Let’s Talk Channel Restoration: Chinguacousy – Hilldale Parks

Welcome to the Open House

December 9th, 2025

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Toronto and Region Conservation Authority

STREAMS IN A CHANGING LANDSCAPE

What is a Stream?

Streams are natural flowing water channels that move rain and ground water across the landscape, connecting our land to larger rivers, wetlands and lakes.

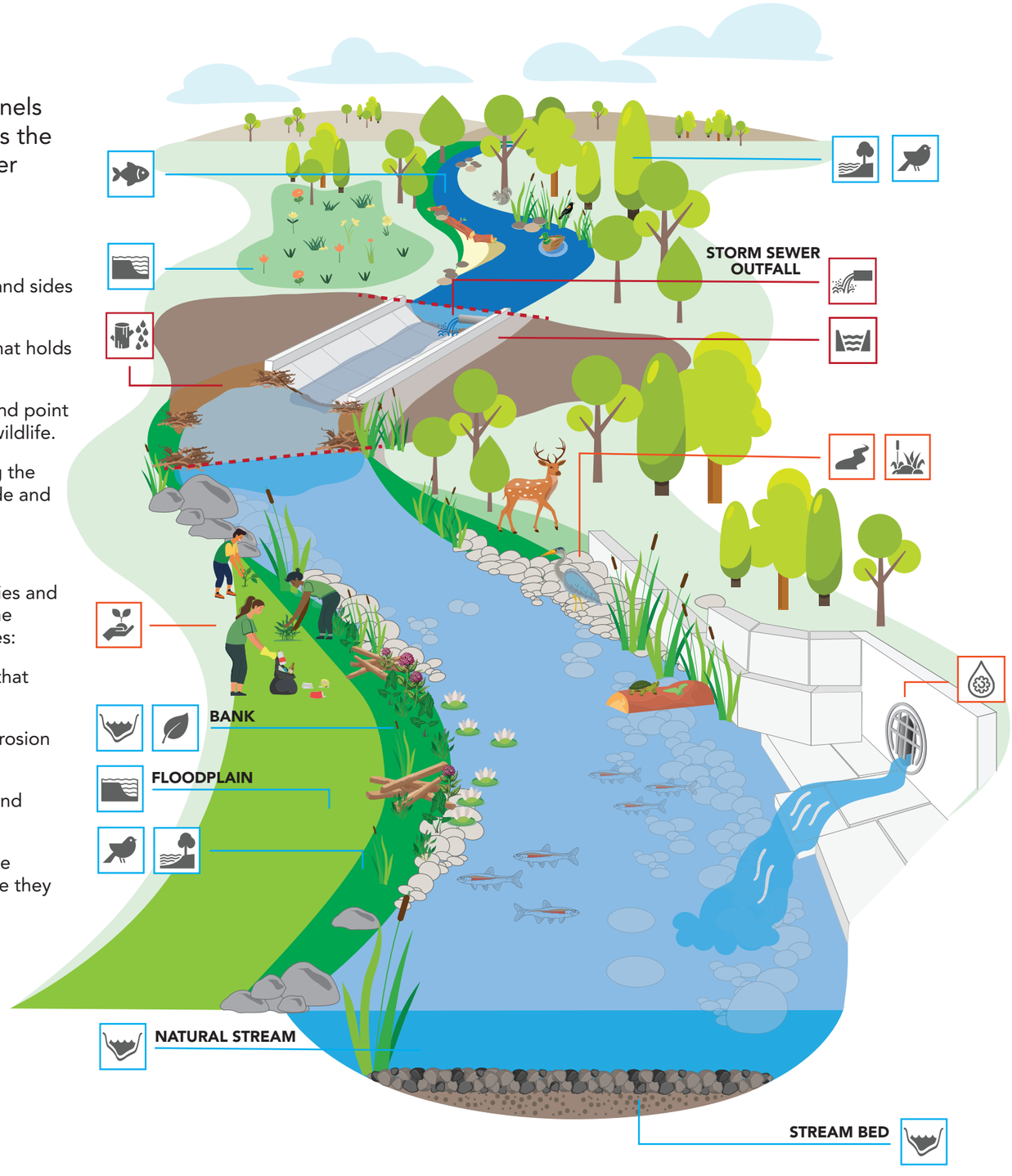
Key Elements of a Natural Stream

- **Channel and Banks** – the main pathways and sides that guide how water moves and flows.
- **Floodplain** – the area beside the stream that holds extra water during high rain events.
- **Habitat Features** – riffles, pools, bends, and point bars that create homes for fish and other wildlife.
- **Vegetation Riparian Buffer** – plants along the stream that protect the bank, provide shade and support wildlife.

Why are streams important?

Streams are the foundation for healthy communities and ecosystems. They support people, wildlife, and the environment by providing many important services:

- **Clean Water** – help filter and store water that supports our drinking water sources.
- **Flood Protection** – reduce flooding and erosion by spreading water across floodplains.
- **Wildlife Support** – provide food, shelter and habitat for many species.
- **Natural Filtration** – filter out pollutants like nitrogen, phosphorus, and sediment before they reach rivers and lakes.



Did you know?

Brampton is home to over 530 kilometres of watercourses that flow through the City's diverse landscapes.

Pressures on Stream Health

Human activities have changed streams, reducing their ability to stay healthy and resilient. Some key pressures include:

- **Increased quantity of water** - land use changes and urban growth reduce infiltration, which, when combined with climate change, increase water flow to the creek.
- **Altered Channels** – straightening or hardening streams increases erosion, flooding, and loss of fish and wildlife habitat.
- **Pollution and Habitat Loss** – increased runoff and land use development reduce water quality, and destroy natural habitats.
- **Deforestation and Water Use** – removing streamside trees or using too much water lowers flows, raises temperatures, and increases erosion.
- **Climate Change** – stronger storms and changing weather puts more stress on streams and surrounding ecosystems.

How We Restore Streams

City of Brampton is working with conservation partners and community volunteers to restore streams, strengthen natural systems and make them more resilient. Restoration efforts include:

- **Channel Naturalization** – reshaping streams, reconnecting floodplains and restoring natural beds and banks.
- **Erosion Repairs** – stabilizing banks with natural materials, regrading unstable area, and reducing sediment buildup.
- **Habitat and Water Quality** – planting native vegetation, improving fish and wildlife habitat, managing invasive species and organizing litter clean-ups.
- **Stormwater System Improvements** – improving stormwater systems to slow, filter, and absorb runoff, protecting streams from pollution, flooding and erosion.

Brampton.ca/natural-heritage

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CHANNEL NATURALIZATION PROGRAM

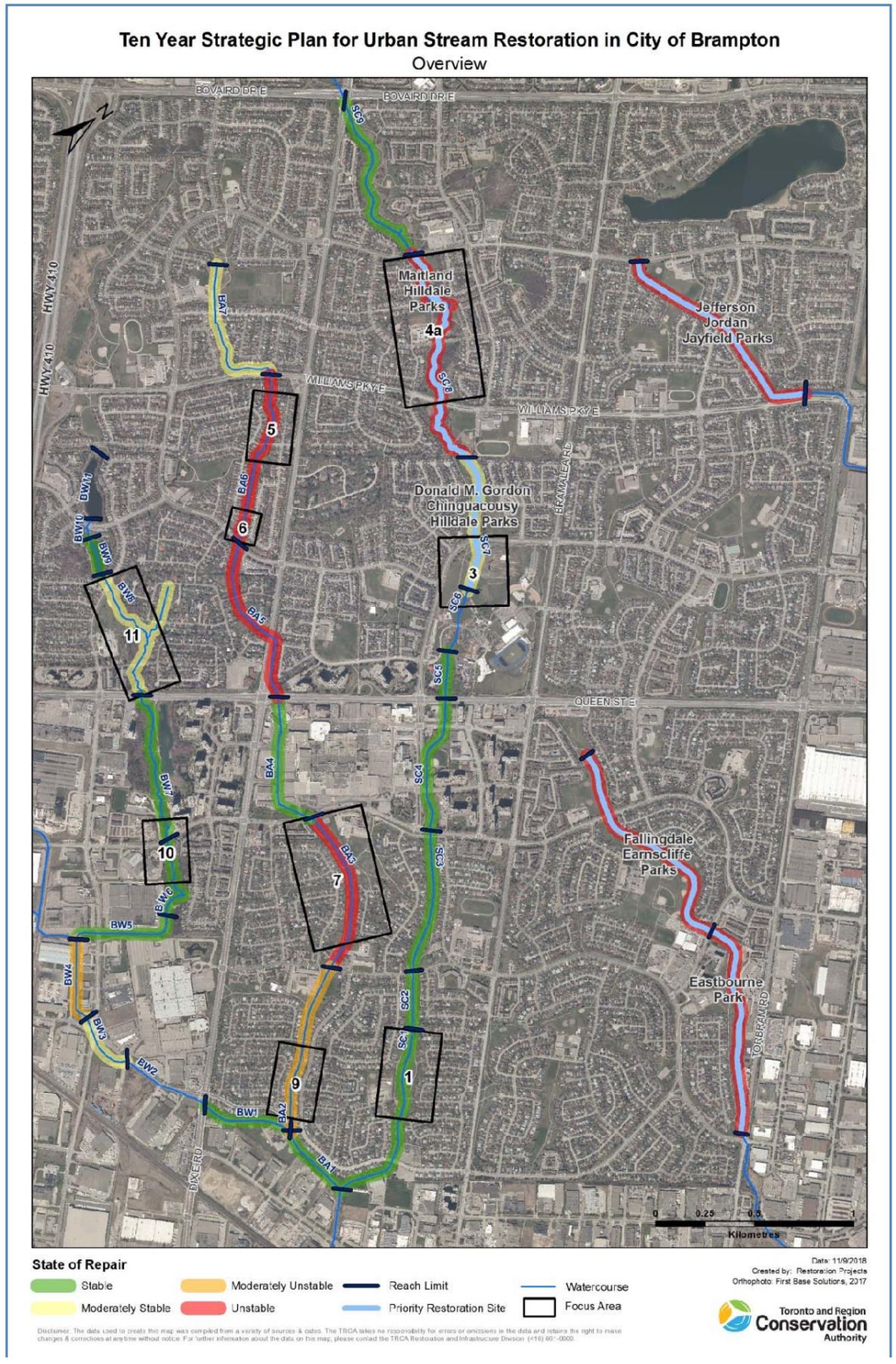
In 2018, Toronto and Region Conservation Authority (TRCA) completed a comprehensive **10-Year Natural Channel Rehabilitation Plan** to identify and prioritize creek corridors in Brampton that require restoration to improve ecological health and reduce infrastructure risk.

Progress to Date

TRCA has restored **over 4500 metres** of degraded creek channels in Brampton, helping protect neighbourhoods, enhance natural systems, and improve long-term watershed resilience.

Program Benefits:

- Improved water quality
- Enhanced fish and wildlife habitat
- Increased creek stability and reduced erosion
  Mitigated local flood damage risk
- Lower long-term maintenance costs



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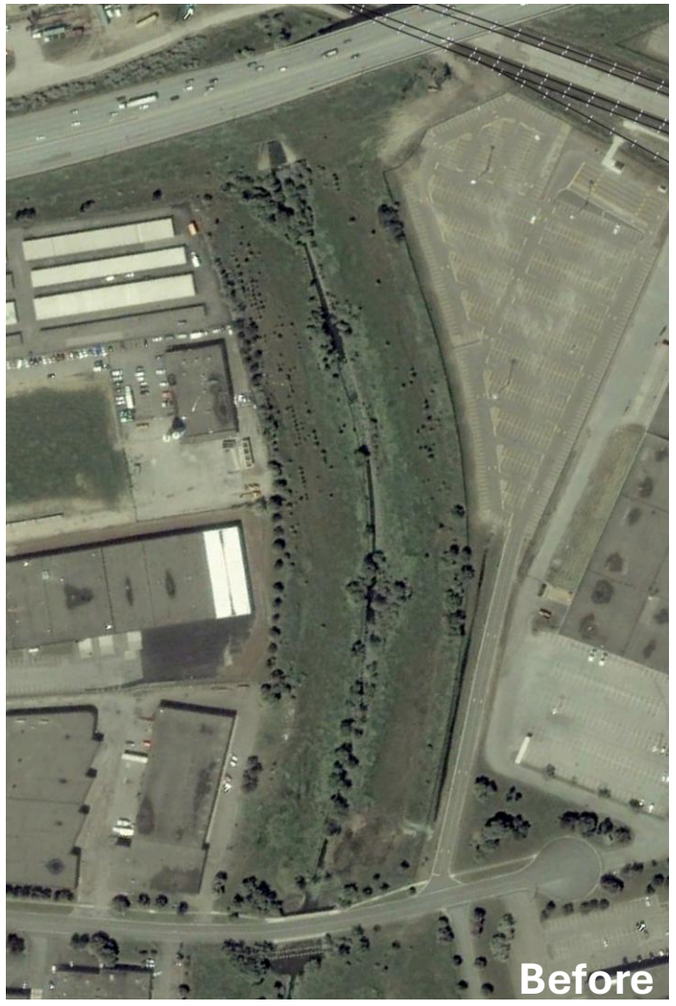
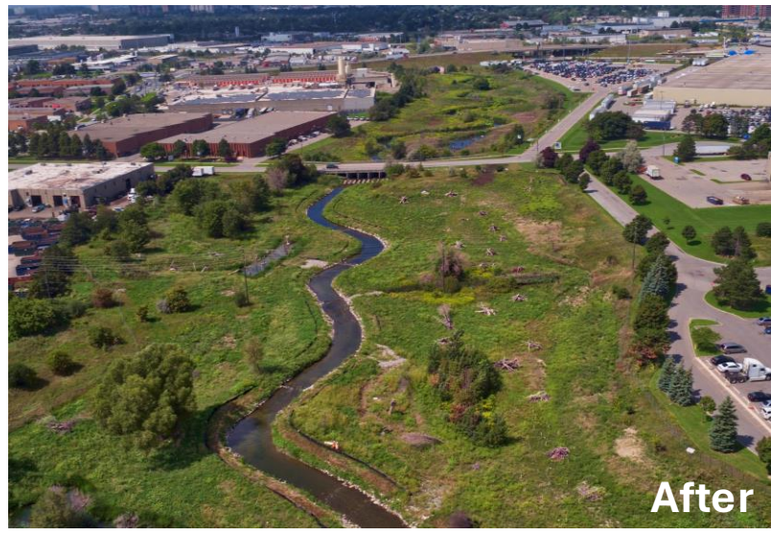
CHANNEL NATURALIZATION PROGRAM PROJECTS

- Upper Mimico Channel: 1500m completed in 2013
- Alfred Kuehne Channel: 1000m completed in 2015
- Jefferson, Jordan and Jayfield Parks Channel: 1000m completed in 2021
- Eastbourne Park Channel: 1100m completed in 2025

Alfred Kuehn Channel Restoration





Jefferson, Jordan and Jayfield Parks Channel Restoration

CHINGUACOUSY & HILLDALE PARKS

PROJECT PURPOSE

TRCA and City of Brampton are partnering to restore approximately 500m of channelized creek within Donald M. Gordon Chinguacousy Park and Hilldale Parks.

The proposed restoration will:

- Help to reduce localized flooding impacts; and
- Protect, enhance, and restore the natural environment within the urbanized park settings.

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EXISTING CONDITIONS

- This reach of Spring Creek is composed of concrete, gabion, and cable-crete channel treatments installed in the 1960s and 1970s.
- Multiple outfalls in the parks discharge stormwater from several nearby residential areas into the watercourse.
- The area surrounding the Creek is predominantly open manicured lawn with scattered trees and non-native trees and shrubs.

THE PROBLEM

- The outdated, hardened channel treatments are failing in many areas, contributing to additional erosion along the Creek.
- Creek and outfall channelization has limited the system's ability to regulate stormwater inflows and filter pollutants.
- The heavily altered channel, absence of wetlands, and surrounding turf area provide minimal habitat for both aquatic and terrestrial species.

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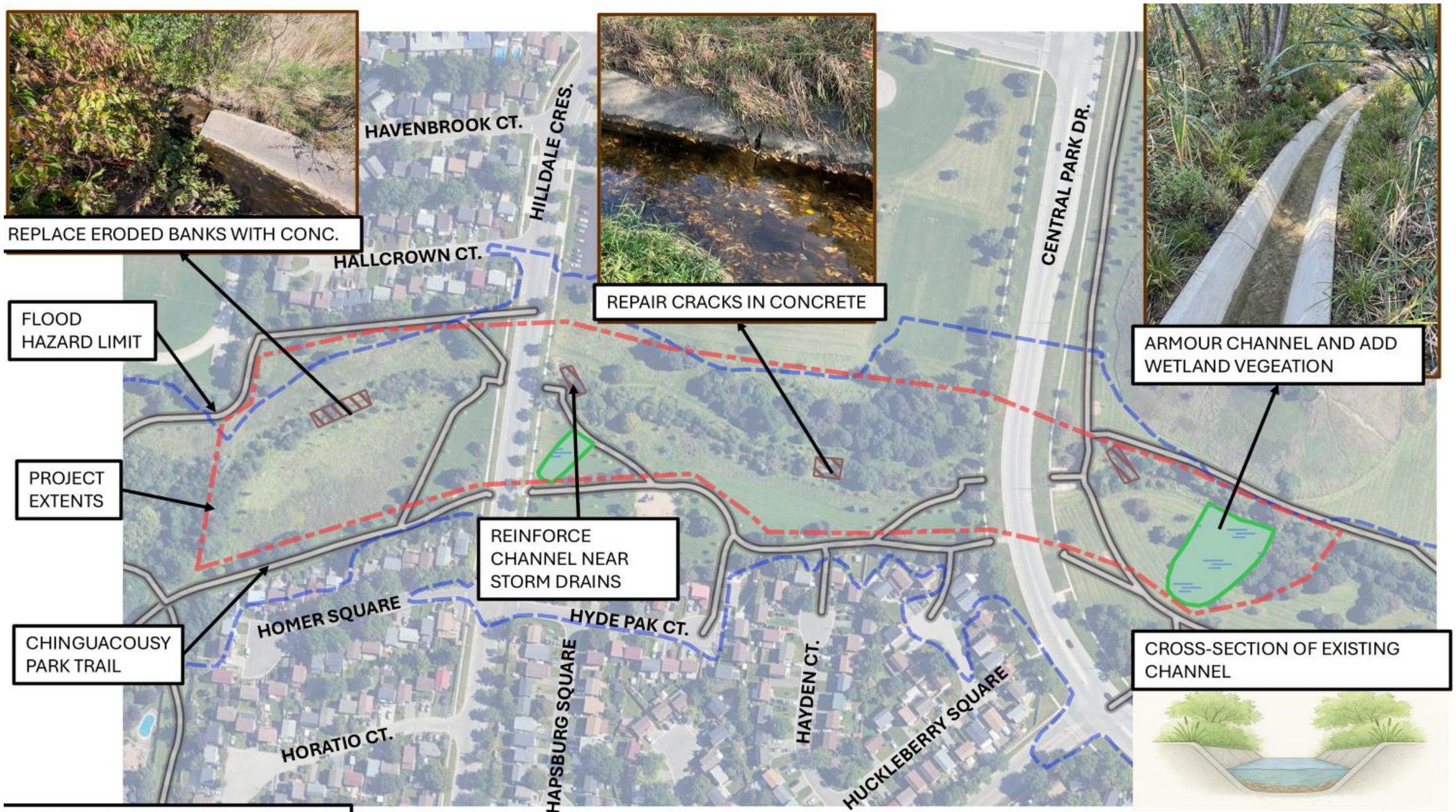
FIXING THE PROBLEM: PROPOSED ALTERNATIVES

ALTERNATIVE 1 - DO NOTHING

Do nothing and leave the study area in its current condition.

ALTERNATIVE 2 – REPAIR IN PLACE

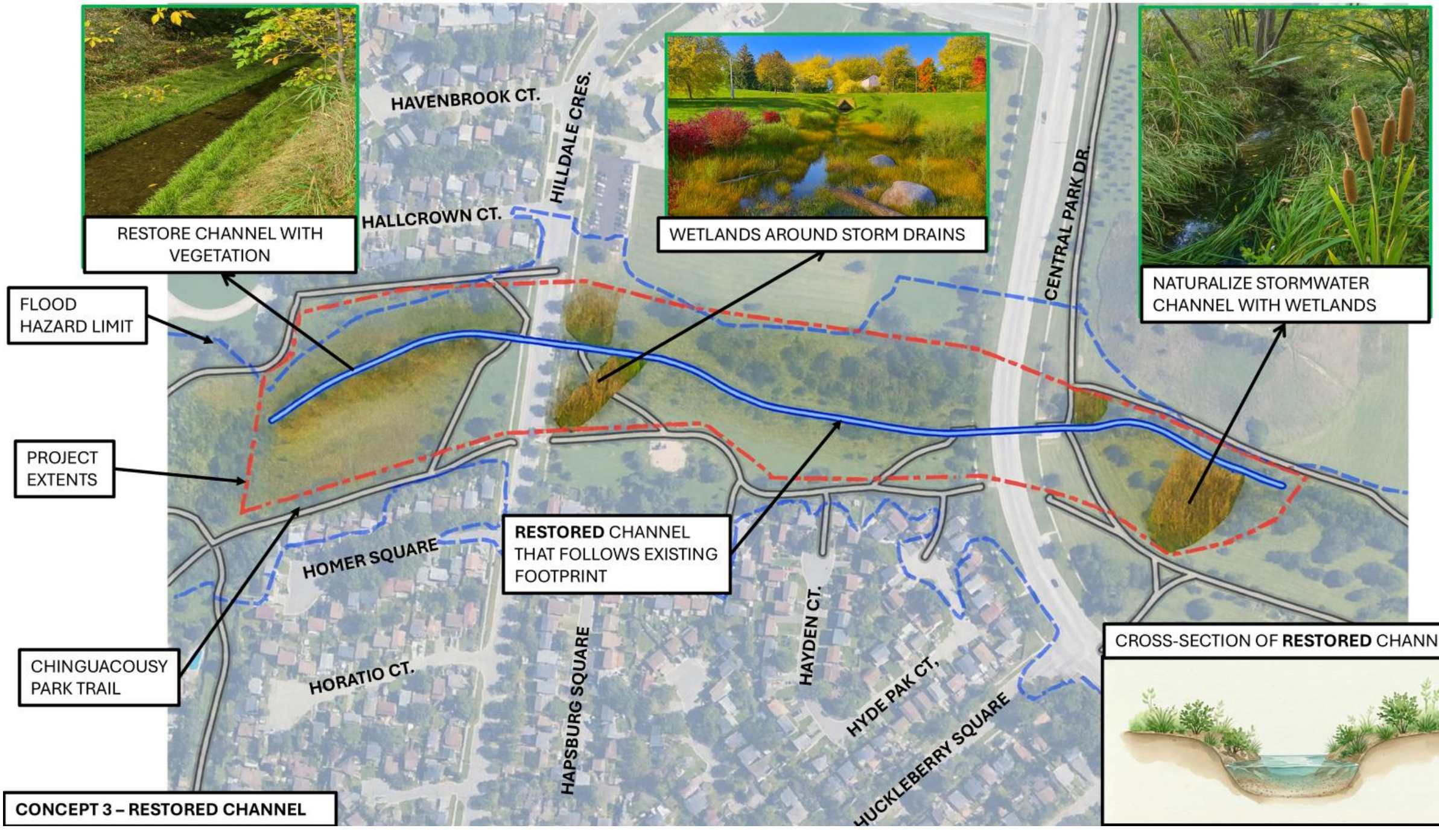
Maintain and repair the existing linear channel infrastructure.



CONCEPT 2 – REPAIR IN PLACE

ALTERNATIVE 3 – RESTORED CHANNEL

This option removes the concrete and replaces it with a naturalized channel in the same narrow linear corridor, with the banks planted with native vegetation. It offers moderate ecological benefits but is constrained by the tight footprint.



ALTERNATIVE 4 – WIDEN & NATURALIZE CHANNEL

This option fully removes the concrete and creates a wider, more natural linear channel with riffles, pools, floodplain benches, and some wetland features.

ALTERNATIVE 5 – REALIGN & NATURALIZE CHANNEL

This option realigns and widens the creek to create a meandering, fully naturalized channel with expanded wetlands, floodplain benches, and riffle–pool sequences. This option offers the greatest ecological and hydraulic improvements and creates new public features like lookouts and naturalized trail connections.

HOW DID WE DETERMINE WHICH ALTERNATIVE IS BEST?

Each alternative was evaluated based on criteria within the following environmental assessment categories:

Physical/Natural Environment

Potential impacts to flooding, surface drainage, erosion, terrestrial and aquatic habitat, and valley slope stability

Constructability

Costs and logistics associated with the amount of work and duration of construction (dependent on length of corridor to be restored)

Social/Cultural Environment

Potential impacts to aesthetic value, benefit to the community, existing archaeological features, First Nations concerns

Ongoing Maintenance Costs

Rough order of magnitude costs for ongoing maintenance of the proposed alternatives after implementation

Technical Criteria

Regulatory agency acceptance, impacts to existing infrastructure, access to existing infrastructure, maintenance requirements

Public Safety

Potential impacts to public safety and requirement for safety features (e.g. safety fences)

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HOW DID WE DETERMINE WHICH ALTERNATIVE IS BEST?

	Alternative 1 – Do Nothing	Alternative 2 – Repair in Place	Alternative 3 – Restored Channel	Alternative 4 – Widen & Naturalize Channel	Alternative 5 – Realign & Naturalize Channel
Physical & Natural Environment	----	---	+	++	++++
Social/Cultural Environment	--	--	+	++	+++
Hydraulic Improvement	---	--	-	+	++
Constructability	0	-	-	--	---
Ongoing Maintenance Costs	---	---	--	++	++
Public Safety	-	-	+	+	++
Total Score	**---**	**--**	**++**	**+++**	**++++**

*Plus signs indicate an overall benefit while minus signs indicate a negative impact. More pluses or minuses indicate the level of the respective benefits or impacts. A zero indicates a negligible benefit or impact.

Alternative #5 is the recommended alternative for the Channel restoration of Chinguacousy and Hilldale Parks

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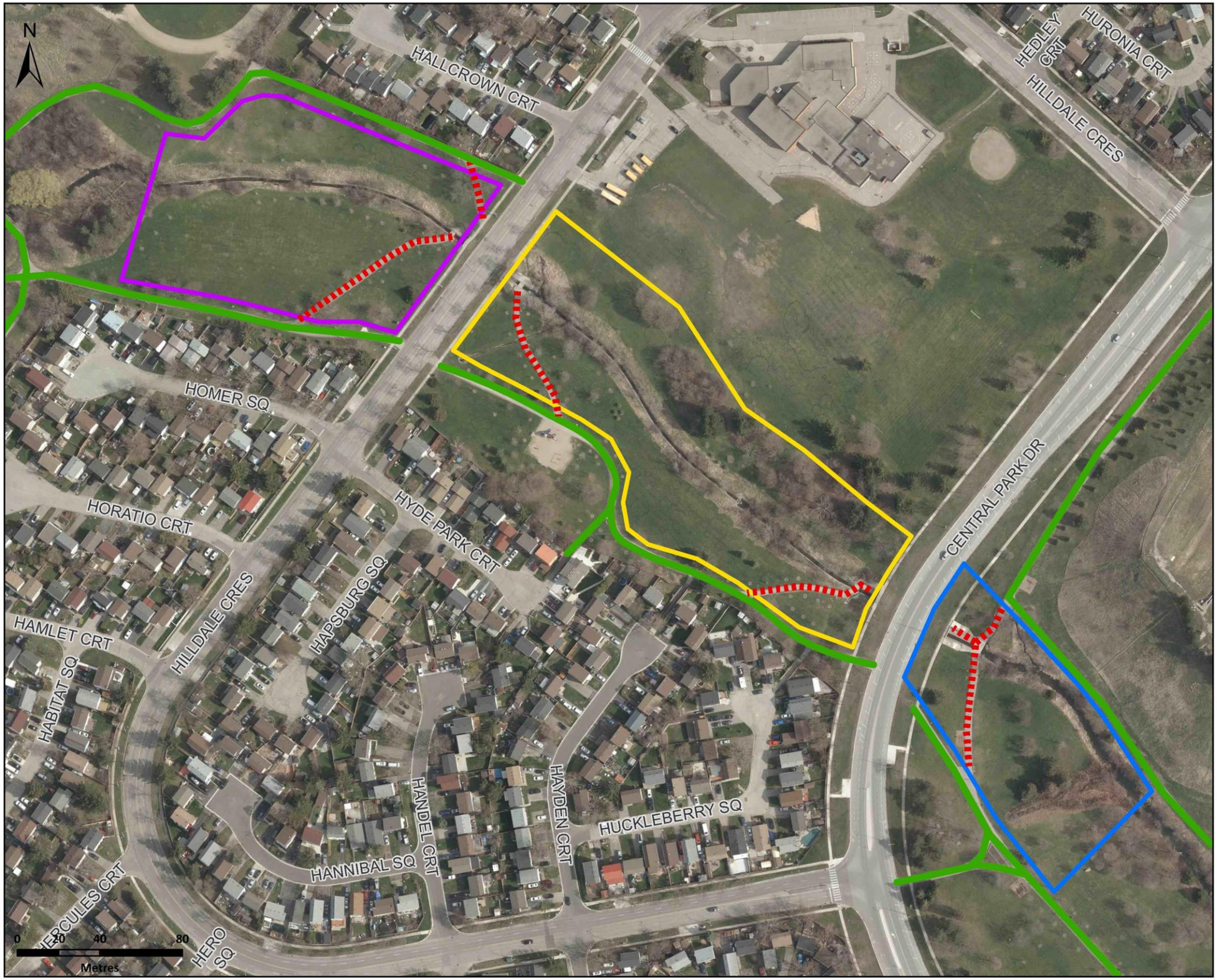
CONSTRUCTION PHASING & TRAIL ACCESS



Chinguacousy & Hilldale Park Construction Phasing & Trail Closures

Queen St. E/Bramalea Rd
Etobicoke Creek, Brampton

Legend

Construction Phasing

- Phase 1 (Jan 2026 - May 2026)
- Phase 2 (Apr 2026 - Dec 2026)
- Phase 3 (Jan 2027 - Mar 2027)

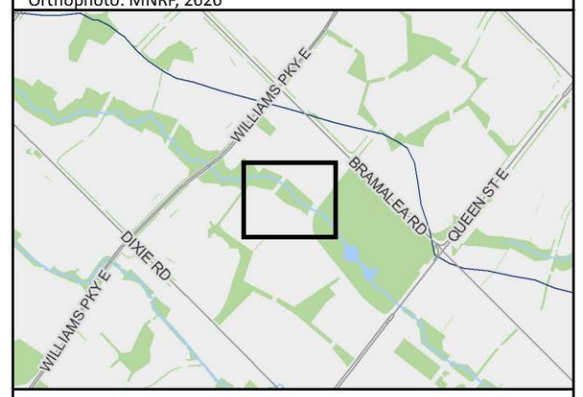
Trail Status

- Main trails to remain open for duration of project
- Trail closed during construction

Notes:

Timelines subject to change

Date: 2025-12-05
Created by: Restoration and Infrastructure
Orthophoto: MNRF, 2020



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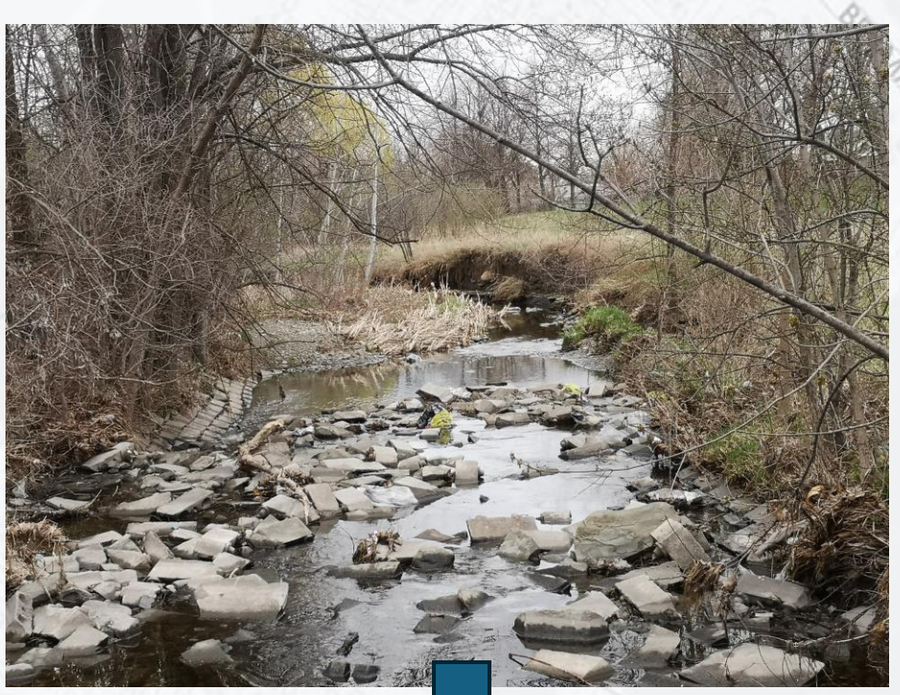
TREE PROTECTION, REMOVALS AND REPLANTING

- Trees will only be removed within the new channel footprint and floodplain area. The site will drastically change once the trees are removed.
- Approximately 150-200 trees are flagged for removal, however we will save as many healthy native trees as possible.
- Many removals involve invasive species such as buckthorn and Manitoba maple, along with a small number of unhealthy native trees like ash and hawthorn.
- The majority of trees removed will be incorporated into our restoration work along the new bank of the channel.
- A planting plan is in progress to cover tree removal compensation requirements. The plan is anticipated to include approximately 6000-8000 trees, shrubs and willow stakes which far exceeds the 750-1000 trees and shrubs required for compensation.



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CONSTRUCTION IMPACTS

Equipment on site

- Excavators
- Loaders
- Skid-steer
- Rock truck & Tri-axle trucks (dump trucks)
- Water pumps

What to expect

- Excavators begin digging new floodplain and natural channel
- Loaders, skid-steers and rock trucks will be moving soil and loading trucks that enter site
- Dump trucks will enter the site to remove existing soil, and to drop off materials

Outcome

- Natural Channel will be shaped/created by equipment (Channel, trail, lookouts)

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What's Next?

After the Public Open House

TRCA will incorporate comments into the Final Project Report with the preferred design

Detail Design Completion

Once the detailed design is complete, we will post on **Brampton.ca/channelrestoration**

Project Implementation

Tentatively scheduled for January 2026.

Timelines are subject to change, pending acquisition of relevant permits and approvals.

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HAVE YOUR SAY

Grab a form and help us answer these questions:

- Do you have any questions or concerns about the Preferred Alternative #5?
- Do you have any overall questions about the project (timelines, design, etc.)?
- Once the project is complete would you be interested in a walking tour or educational opportunity to learn more about the project?
- What information would you like to see on interpretive signage installed at the parks?

Let’s Keep in Touch!

- Follow @bramgrowgreen on Instagram, Facebook & X
- Visit Brampton.ca/channelrestoration
- Join the Grow Green Network for emails

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WHAT ELSE IS HAPPENING ALONG SPRING CREEK?

Spring Creek Urban Flood Study:

- The purpose of the flood study is to determine the service level within the storm sewer system, identify capacity constraints, assess flood risks, and develop flood mitigation strategies for selected areas of concern. Study will be complete in 2027.

Watercourse Erosion Assessment Study:

- The City has partnered with TRCA to complete annual Watercourse Erosion Assessment Studies that include reaches of Spring Creek. The Study identifies erosion risks from flows that could impact infrastructure, parks and public safety.
- The study helps the City plan for long-term capital work, prioritize repairs, and manage long-term infrastructure risks.

Watercourse Restoration Projects

- The City implements restoration projects to address increased flows and erosion concerns.
- This year, 6 projects were completed, including the Birchbank Park Watercourse Restoration project, with site restoration planned for spring 2026.
- The project included slope stabilization along Spring Creek to prevent further erosion, protect the trail and improve flow through the channel.
- These improvements reduces erosion during heavy rainfall, safeguards infrastructure, improves flow through the reach and supports overall resilience of the watercourse.
- Engagement with residents: 235 notices were sent to nearby residents for the Birchbank Park Project.

Increased Maintenance

- City Operations staff are conducting more frequent catchbasin cleaning to improve drainage.
- Additional monitoring and maintenance activities are conducted to reduce surface flooding.

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