



## DRAFT (Administration)

# The Corporation of the City of Cornwall Tree Canopy and Natural Vegetation Protection and Enhancement Policy

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Department: Planning, Development and Recreation

Parks and Landscaping

Policy Number: TCNVPEP-2019-03-25

Effective Date: TBD

Council Approval: TBD

**A. Background and Purpose** On March 30<sup>th</sup>, 2017 Royal Assent was given to Bill 68. This bill introduced a series of reforms to the *Municipal Act, 2001*, the *Municipal Conflict of Interest Act*, the *Municipal Elections Act, 1996*, *Planning Act* and others. As a whole, this Bill focusses largely on matters of municipal governance and financial accountability, however changes are also introduced that are intended to allow municipalities to be more proactive in combating and mitigating climate change. Of the various reforms introduced, an amendment to Section 270 of the *Municipal Act* has the effect of requiring all municipalities to adopt and maintain policies with respect to the protection and enhancement of the tree canopy and natural vegetation in the municipality. More specifically, Section 270 requires that:

270(1) *A municipality shall adopt and maintain policies with respect to the following matters (...)*

7. *The manner in which the municipality will protect and enhance the tree canopy and vegetation in the municipality.*

This section of Bill 68 comes into force and effect on March 1, 2019.

Of note, Bill 68 also:

- Allows for municipalities to conserve the environment in accordance with regulations, including powers to require green roofs or alternative roof surfaces in circumstances specified by the Building Code;
- Empowers municipalities to pass by-laws respecting climate change as part of their powers to enact by-laws relating to the economic, social, and environmental well-being of the municipality;
- Amends Section 2 of the *Planning Act* to make the “mitigation of greenhouse gas emissions and adaptation to a changing climate” an enumerated matter of provincial interest in which decision makers must have regard in considering planning matters.

## B. Rationale for Tree Canopy and Natural Vegetation Policy

Tree cover and natural vegetation infrastructure have been found to produce a number of benefits which are broadly broken down into three themes:

### **Economic:**

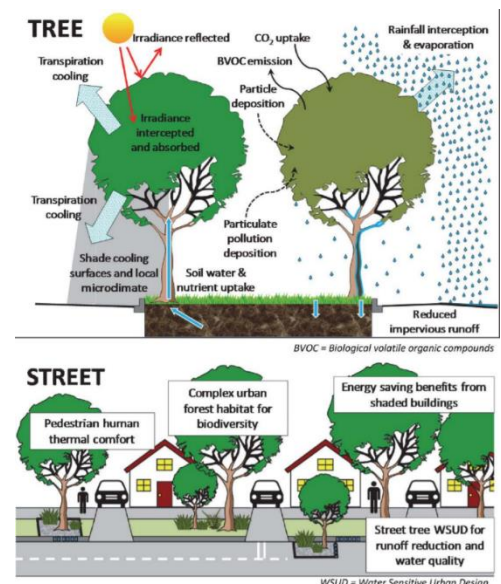
- Enhances aesthetic beauty of streetscape – a draw for new businesses and people;
- Increases property values;
- More attractive for tourism;
- Reduces cost of cooling in the summer and heating winter (wind reduction);
- Saves costs through reduced mowing;

### **Community:**

- Creates more walkable communities, public spaces and recreational areas;
- Creates more comfortable and beautiful city;
- Calms traffic and shades parked cars;
- More people outside means safer streets;
- Encourages more walking, jogging and cycling;
- Reduces sun exposure and heat related illness;
- Studies show the presence of trees improves mental well-being, fostering health and healing;

### **Environmental**

- Moderates temperature, especially in the summer;
- Trees provides the vital supply of oxygen needed for humans to breathe;
- Helps manage stormwater run-off, reduces flooding and enhances water quality;



- Creates wildlife habitat for birds, butterflies, pollinators, plants and animals;
- Helps reduce air pollution;
- Prevents erosion, especially along slopes.

For shoreline areas, a vegetative buffer contains pollutants (salt, fertilizer, septic leachate), reduces erosion, encourages infiltration and improves wildlife habitat, which leads to better outcomes for fish.

On a watershed basis, a minimum 30% tree canopy coverage is recommended by Conservation Authorities, Environment Canada and others to allow rivers and lakes within the watershed to maintain a healthy ecological and hydrological function. The Raisin Region Conservation Authority completed a Forest Cover and Trends Analysis in 2015 (Appendix A) which analyzed the forest cover trends within the region. The report determined the forest cover, overall, for the Raisin Region watershed to be approximately 34%. The report also analyzed the forest cover by municipality and determined the percentage of forest cover within the City of Cornwall to be approximately 20%.

Anticipated effects of climate change include heavy rainfall events and unseasonable precipitation. Runoff from rainfall and snowmelt in a forested area has been demonstrated to be significantly less than in a developed or cleared area in both overall volume and peak flow. A healthy forest cover and natural vegetation areas makes watersheds more resilient to effects of climate change and on a broader scale, helps to sequester carbon and is consistent with the goals outlined for the community in the Official Plan as well as the City's five Strategic Priorities, one of which is Environmental Sustainability.

## C. Advocacy

The City needs partners to achieve a higher percentage of tree canopy. The following programs of advocacy and explanation of the benefits of the policy will help with public understanding and will encourage actions by all to meet the desired goals.

- Encourage tree planting and the non-removal of trees on private property through various incentives such as workshops, bulk tree purchases, neighborhood planting bees etc.
- Encourage an adopt-a-tree program for the ongoing care of trees planted by the City.
- Publicise the opportunity for residents to request a City street tree in front of their house.
- Work closely with local arborist companies to promote best tree maintenance practices.
- Work closely with the four school boards to promote adding to and preserving the current tree canopy and to reduce grass mowing areas and introduce naturalized areas wherever possible.

- Seek partnerships with the Raisin Region Conservation Authority and local advocacy groups to create and fund tree canopy enhancements in available vacant spaces, shorelines and public areas such as the ‘Tiny Forest @ the Library’.
- Support partner agencies in delivery of programs such as the Raisin Region Conservation Authority Tree Seedling Program, the 50 Million Tree Program and the Edible Cities Program.
- Proactively seek other emerging partnership and funding opportunities, amending the policy to include these.
- Promote and publicize the Commemorative Tree Planting Program to encourage buying and planting of trees.
- Promote and publicize the City Arboretum as a place to learn about all the different city trees available.
- Identify and celebrate ‘Legacy Trees’ as well as naturalized areas and the importance of the ‘Ribbon of Life’ along shorelines, providing signs to raise awareness of their value.
- Plan for the publication and distribution of this policy on the City website, in other municipal advertising and at the pre-consultation stage of development applications.
- Support the ongoing assessment of the quality and quantity of the tree canopy condition in the city. Support tree inventory and mapping as resources permit to ensure targets are being met.
- Provide information for the public on cost savings, carbon and energy reductions resulting from city actions such as reduced mowing areas.

## D. Municipal Role

The City through its various departments will take the following measures within its own operations to preserve and enhance the urban tree canopy as well as increase areas of natural vegetation within the city. Its actions can also serve a model for the actions taken by citizens on their own property.

### Goals and Priorities

- Environment and Sustainability is one of the city’s current five key priorities and this Policy provides one of the key means to achieve the initiatives contained in that priority.
- The City endeavours to increase the overall urban tree canopy coverage to at least the 30% recommended by Conservation Authorities and Environment Canada as needed to maintain a healthy ecological and hydrological function, through its own planting initiatives on public property and public advocacy to promote plantings on private property.

## **Subdivision Development – Boulevard Tree Planting and Parkland Dedication Requirements:**

The City's standards for all new subdivision developments are outlined in detail within the Department of Infrastructure Planning's Subdivision Manual. As part of the subdivision development process, Developers enter into a contractual agreement with the municipality called the "Subdivision Agreement". This Subdivision Agreement is a binding contract which specifies the Developer's obligations, including boulevard tree planting and parkland dedication. Typically the Subdivision Agreement stipulates one new boulevard tree for every building unit. (ie. One boulevard tree for every single family dwelling, and two boulevard trees for semi detached dwellings, etc). New boulevard tree plantings are to be native tree species as much as possible and shall be in conformance with the City's tree planting specification. Also the Subdivision Agreement typically specifies that a minimum of 5% of the overall development be dedicated as parkland, unless determined by the Department Manager that the neighbourhood already has adequate parkland. In the event that the neighbourhood is determined to already have adequate parkland, the Developer is required to provide the City with cash in lieu of a parkland dedication valued at 5% of the raw land value of the entire development.

## **Site Plan Development – Landscaping Requirements**

Development sites subject to site plan approval are required to supply a landscaping plan as part of the review process. Proponents are typically encouraged to include a high degree of landscaping elements typically on private lands which includes planting of a variety of species and callipers as defined in the site plan design guideline manual. There is a key focus on landscaping major streets and City entrances. Every effort to protect and preserve existing mature trees shall be made where practical. It should be noted that removal of trees from the site will likely mean that a higher level of landscaping will be required to compensate. Various City staff will provide commentary during the site plan review process to ensure that the proposed landscaping plan is in concert with their respective by-laws and the governing site plan design manual.

Identify and ensure the preservation of high quality existing trees, whenever City owned property is sold, with the sale process applying the appropriate plan of subdivision and/or site plan controls to ensure the protection of said trees, when reasonably feasible. Parks and Landscape staff will review each City owned property to be listed for sale, and will identify any high quality existing trees that warrant protection.

## **City Tree Management Operation Policies**

The preservation of existing trees will be a key priority, when reasonably feasible, when undertaking City Public works projects such as construction of new sidewalks and roadways or other public works. There are a number of circumstances, however in which the removal of a City owned tree is required. The following explains the tree replacement policies that are in place to protect the City's tree canopy.

### **City Initiated Tree Removals and Replacement Plantings**

- There are a number of conditions in which a City owned tree may require removal, such as due to poor health condition, or a tree may be causing damage to private property, etc. If a City tree is deemed to require removal, the Parks and Landscape Dept. endeavours to plant replacement trees at a 1:1 ratio. As much as possible, staff attempt to locate the replacement planting in the same location as the removed tree, however there are occasions where the same location is not suitable for a new planting. In those circumstances the replacement tree will be planted in a more suitable location.
- Priority will be given to areas of the City that have little or no tree canopy.
- Provide opportunity to abutting property owners to select preferred species from list.
- New and/or replacement plantings shall be native species whenever possible and shall be in conformance with the City's tree planting specifications.
- The City shall endeavour to ensure that there is a minimum of one boulevard tree in front of every property (provided that the boulevard is capable of supporting a tree planting).

### **Tree Removals Resulting from City Construction Projects and/or Infrastructure Repairs**

- Some tree removals are required as a result of the City's infrastructure renewal projects or as a result of underground infrastructure repairs. Typically, such work is initiated by the City's Municipal Works and Infrastructure Planning Department. Whenever there is a concern that such work may impact the health of a City tree, the Parks and Landscape Department will assist by reviewing the impact and make a recommendation as to whether the tree should be removed. Upon the completion of the project/work the Municipal Works and Infrastructure Planning Department shall work with the Parks and Landscape Department to replace any removed trees with replacement plantings. Replacement plantings shall be native species as much as possible and shall be in conformance with the City's tree planting specifications.

## **Emerald Ash Borer (EAB) Management Plan**

- The City has implemented a management plan to deal with an invasive species, the Emerald Ash Borer, which is an insect that attacks and kills ash tree species. At the beginning of the plan in 2014, the City identified approximately 3500 ash trees located on City owned land (boulevards, parks, City building properties, City owned woodlots). The EAB Management Plan includes three main activities: the removal of infected trees, TreeAzin injection treatment, and planting replacement trees. Each year staff review the condition of the City ash tree inventory and identify infected trees requiring removal and contractors are retained to remove said infected trees. The plan includes a tree replacement strategy at a 1:1 ratio. As much as possible, staff attempt to locate the replacement planting in the same location as the removed tree, however there are occasions where the same location is not suitable for a new planting. In those circumstances the replacement tree will be planted in a more suitable location. Replacement plantings shall be native species as much as possible and shall be in conformance with the City's tree planting specifications. The plan also includes a TreeAzin injection treatment which is intended to prolong the life of specific ash trees on City boulevards and parks that have been identified and characterized as significant. The purpose of the treatment is not to save the tree from its inevitable demise, but is intended to prolong the life of the tree until such time that removal is required. This delay in the removal of the treated tree will provide new plantings in the area the opportunity to become established so that when the treated tree is removed the impact to the canopy in the vicinity won't be as severe.

## **Potential Threats**

- There is always the potential threat that other invasive species similar to the Emerald Ash Borer or diseases (such as Dutch Elm Disease) may threaten the health of the tree canopy in Cornwall and the surrounding area. Staff from the Parks and Landscape Department endeavour to participate in industry conferences, education and network opportunities in order to remain current on industry trends and threats.

## **Naturalization of Public Spaces and Shoreline Areas**

- All shoreline areas will include a "ribbon of life" revegetation for new and renovated waterfront developments in accordance with the best practices outlined in this policy.
- The Parks and Landscape Department completed a review of its grass cutting operations in 2018 and identified areas for naturalization. Reducing grass cutting operations wherever possible, allows areas to return to their natural state,

providing increased opportunities for new tree growth thus improving the City's tree canopy. The Parks and Landscape Department will continue to look for new opportunities to reduce grass cutting operations wherever possible and to naturalize areas.

## E. Best Practices

These practices are provided to support residents, staff and others in developing planting plans that ensure the long-term survival of tree and vegetation plantings.

- Encourage native trees that are best adapted to local environment and contribute to the ecological system;
- Identify trees which over the long term may be susceptible to changing climate (ie. Trembling aspen, white spruce) and those that are more likely to thrive (oak). Some examples of these species are included in Schedule "A".

Schedule "A"

Trees	Shrubs	Partial Shade	Full Sun	Shoreline
<b>Riparian Zone</b>	Black Chokeberry	Bearberry	Black-eyed Susan	Blue Flag Iris
Balsam Fir	Nannyberry	Bloodroot	Big Bluestem Grass	Blue Vervain
Red Maple	Northern Bush	Bunchberry	Canada Goldenrod	Boneset
Tamarack	Honeysuckle	False Solomons Seal	Common Milkweed	Cardinal Flower
Black Spruce	Pagoda Dogwood	Jack-in-the-pulpit	Flat-topped Aster	Swamp Milkweed
Eastern Hemlock	Red Osier Dogwood	Wild Columbine	New England Aster	Joe Pye Weed
	Smooth Wild Rose	Foamflower	Pearly Everlasting	White Turtlehead
<b>Medium Sized</b>	Swamp Rose	Ostrich Fern		
Chokecherry	Sweet Gale			
Pin Cherry	Winterberry Holly			
Serviceberry	Common Elderberry			
Striped Maple	Highbush Cranberry			
Ironwood	Lowbush Blueberry			
Eastern White Cedar	Meadowsweet			
	Serviceberry			
	Steeplebush			
<b>Large Sized</b>				
Bur Oak				
Red Oak				
Silver Maple				
Trembling Aspen				
White Birch				
Red Spruce				
Eastern White Pine				
Butternut				
Sugar Maple				

- Identify trees for planting that are better suited to certain constrained lands such as small spaces and urban conditions (road salt, compaction, etc).
- Planting tips to help ensure the right trees survive in the right places with minimal maintenance.
- For other vegetation, encourage mix of shrubs and flowers to enhance biodiversity, create habitat (pollinators) and improve desirability of public and private green spaces;
- Where to Plant: Consideration should be given to where trees and vegetation are planted. Prior to planting a tree, property lines, utilities (power lines, buried



water/sewer laterals or other 'hard' infrastructure) should be considered. The location of a tree should take into context its future size as it relates to a building's foundation and roof.

- Identify and remove invasive species: Recognizes that the ecological benefit of removing invasive species over the long term exceeds the limited benefits of allowing them to remain in place;
- Shoreline naturalization: Hardening the shoreline with stone or concrete should be avoided. Vegetated areas adjacent to watercourses, lakes, rivers and wetlands are known as shoreline buffers. Shoreline buffers protect water from pollutants by filtering contaminants, providing habitat for native species and preventing shoreline erosion.
- Shoreline buffers should be at least 15-30 metres upland from the shore as recommended by the Ministry of Natural Resources and Forestry; and composed of natural vegetation with a broad corridor of undisturbed vegetation. Shoreline buffers should not be grassed.
- Maintenance and Preservation: Trees and vegetation require special care and treatment. If it appears the vegetation is struggling, it is recommended you speak to a professional.
- Commercial / Higher Density Uses: In addition to this applying to single detached homes and smaller residential uses, it can also provide guidance to larger commercial/multiple residential developments. In addition to the benefits listed previously, increased vegetative buffers help beautify commercial properties and match the natural beauty of the Cornwall area.
- Other benefits that can be considered: Green parking lots to reduce stormwater flows and the costs of stormwater maintenance. Vegetated aisles and parking islands to increase shaded areas and reduce micro climates. Green roofs to reduce total stormwater runoff and enhance the urban canopy. The City of Toronto Design Guidelines for "Greening" Surface Parking lots provides an excellent reference.

## F. Appendices

**Appendix A:** Raisin Region Conservation Authority completed a Forest Cover and Trends Analysis in 2015

**Appendix B:** City of Cornwall Tree Planting Policy