



MEMORANDUM

TO: Mayor Bonnette and Members of Council

FROM: Dharmen Dhaliah, Senior Manager, Climate Change and Asset Management

DATE: November 15, 2021

MEMO NO.: ADMIN-2021-0017

SUBJECT: Update on Town Tree Canopy Management Program and Initiatives

PURPOSE OF THE MEMORANDUM:

To provide an update on the Town's initiatives to preserve, protect, and enhance its tree canopy.

BACKGROUND:

As the effects of climate change become more apparent globally, Halton Hills will also experience impacts from warmer, wetter, and wilder weather. Some of the climate impacts the Town has already experienced include flooding due to heavy rain events, and damage to infrastructure and trees due to ice storms and windstorms. The Town has had a long-standing commitment to environmental stewardship, and more specifically, to preserve, protect, and enhance the overall tree canopy.

Town departments and divisions, local organizations, agencies, and residents are involved in taking actions on the tree canopy at various stages in Halton Hills. This involves:

- Inventorying and assessing the condition of trees
- Planning the location and type of trees to plant
- Planting and replacing trees in the community
- Providing basic care to maintain trees
- Removing diseased, dead or structurally unsound trees
- Monitoring trees in the community for any disease and risk

COMMENTS:

Trees and their contribution to Climate Goals:

Not only do trees contribute to overall community beautification and well-being, but they also help to mitigate the effects of climate change by acting as carbon sinks to sequester carbon emissions. Trees also help adapt to climate change in several ways, such as:

- Reducing the urban-heat island effect by cooling urban environments and providing shade, helping adapt to higher temperatures
- Improving air quality by removing pollutants from the air
- Providing stormwater management services by reducing the amount of runoff that enters the stormwater and sewer system, helping adapt to increased rainfall and heavy rain events

Other benefits of trees include acting as sound and visual barriers, contributing to positive mental health and well-being, and providing habitat and healthy ecosystems for wildlife, insects, and birds.

Key ongoing initiatives related to tree canopy management are summarized below.

Tree Canopy Management Program:

Recognizing that multiple Town departments have diverse responsibilities relating to tree management over their whole lifecycle, the Town has established a Tree Canopy Management (TCM) Sub-committee (Terms of Reference provided in Attachment 1). The Sub-committee reports to the Climate Change Resilience Steering Committee. The work arising from the Town's climate change action plan as well as work on natural asset management has helped inform the discussions and direction of this Sub-committee. The purpose of this Sub-committee is to provide a platform for collaboration to align, share knowledge and maximize resources toward a common goal while avoiding duplication of efforts.

In support of this goal, the objectives of the TCM Sub-committee are listed below:

- Measure and monitor the Town's tree inventory and canopy
- Track, coordinate and align tree projects
- Assess levels of service provided by trees and evaluate their impact on climate mitigation and adaptation
- Take actions to protect and preserve tree canopy
- Expand the tree canopy by increasing tree planting

- Strengthen partnerships and collaborate with local experts (community groups, conservation authorities, academic institutions, etc.)
- Educate residents on trees, tree care and their benefits and value

Privately-Owned Tree Management Strategy:

This Strategy is currently in its final phase for consultation with Town staff and the public. The Strategy will guide our collective direction in recognizing the value of trees in our community. The lidar map shown in Figure 1 below was developed through this Strategy and shows the tree canopy coverage of Halton Hills:

- 83% on privately-owned land
- 12% on other agencies publicly owned land
- 5% on Town-owned land

Since most trees in Halton Hills are located on private property, residents play an important role in contributing to the Town's efforts to preserve, protect and enhance Halton Hills tree canopy. The draft Strategy identifies three main tree management tools: Education, Incentives, and Regulation. Implementing the management tools outlined in the draft Strategy will create a strong, healthy, resilient tree canopy in Halton Hills. The Privately-Owned Tree Management Strategy will be presented to Council for approval on December 13, 2021.

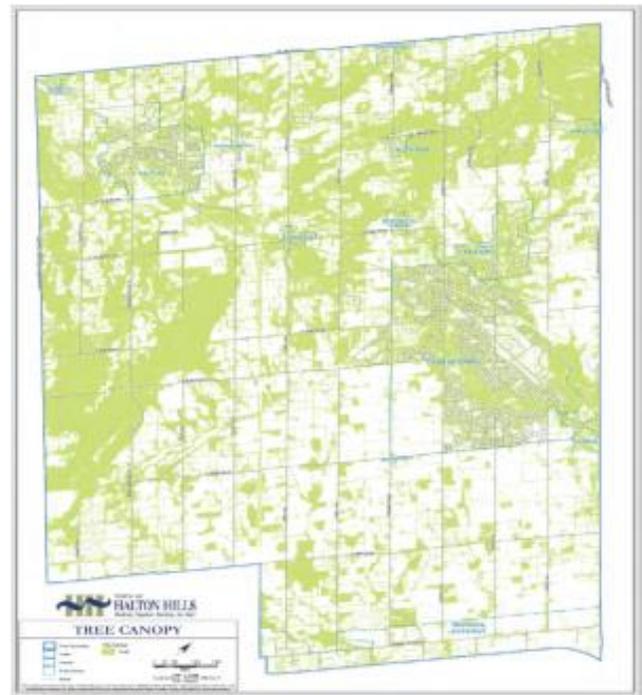


Figure 1: Tree Canopy Coverage in Halton Hills

Street and Park Tree Maintenance:

A major activity of the Public Works department is maintaining the Town's inventory of public street, park, and ravine trees. Public Works staff investigate and address approximately 700 Requests for Service (RFS) received from residents each year on a variety of public tree concerns. Staff inspections and work on Regional Roads lead to numerous additional tree work orders each year. This work is performed through a combination of staff resources and contracted services.

Tree Planting:

Through capital projects as well as the Town's Tree Donation Program, trees are planted by contractors or Town staff in parks, open spaces and along trails. This includes caliper trees, coniferous trees and tree seedlings. In 2021, approximately 850 trees were planted in association with capital projects or donations. Approximately 300 street trees we also planted in 2021, replacing removed trees and infill planting.

Earth Day Tree Sales:

The Town celebrates Earth Day each year by hosting the sale of Town-subsidized tree saplings to residents. In 2021, an enhanced online tree store supported the sale of 1,000 trees, and available for pick up by residents by appointment at the Robert C. Austin Operations Centre.

Lymanthia Dispar Dispar (LDD) Forecasting and Monitoring:

Like other communities in Ontario, Halton Hills experienced an outbreak of LDD (Gypsy moths) on trees in 2021. To understand the depth of this outbreak, the Town is working with Credit Valley Conservation (CVC) to study the outbreak in our community and provide a forecast for 2022. CVC and Conservation Halton are collaborating with members of the Tree Canopy Management Program Sub-committee. The work will be focused on public trees found within Town ravines, woodlots, parks, cemeteries, and neighbourhood streets. This study is expected to be completed by the end of 2021 and the findings will inform the Town's response to LDD moths in 2022.

Natural Asset Management Project:

In partnership with CVC, Town staff are developing an Integrated Natural Assets Management framework applied to two study areas: Hungry Hollow and Acton Arena area. The main tasks and goals of this project include:

- Classification of natural assets and condition assessment – evaluate the condition of the Town's natural assets, and assessing risks associated with the different types of natural assets
- Levels of service and scenario development – develop a set of scenarios to evaluate the different levels of services provided by the natural assets, e.g., flood protection, recreation, carbon storage and sequestration, urban heat island reduction, air quality improvement and property value appreciation, as well as the costs associated with managing/enhancing the assets
- Integrated GIS mapping and dashboard tool – measure and track the levels of service of the different natural asset types and the impact of climate change

Hungry Hollow-Sustainable Neighborhood Action Plan (SNAP):

SNAP was developed in collaboration with the Town and CVC and Council approved in October 2020. This neighbourhood-scale Plan focuses on the urban area north of Hungry Hollow in Georgetown, which is known as the Delrex area where actions taken within this area will affect the health of Hungry Hollow which is known as an important biodiversity area. Hungry Hollow is recognized in CVC's Credit River Natural Heritage System Strategy for its ecological features and functions capable of supporting native biodiversity in the long-term. SNAP identifies actions needed to protect and support natural features in Hungry Hollow and encourages community adaptation to climate change by increasing education and seeking co-benefits across the following areas: stormwater management, water use and conservation, energy, natural heritage, active transportation, and health and well-being. SNAP is an important initiative that supports the Town's Climate Change Adaptation Plan.

Community Group Tree Plantings:

In addition to the SNAP program, the Town works with other community groups, and public agencies such as conservation authorities on stewardship planting projects in Town parks and natural areas. Through these partnerships, approximately 950 tree seedlings have been planted throughout the Town in 2021.

CONCLUSION:

While the tree related strategies, plans and projects listed above continue, the next steps for the Tree Canopy Management Sub-committee are to:

- Meet regularly to collaborate on these initiatives
- Provide input into consideration of a future Town Forestry Program to manage town-owned tree with qualified resources and to support the town-wide tree canopy management program
- Categorize tree initiatives, actions, and recommendations, to better manage them under the following themes: governance, inventory database, policies/bylaws, management strategies, operational standards, resources, and outreach and education

ATTACHMENT: Terms of Reference Tree Canopy Management Sub-Committee

Reviewed and approved by,

Richard Cockfield, Director of Strategic Planning

Chris Mills, Acting Chief Administrative Officer