


Tree Canopy and Natural Vegetation Protection Policy

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Scope

This policy applies to all properties and developments, on public and private lands, in the Town of Bradford West Gwillimbury. It is a resource, which can be referred to and utilized as guiding principles for residential, commercial and public purposes.

Purpose

The purpose of this policy is to acknowledge and set out the manner in which the Town will maintain, enhance and protect the tree canopy and natural vegetation in the municipality and foster a sustainable urban forest.

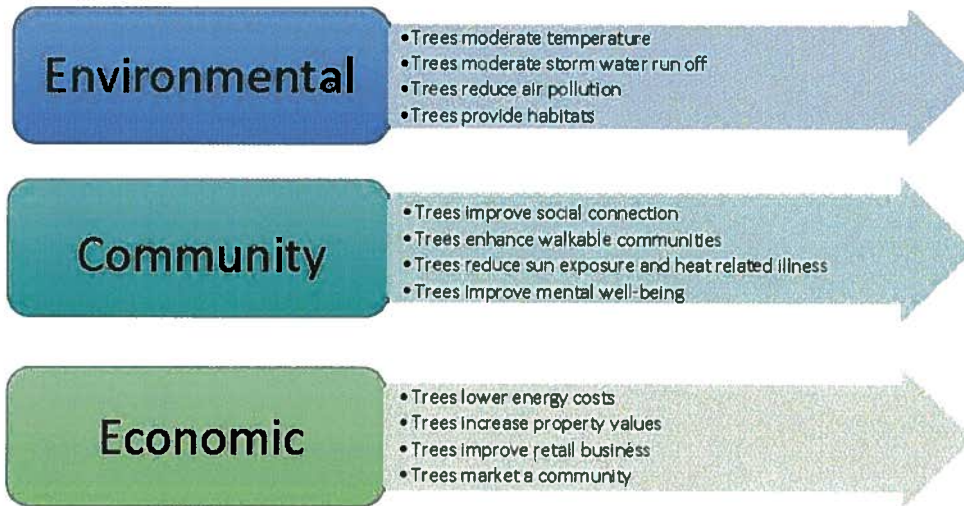
Definitions

Urban Forest refers to all trees within a municipality, encompassing trees located on private and public land, for this policy the application of the term shall only be for trees located on publicly-owned lands. Within the Town boundaries the urban forest is organized into two categories:

- a) "Green Infrastructure" – Trees that grow in modified environments such as street trees, parks, and hard surface environments (parking lots). Maintenance and management of such trees are relatively high.
- b) "Natural Capital" – Native trees and understory vegetation such as woodlands, wetlands, and other natural areas that have little to no man-made modifications. Conservation of such lands can be difficult.

Policy

An emerging trend among municipal governments is the consideration of the urban forest as a vital part of the municipal infrastructure as the urban forest significantly contributes to the quality of life in a municipality. Most forestry studies classify those benefits into three sections:



The combination of environmental, community and economic benefits establish the urban forest as an essential Town asset. However, the benefits the urban forest provides to its local community is declining due to threats that are harming or destroying green infrastructure and natural capital. Arborists across Ontario identify three risks to the urban forest:

1. Urban intensification;
2. Insects and diseases (Chestnut Blight, Dutch Elm Disease, Asian Long-horned Beetle and the Emerald Ash Borer (EAB)); and
3. Climate change and severe weather events (snow storms, wind storms, ice storms, and rain events).

Trees are an intrinsic part of our communities, towns, cities, and regional districts. They play a vital role in creating and maintaining sustainable communities that attract and retain residents and businesses. A healthy urban canopy can be considered as an investment that will only appreciate over time.

Trees play a valuable role in the wellbeing of BWG and the benefits are many including:

- A mature urban tree canopy creates shade, which lowers energy consumption for a community. This is accomplished via the direct link of shading households, and a community wide impact of reducing the urban heat island effect;
- Reduces air pollution;
- Increases property value;
- Provide shelter for wildlife;
- Improves the usability of public parks;

- Improves the aesthetics of properties and street lines;
- Assists in stormwater management; and
- Prevents erosion, especially along slopes.

Official Plan Policies

The Town has committed to policies of environmental protection and effective resource management in its *Official Plan* as important areas of protection for the future of the Town. The success of both the agricultural and urban growth areas are dependent on the Town's ability to exercise a strong managerial role in this regard, while ensuring a cooperative relationship with other agencies: MMAH, OMAFRA, MTO, MOECC, County of Simcoe, LSRCA, NVCA and OFA.

Due to their environmental importance, Provincial Areas of Natural and Scientific Interest (ANSIs), provincially significant wetlands, County Greenlands and Linkages, locally significant wetlands, and environmentally significant areas, located in the Town, have been shown as a separate land use designation in the *Official Plan*. No new development or site alteration other than for flood protection of lands is permitted in these important areas.

Due to the high quality of the agricultural lands in the Town, the amount of land remaining under forest cover is less than in other municipalities in the County. Whether by Provincial, County or Conservation Authority programs or Town policy, these important areas are to be preserved and increased to the greatest extent possible. Restoration and tree planting efforts should be directed to areas that would create or re-establish natural corridors, such as river and stream riparian areas.

This policy will address how the Town will address the preservation of the tree canopy and natural vegetation in each of the following areas:

- Green Infrastructure/Urban Forest of the Municipality (Trees on Public Lands)
- Naturalized Areas (Woodlands and Woodlots)
- Development Applications and Public Works Protection (Trees on Private Developing Lands)
- Community Engagement/Private Tree Protection (Trees on Private Property)

1. Green Infrastructure/ Urban Forest of the Municipality

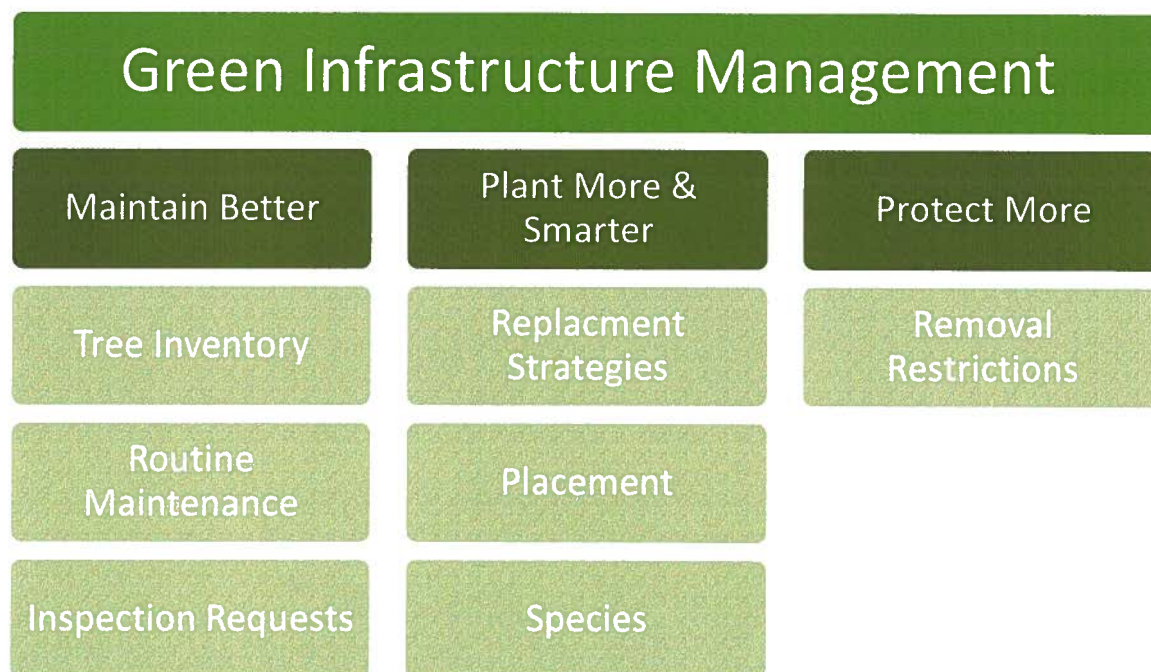
The Town of BWG Community Services Department – Parks Division is the steward of public trees and is committed to ensuring the preservation and enhancement of the urban forest.

In July 2015, the company Urban Forest Innovations was retained to begin the process of a town wide street tree inventory. This first round of data collection included 5,000 boulevard trees in the urban area and represents approximately 90% of the current stock within this area. The survey provided detailed street tree information that included: the issuing of individual I.D. numbers, location by civic address, species, trunk diameter, physiological and structural condition, maintenance requirements, maintenance priority, tree risk rating, value of each tree, and some additional attributes such as the presence of utility conflicts and sidewalk concerns.

This survey provided a snapshot of the current condition of street trees within the Town and has confirmed the need to further the inventory through the parks and rural areas of town. A number of recommendations were made through this survey.

The purpose of this section of the policy is to formalize processes which must be undertaken to maintain, enhance and protect the urban forest on public land. This document shall provide a blueprint for developing a Forestry Management Plan. The Forestry Management Plan will identify how the Town will enhance and protect the urban forest and the actions that the Town will undertake to implement those objectives.

The stewardship of green infrastructure can be categorized into three sections:



The three-prong approach aligns with the provincial mandate, is comparable to other municipalities' procedures and addresses the needs of the Town's urban forest. While developing this approach, emphasis has been placed on the sustainability of the approach, ensuring that the forestry operations are feasible when considering budget and personnel availability. Other larger municipalities may have more robust policies.

1.1 Maintain Better (Maintenance Practices)

Maintaining existing green infrastructure will remain a central management approach. Most forestry management plan developers assert that a fundamental element of expanding the urban forest is the cultivation of existing trees as large-stature trees as well-established trees provide a more significant share of benefits. Continuing to enhance the urban forest by solely planting and not preserving the existing urban forest is not sustainable and will only increase risk and an unhealthy urban forest. Therefore, the Town will allocate resources to maintenance practices. The Town will divide maintenance into three streams.

Stream 1: Tree Inventory

A comprehensive street tree inventory was commenced in 2015 to collect and analyze inventory data for 5,000 Town-owned street trees. The objective of the project was to improve the Town's knowledge of and ability to manage the street tree component of its urban forest, particularly in the developed areas of the Town. The Town knowledge of its urban street tree population is improved through up-to-date and accurate street tree inventory data with GIS integration and thorough analysis of inventory data.

In order to have a more complete understanding of its urban forest, the Town should complete tree inventory data collection for the remainder of Tree Area 2. It is also recommended that the Town expand the municipal tree inventory to Town-owned parks and other municipal properties, including all Town-managed roads. This will enhance the Town's understanding of Town-owned urban forest assets and significantly improve its ability to manage the entire urban forest.

Stream 2: Routine Maintenance Activities

Parks staff or contract Arborist service will perform routine maintenance activities throughout Town including:

- Area pruning
- Watering newly planted trees;
- Minor pruning to ensure sightlines and overhead clearances as per the *Highway Traffic Act*; and
- Storm damage clean up.

The Town will review each Area on a five-year rotation. Benefits of a cyclical maintenance schedule include:

- Maximization of life span and associated benefits of the tree;
- Reduce the impact of severe weather events; and
- Lower liability risks associated with hazardous trees that may cause bodily harm or property damage.

Stream 3: Inspection Requests

Residents may also request maintenance activities for trees on Town property. If a tree requires maintenance or removal activities, the Town will add the tree to a working list. To properly allocate maintenance budgets, the Town will complete maintenance activities on a priority basis. Ongoing systematic pruning should reduce the number of private inspection requests.

1.2 Plant More and Smarter (Planting Practices)

The Town is committed to planting more trees to enhance the canopy but will focus on better planting practices to ensure the quality and longevity of the new trees ultimately foster a balanced and sustainable urban forest. This approach differs from a quantity-based enhancement policy.

The planting of trees on public land is the sole responsibility of the Town and its staff, however, under the following circumstances non-employees of the Town may plant trees on public land. The restriction is necessary to ensure the planting in appropriate locations, suitable species and inclusion in Town records.

- Contractors hired by the Town;
- Community volunteers authorized by the Town; and
- Land developers in new subdivisions as per approved subdivision agreements.

When planting trees, the Town will consider three factors:

Factor 1: Replacement Strategies

For the removal of every Town-owned tree, the Town will plant three additional trees within the municipality. When considering replacement, overly ambitious tree planting targets can overextend resources. A ratio of 1:3 has been chosen as it is the most feasible when considering the costs of procuring the trees and time spent watering and maintaining the tree for the first two years.

Factor 2: Tree Placement

The placement of trees has varied throughout Town, making watering processes very sporadic and inefficient. The Town has assigned tree planting areas for the next five years to cultivate neighborhoods that currently lack canopy cover and ensure efficient watering processes.

In the process of inventorying street trees, it was recommended that the Town develop a plantable spaces inventory, categorized by size of suitable tree and assessed for potential utility conflicts or other attributes which may promote or reduce the success of future plantings. A plantable spaces inventory can be used to inform strategic long-term planting plans, ensuring that Town resources dedicated to tree planting are used in the most efficient and effective manner possible.

Additionally, if the Town removes a tree, staff will determine the location of the replacement tree. Staff cannot guarantee that they will plant a replacement tree in the original tree's place.

When planting the Town will consider the following factors:

- Tree function;
- Form and size;
- Site conditions; and
- Human activities.

To ensure the success of boulevard trees, the Town will provide information to the applicable property owner abutting the boulevard regarding best practices for tree new tree and request they help water the tree.

Factor 3: Species

To build the resilience of the urban forest, consideration of species variety is paramount. The urban forest shall be diverse on the macro and micro levels. No single neighborhood shall be homogenous; diversity is necessary to limit possible impact of species specific diseases and invasive insects that can adversely affect the health of trees. Bio-diversity can insulate the urban forest from insects and diseases.

It is suggested that the '10-20-30' rule be the guide for urban forest management:

- No species accounts for more than 10% of the tree population;
- No genus accounts for more than 20% of the tree population;
- No family accounts for more than 30% of the tree population;

Given the current level of tree species diversity, the Town must focus on increasing the diversity of tree species, genera and families planted across the Town. The Town should significantly reduce the number of maple, linden, honey locust, spruce and crabapple plantings. Less common species such as tulip-tree, Kentucky coffee-tree, a variety of oaks and hackberry, among others will be considered for future plantings.

The Town has approved a list of species for planting; those species are native to southern Ontario and the Town's watershed, therefore the species are adapted to the local climate. This list matches the NVCA/LSRCA recommended native trees, shrubs and, vines. Please see **Appendix x** for approved tree and vegetation species and planting conditions.

1.3 Protect More (Removal of Trees)

As mentioned above, the tree canopy is decreasing due to external forces. Because of this, the protection of existing trees is imperative, especially large stature and well-established trees. To protect the existing urban forest, the Town shall only remove trees under the following circumstances:

- the tree is dead or dying;
- the tree causes a hazard and needs to be removed to mitigate risk;
- emergency work;
- installation or reconstruction of Town infrastructure; or
- at the discretion of the Director of Community Services, or their designate.

The policy allows for trees to be removed to install infrastructure, during the pre-construction process staff are to consider alternative approaches limiting the removal of trees. Furthermore, the following are not considered valid reasons for tree removals: tree is messy because of fruit or seeds production, number of leaves.

In order to ensure that Town-owned trees are protected and that requests to injure or remove them are evaluated consistently, a Public Tree Protection By-law could be developed. Such by-law could:

- prohibit the injury or removal of any Town-owned trees,

- establish a permit process to review requests to injure or remove Town-owned trees;
- require compensation for any trees that the Town allows to be injured or removed, and
- create offences and fines for which anyone injuring or removing Town-owned trees without a permit.

1.4 Severe Weather Event Policy

During a severe weather event Parks and Public Works operators or forestry contractors for the Town will respond to residents and emergency services on a priority basis. Emergency crews will prioritize fallen trees that are blocking main arterial roads, or public trees which have fallen on buildings or hydro lines as soon as crews can be dispatched. Furthermore, Parks or Public Works crews may need to leave a site to attend another call; the crew will return at a later date and time to complete the original request. Emergency crews will address and resolve other requests at a later time.

1.5 Invasive Species

Invasive species are considered plants that disrupt the natural balance of an ecosystem, often aggressively spreading over a specific area. The Town will monitor and try to prevent the spread of those plants to ensure a healthy biodiversity. Different invasive species will require different control mechanisms. Some of the varying methods may include pulling, cutting, girdling, smothering, burning, and chemical control (may be used for Hogweed removal by professionals).

2. Naturalized Areas (Natural Capital)/ Wooded Tracts/ Woodlots

The Town has various areas that are in a naturalized state, or may become naturalized. Such areas are captured in Schedule E of the *Official Plan* and policies are established to protect such areas. Significant woodlots are defined to include any woodlots of four (4) hectares or larger, or woodlots that abut a stream or watercourse. Under the Town's *Official Plan*, an Environmental Impact Study (EIS) must be prepared to determine whether a proposed development is appropriate within or immediately abutting any such woodlot.

In addition, the County of Simcoe Forest Conservation By-law was established to protect large wooded tracts with the County. The Forest Conservation By-law regulates properties at least one hectare (2.47 acres) in size, commercial harvesting, and clearing of forests. The objectives of the Forest Conservation By-law are to conserve the forest landscape and prevent over harvesting, protect Sensitive Natural Areas, encourage 'good forestry practices' and ensure a sustainable supply of timber for industry and landowners.

The Forest Conservation By-law does not regulate properties less than one hectare (2.47 acres) in size, regulate or restrict cutting in order to erect a building where approvals or permits are in place, or prevent landowners from cutting wood on their own property for their own use

providing the forest remains a woodland. It is suggested that the Town consider enacting a Woodlot By-law to protect trees that are located in certain small densely-forested areas. This by-law would require a permit before any injury or removal of a tree in these areas takes place. The by-law may require replanting of trees, remediation of injury, financial compensation of removed trees, or other conditions to the approval of a request to remove trees.

3. Development Application and Public Works Protection

The Town's *Official Plan* sets out that the principle of sustainability is to be incorporated into all developments, and shall be paramount in reviewing development applications and public works. Environmental protection and effective resource management are important to the future of the Town. Until such time as a Natural Heritage Plan is adopted by Council, the Town will carry out development reviews within the existing approved policies of its partner organizations.

Additionally, the Simcoe County *Official Plan* contains a policy which sets in motion a detailed review of the impact of permitted forms of development which fall under the designation of Greenlands in the County Plan. The Town will adopt this system, which requires an Environmental Impact Study (EIS) to be prepared for all non-farm related developments and new agricultural uses.

Currently, the Town's *Design Criteria Manual* for development requires a Landscape Plan, which includes:

- Adjacent lands and roads marked with spot elevations to show the slope of land based upon the engineer's grading plan and architectural site plan;
- Walkways, parking areas, exterior lighting, street furniture, hydrants, boulevard trees, transformers, curbs, signage, etc.;
- Location of all proposed plant material, planting beds and sodded areas;
- Location of existing vegetation to be retained or removed (tree inventory plan);
- Location and type of protection measures for the existing vegetation retained (tree preservation plan);
- Location of all existing natural features such as top of back and watercourses;
- A plant list including full botanical name, common name, quantity, caliper, height, and spread;
- Location, height and material of all fences, screen walls, retaining walls;
- Location of stormwater management features; and
- Any other landscape element that contributes to site development.

All landscaping to be provided by the developer in accordance with the principles as described in the *Official Plan*. All plants, materials and structures to be placed on municipal lands shall be completed in a manner that is deemed to be "low maintenance" and in accordance with approved species lists. The developer will be required to plant trees on all streets and blocks in accordance with the specifications established by the Town and as shown on the approved landscaping drawings.

Unfortunately, the Town does not currently have policy to address compensation for removal of trees or set ratios with respect to the number of trees required by developers.

It is recommended that the Town develop a Tree Preservation, Protection, Replacement and Enhancement Policy for the preservation, protection, replacement and enhancement of significant trees on lands subject to a *Planning Act* application. The policy would similarly require the submission of an arborist report with any *Planning Act* application, to ensure that any trees to be protected are properly considered during the development review process, and that the removal of any significant tree is compensated for by replantings on-site or by financial compensation for the Town to replant trees off-site.

It would be the intent of this policy to educate and increase awareness within the development industry of the importance of tree preservation and protection for the health of the community by:

- encouraging the consideration of the location of existing trees in the design of development plans prior to the submission of development applications;
- encouraging the ongoing protection of trees during development activities on properties subject to development applications;
- encouraging no net loss of trees through the planting of replacement trees; and
- encouraging the planting of additional trees to enhance development properties and streetscapes beyond the requirements of boulevard trees.

4. Community Engagement/Private Protection

4.1 Community Partnerships

The Town will continue to engage in partnerships with community agencies and organizations, including South Simcoe Streams Network. The South Simcoe Streams Network (SSSN) continues to draw multi-sector and community support and typically involves over 900 volunteers and 60 partner organizations annually. On average, the SSSN engages in some 25 public events on 15 project sites per year. Volunteers and partner collaborations have enabled the planting of over 55,000 native trees and shrubs along our local waterways, engage in strategic invasive species control and thousands of metres of floodplain and bank stabilization works. Through education, community involvement and on the ground activities, this program has developed innovative, action oriented ways to improve and protect local environments.

4.2 Memorial Tree Program

The official program is being developed and will allow for the purchase of trees to be planted on public lands in remembrance, observance or acknowledgment of a special event. Note: If a tree dies within two years of the plant date, the Town will replace the tree. If the tree dies after the two years, the tree will not be replaced by the Town.

4.3 Public Requests for Boulevard Trees

Members of the public may request that the Town plant trees in the boulevard fronting their property, staff attempt to accommodate those requests where resources are available.

4.4 Private Tree Cutting By-law

The final area of protection for the tree canopy is the application of policies to trees on private property. It would be appropriate to examine this avenue of protection only after public consultation and examination of the extent that this is an issue.

Policy Compliance

This policy reveals a number of urban forest management challenges currently present in the Town of Bradford West Gwillimbury – challenges related to issues such as tree species diversity, maintenance levels of service, risk management, tree establishment, and tree preservation and conservation, and apply to both Town-owned and private lands. A strategic plan to establish a vision, set long-term targets and objectives, and assess and improve policies and practices will result in tangible long-term improvements in urban forest health, benefits, and diversity. A plan will also identify long-term resource needs, support forestry budget allocations, and improve the Town's ability to deliver appropriate levels of service for this important asset.

The components of this policy shall be considered together as the Town develops such a strategic Urban Forest Management Plan to provide long-term direction for all aspects of urban forest management. Such Urban Forest Management Plan would implement the policies of the Town's *Official Plan* as well as the County of Simcoe *Official Plan*.