humber River mouth form one of Toronto's most important ecological areas. The Humber Marshes and sheltered embayments provide habitat for fish, migratory birds, turtles, and other wildlife, while contributing to water quality improvement and shoreline resilience along Lake Ontario. The area supports aquatic connectivity between the Humber River and Toronto Harbour, creating important spawning, feeding, and migration habitat for fish species. More than 30 fish species including Chinook Salmon, Largemouth Bass, Rainbow Trout, and Walleye have been recorded at the mouth of the Humber River, highlighting its ecological value.

Over decades, multiple partners including TRCA, Canada Water Agency, Ministry of the Environment, Conservation and Parks, and the City of Toronto have invested in habitat restoration and water quality improvements in the Lower Humber through programs like [Toronto and Region Remedial Action Plan](#). Given that Humber River is one of the top phosphorus contributors to the Lake Ontario, TRCA and partners continue to work on broader initiatives like [Western Lake Ontario Land to Lake Initiative](#) to ensure Humber River inputs into Lake Ontario are managed appropriately.

TOUR SITE 2



New revetment wall at Raymore Park to stabilize the valley wall, reduce erosion risk, and protect vulnerable infrastructure.

Raymore Park (City of Toronto)

At [Raymore Park](#) in the Lower Humber subwatershed, the Humber River tells a story of both historic devastation and ongoing resilience. In 1954, [Hurricane Hazel](#) transformed this landscape, as the river swelled to four times its normal size, eroding banks, destroying infrastructure, and claiming lives. In the aftermath of Hurricane Hazel, the MTRCA (now TRCA) created the Plan for Flood Control and Water Conservation, which identified the need for 15 large control dams, plus four major flood control channels and the acquisition of 7,200 acres of land. More than 70 years later, this legacy continues to guide how we protect communities and ecosystems from flood and erosion risks.

In 2017, TRCA completed major erosion control work along a 350 metre stretch of the east bank of the river at Raymore Park. The original 2-metre-high revetment was frequently overtopped with floodwaters, accelerating erosion and loss of valley lands. A new 165-metre armourstone retaining wall (rising to 6.5 metres) now stabilizes the valley wall, reduces erosion risk, and protects vulnerable infrastructure against more intense climate and subsequent storms.

Engineering solutions at this park also support ecological health by improving aquatic habitat connectivity. The Raymore fishway built into the weir helps fish reach feeding and spawning habitats and is a popular spot to watch [Salmon migration](#) in the fall. Improving fish passage has been a long-standing watershed priority, and the weir at this site is one of 20 priority aquatic barriers that have been identified for mitigation or removal in the HRWP. Continued collaboration with municipal partners is key to securing funding and advancing fish passage across the watershed.

Beyond infrastructure, the park's natural assets provide about \$15 million annually in ecosystem services like stormwater management. They also store roughly \$1 million in carbon, mitigating climate change. This data comes from a report completed by TRCA for the City of Toronto in 2023 ([Valuation of Ecosystem Services in Toronto's Parks, Golf Courses, and Open Green Spaces](#)), to understand the wide range of ecosystem services and benefits provided to the community by natural assets on City-owned and operated parks, golf courses, and open green spaces.

An aerial photograph showing a large, calm lake (Lake Wilcox) surrounded by a dense residential community with many houses and trees. A road runs along the bottom edge of the lake. The sky is clear and blue.

TOUR SITE 3

Aerial view of Lake Wilcox and surrounding community.

Lake Wilcox Park (City of Richmond Hill)

The Humber River watershed contains several kettle lakes, including Lake St. George, Lake Wilcox, and Bond Lake. Formed by glacial activity, these lakes are the source of the Eastern branch of the Humber River, supporting important ecological habitats and recreation such as fishing and hiking. They are protected under the Oak Ridges Moraine Conservation Plan 30(5).

Lake Wilcox lies within the Oak Ridges community in the City of Richmond Hill at the headwaters of the East Humber River in the East Humber subwatershed. The Lake Wilcox Fish and Wildlife Refuge protects the western shoreline, while urban development surrounds much of the remaining lake. Aquatic monitoring has recorded 17 fish species, with Pumpkinseed, Yellow Perch, and Largemouth Bass among the most common.

The Oak Ridges/Lake Wilcox area is one of seven Flood Vulnerable Clusters (FVCs) in the watershed. Flood vulnerability assessments in the watershed show that this area continues to face challenges that contribute to downstream flooding, erosion, and water quality issues.

Since the early 2000s, Lake Wilcox has experienced rising salt levels primarily from road runoff. To address this, a **Salt-Smart Plants Project** is testing salt-tolerant plants (also known as halophytes) that can absorb and remove salt from soils before it reaches the lake. This collaborative effort between TRCA, the City of Richmond Hill, and academic partners is exploring how these plants can be integrated into road and urban tree projects to improve water quality and support tree health. TRCA continues to lead innovative research on chloride pollution from winter salt, advancing both scientific understanding and policy change.

Completed shoreline restoration and naturalization projects around Lake Wilcox have improved aquatic and shoreline habitat, enhanced ecological connectivity, and helped stabilize sections of the shoreline. These enhancements continue to support biodiversity, improve water quality, and strengthen the lake's resilience to ongoing environmental pressures. In addition, continued stormwater management and community stewardship actions will help enhance and protect both the lake itself and downstream watershed conditions.

TOUR SITE 4



King Township Municipal Centre (Township of King)

The [King Township Municipal Centre](#) is a showcase of sustainable municipal design and environmental stewardship, demonstrating how public buildings can integrate green infrastructure, energy efficiency, and low impact development practices into a functional civic facility. Designed with sustainability as a guiding principle, the building incorporates a range of stormwater management features that help reduce runoff, improve water quality, and support groundwater recharge. These include permeable paver systems, infiltration galleries, bioswales, and landscaped restoration areas that work together to capture, filter, and infiltrate rainfall close to where it falls, mimicking natural hydrologic processes. These features provide a practical example of how municipalities can manage stormwater while enhancing site aesthetics and ecological function.

Native and restoration plantings have been incorporated throughout the site to support pollinator habitat, increase biodiversity, and improve the long-term resilience of the landscape. The building's design reflects King Township's broader commitment to environmental sustainability, climate adaptation, and responsible asset management. The Township's Corporate Strategic Plan emphasizes "A Greener Future," while municipal initiatives continue to promote sustainable development and climate action throughout the community.

The Municipal Centre also features energy-efficient building systems, including a geothermal heating and cooling system, electric vehicle charging infrastructure, and an enhanced building envelope that supports reduced energy consumption and greenhouse gas emissions. Environmental considerations were central to the facility's design, with the project emphasizing energy efficiency, flexibility, adaptability, and low maintenance over its lifecycle. The building was designed to achieve LEED certification standards and serves as a visible example of King Township's commitment to sustainable municipal leadership and environmentally responsible development.

TOUR SITE 5



A wetland on the Kortright property that serves as an outdoor classroom for environmental education programs.

Kortright Centre for Conservation (City of Vaughan)

The **Kortright Centre for Conservation** is a 325-hectare natural and education facility located on the edge of urban development in the City of Vaughan within the East Humber subwatershed. The site protects wetlands, meadows, stream corridors, and a large forest ecosystem that support many plant and wildlife species of conservation concern. However, terrestrial monitoring data indicates that several sensitive species have been lost over recent decades, likely due to increased site use, including off-leash pets and a rise in predators that have access to food and shelter from surrounding neighbourhoods.

Kortright has been identified in the HRWP as part of/adjacent to two larger priority subwatershed restoration sites (Boyd North Corridor and **Boyd Conservation Park**), with opportunities to enhance and restore habitat, increase connectivity, and support biodiversity as the plan is implemented.

Kortright is one of Canada's leading outdoor centres for environmental education and sustainable technology demonstration. It plays a key role in advancing watershed objectives by connecting people to nature and showcasing practical solutions for climate resilience, energy efficiency, and habitat restoration. Through partnerships, research, and hands-on learning, Kortright fosters environmental stewardship and helps strengthen ecosystem connectivity across the watershed.

Seed-Barker Site (nearby)

Five hundred years ago, the Seed-Barker Site was a thriving Woodland Period Village located along the Carrying Place Trail (see Page 10). Archaeological excavations have revealed evidence of 20 longhouses enclosed by an eight-row wooden palisade, along with more than one million artifacts that offer remarkable insight into daily life, community, and trade. Between 1975 and 2005, the site also became an outdoor classroom, where more than 1,000 high school and university students learned archaeological methods and is now one of the few archaeological sites in Ontario to have been excavated entirely by hand.

Exploring More of the Watershed: Additional Sites and Project Highlights

While not part of the tour, the following sites highlight points of interest and projects across the watershed.

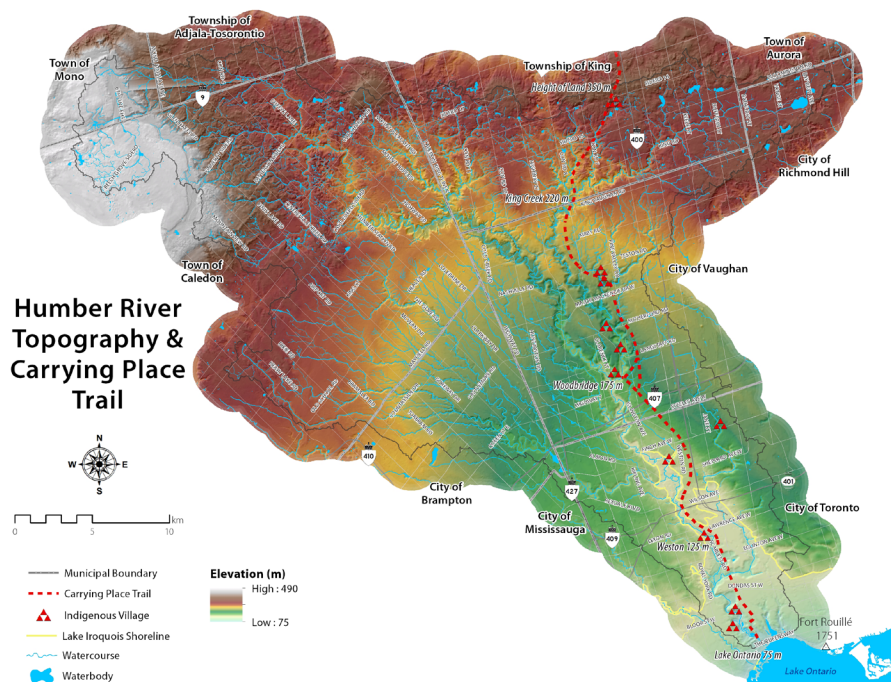
Toronto Carrying Place Trail (City of Toronto and York Region)

The **Toronto Carrying Place Trail**, also known as le Passage de Toronto or the Humber Portage, is a historically significant Indigenous trade and transportation route that contributed to the Humber River's designation as a **Canadian Heritage River**, connecting communities from Lake Ontario to Georgian Bay.

It has two main branches. The western branch follows the Humber River beginning about four kilometres upstream of Lake Ontario in the Lower Humber subwatershed, near the **Seneca village of Teiaiaagon**, (which means “Village at the Crossing”) located in what is now the Baby Point area, just north of Old Mill. The village was the last stopping point before beginning the portage portion of the Carrying Place Trail. This important agricultural settlement and trading post supported approximately 2,000 Seneca and Mohawk people and was settled for several decades.

From there, the route extends roughly 60 kilometres north, including a 45 kilometre overland portage along the Humber's main and eastern branches, connecting north to the west branch of the Holland River, Lake Simcoe, and onward to Georgian Bay. The eastern branch follows the Rouge River, beginning about two kilometres north of Lake Ontario at the **Seneca village of Ganatsekwyagon**, and connects to the east branch of the Holland River.

For the Wendat Nation, the Haudenosaunee, and the Michi Saagiig (Anishinaabe Mississauga of the north shore of Lake Ontario), the Carrying Place was a living cultural landscape, not merely a transportation route. Dozens of village and campsite locations, including Teiaiaagon, have been identified along the Humber corridor, reflecting the watershed's role as a continental nexus of trade, ceremony, diplomacy, and knowledge exchange for all who travelled between Lake Ontario and the upper Great Lakes.



Humber Marshes (City of Toronto)

The [Humber Marshes](#), part of the Lower Humber River Wetland Complex, are a rare ecological area in the Lower Humber subwatershed where sensitive terrestrial and aquatic habitats persist within a highly urbanized setting. They are collectively designated as a Provincially Significant Wetland and recognized as an Environmentally Significant Area. The marshes support diverse and at-risk species, including American Eel, Mudpuppy, and Blanding's and Snapping Turtles, as well as birds such as Barn Swallow, Chimney Swift, and Prothonotary Warbler. Rare mammals like River Otter and one of Toronto's last populations of Spotted Salamanders are also found here, alongside uncommon plant communities such as Black Oak savannah.

Despite their ecological importance, the marshes face multiple environmental pressures, including poor water quality, altered flow regimes, human disturbance, noise, and plastic pollution. Microplastics have been detected in fish within the Humber River system, raising broader concerns for aquatic and wildlife health. The nearby [Humber Treatment Plant](#), while not directly impacting the marshes, contributes to concerns about contaminants in connected nearshore ecosystems. Longstanding recreational uses, including a yacht club, may also have had cumulative impacts.

The Humber Marshes has been identified in the HRWP as a priority restoration site for the Lower Humber subwatershed (King's Mill-Humber Marshes), with opportunities to enhance and restore forest, wetland, and riparian habitat. Ongoing management and restoration efforts are critical to protecting and enhancing this unique ecosystem.



Aerial view of the Humber marshes

Nashville Conservation Reserve (City of Vaughan, Township of King)

Nashville Conservation Reserve is a 900+ hectare TRCA property located in York Region, within the City of Vaughan and Township of King, in the Main Humber subwatershed. Its large size and current and future ecological value make the Reserve an integral part of our region's natural heritage system. This area has been identified in the HRWP as part of/adjacent to two larger priority subwatershed restoration sites (Nashville Resource Management Tract and Nashville-South), with opportunities to enhance and restore habitat, increase connectivity, and support biodiversity as the plan is implemented.

The site showcases decades of restoration and stewardship efforts led by TRCA and its partners. Along Nashville Road and surrounding areas, a variety of wetland restoration and planting projects highlight the evolution of ecological design, from earlier block-style plantations to more naturalized, diverse native ecosystems. Former agricultural lands have also been restored, with some areas now providing important habitat for grassland species such as Bobolink.

The Reserve provides nesting habitat for forest-dependent birds such as Ovenbird and Black-and-white Warbler, underscoring the importance of protecting and enhancing ecological connectivity across the watershed.

It is also home to sensitive freshwater mussels, including the Elktoe, a species that lives quietly beneath the streambed, filtering water and helping to keep rivers clean. These species rely on clean, flowing water, stable gravel beds, and healthy fish populations to survive, yet face ongoing pressures from habitat degradation, invasive species, and changing stream conditions. TRCA has inventoried at least six freshwater mussel species in the Humber River watershed including: Creek Heelsplitter, Creeper, Cylindrical Papershell, Elktoe, Fatmucket, and Giant Floater.

A view of the Humber River flowing through Nashville Conservation Reserve, home to the endangered Elktoe mussel.



Oak Ridges Corridor Conservation Reserve (City of Richmond Hill)

The [Oak Ridges Corridor Conservation Reserve](#) is a 603-hectare protected natural area in the City of Richmond Hill, located on the Oak Ridges Moraine and spanning both the East Humber subwatershed and Rouge River watershed. Owned by the Province of Ontario and TRCA, and managed by TRCA, the reserve plays an important role in protecting sensitive headwater areas and maintaining water quality across the region.

The Reserve features a diverse landscape of forests, wetlands, kettle lakes, and meadows, supported by an extensive trail network. Its wetlands, including swamps, marshes, and a rare bog, are of ecological importance. The bog supports specialized plant species such as bog buckbean and round-leaved sundew, while the broader wetland system provides habitat for birds like Pied-billed Grebe and Sora. The Reserve's kettle lakes support a diverse fish community, including species such as Banded Killifish, Black Crappie, Bluegill, Brown Bullhead, Golden Shiner, Iowa Darter, Largemouth Bass, Northern Pike, Pumpkinseed, Rock Bass, White Sucker, and Yellow Perch.

These wetlands are closely connected to surrounding forest habitats, creating a continuous landscape that supports breeding and overwintering species such as Wood Frog and Spotted Salamander. This connectivity enhances biodiversity and strengthens ecosystem resilience across the moraine.

The site has also supported long-term ecological monitoring, helping to track changes in habitat and species over time. Continued funding is essential to sustain this work and ensure ongoing tracking of ecosystem changes. Protecting and maintaining areas like the Oak Ridges Corridor Conservation Reserve is essential to sustaining the health and connectivity of the region's natural systems.



View of a lake within the Oak Ridges Corridor Conservation Reserve

Rexdale Sustainable Neighbourhood Action Plan (SNAP) (City of Toronto)

TRCA, in partnership with the City of Toronto, is working with residents, community leaders, and local organizations to implement the [Rexdale Sustainable Neighbourhood Action Plan \(SNAP\)](#). This community-driven initiative in the West Humber and Lower Humber River subwatersheds advances local climate action and neighbourhood sustainability, reflecting priorities identified through a collaborative planning process.

The Rexdale SNAP has been identified in the HRWP as part of/adjacent to three priority restoration sites (Rowntree Mills Park, Thackeray Park, and Kipling Park) for the Lower Humber subwatershed, with opportunities to enhance and restore habitat with the community and other partners in the future.

The Rexdale SNAP focuses on four key action areas:

- revitalizing parks and green spaces through green infrastructure
- strengthening the sharing and circular economy through community programs and skills-building initiatives
- supporting sustainable housing through the [Climate Ready Homes Program](#)
- enhancing local food security through urban agriculture

Together, these efforts help build a more resilient, connected, and sustainable Rexdale community.



The Humber River watershed is a living system shaped by people, nature, and history. The key messages from the HRWP, partnerships, and projects highlighted on this tour and in this booklet demonstrate how collaboration, innovation, and stewardship can protect, enhance, and restore this vital resource for generations to come.

For more information about the HRWP please visit trca.ca/humber or email us at humber@trca.ca.