

REPORT

Council

Meeting Date: May 25, 2021

FROM: Parks and Open Space Department

DATE: May 11, 2021

SUBJECT: Apple Scab on Municipal Crabapple Trees, May 25, 2021

WARD: Town-wide Page 1

RECOMMENDATION:

That the report from the Parks and Open Space department dated May 11, 2021, be received.

KEY FACTS:

The following are key points for consideration with respect to this report:

- Crabapple trees have been planted along streets for their aesthetic value and ornamental attributes including their renowned blossoms and variation in colours of fruits and leaves as well as their climate adaptability.
- Crabapple trees are highly susceptible to apple scab. Apple scab is caused by the fungus *Venturia inaequalis*. While this fungal infestation is not considered a terminal disease, it can severely affect the health of the trees after several years of infestation.
- At present, there are 3,197 crabapple trees along streets and in parks, contributing 48,238 square metres to the town's tree canopy.
- Over the last several years, residents have been voicing concerns about the apple scab that is affecting the municipal crabapple tree in front of their home and the aesthetics and premature leaf drop that is associated with apple scab. Many residents have requested the crabapple tree be removed.
- Council has requested that staff report back on apple scab that is affecting a number of municipal crabapple trees, particularly on residential streets. Staff have been requested to summarize the issues, magnitude of the problem and provide options for treatment or mitigation.
- This report provides options for Council to consider in response to the concerns voiced by residents.

- This report will specifically focus on options for the 1,753 crabapple trees located on front yards or side yards of residential properties.

BACKGROUND:

At the Council Meeting on October 19, 2020, the following Request for Report was approved;

“Crabapple Trees in Oakville”

That staff provide a report to Council on the disease “apple scab” affecting a high number of town crabapple trees on residential streets throughout the community. Report to include issues associated with the disease, contribution to the town’s tree canopy, magnitude of the problem and options/costs for treatment or mitigation.

The highest number of calls received and requests for town tree removal due to nuisance (categorized as messy fruits, dropping fruits, sad look, stressed and dying) from highest to lowest include

1. Linden due to aphid infestation, dripping sap and attracting bees and wasps.
2. Crabapple due to apple scab, sad looking, messy fruit, stressed, early leaf drop, dying, and ugly.
3. Walnut because of large fruits, hitting and damaging cars on a driveway damaging shingles, possible concussion if hit in the head.
4. Birch because of allergic reaction to pollen in spring
5. Oak for the acorn as trip hazard as well as allergic reaction to pollen in spring

The table below shows the number of streets and active parks town trees and canopy cover of the abovementioned five genera.

Species	Number of trees			Canopy Cover (sq. m)		
	Roads	Parks	Total	Roads	Parks	Total
Linden	5,049	1,261	6,310	85,299	11,210	96,509
Crabapple	2,791	406	3,197	41,796	6,442	48,238
Walnut	470	378	848	36,502	22,019	58,520
Birch	911	187	1,098	40,397	4,589	44,986
Oak	6,491	2,218	8,709	203,546	77,506	281,052

Due to the number of concerns expressed by residents, the Forestry section has ceased planting Linden since 2018, Walnut trees since 2019 and crabapple trees in 2020.

This report will solely focus on the 1,753 of crabapple trees located on front yards or side yards of residential properties. Staff will provide a background to the disease - apple scab, mitigation efforts that have been implemented, and provide Council with several options if authorization to remove a diseased (non-hazardous) crabapple tree is deemed appropriate.

COMMENT/OPTIONS:

In reviewing the Town's street tree inventory data, 2,791 crabapple trees are located along public right of ways and 1,753 out of 2,791 of them are on front yards or side yards of residential properties. The rest are located on medians and/or boulevards. Based on the data from the Forestry Services work order database, ACR and Salesforce, 53 residents initiated 73 service requests complaining about 64 crabapple street trees within the last 5 years.

The nature of all complaints are one of the four (4) reasons listed below:

- The impact of apple scab resulted in early leaf drop
- Poor health and dying
- Dropping fruits
- Low branches

In 18 out of 73 requests (25% of the total), residents believed that the removal of the tree is the only solution. The removal of all crabapple trees along two of the streets (Potter's Wheel and Cottonwood Cres) has been requested by three (3) residents.

In the other 75% of requests, residents are requesting the town to inspect the crabapple tree in question first and identify any required services including, pruning, deadwooding or removal. While all deadwooding and tree pruning related requests have been completed, the Forestry section adheres to the direction provided in the Corporation's "Tree Protection and Tree Canopy Preservation Policy" to assess any Town tree removal requests regardless of species.

Policy statement on page 1 of the Corporate's policy states:

"Trees on public lands shall be removed only to safeguard public safety. Trees with significant structural and/or health problems and dying trees may also be removed with confirmation from the town forester or designate. Trees cannot be removed solely for reasons of aesthetics or nuisance, including shade, the shedding of tree leaves, nuts, or fruits, or damage caused by tree roots".

Currently, crabapple trees assessed as hazard trees, dead trees (i.e. trees with no live tissues) and dying trees (i.e. trees with over 75% dead branches), are being removed from streets and replaced without compensation from residents. In 2020, Forestry services removed 13 dead and dying street crabapple trees and replaced them with different species.

Crabapple trees infested by apple scab illustrate poor health that results in early leaf drop and an excessive amount of deadwood. In an effort to appease the concerns of residents, Forestry Services has started to treat crabapple trees infested by apple scab with a biofungicide named "BURON" in 2020. Treatments with "BURON" has demonstrated positive results in commercial apple orchards for many years. Forestry Services treated all crabapple trees (13 trees) on Potter's Wheel Crescent for the first time in 2020. It is premature to conclude the success of this treatment just by one year of the trial.

The old practice of monoculture planting with the main intention of harmonization of shape and colours and beautification, resulted in rows of trees, from the same species, being planted along the road allowance. Monoculture planting was identified as one of the areas of concern in the first Urban Forest Strategic Management Plan in 2008. One of the primary recommendations, to increase species diversity throughout the urban forest, has been implemented since then. The promotion of ensuring species diversity was elevated to a higher standard in 2017 by alternating every other two trees of the same species in the annual street tree planting program.

In preparing this report, staff researched six Ontario Municipalities seeking their policy and procedures with regard to crabapple tree on public lands. These municipalities were Toronto, Mississauga, Burlington, Hamilton, London and Guelph. Three (3) questions were asked in the phone inquiry.

1. How many calls in a year you receive for the removal crabapple?
2. Do you treat apple scab?
3. Do you remove trees because of apple scab infestation?

According to the information obtained from the six municipalities, City of Toronto is the only municipality that has a “crabapple tree removal policy” (see appendix A.). The essence of the Policy is outlined below.

“If a City owned apple or crab apple tree in front of your house is creating a potential safety hazard due to fruit falling onto the sidewalk, private walkways or driveways, Urban Forestry Services may authorize the removal of the tree subject to the conditions being met.

If you would like to place a request with Urban Forestry, contact 311 to submit a service request.

If tree removal is approved, you must submit payment in the amount of \$350 toward the cost of removing the tree.

If more than one healthy tree is requested for removal at the same address, a \$275 fee will be charged for each additional tree.

If an adjacent property owner, at their own expense, wishes to have a private tree service company (contractor) perform the removal of the apple or crab apple tree adjacent to their property, they are required to submit a completed "Agreement for Contractors to Perform Arboricultural Services on City Owned Street Trees". This option is made available in the event that the property owner wishes to expedite the removal of the apple or crab apple tree and avoid waiting for City Forestry crews to conduct the removal.

A standard bare root tree (approximately 1.5-2m tall, 30-40 mm in diameter) will be planted by Urban Forestry Services staff as a replacement tree. Replacement tree planting is mandatory.”

Generally, none of the other five Municipalities has a crabapple policy or has ever treated their crabapple trees planted on public lands. While acting under the Public Tree By-law in Burlington, the City Arborist and Director have delegated authority to

remove crabapple trees. In the City of Guelph, crabapple trees located on private properties are exempt from private tree protection by-law. All of these Municipalities try to educate their residents to preserve crabapple trees instead of granting the request for removal. City of London is the only Municipality that apply a fee under their Boulevard Tree Protection bylaw for consensual removal.

A summary of the responses provided by these municipalities is outlined in Appendix B;

Apple scab in some years is more severe than others depending on the amount of rain received in spring. While apple scab on municipal crabapple trees is being treated with a biofungicide, there remains a number of residents that are very frustrated with the town crabapple tree being infested with apple scab, in front of their home. These residents believe the crabapple tree should be removed and replaced.

Staff have reviewed possible options and are suggesting that if removal is deemed an acceptable mitigation option, then there are three (3) scenarios. It must be noted these would entail removal of crabapple trees deemed not to be in a hazardous condition, but in decline or infested with apple scab and due to aesthetics, nuisance, and early leaf drop, the tree is being removed. If Council wishes to authorize removal of non-hazardous crabapple street trees upon a request from a resident, the following options should be considered.

Option 1:

Do nothing.

Under this option, crabapple trees are not exempt from the Corporation's Tree Protection and Canopy Preservation Policy and only hazardous, dead and dying town trees will be removed and replaced.

Option 2:

Crabapple tree removal with the requirement of the resident to pay the cost of tree removal and stumping.

This option approves residents' request regardless of the health status of the tree. Residents would complete an application to receive the approval from Forestry Services to either hire an arborist to remove and stump the tree or pay Forestry Services the removal and stumping cost as per Appendix C.

In the worst case scenario of this option would be the loss of 1,753 crabapple street trees that are presently contributing 27,558 square metres of tree canopy to the community.

Option 3:

Crabapple tree removal with the requirement of the resident to pay for the cost of tree removal, stumping and one replacement tree.

This option also approves the removal of the crabapple tree regardless of the health status. Residents would complete an application to receive the approval from Forestry Services to either hire an arborist to remove and stump the tree or pay Forestry Services for the removal and stumping cost as per Appendix C.

However, under option 3, the applicant would also be required to pay the cost of one replacement tree for \$465 (to be amended from time to time). In the worst case scenario for this option, the town would sustain the loss of tree canopy equal to 24,209 square metres.

Option 4: **(Recommended Option)**

Crabapple tree removal with the requirement of the resident to pay for the cost of tree removal, stumping and canopy replacement;

This option also approves the removal of street crabapple trees regardless of their health status. Residents would complete an application to receive the approval from Forestry Services to hire an arborist to remove and stump the tree or pay Forestry Services to undertake the tree removal and stumping cost as per Appendix C. However, Under option 4, the applicant (resident) would also pay the cost of planting the number of trees for every 10 cm. DBH of the removed tree. The number of replacement trees is calculated based on tree diameter measured at breast height and considering the health condition of the tree. This tree replacement methodology is consistent with the calculation of tree replacement in the Town's Private Tree Protection By-law. (2017-038)

Under option 4, the town will receive compensation for all removed canopy.

According to the Town's street tree inventory, 90% of crabapple trees are single stems and the largest single stem street crabapple measured in 2009 and 2010 was 48 cm. DBH. The removal and replacement cost of trees, requested for removal would be calculated based on the size of the tree at the time of removal.

Replacement trees, calculated under Options 3 and/or four, will primarily be planted in front of the subject property, where the tree was removed. In case the site has

been altered and/or there is no available growing space to plant any tree in that location, replacement trees will be planted on other public lands either on another street or in a park/open space.

Appendix C. provides the cost of tree and stump removal and replacement tree based on average cost in 2021. This cost would be amended from time to time and be listed annually in the Council approved Rates and Fees schedule.

If Council wishes to approve a resident's request to remove a crabapple tree on a residential street, staff recommends Option 4, as the optimum solution. Option 4 provides the opportunity for the resident to remove the species they find undesirable, yet it provides the Town the ability to replace those trees with a native species without losing tree canopy and without any additional cost to the public.

Staff do note to Council that approving the removal of residential street crabapple trees could lead to requests for removal of other species of street trees based on nuisance, aesthetics or early leaf drop. The report lists linden, birch, walnut and oak as other species that are frequently requested to be removed in a non-hazardous condition due to the resident's dissatisfaction with either a genetic characteristic or nuisance element of the tree.

CONSIDERATIONS:

(A) PUBLIC

Crabapple trees located on front yards and/or side yards of residential properties provides 27,558-m² tree canopy. If these trees were removed without replacement, the trees contribution to the Urban Forest would be lost. The removal of apple scab infested residential street trees crabapple tree based on Option 4, provides new opportunity for the resident to replace crabapples with a more desirable native tree species without losing tree canopy.

Residents who have conversed with staff regarding the desire to remove crabapple trees have been advised of this report to Council.

(B) FINANCIAL

Appendix C of the report outlines the costs associated with each Option available for Council to consider.

(C) IMPACT ON OTHER DEPARTMENTS & USERS

This report has been prepared in consultation with the Town's Legal Department.

(D) CORPORATE STRATEGIC GOALS

This report addresses the corporate strategic goal(s) to:

- Be accountable
- Provide excellent customer service
- Improve programs and services

(E) CLIMATE CHANGE/ACTION

The urban forest is under ongoing pressure from pests, disease, climate change and invasive species. Identifying opportunities to integrate more trees on right of ways will help the Town to achieve its overall 40% canopy cover goal by 2057. This will support improved air quality and climate change adaptation through maximizing tree canopy within the Town of Oakville. Replacing infested crabapple trees with healthy native trees makes urban forest more resilient and strengthens a community's ability to withstand and manage climate-related threats.

APPENDICES:

Appendix A – City of Toronto, Removal of Crabapple Street Trees

Appendix B – Summary of Municipal comments to Crabapple Tree survey

Appendix C – Costs for Options in Crabapple Tree removal, stumping and tree replacement (as applicable)

Prepared by:

Jalil Hashemi
Manager, Forestry Services

Submitted by:

Chris Mark
Director, Parks and Open Space