



# Street Tree Policy

## For the City of Greater Sudbury



Effective Date: August 9, 2022

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## **Appendices**

Appendix “A” - Street Tree By-law 2022-123

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# 1.0 Trees and Urban Forest

## 1.1 Benefits of Urban Trees

Trees in urban areas, whether solitary specimens on lawns or small groups in parks and backyards, together make up what's called the 'urban forest'. Most of the City of Greater Sudbury's residents live in built-up areas and benefit from the urban forest. Trees improve air quality, provides cooling shade in summer and windbreaks in winter, help reduce flooding by holding back some stormwater, provide wildlife habitat, and beautify our streets and neighbourhoods. They also support efforts to mitigate and adapt to climate change.

### Stormwater Management

Trees absorb large amounts of water through their root systems and their leaves can hold back rainwater during small storm events<sup>1</sup>. In general, the urban forest contributes to stormwater management by retaining all or some rainwater rather than directing it to stormwater infrastructure. This has the effect of reducing the burden on the municipal stormwater system.

### Reduce Heating and Cooling Costs

Trees in urban areas reduce the cost to heat and cool buildings in several ways. In the winter, they help to reduce wind speeds that work against our heating systems, and they help keep the humidity surrounding a building, which acts as insulation. In the summer, they offer shade from the sun. A study done in the city of Chicago showed that on a per-tree basis, the annual energy required to heat a home can be reduced by approximately 1.3% annually, with an average per-tree reduction of cooling energy by approximately 7%<sup>2</sup>.

### Reduce Climate Impacts

The energy savings that trees provide in reduced heating and cooling costs translates into reduced greenhouse gas emissions into the environment, a major factor driving climate change. In a single year in the continental United States the reduction of electricity use was measured at 38.8 million megawatts due to the passive shading of trees<sup>3</sup>. This is enough electricity to run all City of Greater Sudbury-owned buildings for nearly 18 years. The savings in heating (through natural gas) was realized at 246 million MMBtu<sup>4</sup>

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<sup>1</sup> Ink, S. (2017, October 5). Stormwater Tree. National Association of City Transportation Officials. Retrieved April 7, 2022, from <https://nacto.org/publication/urban-street-stormwater-guide/stormwater-elements/green-stormwater-elements/stormwater-tree/>

<sup>2</sup> McPherson, EG. Energy-Saving Potential of Trees in Chicago. *General Technical Report NE-186*. 1994; 95-113.

<sup>3</sup> Nowak, DJ, Appleton, N, Ellis, A, Greenfield, E. Residential building energy conservation and avoided power plant emissions by urban and community trees in the United States. *Urban Forestry & Urban Greening*. 2017; 21:158-165.

<sup>4</sup> Ibid.

(or approximately 7 billion cubic metres). That is a sufficient volume of natural gas to heat City-owned buildings for the next 55,000 years.

### Beautification

Trees in urban areas help with neighbourhood beautification by softening and greening the typical steel, concrete, and asphalt that surround our daily lives. Trees also offer mental health benefits for those living in urban areas by aiding in stress recovery and improving both productivity and concentration<sup>5</sup>.

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<sup>5</sup> Shin, WS, Yeoun, PS, Yoo, RW, Shin, CS. Forest experience and psychological health benefits: the state of the art and future prospect in Korea. *Environmental Health and Preventive Medicine*. 2010;15 (1): 38–47.

## 2.0 Standards for Planting Trees

In the interest of building up the urban forest in a healthy and sustainable way and on a neighbourhood by neighbourhood scale, the City has created general standards for planting Street Trees. These standards are meant to protect the health of existing trees and ensure the viability of new trees while balancing the need to protect infrastructure (water and wastewater lines, sidewalks, etc). These standards are to be followed generally, with exceptions made at the discretion of the Tree Warden, being a certified arborist, based on the best arboricultural practices.

1. The Tree Warden on behalf of the City:
  - (a) will plant one (1) tree every 15.24 metres (50 feet) which is typically one (1) tree per lot in neighbourhoods of single-detached dwellings; and
  - (b) may plant two (2) or more trees on a corner lot.
2. When determining the need for Street Trees, the Tree Warden will take into account the existing Street Tree cover within a neighbourhood when determining the need for Street Trees.
3. All new plans of subdivision must comply with Sections 1 and 2 of the Standards.
4. Notwithstanding Sections 1 and 2 of the Standards, the Tree Warden will not authorize the planting of a Street Tree in a location where, in the Tree Warden's opinion:
  - (a) as a result of existing or proposed infrastructure or other circumstances in the area, it is unlikely that a tree will thrive, or it is likely that any Street Tree planted will be injured or require removal;
  - (b) as a result of soil and drainage conditions, setback of buildings from the right-of-way, existing plants, and trees, and/or similar considerations, the proposed location is not suitable for a Street Tree;
  - (c) the surface of the land is or may become water impervious, negatively impacting the health of any Street Tree planted; or
  - (d) the surface of lands covered by water impervious surfaces such as asphalt, concrete, stone, or brick may be damaged by the roots or trunk of a Street Tree planted in the area.
5. The Tree Warden, when planting Street Trees, will plant only those species of trees described herein as Approved Tree Species in the discretion of the Tree Warden.

## 2.1 Approved Tree Species

The City experiences warm summers and cold, snowy winters. In the winter, many roads are sanded and/or salted to keep residents safe. Street Trees need to be able to survive the seasons (especially droughts and snow loads), be low maintenance, hardy, relatively disease and pest resistant, and relatively salt tolerant. The list of tree species below represents those species and cultivars that are known to be appropriate for planting in the right-of-way and those species that are recommended for trials.

Common Name	Culivar (examples)	Latin Name	Notes
Amur maackia	1.MaacNificent® (JFS-Schichtel1) 2.Sumvertime™	<i>Maackia amurensis</i>	Trials only until cold hardiness is established in CGS
Crabapple	Spring Snow	<i>Malus 'Spring Snow'</i>	Only use cultivars that are hardy and have at least good resistance to scab, fireblight, cedar-apple rust, and mildew. These are examples only.
Crabapple	Dolgo	<i>Malus 'Dolgo'</i>	
Crabapple	Donald Wyman	<i>Malus 'Donald Wyman'</i>	
Crabapple	Indian Summer	<i>Malus 'Indian Summer'</i>	
Crabapple	Prairifire	<i>Malus 'Prairifire'</i>	
Crabapple	Royal Raindrops	<i>Malus 'Royal Raindrops'</i>	
Crabapple	Winter Gold	<i>Malus 'Winter Gold'</i>	
American Elm	1.'Princeton' 2.'Valley Forge'	<i>Ulmus americana</i>	Only use cultivars that are hardy and disease-resistant
Ginkgo		<i>Ginkgo biloba</i>	Male plants only; Only in situations where roots have enough room to expand
Hackberry		<i>Celtis occidentalis</i>	
Hawthorn (thornless)		<i>Crataegus</i>	Use only hardy cultivars
Ironwood/Hop Hornbeam		<i>Ostrya virginiana</i>	Special situations only; site carefully
Japanese Lilac	1. 'Ivory Silk'	<i>Syringa reticulata</i>	Use only hardy cultivars
Basswood	1. 'Boulevard' 2. American Sentry™ ('McKSentry') 3. 'Redmond'	<i>Tilia americana</i>	Use only hardy cultivars
Littleleaf Linden	1. Corinthian® ('Corzam') 2. Greenspire® 3. Norlin™ ('Ronald')	<i>Tilia cordata</i>	
Honeylocust	1. Shademaster®	<i>Gledisia triacanthos f. inermis</i>	Use only hardy cultivars
Red Maple	1. 'Autumn Spire' 2. Northwood® 3. Embers® 4. 'New World'	<i>Acer rubrum</i>	Use only hardy cultivars

Red x Silver Maple	1. 'Armstrong' 2. Autumn Blaze® 3. 'Marmo'	<i>Acer x freemanii</i>	Trials only until cold hardiness is established in CGS
Sugar Maple	1. 'Endowment' 2. Green Mountain® 3. Legacy®	<i>Acer saccharum</i>	Use only hardy cultivars
Burr Oak		<i>Quercus macrocarpa</i>	
Red Oak		<i>Quercus rubra</i>	
Showy Mountain-ash		<i>Sorbus decora</i>	

Other tree species and cultivars will be considered, but these must be approved by the Tree Warden prior to planting within the street right-of-way.

## 2.2 Prohibited Tree Species

There are tree species that are not appropriate to plant in the right-of-way; some are prone to damage from insects and diseases, others have substantial root systems that are cause for concern, and still others are listed as endangered species. The list of tree species below represents those species that the Tree Warden will not permit as Street Trees.

Common Name	Cultivar	Latin Name
Manitoba Maple		<i>Acer negundo</i>
Walnut	All species and cultivars	<i>Juglans</i>
Chestnut	All species and cultivars	<i>Castanea</i>
Poplar	All species and cultivars	<i>Populus</i>
Willow	All species and cultivars	<i>Salix</i>
Cherry	All species and cultivars	<i>Prunus</i>
Silver Maple	All cultivars except <i>A. x freemanii</i> hybrids	<i>Acer saccharinum</i>
Elm	All species and cultivars except those listed in the approved tree species list	<i>Ulmus</i>
Evergreens (conifers)	All	
Any fruit bearing tree traditionally grown primarily for human consumption, such as apple, pear, cherry, and plum.		

## 3.0 Standards for Care and Maintenance

Street Trees are located on City property. It is not expected, nor is it permitted, for members of the public to prune or engage in other forms of arboricultural treatment of a Street Tree unless they have the written approval of the Tree Warden. This section outlines the standards of care and maintenance undertaken by the City, what to do if a Street Tree poses a threat to public health and safety, and the care residents can take of Street Trees.

### 3.1 Responsibilities of the City

The care of Street Trees is the responsibility of the Tree Warden, with treatment and maintenance being undertaken by City personnel assisting and supervised by the Tree Warden who complete the necessary work to protect the health of the Street Trees including:

- Planting, staking, and guying
- Pruning
- Trimming
- Winter protection (as necessary)
- Removal of dead, broken, crossing, or diseased branches
- Removal of dangerous or dead trees

It should be noted that the City does not maintain trees that are located within easements granted to the City, nor does it plant or maintain trees within unopened road allowances.

### 3.2 Residents

Residents who own property adjacent to Street Trees are not expected to provide care and maintenance as listed in section 3.1 but can help improve their overall health and survival.

#### 3.2.1 What Can Residents do to Care for Street Trees

There are things that residents can do to help protect the health and longevity of Street Trees.

- 1) Mind the Soil: Healthy trees require water and nutrients for their roots, particularly during droughts and in the first three years after planting. Compacted soil does not easily allow the flow of water and nutrients and can be detrimental to the health of the tree. Residents should never intentionally compact the soil around Street Trees.
- 2) Protect the Roots: Healthy trees require healthy roots; when mowing or trimming the area around the tree base, be mindful of any exposed tree roots. Try not to

score or cut them. If grass is growing in between exposed roots, try to use a trimming tool that gives you more control.

- 3) Protect the Base: Girdling, or ring-barking, is when a strip of bark is removed from around the trunk of a tree. Girdling can lead to the death of an otherwise healthy tree, so owners should be mindful when mowing and/or trimming that they are not scoring or damaging the base of the tree, even if it's just the bark.
- 4) Report Serious Issues: If a resident suspects a Street Tree is diseased, dead, or poses a threat to the public, please contact the City as outlined in section 3.3

### 3.2.2 What Not to Do

The Tree Warden is responsible for Street Trees in the City of Greater Sudbury as described herein and in the City's Street Tree By-law, as may be amended or replaced. Among other things, the Street Tree By-law prohibits:

1. Injuring or engaging in an activity likely to Injure a Street Tree;
2. Destroying or engaging in an activity likely to Destroy a Street Tree;
3. Removing or causing the removal of a Street Tree;
4. planting or causing to be planted a Tree or any part of a Tree on City land without first having obtained the written permission of the Tree Warden;
5. hindering or obstructing or attempting to hinder or obstruct the Tree Warden or any Person supervised by and assisting the Tree Warden, or a By-law Enforcement Officer in the exercise of their role as described herein this By-law;
6. affixing a poster, notice, or sign to a Street Tree;
7. affixing any guy line or other fastening or fixture to a Street Tree;
8. using a Street Tree to secure or support any object, structure, or animal; or
9. Removing or interfering with any fence, tree guard or other protective device placed around a Street Tree.

Further to the foregoing, there are also more subtle ways in which Street Trees can be harmed, despite the good intentions of residents. Harmful practices around Street Trees include the following:

- 1) Mulching – Placing mulch at the base of a tree is a common aesthetic feature, but improperly placed and maintained can be detrimental to the health of a tree.
- 2) Compacting Soil – As noted above, compacting the soil in and around the tree base is harmful to the tree and can cause the tree’s death.
- 3) Hardscaping – Hardscaping (the placing of impervious landscaping features, such as paving stones) large areas in and around a Street Tree can prevent the transport of water and nutrients to tree roots and can cause harm to the tree. This action is similar to compacting soil.
- 4) Planting Trees – While this may seem counterintuitive, the planting of additional trees in the street is not permitted. The standards for tree planting are laid out in section 3 and are very intentional. These standards, including separation distances, ensure Street Tree health as well as considerations for underground infrastructure.

### 3.3 Questions and Requests

Residents who have questions about this policy, the Street Tree By-law or Street Trees, or would like to report an issue, should contact the City.

Method	Contact	Hours	Notes
Customer Service Portal	311.greatersudbury.ca	24/7	Please register at 311.greatersudbury.ca to access this service
Email	311@greatersudbury.ca	24/7	Response will be provided as soon as possible
Live Chat	greatersudbury.ca	7:30 a.m. to 6 p.m., Mondays to Fridays	
Telephone (local)	311	7:30 a.m. to 6 p.m., Mondays to Fridays	
Telephone (long distance)	705-671-2489	7:30 a.m. to 6 p.m., Mondays to Fridays	Long distance charges may apply

For health and safety concerns outside of business hours, please call the Customer Service Portal by dialing 311 (local) or 705-671-2489 to speak with a live operator.

## **4.0 Standards for Removal of Trees**

Street Trees experience a life cycle and will eventually need to be replaced as they age and die. However, there are instances where Street Trees need to be removed ahead of their standard lifespan. They may have contracted a serious disease that can spread to surrounding healthy trees, they may be impacting underground infrastructure, or they may pose an imminent danger to the public. These instances will be evaluated by the Tree Warden and solutions will be implemented, with removal of a Street Tree as the last resort.

### **4.1 Dead or Diseased Trees or Trees Posing a Risk to Health and Safety**

If by report of City personnel, or by report of a resident, a Street Tree is experiencing disease or blight, is dead, or poses a threat to the health and safety of the public, the Tree Warden shall conduct a Street Tree assessment. Once the health and safety of the Street Tree is assessed, recommendations will be made to address any concerns. Solutions that restore the health and safety of the Street Tree will be the first line of action, including pruning, crown management, or application of a fungicide or other pesticide. Should those solutions fail, or should they not be acceptable, the Street Tree will be scheduled for removal as approved by the Tree Warden. Any Street Tree that is removed will be replaced, as appropriate in the Tree Warden's sole discretion.

### **4.2 Healthy Trees**

The benefits of Street Trees far outweigh the occasional nuisance that might arise, such as fallen leaves. To limit nuisance, the Tree Warden has a list of tree species that are appropriate for our climate and are considered for their lower nuisance qualities (see section 3.1). As such, healthy Street Trees are to generally remain in place with few exceptions.

#### **4.2.1 Criteria for Removal of Healthy Tree**

Where a resident believes that (1) a Street Tree presents a demonstrable health risk or that (2) the tree is causing serious and ongoing damage to the resident's property, the resident may complete a "Street Tree Removal Request Form" (Appendix "B"), including their rationale and the supporting proof.

The Tree Warden will review the request and the supporting proof and provide a written response to the resident within thirty (30) days of receipt of the request.

The Tree Warden will evaluate the request based on the criteria set out herein this Policy and best arboricultural practices. Where the Tree Warden is satisfied that the resident has demonstrated that the Street Tree poses a significant health risk or is causing serious and on-going damage, the Tree Warden may authorize the removal of the Street Tree by City personnel. Where the City removes a Street Tree, the resident will be responsible

for paying fifty per cent (50%) of the cost of removing the healthy Street Tree. The City will then carry out the removal of the healthy Street Tree. Where the City removes a healthy Street Tree pursuant to a resident's request, the City will replace the removed Street Tree with another Street Tree, unless otherwise determined by the Tree Warden or the General Manager, as the case may be.

The Tree Warden will not authorize the removal of a Street Tree on the basis that the Street Tree creates a nuisance such as falling leaves. By way of examples, the Tree Warden will consider the following issues when determining whether to remove a Street Tree.

<b>Issue</b>	<b>Action</b>
Allergic reactions to tree/sap/insects/pollen	Tree will be removed subject to resident demonstrating to the Tree Warden's satisfaction the reaction poses a significant health risk
Street trees drop items onto their property, such as seeds, fruit, leaves, twigs, sap, or insects which require cleanup	Tree will not be removed
Stress to resident due to fear and/or dislike of trees	Tree will not be removed unless resident can demonstrate to the Tree Warden's satisfaction that the tree poses a significant health risk
Tree roots found in sewer line	Roots found within a sewer line are indicative of a pre-existing break in the line. The Street Tree will not be removed.
Tree roots found in weeping tile or are penetrating the foundation	Review will be undertaken by the Chief Building Official or their designate to determine the issues. The Chief Building Official's determination is final.
Tree causes soil shrinkage; roots become a tripping hazard or the tree becomes at risk of falling	The resident must provide acceptable evidence demonstrating that hazardous conditions are caused by the healthy Street Tree. The Tree Warden will review and determine a course of action as appropriate.

Damage by a Street Tree to a vehicle or residence	The Tree Warden will authorize the appropriate pruning of the Street Tree to prevent future damage. If, in the Tree Warden's sole opinion, pruning will not prevent future damage, the Street Tree will be removed and replaced as appropriate in the Street Tree's sole opinion.
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#### 4.2.2 Appeal of Decision

Where the Tree Warden denies a resident's request to remove a healthy Street Tree, the resident may appeal the Tree Warden's decision to the General Manager. Within thirty (30) days of their receipt of the Tree Warden's decision, the resident must complete the "Appeal of Request for Street Tree Removal Form" (Appendix "C") and submit it as identified on the form. The General Manager will review the appeal request, the resident's "Street Tree Removal Request Form", including their rationale and the supporting proof as well as the Tree Warden's decision, and will provide a written decision to the resident. The General Manager's decision is final.

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Appendix “A” – Street Tree By-law 2022-XXX

\*PLACEHOLDER\*

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**FOR OFFICE USE ONLY**

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**Decision**

<input type="checkbox"/> Retain Tree
<input type="checkbox"/> No further action required
<input type="checkbox"/> Prune
<input type="checkbox"/> Manage Crown
<input type="checkbox"/> Other: _____
_____
<input type="checkbox"/> Remove and Replace
<input type="checkbox"/> Remove
<input type="checkbox"/> Other: _____
_____

Reasons: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Authorizing Agent _____
Signature _____
Date _____



Request for Street Tree Removal



## Appeal of Decision for Street Tree Removal

Personal Information collected herein is for the purpose of assessing an appeal of decision for street tree removal. Questions about information collected can be directed to the City of Greater Sudbury’s Linear Infrastructure Services Department’s Records Clerk by phone at 705-674-4455 ext. 3604.

Date		
Full Name		
Email		
Home Phone	Cell Phone	
Address		
Reason(s) for Appeal of Decision		

**Please attach the decision for Street Tree removal that you are appealing.**

**Please submit this appeal form:**

Email	311@greatersudbury.ca
In Person	First Floor of City Hall, 200 Brady Street, Sudbury
Mail	PO BOX 5000, Station 'A', 200 Brady St. Sudbury, ON Canada P3A 5P3

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**Decision**

<input type="checkbox"/>	Uphold Decision of Street Tree Removal
<input type="checkbox"/>	Overturn Decision of Street Tree Removal
<input type="checkbox"/>	Remove and Replace
<input type="checkbox"/>	Remove
<input type="checkbox"/>	Other: _____
	_____

General Manager	_____
Signature	_____
Date	_____



Request for Street Tree Removal