

Natural Channel Projects in Brampton

Program Updates

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Restoration Projects

March 22, 2023

Presentation Outline

- Background of Restoration and Resource Management Team
- Past Natural Channel Project – Alfred Kuehne
- Ten Year Strategic Plan for Urban Stream Restoration in Brampton
- Brampton Eco Park Strategy
- Jefferson, Jordan and Jayfield Parks Natural Channel Restoration Project (Update)
- Eastbourne Park Natural Channel Project (Update)
- What's Next?

2022 RRM Deliverables

Implemented over **432** restoration, resource management and stewardship projects across our jurisdiction.



25 ha

riparian restoration



7.2 km

stream restoration



10 ha

wetland restoration



1,271

hazard trees abated



59 ha

meadow restoration



229 ha

invasive species management



52 ha

forest/woodland restoration



4,958 lbs

community garbage collected

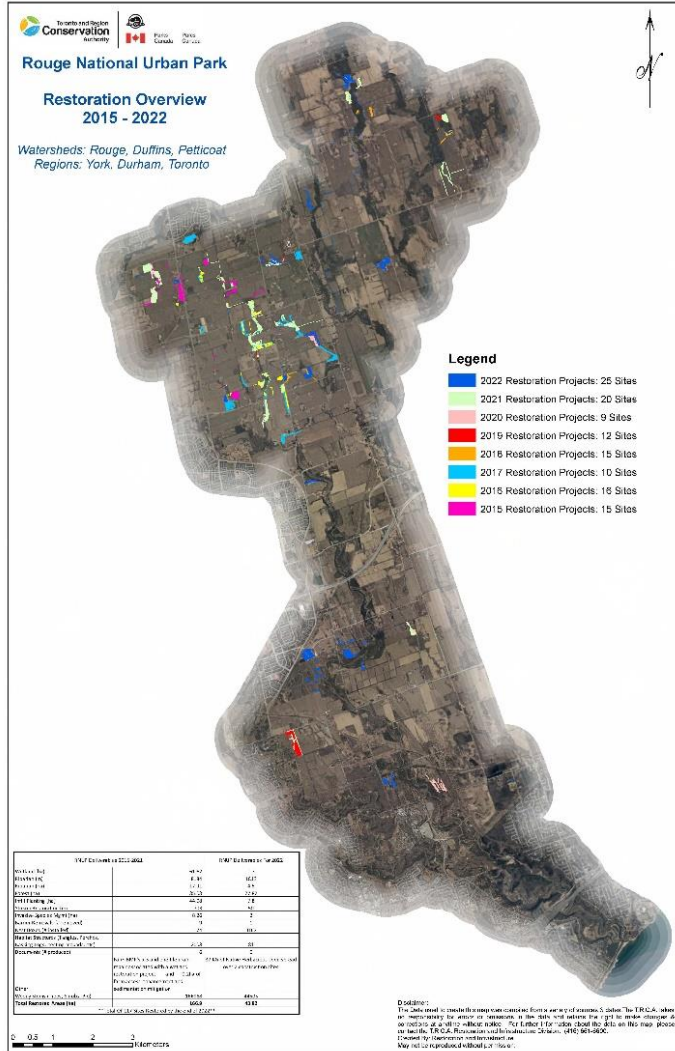


Total Area Restored (ha)	312.2
Total Invasive Species Management (ha)	229
Restoration Projects and Ecosystem Management Totals	
Wetland restoration (ha)	10
Riparian restoration (ha)	25
Forest restoration (ha)	52
Forest management and plans (ha)	252
Infill planting (ha)	13
Shoreline restoration (ha)	2
Shoreline restoration (km)	0.45
Meadow management (ha)	59
Invasive species management (ha)	198
Stream restoration (km)	7.24
Habitat Structures (#)	301
Native seed (kg)	320
Site prep (ha)	21

Forestry Services	
Hazard Trees Cut (#)	1,271
Trail made Safe (km)	92
Boundary made Safe (km)	181
Ash Treatment (#)	147
Forest Management Plans (ha)	238
Forest Management (ha)	14
Invasive Species Management (ha)	31
Nursery Production	
Total number of trees/shrubs propagated/supplied (#)	324,672
Collect and produce seed (# of Species)	25
Community Stewardship	
Total restored (ha)	5
Garbage collected (lbs)	4,958
Wildflowers planted (#)	2,300
Area maintained (ha)	18.6
Community participants (#)	3,962
Number of events	121
Private Tree Planting Program	
Total restored (ha)	60
Engage with landowners (#)	612
Site visits with landowners (#)	25

Claireville Wetlands





Waterfront Integrated Restoration Plan



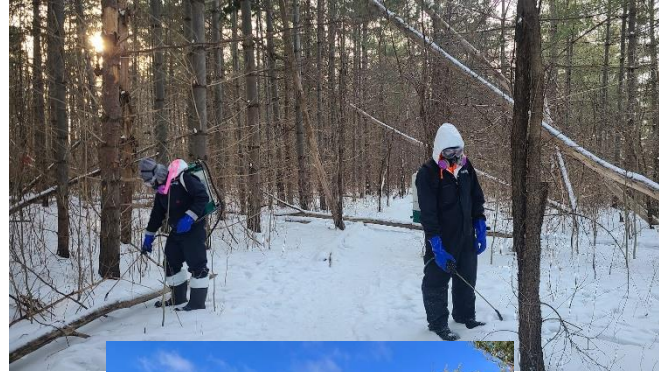
Gibraltar Point Dunes



Terrestrial Natural Cover Restoration aka... Planting, planting, more planting!



Invasive Plant Management



The Meadoway



Community Stewardship Program



Wildlife



Forestry



Past Natural Channel Projects with Brampton

Pre-Construction Conditions

- 500m concrete channel
- Fish species absent
- Non-native plants
- Flash flood events
- Poor water quality

Post Construction Conditions

- Concrete channel decommissioned
- 500 meters of natural channel restored
- Floodplain wetlands incorporated
- Six new fish species present
- Native trees and shrubs planted



Before



After



Pre construction



Construction phase



Post construction

Ten Year Strategic Plan for Urban Stream Restoration in City of Brampton

- In 2018 TRCA completed a 10-year Natural Channel Rehabilitation Plan, which identified and prioritized channels requiring attention throughout the City of Brampton
- Reaches that did not impact downstream if concrete was removed were assessed for natural channel restoration potential
- 5 Priority Sites identified:
 - Jefferson, Jordan and Jayfield Parks
 - Eastbourne Park
 - Fallingdale and Earnscliffe Park
 - Donald M. Gordon Chinguacousy and Hilldale Parks
 - Maitland and Hilldale Parks



Brampton Urban Stream Restoration Projects

Maitland, Hilldale Parks

- Reach Limit
- Priority Restoration Site
- Watercourse

Date: 11/5/2018
Created by: Restoration Projects
Orthophoto: FirstBase Solutions, 2017
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Brampton's Eco Parks Strategy

Brampton Eco Park is the interconnected network of sustainable urban and natural spaces interwoven and embedded in the city's urban form.

Brampton Eco Park fosters local stewardship and pride, encourages active and connected communities, and helps build attractive neighbourhoods, all the while connecting people with nature, responsibly. It also helps protect and support City infrastructure while conserving, enhancing, and celebrating Brampton's natural landscapes.

Eco Park Principles

1. Maximize ecological value
2. Provide opportunities for social services
3. Make nature visible
4. Design with nature
5. Integrate with the surrounding community
6. Support innovation
7. Reflect local identity



Jefferson, Jordan and Jayfield Parks (JJJ) Natural Channel Restoration- Project Status:

Completed Work:

- Construction of 950m of Natural Channel restoration including 150m of new trail alignment
- EcoPark amenities installed (Outdoor Amphitheatre, Outdoor Classroom, Log play structure, log benches and lookout areas)
- Trees Planted: 8,425 trees and shrubs, 360 calipers, 7000 bioengineering stakes

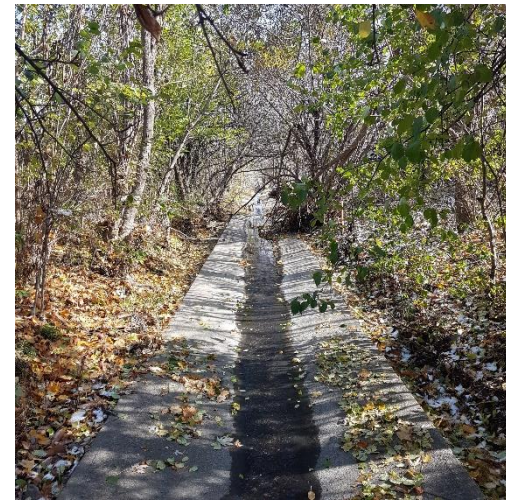
Work Remaining:

- 50m of Natural Channel restoration, including capping of Region of Peel Sanitary line
- Installation of EcoPark Fitness Stations occurred in 2022
- Native tree, shrub and riparian plantings

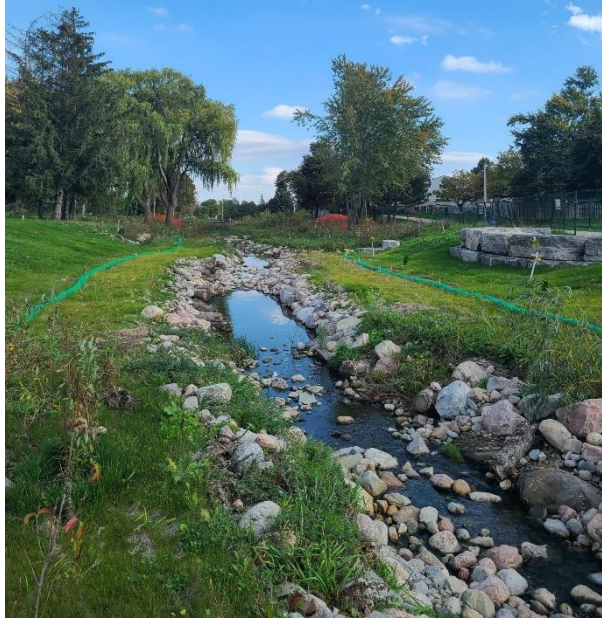
Estimated Completion Date: Construction substantially completed in Fall 2022, Planting to be completed in Spring 2023

JJJ Parks Channel: Pre-Conditions

- Built in the late 1970's
- 1000m long stretch
- Concrete lined
- Severely degraded system with minimal natural habitat



JJJ Natural Channel Restoration: After



JJJ Tree and Shrub Plantings



JJJ Eco Park Amenities



Eastbourne Park Natural Channel Project Status:

Completed Work

- Detailed Design complete which includes:
 - Natural channel design of a 1000m stretch of degraded watercourse and concrete lined infrastructure of Eastbourne Park channel only;
 - Expanding floodplain to increase storage capacity; enhance wetland habitat features; and
 - Intercepting stormwater outlets into treatment wetlands for overall water quality improvements
- Public Meeting October 26th- Earnscliffe Recreation Centre

Work Remaining

- Construction which commenced in Fall 2022 to continue into 2023
- Detailed design of Earnscliffe and Fallingdale (looking to integrate into SWMP retrofit / EA with Brampton staff)

Estimated Completion Date of the Eastbourne stretch: Fall 2024

Brampton Urban Stream Restoration Projects

Eastbourne Park

- Reach Limit
- Priority Restoration Site
- Watercourse

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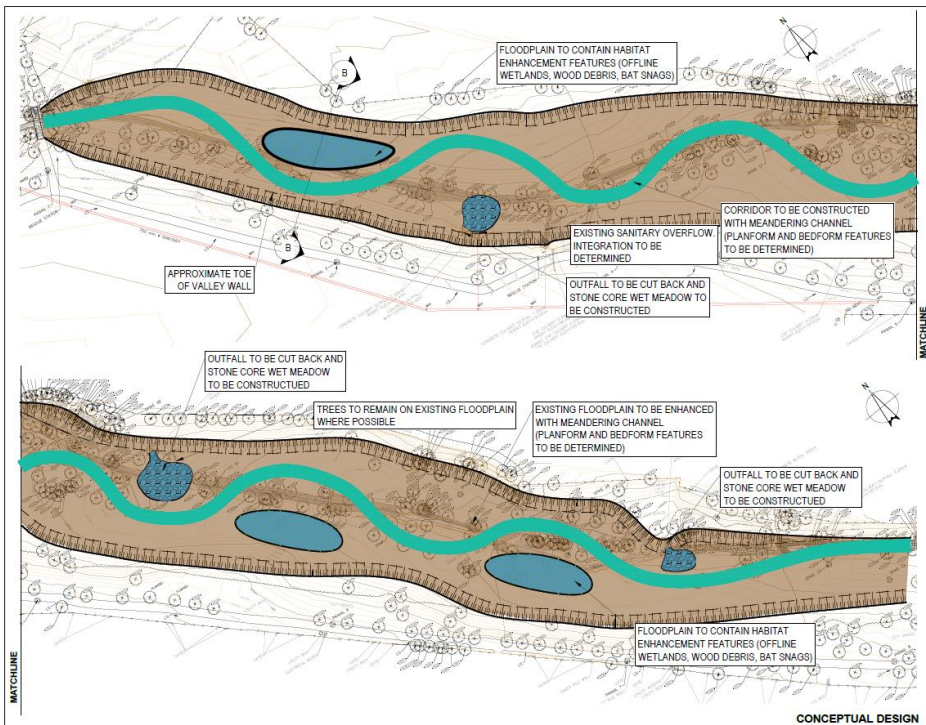
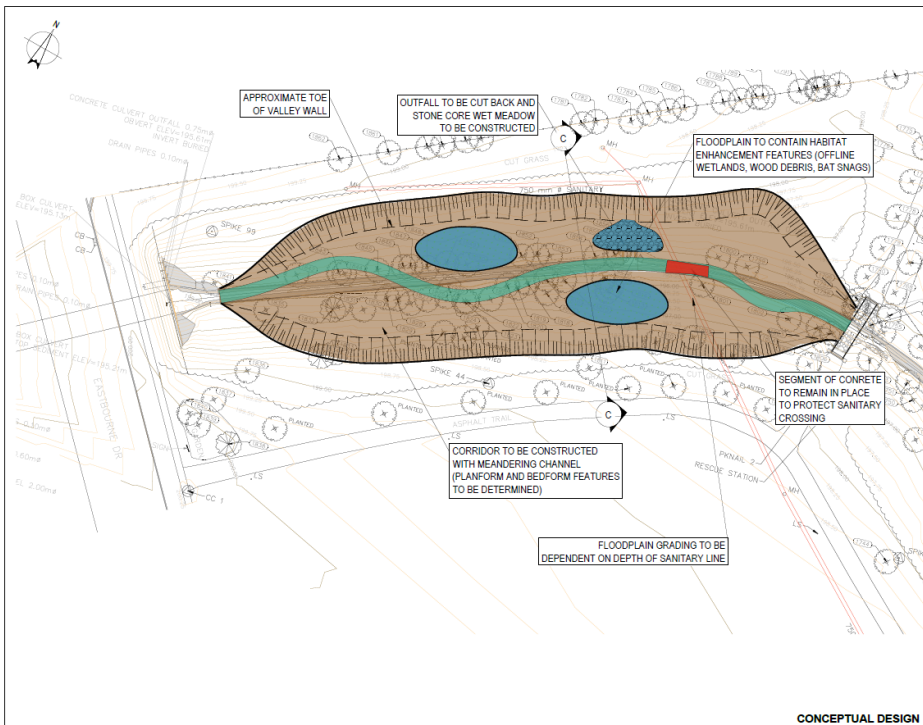


Eastbourne Park: Existing Conditions

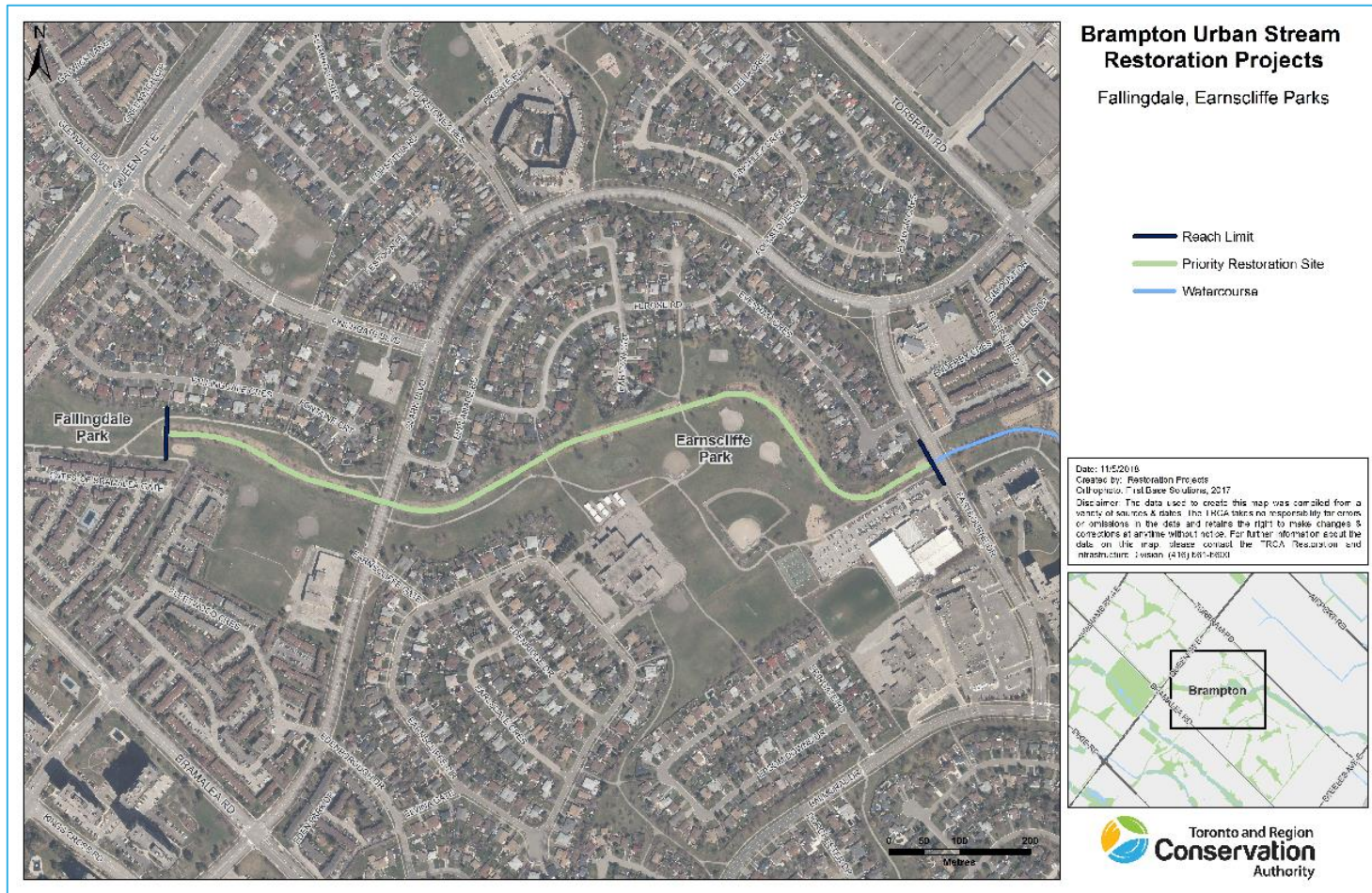
- Built in the late 1960's
- 1000m long reach
- Concrete lined
- Severely degraded system with minimal natural habitat



Eastbourne Park Natural Channel Project Design: Meandering Channel and Widened Floodplain



What's Next?



Thank You!

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