

# Town of Halton Hills **Privately-Owned Tree Management Strategy**



Table of Contents

Message from Mayor Bonnette ..... 1

Executive Summary ..... 2

1.0 Introduction..... 3

2.0 Existing Provincial Legislation ..... 5

3.0 Existing Contributing Local Regulations..... 6

    3.1 Town of Halton Hills..... 6

    3.2 Region of Halton ..... 6

4.0 Existing Private Tree By-Laws in Other Municipalities..... 7

5.0 Existing Education & Incentive Programs ..... 7

6.0 Town of Halton Hills Existing Tree Canopy Cover..... 8

7.0 Community Engagement ..... 11

8.0 Privately-Owned Tree Management Tools ..... 13

    8.1 Education-Based Management Tools..... 14

        8.1.1 Best Management Practices..... 14

        8.1.2 Personal Appointment..... 15

        8.1.3 Workshops ..... 16

        8.1.4 Tree Benefit Calculator..... 17

        8.1.5 School Age Workshops..... 18

    8.2 Incentive-Based Management Tools ..... 19

        8.2.1 Recognition Program ..... 19

        8.2.2 Expanded Tree Sale..... 20

        8.2.3 Tax Credit/Rebate Program ..... 21

        2.4 Green Legacy Model ..... 22

    8.3 Regulation-Based Management Tools..... 24

        8.3.1 Modify Current Practices..... 24

        8.2.2 Private Tree By-Law ..... 26

9.0 Tree Management Tool Implementation ..... 28

    9.1 Years 1-2 (2022-2023) ..... 28

    9.2 Years 2-3 (2023-2024) ..... 29

    9.3 Years 3-5 (2023-2026) ..... 29

## Appendices

Appendix A – Explore Background Report

Appendix B – Engage Background Report

Appendix C – Example of a draft Private Tree By-law

## Figures

Figure 1. Town of Halton Hills Low-Carbon Resilience Framework.

Figure 2. Privately-Owned Tree Management Strategy workplan and schedule.

Figure 3. Benefits provided (blue line) vs. cost (orange line) Incurred over a tree's lifetime. Adapted from Vogt J. et al. Planted Tree Re-Inventory Protocol April 2014 Version 1.1.

Figure 4. Existing provincial legislation contributing to the protection and enhancement of trees.

Figure 5. Map of the 54 single and lower-tier municipalities in Ontario that have adopted a private tree by-law (green) and the location of the Town of Halton Hills (orange).

Figure 6. Tree Canopy Cover in Halton Hills.

Figure 7. Glen Williams.

Figure 8. Town of Halton Hills Tree Canopy Cover Mapping.

Figure 9. Tree Canopy Cover distribution by Rural and Urban (Settlement) Areas.

Figure 10. Tree Canopy Cover distribution by Private and Public Ownership.

Figure 11. Community Open House and Workshop.

Figure 12. Breakout Group views, values, and ideas poster - Community Open House and Workshop.

Figure 13. Discussing trees at the Downtown Georgetown Farmers Market.

Figure 14. Education, Incentive, and Regulation Tree Management Tools recommended in this strategy.

Figure 15. ANSI A300 Best Management Practices.

Figure 16. Personal Tree Professional appointment.

Figure 17. Morton Arboretum tree benefit tag.

Figure 18. Advertisement for the 2021 Earth Day Tree Sale at the Robert C. Austin Operations' Centre.

Figure 19. The Green Legacy Program Logo.

Figure 20. Southeast Acton.

Figure 21. Mature Sugar Maple Tree - Downtown Georgetown.

Figure 22. Rural Halton Hills south of Acton.

Figure 23. Georgetown.

Figure 24. Recommended Tree Management Tool Implementation Timeline.

## Acknowledgements

We would like to acknowledge the contributions of the following individuals:

### Town of Halton Hills Project Team

Dharmen Dhaliyah, Senior Manager, Climate Change & Asset Management

Jennifer Spence, Climate Change Outreach Coordinator, Climate Change & Asset Management

Mike Dean, Senior Climate Change & Energy Planner, Climate Change & Asset Management

Rija Rasul, Senior Climate Change Specialist, Climate Change & Asset Management

Josh Wright, Geomatics Program Supervisor

### Interview Participants

Lisa Hohban Brusse, Manager, Landowner Outreach Credit Valley Conservation Authority

Janet McKay, Executive Director, LEAF Local Enhancement & Appreciation of Forests

Patrick Gilbride, Manager of Green Infrastructure Programs, Reep Green Solutions

Rob Johnson, Green Legacy Manager, County of Wellington

Steve Robinson, Manager of Urban Forestry, City of Burlington

Kristina Toppazzini, Municipal Enforcement Officer – Urban Forestry, Town of Niagara-on-the-Lake

Leah Lefler, Environmental Planner, City of Guelph

### Consultant Team

Marc Garon-Nielsen, President, Landscape Architecture Lead, Aboud & Associates

James Dennis, Vice President, Arboriculture Lead, Aboud & Associates

Cheryl-Anne Ross, Ecology Lead, Aboud & Associates

Erin Eldridge, Landscape Architect, Aboud & Associates

Daniel Bechard, Registered Professional Forester, Aboud & Associates

Jeffrey Laidman, Landscape Designer, Aboud & Associates

Geofrey Sherman, Ecologist, Aboud & Associates

Nicole Huculiak, Landscape Designer, Aboud & Associates

Isaac Hewitt-Smith, Intern Environmental Planner, Aboud & Associates

James Paul, Editor, jpwritely

Dr. Leah Levac, Associate Professor, Department of Political Science, University of Guelph

Dr. Nathan Perkins, Associate Professor, School of Environmental Design and Rural Development, University of Guelph

Thank you to the Town of Halton Hills Mayor Rick Bonnette and Council, Senior Management Team, Town Staff including the Tree Management Program Sub-committee, and community members who shared their views, values, and priorities throughout the process.



## Message from Mayor Bonnette

Halton Hills Town Council declared a climate emergency in 2019 and committed to take concrete actions to become a net-zero community by 2030. To ensure an equal balance between the greenhouse gases put into atmosphere and those taken out, the Town's approach includes both corporate and community-wide actions to reduce greenhouse gas emissions. The Town has also developed a made-in Halton Hills Low-Carbon Resilience Framework that identifies plans and strategies to improve energy efficiency in homes; building to higher standards; commuting efficiently; preparing for flooding and emergencies, and enhancing natural assets such as trees, grasslands, agricultural land, and natural ponds.

Of key importance in the strategy is a focus on trees which play a vital role in cleaning the air we breathe, providing homes for wildlife, providing food, beautifying our community, supporting individual well-being, and providing cooling through shading, wind reduction, and storing environmentally harmful carbon emissions.



Did you know that eighty-three percent of the trees in our community are on private property? This means that residents have an important role in contributing to the Town's efforts to enhance the tree canopy we have today and invest in our tree canopy of tomorrow. The Privately-Owned Tree Strategy will guide our collective direction in recognizing the value of trees in our community through education, incentives, and regulations.

On behalf of the Halton Hills Town Council, I invite you to join us on our journey to becoming a net-zero community and working together to improve our natural environment.

Sincerely,

A handwritten signature in black ink that reads "Rick Bonnette". The signature is written in a cursive, flowing style.

Mayor Rick Bonnette

## Executive Summary

**Eighty-three percent of the tree canopy cover in the Town of Halton Hills is located on privately-owned land.**

This means that individual residents, businesses, and landowners have a large stake in a shared natural asset that provides ecosystem services and well-being to the entire community. While managing the overall tree canopy is a joint effort across all Town departments, Halton Region, and Conservation Authorities working together, management of the largest component of the tree canopy relies on the individual actions of thousands of residents, businesses, and landowners.

The tree canopy is under increasing threat through climate change, invasive plant species, introduced pests, and development/infrastructure density in a growing municipality. The status quo is not an option if we are to protect and enhance the tree canopy.

The actions identified in the Privately-Owned Tree Management Strategy will be implemented as part of a town-wide tree canopy management program overseen by a cross-departmental Tree Canopy Management Program Sub-committee reporting to the Town's Climate Change Resilience Steering Committee.

The goals of the Privately-Owned Tree Management Strategy are to:

- Explore legislation that enables the Town to manage trees on privately-owned land and establish a baseline for the Town's existing tree canopy cover,
- Engage the community to understand community values and ideas to develop a made-in-Halton Hills approach to manage trees on privately-owned land;
- Evaluate the resource and administrative implications associated with preferred privately-owned tree canopy management tools, and
- Develop education, incentive, and regulation management tools to manage the privately-owned tree canopy.

Provincial acts, regulations, and policies provide direction, both directly and indirectly, to the requirement to consider trees, as well as the municipal regulation and management of trees on public and private lands. Appendix A - 'Explore' Background Report included in this strategy summarizes the relevant legislation, explores existing tree management tools used in other jurisdictions, and establishes the baseline tree canopy cover in Halton Hills.

Each of the proposed tree management tools recommended in this strategy have been generated through public consultation. First, as views, values, and priorities, and then refined into tangible programs, policies, and guidelines. The 'Engage' background report included in this strategy as Appendix B - 'Engage' Background Report contains the community engagement approach and results. Appendix C is the recommended private tree by-law to be considered through future consolidation and consideration in the future.

This made-in-Halton Hills strategy to manage privately-owned trees provides a range of education, incentive, and regulation-based tree management tools recommended to be implemented in the next five years at a range of cost and administrative implications. Many of the tree management tools also identify multiple delivery options through potential partnerships with organizations such as Conservation Authorities, non-profit groups, as well as considerations for implementing a program in-house.

This combination of options provides Town Staff with the flexibility to implement education, incentive and regulation-based management tools to protect and enhance the largest component of the tree canopy as the Town makes difficult decisions about how to balance budgets in the uncertainty surrounding the long-term impact of the COVID-19 pandemic.

## 1.0 Introduction

In 2019, the Town of Halton Hills joined hundreds of municipalities across Canada in declaring a climate emergency. Climate change is already impacting many aspects of life in Halton Hills, from public health to infrastructure to transportation and energy systems to biodiversity. Maintaining and enhancing a healthy tree canopy is a community-wide action to mitigate the effects of climate change and contributes to meeting the Town's target to become a net-zero community by 2030.

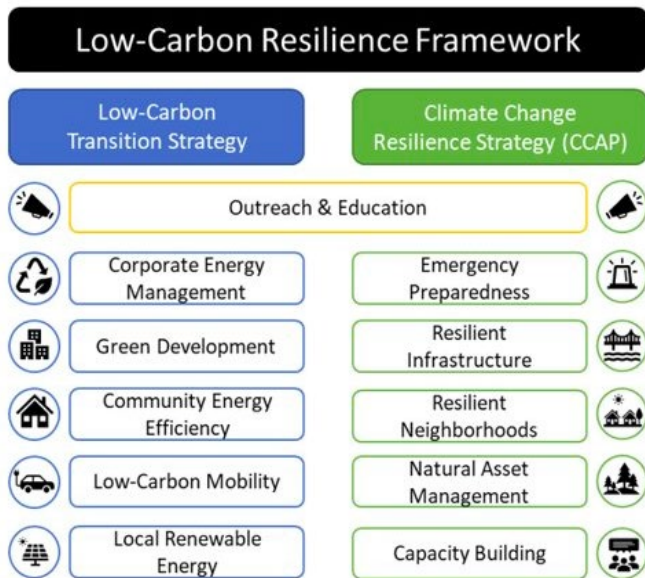


Figure 1. Town of Halton Hills Low-Carbon Resilience Framework.

The economic, environmental, and social benefits of trees continue to grow, and is widely recognized. Many of the policies and guidelines acknowledge the vital role trees play in terms of public health (e.g., air quality, heat island effect), community well-being (e.g., stress reduction, crime prevention), and a healthy environment (e.g., carbon sequestration, stormwater management).

**Approximately 83% of the Town of Halton Hills tree canopy cover is located on privately-owned lands.** Individual residents, businesses, and landowners have a large stake in a shared natural asset that provides ecosystem services and well-being to the entire community. While managing the overall tree canopy is a joint effort across all Town departments,

Halton Region, and Conservation Authorities working together, management of the largest component of the tree canopy relies on the actions of residents, businesses, and landowners. Working together and communicating often are important to successfully manage the tree canopy to benefit the entire community.

The goals of the Privately-Owned Tree Management Strategy are to:

- Explore legislation that enables the Town to manage trees on privately-owned land and establish the Town's existing tree canopy cover;
- Engage the community to understand community values and ideas to develop a made-in-Halton Hills approach to manage trees on privately-owned land;
- Evaluate the resource and administrative implications associated with preferred privately-owned tree canopy management tools, and
- Develop education, incentive, and regulation management tools to manage the privately-owned tree canopy.

**If action is not taken, there is a risk that the Town's tree canopy will decline.** A 2012 study found that on average, the tree canopy in urban areas within the United States decreases at a rate of approximately 0.2% per year (Nowak, D.J., and E.J. Greenfield. 2012. "Tree and impervious cover change in U.S. cities." Urban Forestry & Urban Greening, Vol. 11, 2012; pp 21-30).

There are many pressures threatening the Town's tree canopy today:

- Climate change increasing environmental stress on trees through changes in precipitation, temperature, and intensity of weather events;
- Invasive plant species increasing competition and reducing biodiversity;
- Introduced pests, such as Emerald Ash Borer and Lymantria dispar dispar (LDD) Moth, weakening or causing large scale loss of trees, and
- Increased development density and infrastructure requirements reducing growing space for trees.



Figure 2. Privately-Owned Tree Management Strategy workplan and schedule.

The education, incentive, and regulation management tools in this strategy provide a range of opportunities with a range of resource and administrative implications to protect and enhance the Town's tree canopy.

Many believe that planting new trees is the best way to enhance the tree canopy and the ecosystem services that it provides. Planting helps to maintain a sustainable tree population by replacing trees that are lost. Planting trees can also help increase canopy cover in the long-term, however, protecting existing healthy trees is one of the best ways to enhance the overall function of the tree canopy. Unlike traditional assets like roads and bridges, large, mature trees contribute the greatest ecosystem benefits relative to cost of maintenance.

Mature trees are not immediately 'replaceable' as it can take up to 40 years for a newly planted tree to provide the same benefits. Trees as an asset are a long-term investment and we all have an important role to play in the effort to protect and enhance the Town of Halton Hills valuable tree canopy.

Many of the Town's strategies, policies, plans, and studies speak to the value of trees and the idea of protecting and enhancing the tree canopy. The Privately-Owned Tree Management Strategy supports the Town's Official Plan, Climate Adaptation Plan, Imagine Halton Hills - Integrated Community Sustainability Strategy, Tree Canopy & Natural Vegetation Policy, and Green Development Standards by providing tangible management tools to protect and enhance trees located on private lands.

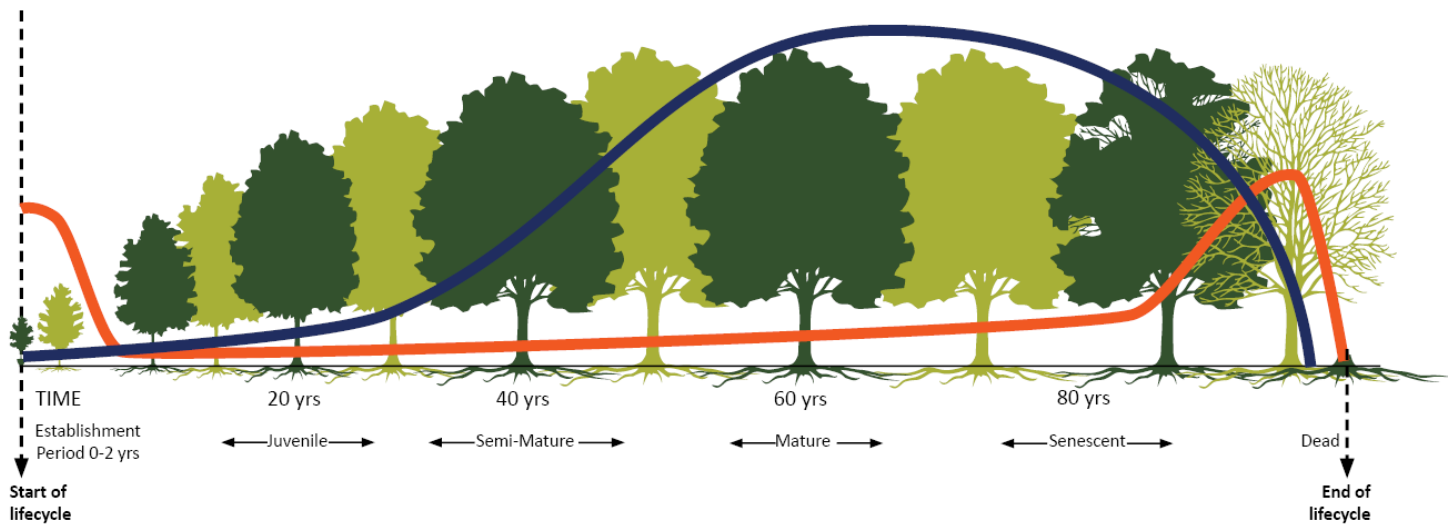


Figure 3. Benefits provided (blue line) vs. cost (orange line) Incurred over a tree's lifetime. Adapted from Vogt J. et al. Planted Tree Re-Inventory Protocol April 2014 Version 1.1.

## 2.0 Existing Provincial Legislation

Provincial acts, regulations, and policies provide direction, both directly and indirectly, to the requirement to consider trees, as well as the municipal regulation and management of trees on public and private lands.

Provincial legislation such as the Provincial Policy Statement, Growth Plan for the Greater Golden Horseshoe (A Place to Grow), Niagara Escarpment Planning and Development Act, and the Greenbelt Act provide broad guidance that encourages protecting and enhancing trees within natural heritage systems. The Ontario Heritage Act includes policies and regulations as it relates to the designation of heritage properties and cultural heritage landscapes in Ontario. The Endangered Species Act (ESA) applies to any tree species listed as endangered or threatened in the province of Ontario. Any listed tree species is afforded protection of both the tree and its designated habitat.

The Municipal Act outlines the responsibilities and accountability of municipalities as created by the province for the purpose of providing good government with respect to the given powers and duties under the Act. A municipality may provide any

service that the municipality considers necessary or desirable for the public. These services could include managing the economic, social, and environmental well-being of the municipality, including respecting climate change, and the protection of persons and property. More specifically, the Municipal Act directly describes:

- the requirement to adopt and maintain policies to protect and enhance trees, and
- the authority to regulate trees using a by-law.

The Planning Act establishes a framework for municipalities to develop Official Plans, regulate development, and integrate provincial interest and the provincial land use planning systems in planning decisions. Matters of provincial interest, as they apply to urban tree management, include the protection of ecological systems, the appropriate location of growth and development, and conditions to the approval of plans that require the protection and provision of trees. Conversely, the Farming and Food Production Act states that no municipal by-law applies to restrict a normal farm practice carried on as part of an agricultural operation.





Figure 4. Existing provincial legislation contributing to the protection and enhancement of trees.

### 3.0 Existing Contributing Local Regulations

#### 3.1 Town of Halton Hills

The Town of Halton Hills have included consideration for protection of trees through several avenues in existing by-laws, policies, and guidelines. This includes the Official Plan, Community Sustainability Strategy, Mature Neighbourhood Strategy, Climate Adaptation Policy, Tree Canopy and Natural Vegetation Policy, Subdivision Manual, and Site Plan Application Guide. Each are described in further detail and how they related to the protection and enhancement of trees in the Explore background report found in Appendix A.

#### 3.2 Region of Halton

The Region of Halton includes several components within the Regional Official Plan, Tree (Woodland) by-law and sustainability strategy, that apply within the Town of Halton Hills. Each are described in further detail and how they related to the protection and enhancement of trees in the Explore background report found in Appendix A.

## 4.0 Existing Private Tree By-Laws in Other Municipalities

In accordance with the Municipal Act, all municipalities are required to adopt and maintain policies that protect and enhance the tree canopy and natural vegetation.

At the time of publication, approximately 54 single and lower-tier municipalities in Ontario have adopted by-laws that prohibit or regulate the destruction or injuring of privately-owned trees. This strategy examines four recently adopted Private Tree By-laws in single tier municipalities, combining different by-law attributes to protect and enhance the tree canopy and natural vegetation. The Explore background report found in Appendix A reviews Private Tree By-laws in the Town of Oakville, City of Burlington, City of Cambridge, and the Town of Niagara-on-the-Lake in detail.

## 5.0 Existing Education & Incentive Programs

Education and incentive programs are available in many municipalities, regions, and jurisdictions in Ontario. A review of existing education and incentive programs available to residents, businesses, and landowners in Halton Hills generally found that most education programs focus on broader natural system concepts and incentive programs, support larger scale planting projects, and woodland management. These can vary from guided educational programming, to grants and subsidies, to tree planting and creating habitat on private lands. While not all programs are available to residents and landowners in Halton Hills, several are currently available through local conservation authorities, provincial and regional initiatives, and are described in the Explore background report in Appendix A.

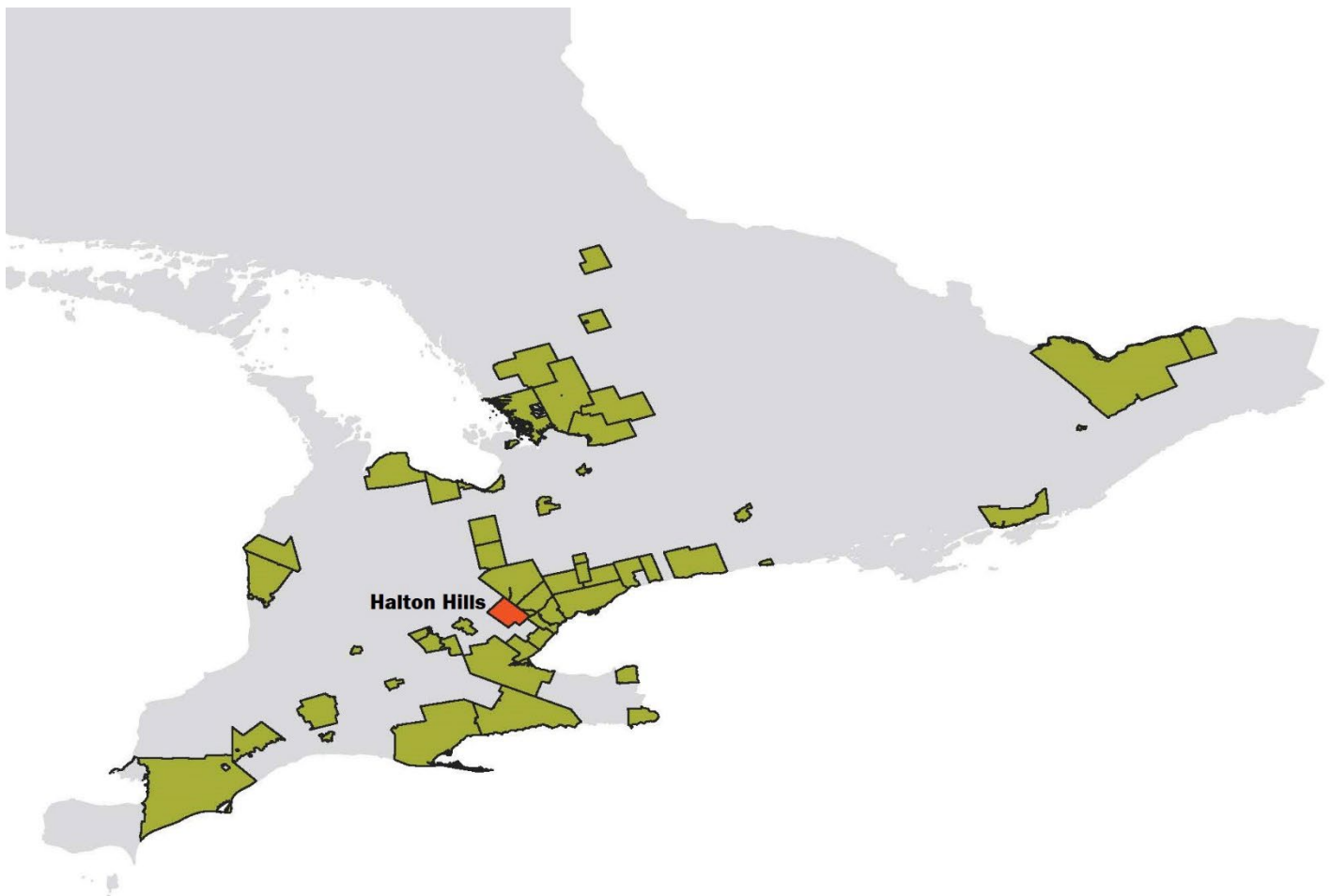


Figure 5. Map of the 54 single and lower-tier municipalities in Ontario that have adopted a private tree by-law (green) and the location of the Town of Halton Hills (orange).



## 6.0 Town of Halton Hills Existing Tree Canopy Cover

An objective of this strategy is to establish the tree canopy cover in the Town of Halton Hills. The definition of a 'tree' is any species of woody perennial plant, including its root system, which has reached or can reach a height of at least 4.5 metres at physiological maturity. This definition is consistent with Halton Region's Tree By-law. **Tree canopy cover is defined as the surface area of the land covered by the combined leaves, branches, and trunks of all standing trees when viewed from above.** Determining the Town's existing tree canopy cover provides the community, Town staff, and Town council with context to support specific, measurable, and achievable tree canopy management tools. Expanding the tree canopy is a general goal of several Town policies and guidelines, but it is not possible to quantify 'more' without a baseline.

The tree canopy cover within the geographic boundary of the Town of Halton Hills is approximately 32%. Halton Hills tree canopy cover is relatively high when compared to other municipalities in southern Ontario where analysis has been completed.

For example, compared to other lower-tier municipalities in Halton Region, the Town of Oakville's tree canopy coverage is approximately 28% and the City of Burlington's tree canopy coverage is approximately 23%.

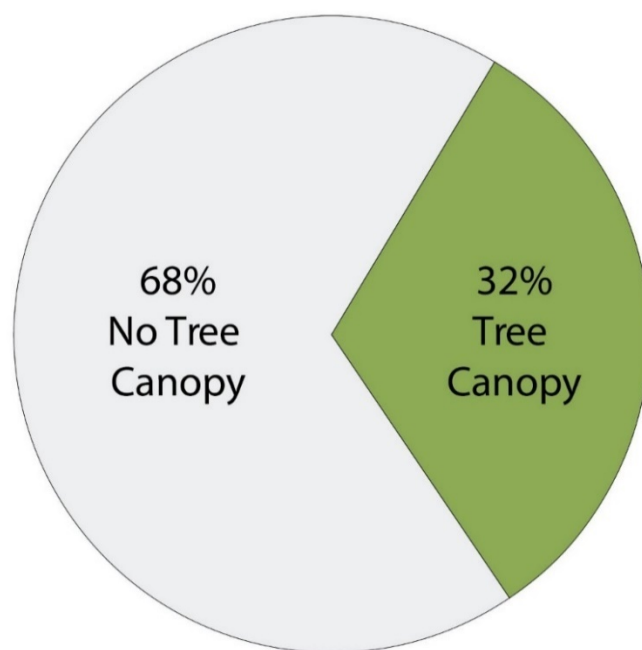


Figure 6. Tree Canopy Cover in Halton Hills.



Figure 7. Glen Williams.



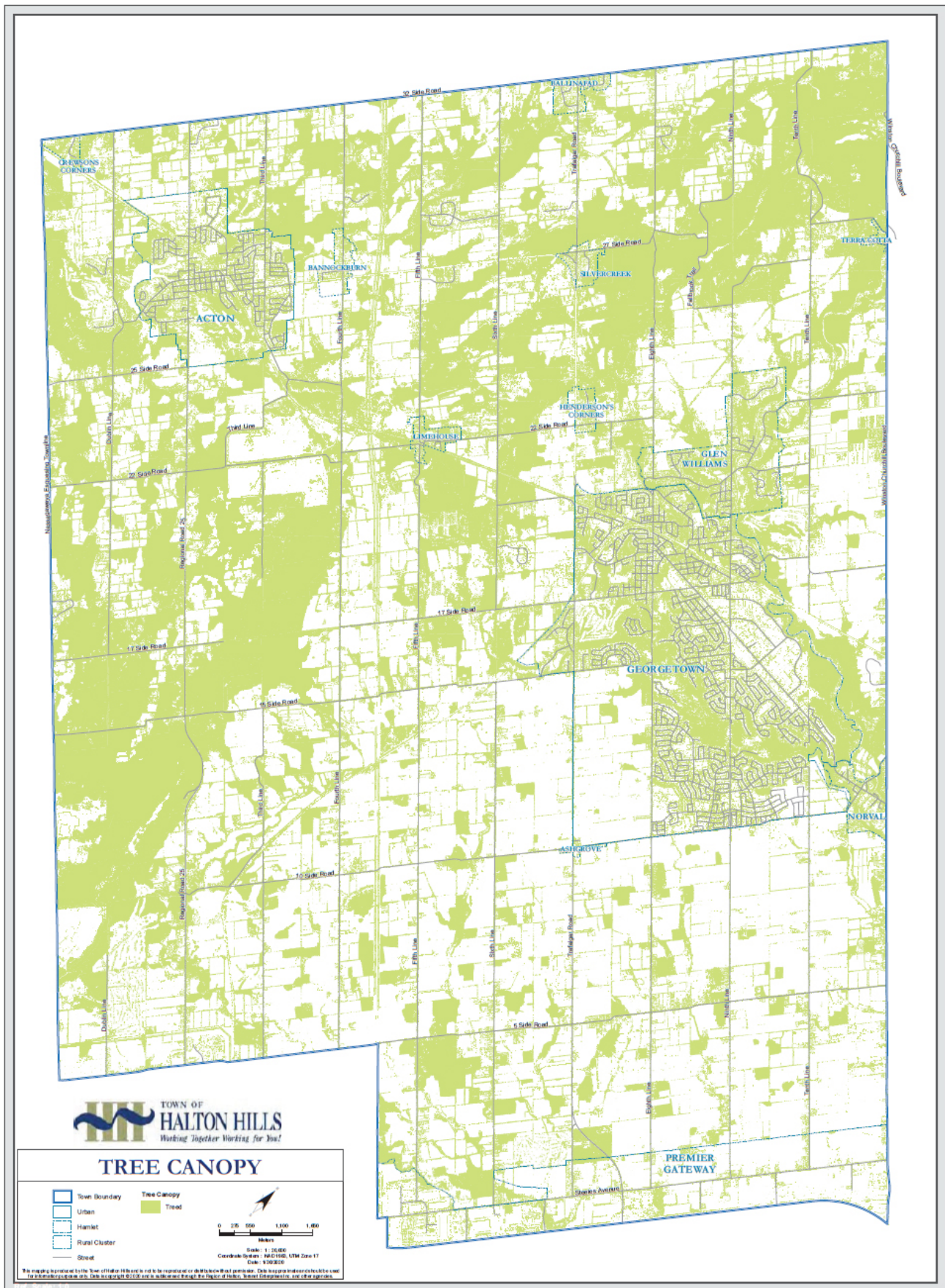


Figure 8. Town of Halton Hills Tree Canopy Cover Mapping.

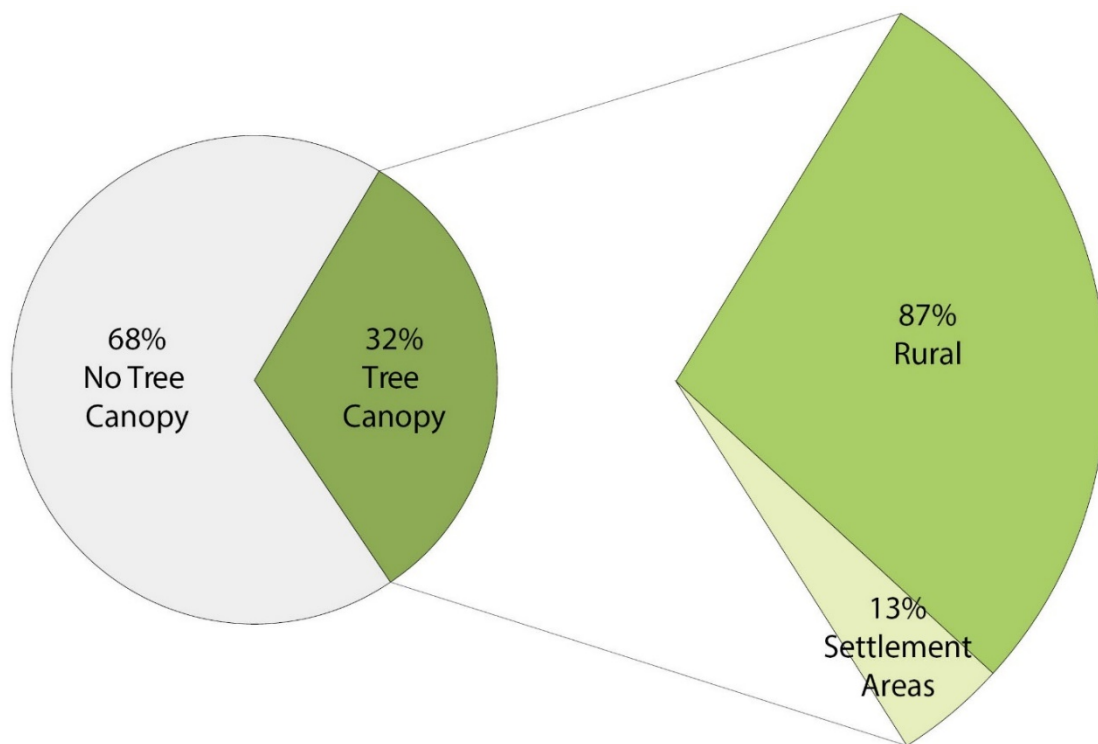


Figure 9. Tree Canopy Cover distribution by Rural and Urban (Settlement) Areas.

Tree canopy cover is not distributed uniformly across the Town. Canopy cover is affected by several different factors such as land use, development history, and existing protection measures in place. This also means that access to the benefits of trees is not equal across the Town.

The remaining 13% tree canopy is located within urban settlement areas. Within these urban areas, mature residential neighbourhoods generally have higher average levels of canopy than industrial or commercial areas. In addition, mature residential neighbourhoods generally have more room for planting new trees when compared to more recent residential developments.

Another key difference in tree canopy cover distribution is between public and private ownership. Approximately 83% of the tree canopy cover within the

Town of Halton Hills is located on privately-owned land. The remaining 17% of the tree canopy is located on publicly-owned lands which includes the Town of Halton Hills, Region of Halton, Province of Ontario, Credit Valley and Halton Region Conservation Authorities, Metrolinx, Utility Companies, the Federation of Ontario Naturalists, Bruce Trail Conservancy, and other public authorities having jurisdiction. For context, only 5% of the total tree canopy is located on Town-owned roads, parks, and facilities where the Town can directly manage trees.

Individual residents, businesses, and landowners jointly have the largest ownership in a shared natural asset that provides ecosystem services and well-being to the entire community. This reliance on individual actions required that we engaged the community frequently in the development of the Privately-Owned Tree Management Strategy.



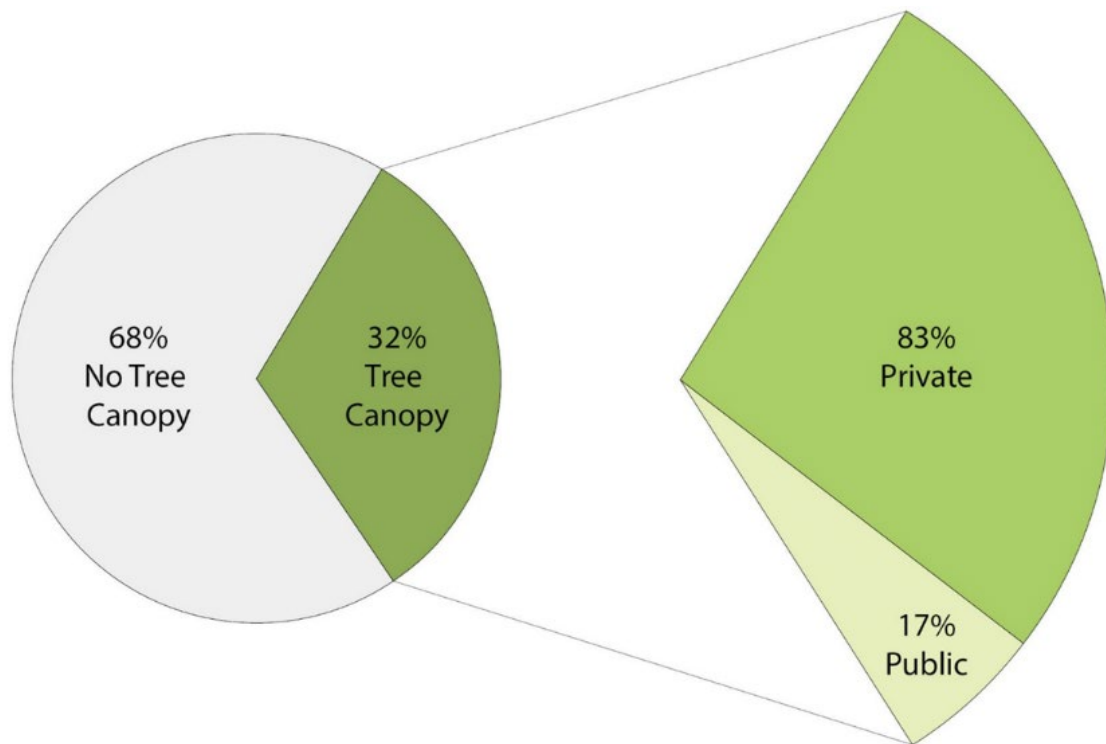


Figure 10. Tree Canopy Cover distribution by Private and Public Ownership.

## 7.0 Community Engagement

Each of the proposed tree management tools included in this strategy have been generated through consultation with the community. First, as views, values, and priorities, and then refined into tangible programs, policies, and guidelines. Management of the privately-owned portion of the tree canopy relies on the collective actions made by individual residents, businesses, and landowners. Developing a made-in-Halton Hills strategy requires listening and learning to the community about what is important and what could work best to protect and enhance the privately-owned portion of the tree canopy.

The engagement approach supports the development of a Privately-Owned Tree Management Strategy through the refinement of values, views, and ideas into tangible management tools to protect and enhance the tree canopy. The project workplan follows a process where community feedback is provided, summarized by the project team, presented to Town Council, then shared with the community through the project website or follow-up survey hosted on Let's Talk Halton Hills to validate the feedback

prior to further refining into conceptual tree management scenarios. The process is then repeated: obtain community feedback, summarize, and present to Town Council. Then the draft Privately-Owned Tree Management Strategy is posted to Let's Talk Halton Hills for community feedback. Community feedback is then incorporated into the final strategy document presented to Town Council for approval.



Figure 11. Community Open House and Workshop.

Reaching consensus on managing a private resource that benefits the entire community is important so that the Privately-Owned Tree Management Strategy reflect the views, values, and priorities of the community. This strategy was developed through an extensive community engagement process that includes:

- Pop-up Engagement Sessions at Farmers Markets (September 2019);
- Let's Talk Halton Hills Online Surveys (February 2020 and November 2020);
- Community Open House and Workshop (March 2020);
- Virtual Town Council Workshops (May 2020, February 2021, July 2021), and
- Community review of the draft Privately-Owned Tree Management Strategy (November 2021).

A detailed summary of the community engagement sessions, presentations, and responses can be reviewed in the 'Engage' background report and its attachments found in Appendix B of this strategy.

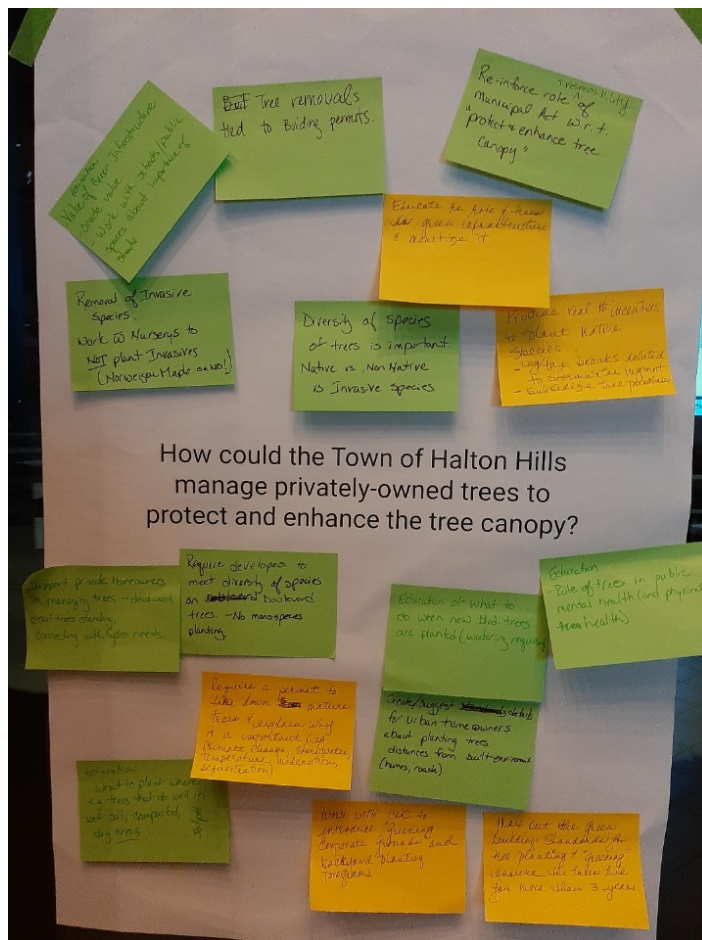


Figure 12. Breakout Group views, values, and ideas poster - Community Open House and Workshop.



Figure 13. Discussing trees at the Downtown Georgetown Farmers Market.



## 8.0 Privately-Owned Tree Management

### Tools

The tree management tools in this strategy have been developed based on values, views, and ideas shared by the community through engagement opportunities and Town Council workshops.

Embedding community values, views, and ideas into the development of each tree management tool from the beginning is intended to improve community

participation and affirm the value to Town Council and staff when allocating resources as tree management tools are implemented.

Based on community and Town Council feedback, the Privately-Owned Tree Management Strategy is comprised of education, incentive, and regulation management tools that afford a range of opportunities with different resource and administrative implications to protect and enhance the Town's tree canopy.



### Education

- Best Management Practices
- Personal Appointment
- Workshops
- Tree Benefit Calculator
- School Age Workshops



### Incentives

- Recognition Program
- Expanded Tree Sale
- Tax Credit/Rebate Program
- Green Legacy Model



### Regulation

- Private Tree By-Law
- Modify Current Practices

Figure 14. Education, Incentive, and Regulation Tree Management Tools recommended in this strategy.

Education-based management tools provide information to encourage a voluntary change in behaviours to protect and enhance trees. Incentive-based management tools reward behaviours that protect and enhance trees. Rewards can be financial or non-financial. Regulation-based management tools involve developing a system of rules to enforce behaviours that protect and enhance trees.

When implementing any tree management tool, it is important to measure its effectiveness. It is recommended to conduct a review one year following initial implementation to assess general feedback from the community, determine if the overall goal of protection and enhancement of the tree canopy is being achieved, as well as lessons learned to adjust programs, policies, and guidelines to improve efficiency and customer service.

## 8.1 Education-Based Management Tools



### 8.1.1 Best Management Practices

The Best Management Practices tree management tool is developing a document that describes how to plan, plant, and care for a tree throughout its lifecycle. While printed copies and alternate formats could be made available on request, during community engagement it was identified that the document should be available on the Town's website. The document content should include at minimum:

- selecting the right tree for the right location;
- recommended tree species;
- how to plant a tree;
- establishment maintenance;
- pruning, and
- protecting trees during construction.

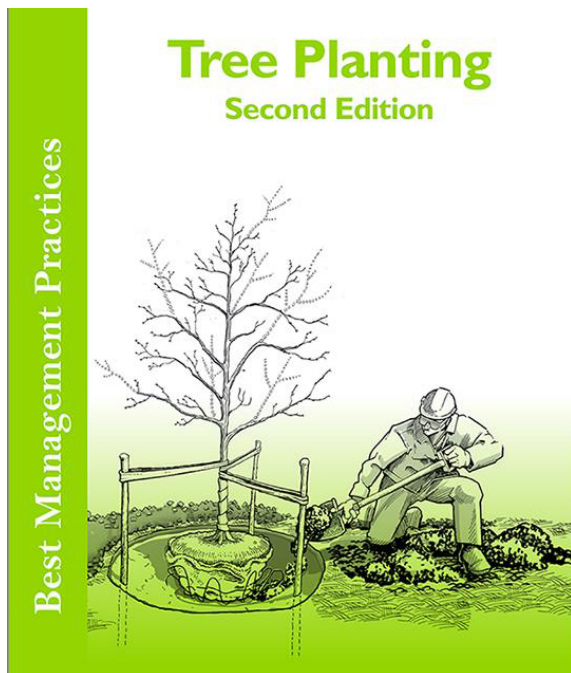


Figure 15. ANSI A300 Best Management Practices.

Prior to implementing a private tree by-law, best management practices document should also describe the process of applying for a tree removal permit. The tree best management practices document is intended to be used by all town departments, private development, and private landowners. The intent of developing this management tool for publicly-owned and privately-owned trees is to create a baseline of common knowledge. As was stated throughout community engagement, trees require the same basic needs and inputs throughout its lifecycle, regardless of the owner.

Development of the best management practices document is recommended to follow the American National Standards Institute A300 Tree Care Practices series of documents, combined with local knowledge. A comparative review of local practices such as aligning with the Town of Halton Hills development application guidelines, tree management practices in other municipalities in southern Ontario, and obtaining input from local experts such as Arborists, Registered Professional Foresters, Landscape Architects, and Landscape Contractors will establish a made-in-Halton Hills document.

Developing best management practices, included the recommended document content, was one of the most frequently requested education-based management tools and was identified as one of the most helpful throughout community engagement.

### Administrative and Cost Implications

Administratively the best management practices document could be developed by Town staff or by a third-party Consultant. Due to the best management practices reach and scope, it will require input and review by all Town departments that plan for and manage trees, as well as representatives from the development industry, local contractors, and consultants.

The one-time development of the best management practices document is anticipated to be approximately \$25,000 if completed by a third-party consultant, plus infrequent Town staff project management and review

time. Time should also be allocated for the one-year review following implementation and a recurring 10-year review to confirm the document aligns with current practices and policies.

During development of the best management practices, as a document that informs several Town departments, one department should be established as the owner or knowledge keeper to address questions, provide interpretations, and complete the recommended reviews. Town staff assigned as the owner should be skilled and informed on the subject matter such as an ISA Certified Arborist, American Society of Consulting Arborist, Registered Professional Forester, or Landscape Architect.

### Implementation Timeline

The best management practices document establishes how trees are managed in Halton Hills and best informs the content of many other proposed tree management tools. Best management practices are recommended to be the first tree management tool developed and implemented in year one (2022).

### Similar Examples

- City of Guelph Tree Technical Manual
- Canadian Landscape Standard
- Landscape Ontario Standards

#### 8.1.2 Personal Appointment

The personal appointment tree management tool is an opportunity for residents, businesses, and landowners to book an in-person appointment (or virtual meeting as public health protocols require) with a Town-retained tree professional to assess existing conditions and recommend the right tree for the right place. As an education management tool, the intent is to provide information only and rely on the landowner to make an informed decision, and to plant tree(s) themselves. However, this education management tool could also be combined with an incentive management tool that subsidizes the purchase and potentially even planting tree(s) as a turnkey service.

As an education-only management tool implemented by Town staff, the program requires:

- Developing a webpage on the Town's website;
- Implementing an appointment/scheduling system for public use;
- Developing and maintain a database/mapping to track appointment requests and document recommendations, and
- Developing a media campaign to promote the program.

The personal appointment tree management tool addresses the desire identified in community engagement to assist with selecting the right tree for the right place, educate on the benefits of trees, educate on the benefits of native species and diversity of species, how to properly plant a tree, and access a Town arborist for consultation.

### Administrative and Cost Implications

Administratively, the personal appointments could be conducted by new Town staff, a non-profit organization, a third-party consultant, or third-party agency. Personal appointments are only practical during spring, summer, and fall seasons, so if new Town staff were to be hired as the tree professional, it would be at 0.75 Full-time equivalency (FTE), costing approximately \$75,000 plus travel to appointments. However, if hired at 1.0 FTE, the new tree professional could have capacity to implement other management tools, particularly during the winter months.

The cost to implement the program with third-party tree professionals can vary. For example, non-profit organizations such as Local Enhancement and Appreciation of Forests (LEAF) and REEP Green Solutions will enter into agreements with municipalities for a certain number of hours based on anticipated community need or a set municipal goal for a specific number of appointments. The benefit to this arrangement is that these non-profit organizations already have systems in place to administer and track the appointments and recommendations. The cost to the Town is directly related to the appointments and travel time. Depending on the community's use of the personal appointment management tool, hours and associated



costs for third-party services can be scaled accordingly.

Town staff assigned as a tree professional should be skilled and informed on the subject matter such as an ISA Certified Arborist, American Society of Consulting Arborist, Registered Professional Forester, or Landscape Architect.

### Implementation Timeline

The personal appointments management tool is recommended as a short to medium-term (2-3 years) timeframe to implement. This allows time to develop the best management practices document that will guide the personal appointments. In addition, it will also provide time to determine if the tree professional conducting the personal meetings will be Town staff or a third-party.

### Similar Examples

- City of Guelph Healthy Landscapes Program
- REEP Green Solutions/City of Guelph Rain Garden Coach Program
- Local Enhancement & Appreciation of Forests DIY Tree Planting Program



Figure 16. Personal Tree Professional appointment.

### 8.1.3 Workshops

The workshop tree management tool is an opportunity for residents, businesses, and landowners to learn more about tree best management practices, as well as available tree planting and management programs.

A Town-organized workshop hosted either in person or online can promote Town-specific education, incentive, and regulation-based management tools, specifically the Town's best management practices.

As an education management tool organized by Town staff, the workshop requires:

- Developing a webpage on the Town's website;
- Developing a communications campaign to promote the workshop;
- Developing Town-specific workshop content;
- Organizing speakers and vendors, and
- Administering logistics of in-person or online workshops.

Prior to the development of a workshop focused on Town-specific education, incentive, and regulation-based management tools, workshops could be co-hosted or co-promoted with existing Conservation Authority workshops or engaging a third-party organization such as Local Enhancement & Appreciation of Forests (LEAF) to deliver workshop content. LEAF currently offers several urban forest and tree-related workshop and presentation options.

The workshop tree management tool addresses the desire identified in community engagement to assist with selecting the right tree for the right place, educate on the benefits of trees, educate on the benefits of native species and diversity of species, educate on policies and procedures, and how to properly plant a tree.

### Administrative and Cost Implications

Co-promoted workshops with Conservation Authorities could be implemented with current Town staff. Tasks would be focused on reaching out to Conservation Authority staff to negotiate terms and developing communications to promote the workshop. The cost for a co-promoted workshop is based on the agreement between the other co-hosting organization

but is estimated to be less than \$2,500 per workshop, plus staff time to administer communications.

Co-hosting or engaging a third-party to deliver workshop content requires Town staff to administer the logistics and communications. This may require reassignment of existing tasks and responsibilities to other Town staff in the 2-3 months leading up to the workshop. The cost for co-hosting or engaging a third-party to develop content is based on specific agreements between organizations, but is estimated to be less than \$5,000 per workshop, plus the time for Town staff to administer logistics and communications.

A Town-organized workshop involves full administrative and content development/delivery. This workshop option requires other Town-based education, incentive, and regulation management tools to be implemented to generate content for the workshop. If a new Town staff member were to be hired to organize workshops, it would be at 0.1 Full-time equivalency (FTE), costing approximately \$10,000. Town staff assigned to the workshop should have skills associated with event management and logistics.

### Implementation Timeline

The workshop tree management tool is recommended to be implemented in year one (2022) through co-hosted opportunities with Conservation Authorities or engaging a non-profit organization to deliver existing content. As Town-specific education, incentive, and regulations management tools are implemented, workshop content and delivery can transition to Town staff in the middle-term year 2 (2023) and beyond.

### Similar Examples

- ReForest London Community Presentations
- Credit Valley Conservation Urban, Rural, and Landscape-Specific Workshops
- Local Enhancement & Appreciation of Forests Urban-Based Presentations & Workshops

### 8.1.4 Tree Benefit Calculator

The Town, in partnership with the Credit Valley Conservation and Greenbelt Foundations, are currently preparing a natural asset inventory and valuation for all natural assets within the Town of Halton Hills. Part of this project is to evaluate the ecosystem services natural assets provide and assign a dollar value. To complement this Town-wide project, the tree benefit calculator education management tool involves developing an application hosted on the Town's website to calculate and assign a dollar value to the ecosystem benefits an individual tree provides. The tree benefit calculator is intended to be a self-serve application hosted on the Town's website where users input tree data such as species, size, and condition. The web application then calculates and assigns a dollar value for the carbon dioxide sequestered, stormwater runoff intercepted, and other air pollutants removed on an annual basis.

Community members using the tree benefit calculator will self-select based on interest, as participation is dependent on communications. However, some organizations and municipalities have used the tree benefit information to generate physical tags to temporarily tie on trees as part of an awareness campaign to communicate results to the community.

As an education management tool organized by Town staff, the workshop requires:

- Developing a webpage on the Town's website;
- Developing or procuring calculator programming code;
- Developing a communications campaign to promote the calculator, and
- Ongoing monitoring/maintenance of the calculator application.

The USDA Forest Service led i-Tree software suite includes the MyTree tree benefit calculator. Prior to considering in-house development of a calculator application, it is recommended to communicate with the USDA Forest Service for use on the Town's Website as the MyTree application is Public Domain. The tree benefit calculator tree management tool addresses the desire identified in community engagement to quantify and educate on the benefits of trees.

## Administrative and Cost Implications

If a new Town staff were to be hired to implement and maintain the tree benefit calculator, it would be at 0.05 Full-time equivalency (FTE), costing approximately \$5,000. Town staff assigned to the tree benefit calculator should have skills associated with web development.

## Implementation Timeline

The tree benefit calculator tree management tool is recommended to be implemented in year one (2022).

## Similar Examples

- National Tree Benefit Calculator
- USDA Forest Service i-Tree MyTree Tool
- Morton Arboretum Arbor Day Celebration Tree Benefit Tagging



Figure 17. Morton Arboretum tree benefit tag.

## 8.1.5 School Age Workshops

The Willow Park Ecology Centre in Norval provides school age curriculum-based workshops, and even organizes specific programming; for example, to earn badges in Girl Guides of Canada and Scouts Canada. Many of the programs include trees as part of the broader ecosystem. However, there isn't an individual tree-specific program. The school age workshops management tool includes age-appropriate information about the benefits of trees, tree life cycle, importance of native species and, where possible, planting tree seeds, providing free tree saplings, or holding tree planting events on school grounds.

To achieve this tree-specific programming either the Town, conservation authority or not-for-profit partner would need to develop the programming and then determine the most effective delivery method in conjunction with the school boards for approximately 6,500 school-aged (Junior Kindergarten to Grade 8) children in Halton Hills. Willow Park Ecology Centre is positioned as a recommended community partner based on existing infrastructure and capacity development.

As an education management tool organized by Town staff, the school age workshops requires:

- Developing a webpage on the Town's website;
- Developing a communications campaign to promote the school age workshops;
- Developing age appropriate/tree-specific workshop content;
- Further developing existing partnerships with local school boards and Willow Park Ecology Centre, and
- Delivering age-appropriate Town/tree-specific school workshops.

The school age workshops tree management tool addresses the desire identified in community engagement to quantify and educate on the benefits of trees.

## Administrative and Cost Implications

Partnering with a third-party such as Willow Park Ecology Centre or a local conservation authority to deliver workshop content requires Town staff to communicate the tree-specific content to develop the workshop and administer logistics and communications. The cost for engaging a third-party to deliver content is based on specific agreements between organizations, and is estimated to be approximately \$75,000 annually; plus 0.5 FTE Town staff time, and approximately \$50,000 to administer the school age workshops.

A Town-organized school age workshop involves full administrative and content development and delivery. If new Town staff were to be hired to organize workshops, it would be at 2.5 Full-time equivalency (FTE) costing approximately \$250,000. Town staff assigned to the workshop should have a combination of skills from education, natural interpretation, and arboriculture fields.

### Implementation Timeline

The school age workshops tree management tool is recommended as a middle-to-long term 2023-2026(3-5 years) timeframe to implement. This provides time to enter into agreements with school boards and delivery partners, and develop age appropriate, curriculum- based, and tree-specific content.

### Similar Examples

- Willow Park Ecology Center School Age Programs
- Credit Valley Conservation Authority School Age Programs
- Local Enhancement & Appreciation of Forests School Age Program

## 8.2 Incentive-Based Management Tools



### 8.2.1 Recognition Program

The recognition program management tool is an opportunity to celebrate the individuals, businesses and community organizations in the community that have a sustained record of protecting and enhancing trees in the Town of Halton Hills.

A Town-organized recognition program hosted either in-person or online could include a traditional gala award ceremony supported by businesses and sponsors with awards crafted by local artists. Alternatively, recognition could be limited to a local communications campaign in local print and videos on social media (similar to the 2020 Halton Hills Chamber of Commerce Excellence in Business Awards) to comply with public health requirements. Awards could also take the form of a tree planting ceremony on Town-owned lands with a dedication like the University of Guelph Arboretum dedication opportunities.

As an incentive management tool organized by Town staff, the recognition program requires:

- Developing a webpage on the Town's website;
- Developing a communications campaign to promote the nominations and event;
- Developing a nomination and evaluation process;
- Organizing a selection committee, and
- Administering logistics of the award event (either in person or online).

The workshop tree management tool addresses the desire identified in community engagement to recognize participation in tree planting/tree management programs.



## Administrative and Cost Implications

The Town of Halton Hills already administers Heritage Conservation and Achievement Awards. The framework for the tree-specific recognition program nomination and evaluation process can be based on existing protocols. The cost to implement and operate the recognition program varies depending on the level of effort required for hosting and presenting the awards, plus a minimum of 35 hours of staff time to administer and organize the nomination and evaluation process. An award presentation could follow the Heritage Conservation awards format with a certificate and a modest ceremony at a Town Council meeting.

Alternatively, the cost for a tree planting dedication ceremony and plaques could range from \$2,500 to \$5,000 depending on the number of trees planted and type of plaques. A video package to post on the Town's website and social media platforms could cost approximately \$2,000 to \$3,000 to produce.

Finally, the traditional awards gala presentation could range between \$10,000-\$30,000 depending on number of attendees and opportunities to offset the cost of the awards gala with sponsorship opportunities. The traditional awards gala requires an additional level of effort for Town staff to administer the logistics and communications. This may require reassignment of existing tasks and responsibilities to other Town staff in the 2-3 months leading up to the awards gala. Town staff assigned to the workshop should have skills associated with event management and logistics.

## Implementation Timeline

The recognition program tree management tool is recommended as a short-to-medium term 2023-2024 (2-3 years) timeframe to implement.

## Similar Examples

- Credit Valley Conservation Friends of the Credit Conservation Awards
- Reforest London Million Tree Challenge Awards
- University of Guelph Arboretum Wall-Custance Memorial Forest

## 8.2.2 Expanded Tree Sale

The expanded tree sale management tool is an opportunity to expand the successful annual Earth Day at Robert C. Austin Operations Centre Tree Sale for the past 21 years. This incentive management tool idea was identified early in the community engagement process and as the single most effective incentive-based tree management tool. Creating a second sale in fall takes advantage of the next best season to plant a tree. This event could be held during National Forest Week in mid-to-late September.

In 2020, the Town upgraded the Earth Day Tree Sale from a traditional first come, first serve model to an e-commerce platform to pre-order trees with an opportunity to book a curbside pick-up time to manage traffic and comply with public health requirements due to COVID-19. This upgrade was identified as a positive improvement from a Town organizational and a customer service perspective. The cost of trees for purchase by the community should continue to generally match the wholesale cost of trees procured through the Town's tender process. The expanded tree sale management tool addresses the desire identified in community engagement to provide subsidized or free trees.

## Administrative and Cost Implications

Administratively, expanding the proven tree sale will require double the material costs bringing to a total of approximately \$20,000, and current Town staff time.

## Implementation Timeline

The expanded Tree Sale program tree management tool is recommended as a short-term 2022-2023 (1-2 years) timeframe to implement. This provides Town staff with time to organize the expanded sale and procure additional trees through a tender process that typically occurs one year prior to the current Earth Day Tree Sale at the Robert C. Austin Operations' Centre.

## Similar Examples

- Town of Caledon Tree Seedling Program
- Reforest London Neighbourhood Tree Giveaways (Donations are encouraged)
- Credit Valley Conservation Direct Sale Program





Figure 18. Advertisement for the 2021 Earth Day Tree Sale at the Robert C. Austin Operations' Centre.

### 8.2.3 Tax Credit/Rebate Program

With most available incentive programs administered by the conservation authorities and other public agencies focused on larger land size and tree quantity eligibility requirements, the Town could fill a service gap by focusing on smaller scale individual tree planting programs.

A popular idea from the first round of community engagement, the tax credit/rebate incentive management tool could take many forms. Some municipalities have started to associate tree planting with stormwater credit rebates. In municipalities where stormwater credits are not currently in place, such as the Town of Halton Hills, a tree rebate program similar to an energy efficiency improvement program are implemented. Residents, businesses, and landowners purchase native tree species from a Halton Hills Privately-Owned Tree Management Strategy

participating local nursery, garden centre or landscaper. Then, submit a form and receipt for a refund. Alternatively, the Town could enter into an agreement directly with local participating businesses where the sale price of the tree is subsidized. This alternative subsidy method may reduce administration since transactions are directly with the nursery, rather than microtransactions with individual residents, businesses, and landowners.

Some municipalities enter into agreements with non-profit organizations to provide a turnkey planting service. One of the benefits of working with a third-party non-profit organization like REEP Green Solutions or Local Enhancement & Appreciation of Forests (LEAF) is a quick program rollout by using the organization's existing program policies, infrastructure, and capacity. Developing a program takes time, and building relationships with local nurseries or garden centres requires the right fit for both the Town and local businesses. In a typical backyard tree planting program with turnkey service, roughly half the cost of a site consultation, supply and installation of trees is subsidized by the municipality, and the other portion is covered through a landowner user fee. Depending on the details of the agreement and wholesale cost of the tree planting stock, labour, and administration, the total cost is typically between \$400 to \$600 per tree.

As an incentive management tool organized in-house by Town staff the rebate/tax credit program requires:

- Developing a webpage on the Town's website;
- Partnering with local nurseries/garden centres/landscapers;
- Creating rebate fulfilment rules and protocols;
- Developing administrative processes to facilitate rebate program (consider using the Framework developed for the Retrofit Halton Hills program currently);
- Developing a communications campaign to promote the rebate/tax credit program, and
- Monitoring program effectiveness.

Depending on the scope of the program implemented and the rebate/tax credit program, the management tool addresses the desire identified in community engagement to provide subsidized or free trees,

property tax rebates/credits for planting new trees or preserving existing trees, assist with physically planting and mulching trees. Combined with a planting component, the management tool could also assist with selecting the right tree for the right place, educate on the benefits of trees, the benefits of native species and diversity of species, accessing a town arborist for consultation, and how to properly plant a tree.

### **Administrative and Cost Implications**

A Town-developed and administered rebate/tax credit program requires the expertise of the Purchasing Division to confirm that the program fulfilment rules or protocols meet the Procurement By-law requirements, and the Communications Department to develop a communications plan. In addition, new Town staff at 0.5 Full-time equivalency (FTE) would cost approximately \$50,000. This new Town staff would form partnerships with local businesses, administer the rebate/tax credit program plus the cost of the rebates (which depend on the quantity of available trees and the value of rebate provided). Assuming a \$100 rebate for 100 trees, for example, will cost \$10,000.

Partnering with a third party to deliver the rebate/tax credit program requires the Town to enter into an agreement with the third party. The cost to fulfill the program depends on specific goals like the number of trees and level of service provided by the third party but is estimated to be a minimum of \$50,000 for 100 trees. In addition, for Town staff in the Purchasing Division facilitating the agreement and Communications Department co-promoting the tree rebate/tax credit program, it is anticipated that this could be fulfilled by existing staff.

### **Implementation Timeline**

The tax credit/rebate program tree management tool is recommended for implementation in a short-term 2022-2023 (1-2 years) timeframe. This provides Town staff with time to determine the type of system: either an in-house rebate program or a third-party tree planting service to implement.

### **Similar Examples**

- REEP Green Solutions Backyard Tree Program
- Local Enhancement and Appreciation of Forests (LEAF) Backyard Tree Program
- City of London treeME - Neighbourhood Tree Matching Fund

### **2.4 Green Legacy Model**

Implementing a management tool modeled after the County of Wellington's Green Legacy Program requires the highest capital investment and operating costs of any management tool recommended in the Privately-Owned Tree Management Strategy. However, the Green Legacy Model combines the greatest number of education and incentive values, views, and ideals identified through community engagement.

The non-profit community tree nursery is a volunteer-driven, education-focused program. Funded entirely by Wellington County, it blends childhood education, community development through volunteerism, nursery production, and tree planting. The program distributes tree seedlings and small potted stock free of charge to residents, landowners, and community organizations for planting on public and private land. At the time of publication, every student in Wellington County has participated in the education program, participated in a school age program in class, and assisted with nursery production totaling over two million trees in the past 17 years. The Green Legacy Program also partners with other community organizations to support life skills for school age children and young adults.

As an incentive/education management tool organized by Town staff, the Green Legacy Program requires:

- Developing a webpage on the Town's website;
- Communications with County of Wellington staff to obtain detailed insight;
- Developing a business case for a made-in-Halton Hills community nursery;
- Constructing required nursery production infrastructure (assumes Town land is currently available);
- Hiring Program Manager, Education-specific staff, and Nursery Production-specific staff;
- Developing a communications campaign, and
- Monitoring program effectiveness (annually).

The Green Legacy Program is a hybrid education and incentive tree management tool. The program addresses the education-based desires identified in community engagement to quantify and educate on the benefits of trees, best management practices, the benefits of native species and diversity of species, the importance of mature trees, and how to properly plant a tree. The program also fulfills the incentive desires to provide subsidized or free trees, assist with physically planting and mulching trees, and the idea to model a program after the Green Legacy Program.

### **Administrative and Cost Implications**

At present, the Green Legacy program's two production facilities, including offices, cooler buildings, greenhouses, public washrooms, and picnic pavilions were constructed at a cost of approximately \$750,000. The program has an operating budget of approximately \$850,000; five permanent staff, eight seasonal staff, plus 20,000 hours of volunteer labour, producing approximately 175,000 trees annually. Approximately one-third of the operating budget is dedicated to nursery production and two-thirds to education programming.

A made-in-Halton Hills Green Legacy Program is recommended to begin with lower production and education goals than the County of Wellington's 2020 budgets and trees produced. At minimum, a capital investment including greenhouse facilities, office, and washroom facilities are required at approximately \$300,000. Minimum Town staffing includes 3.0 FTE or approximately \$300,000, one staff focused on nursery production, and two staff focused on education programming. Additional responsibilities to

be shared between the 3.0 FTE Town staff are administration, volunteer coordination, and community outreach functions.

Staff assigned to the Green Legacy Program model should have a combination of skills from education, natural interpretation, horticulture, and nursery production.



Figure 19. The Green Legacy Program Logo.

### **Implementation Timeline**

A made-in-Halton Hills program modeled on the County of Wellington's Green Legacy Program is recommended as a medium-to-long-term 2024-2026 (3-5 years) timeframe to implement. It is recommended to implement and assess the efficacy of several smaller scale education and incentive programs. If there is sustained support for programs such as the expanded tree sale, workshops, school age workshops, and rebate/tax credit programs that subsidize tree purchase/planting, further consideration should be given to made-in-Halton Hills programs like the Green Legacy Program.

### **Similar Examples**

- County of Wellington Green Legacy Program
- The Greening of Detroit

## 8.3 Regulation-Based Management Tools



### 8.3.1 Modify Current Practices

Existing development guidelines often describe preserving trees where possible. However, the details for conducting inventory, analysis, and required protection measures are different depending on the existing document referenced.

It is recommended to modify and align tree inventory and preservation requirements to match the recommended Best Management Practices, and following further discussion and consultation, the details of private tree by-law, within the existing town documents:

- Site Alteration By-law (2017-0040)
- Subdivision Manual
- Site Plan Application Guide

Streamlined approval requirements reduce confusion and reinforces use of the same best management practices throughout planning and construction processes. Examples include, the level of detail required in tree inventories and preservation plans, for example, aligning the same minimum tree sizes to be inventoried, assigning the same minimum tree protection zones, requiring the same tree protection barriers specifications, and minimum mitigating methods to adequately protect trees during construction.

In addition to aligning tree inventory and preservation requirements, all documents should describe the requirement and method of calculating compensation trees to address the loss of existing trees. Existing documents do not specify a standard approach. This requires additional effort for development consultants to propose a method and additional effort for Town

staff to negotiate compensation requirements for each development application.

There are two general approaches to tree compensation in Ontario. First, is a simple ratio-based approach regardless of the size of the trees being removed. One tree is removed, one replacement tree is planted. Other ratios such as 2:1, 3:1, and up to 5:1 are also common practice. If the replacement tree can't be planted due to space constraints, the cost of a professional landscaper to replace and maintain the tree for two years is used to generate the cash in lieu of planting value. This is generally between \$250 and \$700, depending on the municipality. The benefit to this approach is simple administration. The drawback is that a tree at peak ecosystem services, such as a large mature sugar maple, could be removed and replaced with a tree that will take 75 years to grow to the same size and provide the same ecosystem value.

The second increasingly common approach is to calculate compensation using the Aggregate Caliper Method. This method adds up the area of the tree stems to be removed measured by the diameter at breast height (dbh). For example, if tree one is 25cm dbh, tree two is 50cm dbh, and tree three is 20cm dbh, this totals 95cm of tree stem to be removed. If replacement trees are 5cm caliper, a typical size of a newly planted tree, this equals 19 compensation trees. The benefit is that the same quantity of tree stem is replaced immediately, but not necessarily the equivalent ecosystem services because larger trees are more efficient than newly planted trees. The drawback is that this requires that all trees are measured, and sometimes complex calculations are required with multi-stem trees. This method will often result in a quantity of compensation trees that can't possibly fit on a given development site, which often means additional funds being added to a special tree planting fund.

Though not within the scope of this Privately-Owned Tree Management Strategy, public tree management operating protocols and procedures could also align with best management practices, such as the City of Burlington Tree Protection and Preservation Standard Specification No. SS12A that is applied to all trees on public and private property within the City's Urban Planning Area.



Modifying current practices as regulation-based management tools addresses the desire identified in community engagement to ensure that any regulations are the same for developers and local homeowners, requiring replacement trees when existing trees are removed, new development to plant specific types of trees and minimum types of trees, and to do what surrounding towns and cities are doing.

### Administrative and Cost Implications

Administratively due to the reach and scope of modifying existing current practices, it will require input and review by all Town departments that plan for and manage trees, as well as consultation with representatives from the development industry, local contractors, and consultants.

When modifying current practices, one Town staff member should be established as the owner or knowledge keeper to address questions, provide interpretations, and complete the recommended reviews. Town staff assigned as the owner should be

skilled and informed on the subject matter such as a Registered Professional Planner, ISA Certified Arborist, American Society of Consulting Arborist, Registered Professional Forester, or Landscape Architect.

### Implementation Timeline

Modifying current practices relies on the development and approval of the best management practices document that establishes how trees are managed in Halton Hills. The modifying current practices tree management tool exercise should be completed in a short to medium-term timeline 2023-2024 (2-3 years).

### Similar Examples

- City of Guelph Tree Technical Manual
- City of Burlington Tree Protection and Preservation Standard Specification No. SS12A
- Town of Oakville Tree Protection During Construction Procedure EN-TRE-001-001



Figure 20. Southeast Acton.

### 8.3.2 Private Tree By-Law

When preparing an effective private tree by-law, there are four principles to consider:

- The by-law should provide a balance between the use and enjoyment of private property, while addressing the need to protect trees.
- The by-law should not impose an unreasonable financial burden on property owners or on the Town in administering the by-law.
- The by-law should be easily understood and capable of effective enforcement.
- The by-law should recognize that trees on private lands are an important component of the Town's overall tree canopy, providing benefits to the entire community.

In compliance with the Municipal Act, any tree by-law the Town considers creating, through further discussions and consultation, is required to complement, not overlap with the existing Halton Region Tree By-law. The focus of the Region's tree By-law is to protect groupings of trees that meet the definition of a woodland.

Most recently adopted private tree by-laws in Ontario generally follow the 2013 framework recommended by the Ontario Woodlot Association Lower Tier Municipality Tree By-Law Advisory Group. The Advisory Group members were comprised of Lower, Single and Upper Municipalities, Woodlot and Professional Foresters Associations, and Ministry of Natural Resources and Forestry. It is recommended that a private tree by-law in Halton Hills be implemented following further discussion and consultation, follow this framework. Administratively, using the same tree by-law framework as many other municipalities (such as Burlington and Oakville) have used since 2013, will allow for consistency and strengthening of the by-law.

There are statutory components of any tree by-law defined in the Municipal Act. For example, where other provincial acts take precedent over municipal tree by-laws, and authority to enforce offences and penalties.

It is recommended that the Town consider adopting a private tree by-law with the following key attributes to

balance landowner rights, tree canopy protection and enhancement, and cost to both landowners and Town:

- regulating trees 20cm dbh and larger, including dead or diseased trees;
- in urban and hamlet areas including Georgetown, Acton, Premier Gateway, Glen Williams, Norval, and Stewarttown;
- Permits are required when removing a tree for any reason, or construction activity that may injure a tree;
- Permit applications should be a simple online form where the tree owner can submit digital photos;
- That there be no permit application fee for applicants;
- Follow-up site visit by Town staff to verify the information submitted and understand the full scope of work that may impact trees;
- When trees are removed that simple ratio-based compensation is used to calculate compensation or cash in lieu of planting;
- There should be a nominal deposit held by the Town until the conditions of a permit are satisfied, and
- There should be fines for regulated tree removal without a permit, or contravention of the terms of a permit.

An example of a draft private tree by-law framework is provided in Appendix C.

Prior to considering a by-law, the Education and Incentive programs will be evaluated, as well as further discussions and consultation with Town Staff, Council, and community is recommended. It is further recommended that the by-law content is reviewed by legal services for compliance with current provincial, regional, and town legislation. Resources to administer and enforce the by-law and update the other tree management tools that are affected by a new private tree by-law such as best management practices, modifying current practices and workshops.

A private tree by-law regulation-based management tool addresses the desire identified in community engagement to develop tree permits, a private tree by-law, ensure that any regulations are the same for developers and local homeowners, designate and



protect heritage trees or old growth trees, fines for unauthorized tree removal, allow rural landowners to continue to remove/manage trees through a Managed Forest Plan, require a Town Arborist consultation before removing a tree, and requiring replacement trees when existing trees are removed.

### Administrative and Cost Implications

Based on the moderate-to-more flexible private tree by-law approach and key attributes provided in the example By-law in Appendix C, it is anticipated that approximately 400 tree permit applications will be submitted annually. This estimated application quantity was calculated by evaluating the average number of building permits issued in the Town of Halton Hills in 2019 and 2020 that have the potential to injure or remove trees such as from building additions, decks, pools, and new buildings. Based on a review of other municipal private tree by-laws, the City of Burlington's current workflow and application evaluation process estimates an average of eight hours from Town staff to process a typical permit application. This equals approximately 3,200 hours of staff time to be divided between 1.0 FTE Tree Professional (ISA Certified Arborist, American Society of Consulting Arborist, or Registered Professional Forester), 1.0 FTE Administration/Permit Processing, and 1.0 FTE Enforcement Officer, at an annual operating cost of approximately \$300,000.

In addition to the administration of the private tree by-law, a coordinated communications strategy with an educational component is strongly recommended and at a minimum includes:

- Developing a webpage on the Town's website;

- Implementing an appointment/scheduling system for public use;
- Developing and maintaining a database/mapping to track appointment requests;
- Developing a media campaign to promote and educate on the private tree by-law, and
- Monitoring program effectiveness (annually).

Town staff assigned to the enforcement and administration of a private tree by-law should be skilled and informed on the subject matter such as an ISA Certified Arborist, American Society of Consulting Arborist, Registered Professional Forester, or Landscape Architect. Enforcement of the By-law requires a Provincial Offences Officer with subject matter expertise. At time of publication, existing Town staff either do not have the capacity or required subject matter expertise to enforce and administer a private tree by-law. It is recommended to hire new staff.

### Implementation Timeline

Adopting a Private Tree By-law requires the development of the Best Management Practices education management tool and coordination with modifying current practices. The private tree by-law tree management tool is recommended to be considered in the medium-to-long-term timeline (3-5 years) following additional community and Council consultation.

### Similar Examples

- City of Burlington Private Tree By-law
- Town of Oakville Private Tree By-law
- Town of Niagara-on-the-Lake

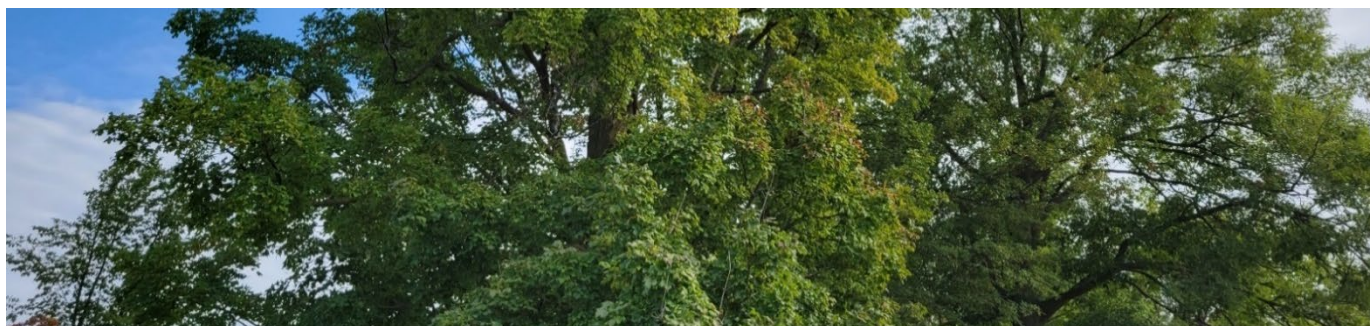


Figure 21. Mature Sugar Maple Tree - Downtown Georgetown.



Figure 22. Rural Halton Hills south of Acton.

## 9.0 Tree Management Tool Implementation

The Privately-Owned Tree Management Strategy is one part of the Town's Tree Canopy Management Program. The systemic causes of tree canopy cover loss, and the fact that trees need time to grow before they provide significant contributions to the canopy and ecosystem services indicate that it will take funding, effort, and time to enhance the existing tree canopy. It will also take time for the Town and its potential partners to implement educational, incentive, and regulation-based management tools to protect and enhance the tree canopy.

The Privately-Owned Tree Management Strategy includes a range of management tool options at a range of costs, ranging from a one-time workshop event estimated at \$2,500 to a comprehensive community-based nursery education/incentive program with an initial estimated cost of \$600,000. The options in this strategy allow Town Staff flexibility when determining which tree management tool to implement considering cost and administrative implications.

### 9.1 Years 1-2 (2022-2023)

It is recommended to begin development on the Best Management Practices education-based tree management tool immediately following approval of this strategy. Best Management Practices will become a core resource, informing the content of many other education, incentive, and regulation-based tree management tools.

The Workshop education-based tree management tool recommended in the first year of implementation relies on strengthening relationships with existing community partners such as the local Conservation Authorities to co-deliver or co-promote existing workshop events. Partnering with existing organizations reduces the timeline to promote desirable behaviours to protect and enhance the tree canopy, while providing an opportunity to develop Town-specific content from the Best Management Practices management tool. Initially, it is recommended to co-promote or co-host workshops with organization such as Conservation Authorities first. Initial Town-organized workshops could take the form of bringing in a tree expert to speak as part of the Halton Hills Public Library Lecture Series. As workshop content is developed in the form of the best management practices and additional programs are



implemented, Town-organized half-day or full-day workshops could be supported.

As another tree management tool that is developed by a third party for public use, the Tree Benefit Calculator, accessed from the Town's website, is recommended to be implemented in the first year. This requires Town staff to communicate with the i-tree organization.

The Tax Credit/Rebate Program with its multiple potential program delivery forms requires establishing relationships with different organizations. Where a rebate/coupon program is implemented, agreements with local nurseries, garden centres, and landscapers are required. Where a turnkey tree planting service is implemented, it is recommended to establish an agreement with a third party that already manages an existing program with fully developed processes and capacity to expedite delivery to residents, businesses, and landowners. This agreement with the third party could continue indefinitely or the Town could consider developing an in-house program after evaluating the third-party agreement following the first year of implementation.

Expanding the tree sale to a second event in mid-September to correspond with National Forest Week requires ordering trees between 6-12 months prior to the event, based on current practices for the Earth Day Tree Sale. While this tree management tool is recommended to be implemented in year one, it may need to be implemented in the second year to fully organize procurement of trees and staff time.

Table 1. Estimated Cost Summary Year 1-2 (2022-2023)

Tree Management Tool	Estimated Cost
Best Management Practices	\$25,000 [one-time]
Workshops	\$2,500 - \$25,000 [per event]
Tree Benefit Calculator	\$5,000 [annual]
Expand Tree Sale	\$10,000 [annual]
Tax Credit/Rebate Program	\$50,000 - \$70,000 [annual]

## 9.2 Years 2-3 (2023-2024)

To balance the implementation of all tree management tools in the strategy, the recognition incentive-based tree management tool is recommended to be implemented in year two to three.

The personal appointment education-based tree management tool should be implemented in year two. When entering into an agreement with a third-party organization to deliver program content where the program is delivered by a new in-house tree professional, the management tool should be implemented in year three to allow time to develop administrative procedures, protocols, and convey content from the Best Management Practices education-based tree management tool.

The modifying current practices regulation-based management tool requires that best management practices be developed and implemented (recommended in year one). Then it will require extensive coordination between all Town departments that directly or indirectly manage trees to align with best management practices. Revisions to standard operations procedures, policies, and guidelines may require up to two years or longer to fully implement depending on the status of specific review cycles for each procedure, policy, or guideline.

Table 2. Estimated Cost Summary Year 2-3 (2023-2024)

Tree Management Tool	Estimated Cost
Personal Appointments	\$25,000 - \$75,000 [annual]
Recognition Program	\$2,500 - \$30,000 [per event]
Modify Current Practices	\$50,000 [one-time]

## 9.3 Years 3-5 (2023-2026)

The tree management tools with the highest operating costs are recommended to be implemented in years three through five.

Prior to considering implementation of a private tree by-law regulation management tool, further discussion and consultation is required with Town Staff, Council,

and community. The recommended draft private tree by-law provided in Appendix C will be considered in the future. Further review will be required for compliance with current provincial legislation, specifically the Municipal Act and in coordination with Halton Region’s Tree By-law. The operating budget for a minimum of three new staff to administer and enforce a private tree by-law is also required to be integrated into future budgets.

The school age workshop education-based tree management tool requires further establishing a formal partnership with the organization or combination of organizations to deliver tree-specific educational content. The school age workshops also require establishing an agreement with local school boards.

Implementing an education/incentive-based management tool similar to the County of Wellington’s Green Legacy Program requires a combination of commitments. A capital investment is required to develop a nursery production facility that is also suitable as a community education facility.

Agreements to deliver the educational component of the program requires communications with school boards and private facilities; in addition, the operating budget for a minimum of three new staff to administer and operate the program. Prior to committing to implementing the Green Legacy tree management tool, the Town should complete an evaluation of the existing education and incentive programs to determine their efficacy and if resources that have similar deliverables could be reallocated to the Green Legacy tool. For example, the expanded tree sale, tax credit/rebate program, and school age workshops

Table 3 Estimate Cost Summary Years 3-5 (2024-2026)

Tree Management Tool	Estimated Cost
School Age Workshops	\$125,000 - \$250,000 [annual]
Green Legacy Program	\$300,000 [capital] \$300,000 [annual]
Private Tree By-law	\$300,000 [annual]



Figure 23. Georgetown

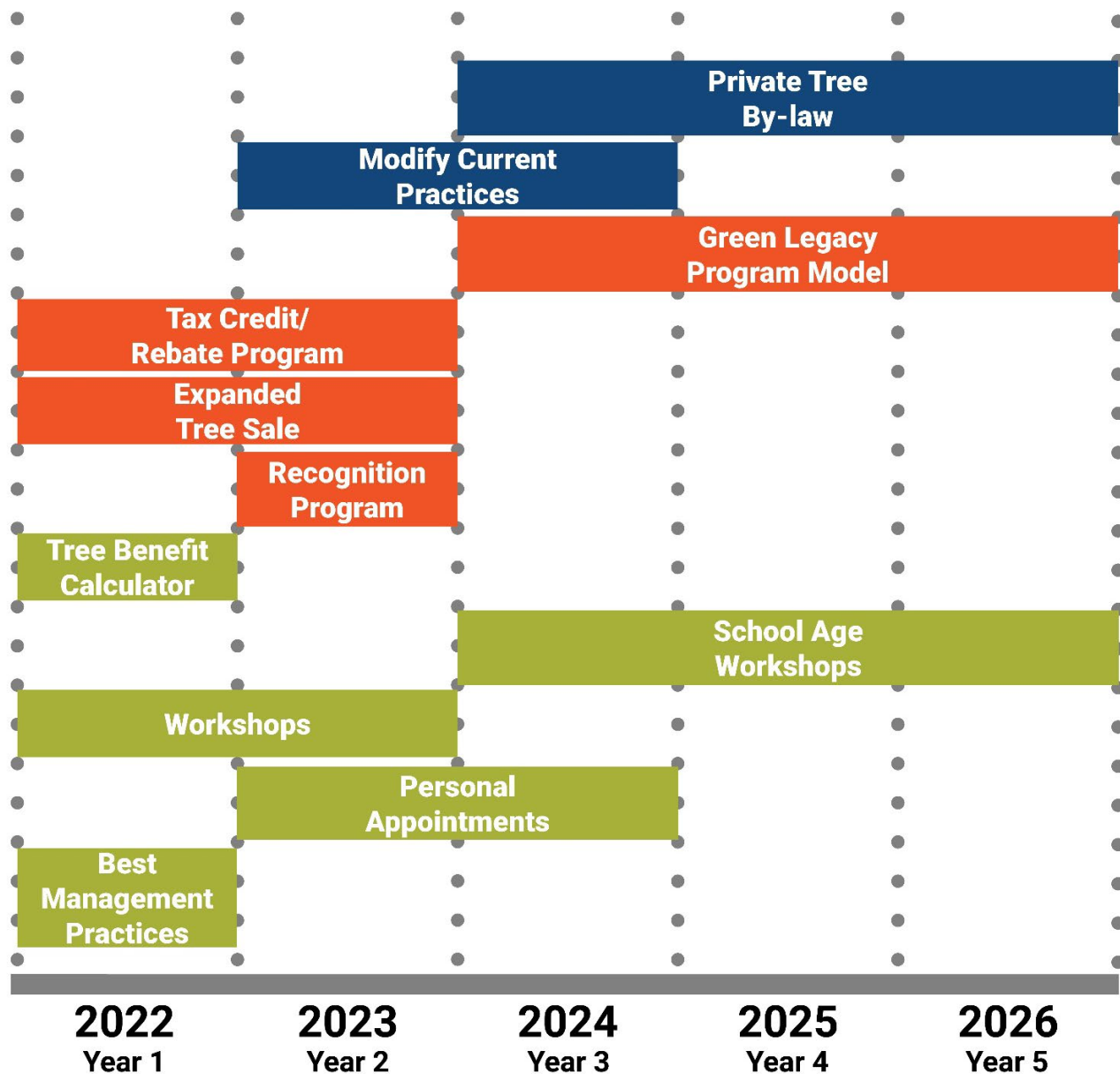


Figure 24. Recommended Tree Management Tool Implementation Timeline.



For more information about this strategy and the Town's climate change initiatives please visit: [haltonhills.ca/climatechange](http://haltonhills.ca/climatechange)



Climate Change & Asset Management,  
Strategic Initiatives,  
Town of Halton Hills  
905-873-2600





# Appendix A

## **Town of Halton Hills Privately-Owned Tree Management Strategy Background Report**

**Explore**



## Appendix B

# Town of Halton Hills **Privately-Owned Tree Management Strategy** Background Report

**Engage**



## Appendix C

# Town of Halton Hills **Privately-Owned Tree Management Strategy**

**Example of a Draft  
Private Tree By-law**