The Pelham-Greenbelt Natural Asset Management Project

November 6, 2024

Project Background
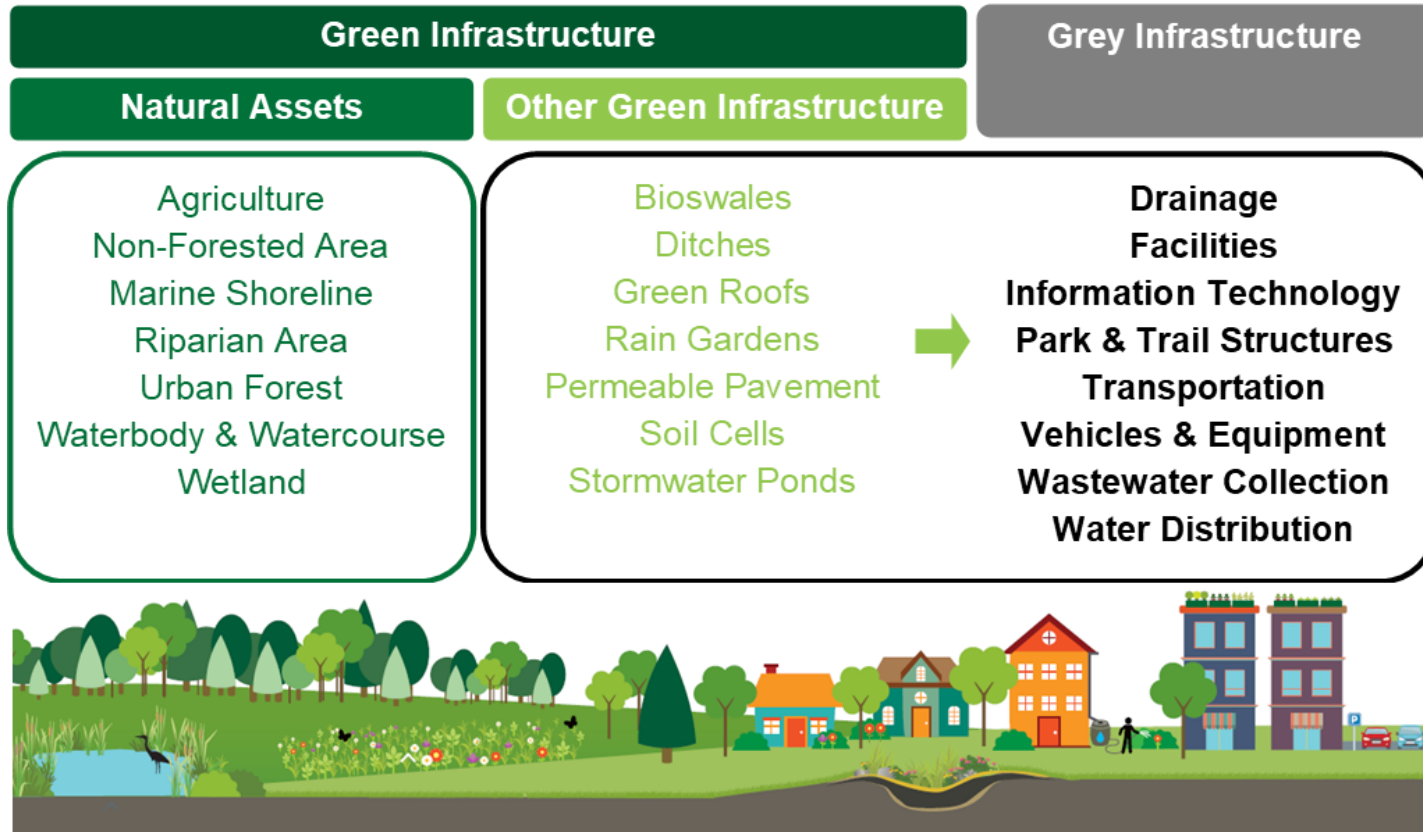
- Environmental and Climate Adaptation is a key priority within the Town of Pelham's strategic plan.

- The Pelham-Greenbelt Natural Asset Management (NAM) project focused on integrating natural assets into the Town of Pelham's asset management and financial planning programs.

- The NAM project was completed with funding support from the Greenbelt Foundation and in partnership with the Natural Assets Initiative (NAI).

What are Natural Assets?

Green Infrastructure		Grey Infrastructure
Natural Assets	**Other Green Infrastructure**	
Agriculture Non-Forested Area Marine Shoreline Riparian Area Urban Forest Waterbody & Watercourse Wetland	Bioswales Ditches Green Roofs Rain Gardens Permeable Pavement Soil Cells Stormwater Ponds	**Drainage Facilities Information Technology Park & Trail Structures Transportation Vehicles & Equipment Wastewater Collection Water Distribution**

Source: District of Saanich

The term '*natural assets*' refers to the stock of natural resources or ecosystems that a municipality, regional district, Indigenous Nation or other form of local government could rely upon or manage for the sustainable provision of one or more local government services.

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Natural asset management process

Project Goal

Ensure that natural assets in the Town of Pelham, and particularly those that overlap with Ontario's Greenbelt, are **identified, measured, valued**, and ultimately **managed** to protect their integrity, and ensure that services and benefits being provided continue for the long-term.
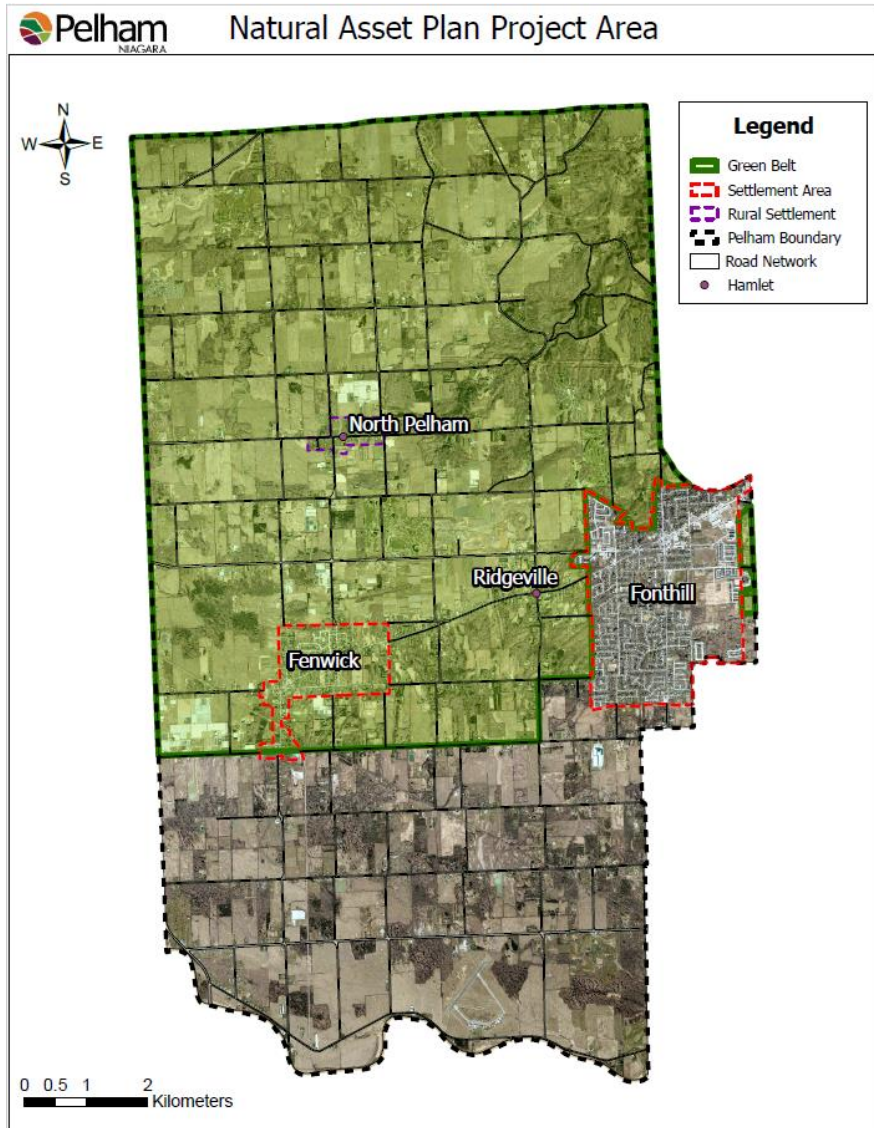
Natural asset management process

Objectives

- **1/** Understand the current roles of natural assets in the project area in providing **stormwater management** and **flood mitigation** services to the residents of Pelham

- **2/ Quantify the value** of natural assets in the project area in terms of service provision, including determining costs and benefits relative to engineered alternatives

- **3/** Develop **strategies for long-term management** of natural assets based on this understanding

Project Scope

To achieve these goals, the project was completed at two related scales:

Project Scope

Natural Asset Plan Project Area

Legend
- Green Belt
- Settlement Area
- Rural Settlement
- Pelham Boundary
- Road Network
- Hamlet

North Pelham
Ridgeville
Fonthill
Fenwick

0 0.5 1 2 Kilometers

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- **The Town of Pelham.** This broader scope was identified for natural asset management, which is completed at a **jurisdictional scale**.

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- The **ecological modelling** boundary of the project is the **Upper Twelve Mile Creek (UTMC) sub watershed**.
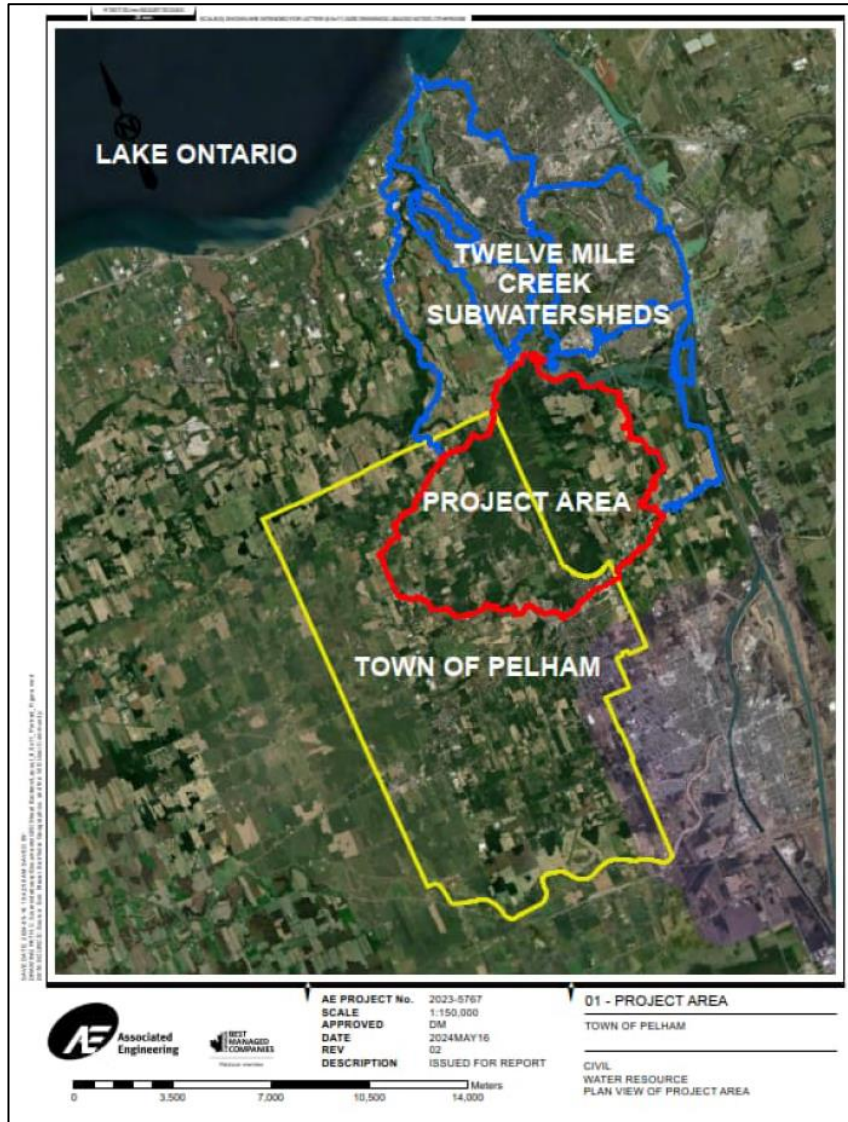
Key Findings

Inventory Assessment

- Defined **4,428 individual natural assets**, covering 10,458 hectares.

- Overall, about 26% of assets were in **very good condition**, and about 12% were assessed in **good condition**.
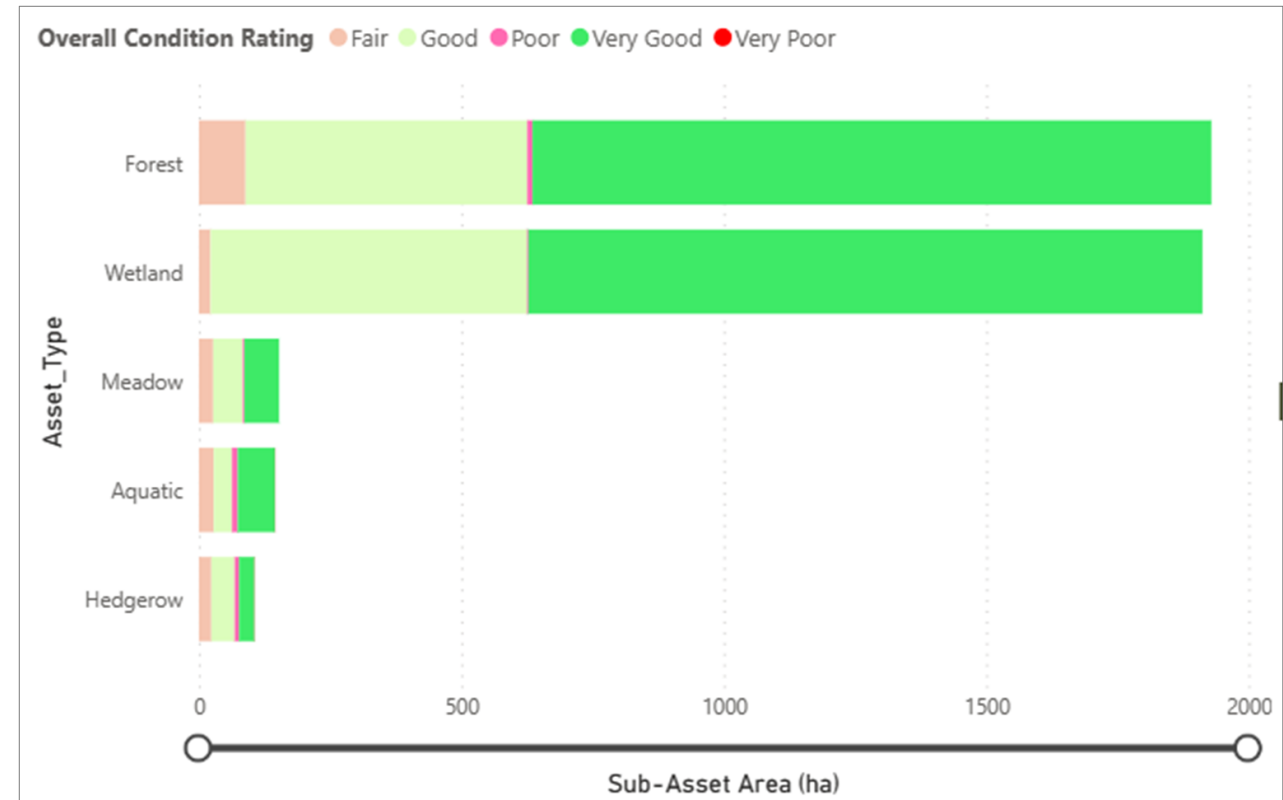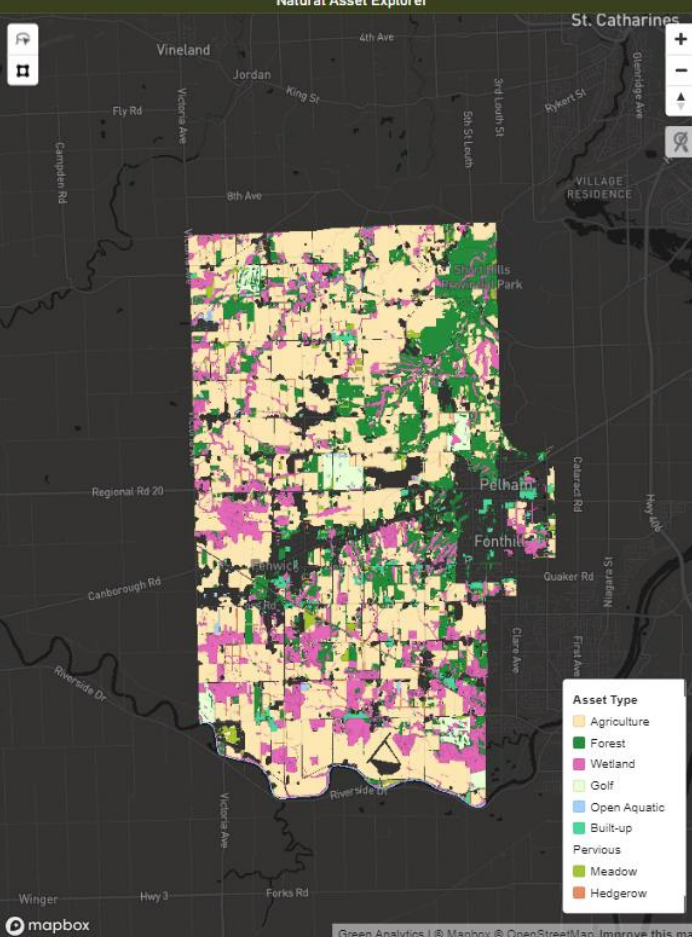
Interactive Online Dashboard

Stormwater Management

Stormwater management modeling found that...

- Our natural assets **significantly** contribute to preventing flooding and erosion.

- They provide approximately **$6M** in **stormwater management services**.

- Built infrastructure has **mixed effectiveness** in reducing flow rate and is more costly long-term.
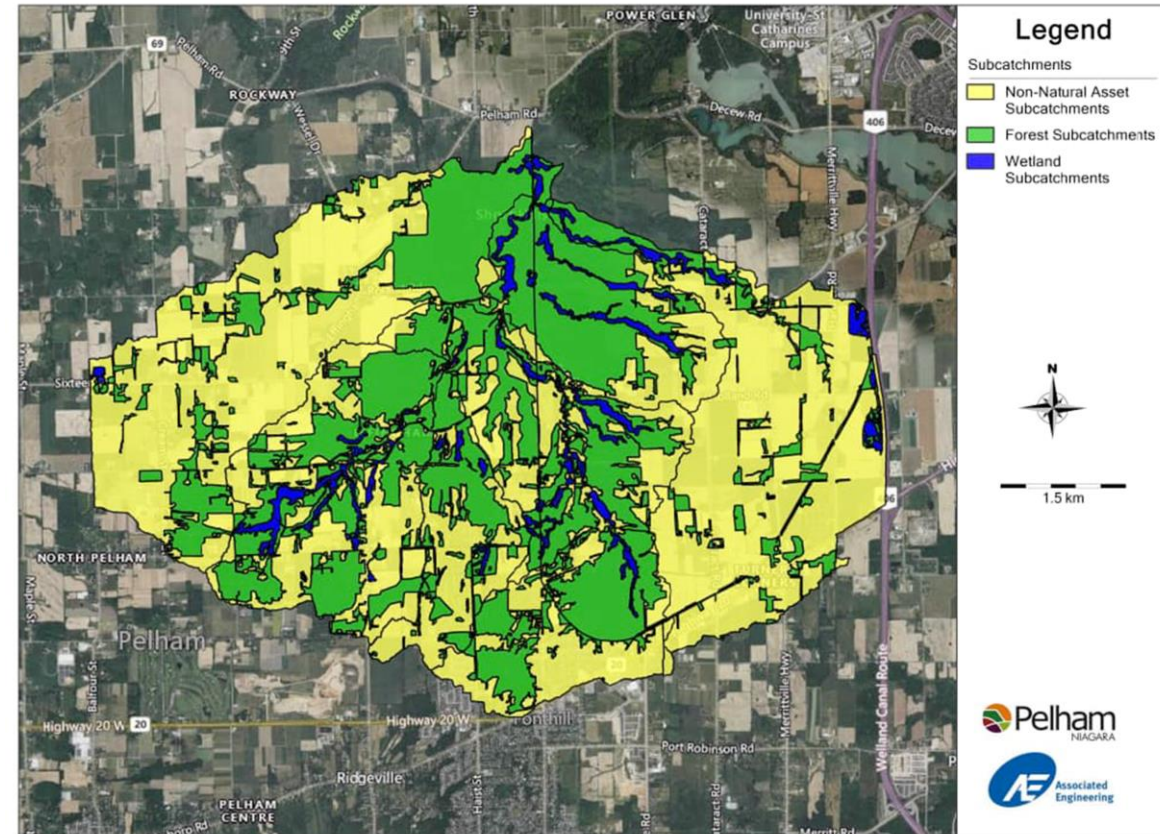
Valuation of Additional Services

Natural assets **support additional services** that benefit society and the environment more broadly.

Annual Ecosystem Service Value

$22.1 - $24.7 Million

Carbon Sequestration
$12.2 M / Year

Freshwater Supply
$8.1 M / Year

Recreation
$1.6 – 4.1M / Year

Habitat Provision
$0.15 – 0.3 M / Year

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Conclusion & Recommendations

Natural assets in Pelham are vital for sustainable service delivery and climate resilience.

Recommendations for next steps include:

A/ Continue to protect existing natural spaces

B/ Use evidence-based decision making to manage natural assets

C/ Build awareness and partnerships

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- Build staff and council awareness and support for natural asset management.
  - **Current Priority**

- Support collaborative partnerships to advance natural asset management.

- Develop a long-term communications plan to build awareness of the value of natural asset management.

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A/ Continue to protect existing natural spaces

- Review policies and By-laws to ensure natural areas are proactively management where possible.

- Identify priority areas for naturalization.

- Continue to secure or protect forests and wetlands.

B/ Use evidence-based decision making to manage natural assets

- Proactively monitor and manage erosion sites.

- Formalize invasive species management.

- Strengthen assessment of natural assets and related services.

- Include a costed lifecycle management strategy for natural assets in updates to Pelham's Asset Management Plan.

Thank you.

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