



City of  
**Peterborough**

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**To:** Members of the Committee of the Whole

**From:** W.H. Jackson, Director of Utility Services

**Meeting Date:** September 25, 2017

**Subject:** Report USDIR17-008  
Introduction of a Tree By-law for the Conservation and  
Enhancement of the City's Tree Canopy

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## **Purpose**

A report to repeal an existing Tree By-law and introduce two new By-laws to conserve and maintain the City's tree canopy.

## **Recommendations**

That Council approve the recommendations outlined in Report USDIR17-008, dated September 25, 2017 of the Director of Utility Services as follows:

- a) That the existing Tree By-law 97-68, be repealed;
- b) That the Tree Conservation By-law attached as Appendix A to Report USDIR17-008 be approved with a period of public education/consultation to follow for the reasons recommended in Report USDIR17-008;
- c) That the Woodland Conservation By-law attached as Appendix B to Report USDIR17-008 be approved with a period of public education/consultation to follow for the reasons recommended in Report USDIR17-008;
- d) That Council pass a By-law appointing The Urban Forest Manager and Urban Forest Technologist as By-law Appointment Officers under Part XI of the Tree Conservation By-law and under Part VI of the Woodland Conservation By-law;

- e) That a committee be established by Council to conduct hearings regarding Tree and Woodland By-law Permit appeals, with such terms of reference as set out in Schedule “D” of both Tree and Woodland By-laws;
- f) That the 2017 User Fee By-law be amended to include the Permit fees as detailed in Schedule E of the Tree Conservation By-law attached as Appendix A of this report;
- g) That the 2017 User Fee By-law be amended to include the Permit fees as detailed in Schedule C of the Woodland Conservation By-law attached as Appendix B of this report, and.
- h) That Staff undertake the public education/consultation identified in Recommendations b) and c) following the introduction of the by-laws and report back to Council in the spring of 2019 on the results of this process with any changes that may be required to the by-laws.

## **Budget and Financial Implications**

The City currently has two staff assigned to the strategic planning and management of the urban forest in accord with the objectives of the Urban Forest Strategic Plan and Emerald Ash Borer Management Plan. Existing staff will administer the new Tree Conservation and Woodland Conservation By-laws for the first year and report back on any additional resource requirements that may be necessary. If additional resources are identified they will be requested through a further staff report to Council and addressed through the budgeting process.

## **Background**

Council adopted an Urban Forest Strategic Plan (the “Plan”) for the City in June of 2011 (USPW11-008). Within the Plan, Strategic Objective 5 undertakes:

“To preserve and protect the health of the urban forest and prevent unnecessary damage or removal”.

Specifically, Recommendation 5.1 of that Objective stated the City should:

“Investigate a permitting process for the removal of healthy trees in the City”.

Council at its meeting of June 6, 2016 in considering Report USDIR16-007, “Urban Forest Strategic Plan Update for the City of Peterborough” approved, among other recommendations that;

“Staff be requested to report to Council on potential public and private tree protection and compensatory proposals that would secure the future sustainability of the Urban Forest.”

### **Review of Existing By-Laws**

Under the Municipal Act Section 135 (1), a local municipality may prohibit or regulate the destruction or injuring of trees.

The Act further states that a By-law may require that a permit be obtained to injure or destroy trees and may impose conditions to a permit, including conditions relating to the manner in which destruction occurs, the qualifications of the persons authorized to injure or destroy trees and a requirement to re-plant trees.

Currently there are two City by-laws and a section of the Municipal Code that relate to the protection of public and private trees in the urban forest.

By-law 1982-82 and Municipal Code: Roads – Bridges, Chapter 765 Trees – On Highways, prohibit the injury or destroying of trees on highways; essentially City-owned trees in the road allowance.

By-law 97-68 prohibits and regulates the injury, destruction or removal of trees in “Designated” areas of the City. This by-law regulates tree removal within a parcel of land having an area in excess of 5 acres (Designated Area) under common ownership.

### **The Potential for Loss of Canopy**

The By-law and Municipal Code regulating the injury or destruction of City-owned trees in the road allowance provides the City with control over this area, although infringements by adjacent residents are increasing in number.

Currently, 43% of the urban forest exists in 250 private properties that are greater than 5 acres. The destruction or removal of trees is, in part, controlled by By-law 97-68 within these areas; although it is doubtful if many of the owners of these properties are aware of this. Tree removals are exempt under this By-law if the property is subject to a development application and injury or destruction is controlled through site plan agreements under the **Planning Act**. Conditions imposed through a site plan agreement would usually reflect the natural heritage policies within the City’s Official Plan and any tree conservation By-laws. Without the appropriate reporting and compensation models contained within a tree by-law, a potential for a disconnect and inadequate preservation and/or replanting of trees often occurs within the current planning context.

Presently, over 28% (1300 acres) of the urban forest canopy exists in private properties of 5 acres or less in size (just over 25,000 properties), and therefore, this canopy is currently unprotected by any existing tree conservation By-law. To put this in perspective, this is equivalent to an area of East City bounded by Hunter Street, Maria Street, Burnham Street and Armour Road and would contain approximately 53,000

mature trees. This is twice the amount of canopy that will be lost to the emerald ash borer.

### **The Value of the Urban Forest**

Trees and the urban forest as a whole, provide a wide range of recognized economic, environmental, social and health benefits to the entire community. The benefits of trees located in front and back yards of residential properties are vitally important to mitigate the negative impacts of urban settlement on the local environment, such as increased air pollution, increased heat, exposure to sun and increased storm water runoff.

### **Urban Forest Canopy**

Tree canopy in the City is currently decreasing. Since the adoption of the Urban Forest Strategic Plan in 2011 there has been a reduction in canopy cover through continuing development, natural losses such as drought and the early losses of ash trees due to the emerald ash borer. Indications are that since 2011 overall canopy cover has reduced from approximately 30% to 29%.

As an example, within the Jackson Forestry Management Zone (that area bounded by Parkhill Road West, Ackison Road and Jackson Creek) canopy cover has decreased from 36% in 2008 to 13% in 2015, mainly as a result of the Jackson Creek Meadows subdivision development. If the new plantings for the subdivision are considered, canopy cover will only be restored to 20% after 25 years. If 3 trees had been replanted for every 1 tree removed, and, assuming no losses, canopy would have been restored to 33% in 25 years.

As the City continues to grow and larger treed areas are developed, the retention, or adequate replacement of healthy trees in residential properties becomes ever more important in maintaining the overall function of the forest. The loss of a mature tree located in a private residential yard will always have a greater impact on the local environment than a similar tree in an undeveloped area or park. This is because of the closer proximity to buildings, hard surfaces and the sources of pollution and the trees' ability to mitigate pollution by cleaning and cooling the air, reduce heat build-up by shading buildings and hard surfaces, reduce storm water run-off through interception and increased soil filtration and improve the aesthetics of the immediate environment.

### **Tree Canopy Progress**

Policies now in effect through the Emerald Ash Borer Management Plan and the Urban Forest Strategic Plan and its update, advocate three replacement trees for the removal of one healthy tree (3 for 1) or equivalent canopy area planting for removed tree groups. This is necessary to ensure the replacement of lost canopy within a reasonable timeframe of 25 years and significant progress has been made in this respect since 2013. Because it is not possible to immediately replace the benefits of removed healthy trees it becomes increasingly important to ensure retention of the existing healthy trees,

if at all possible, and ensure adequate compensation for removals if we are to reverse the present decline in tree canopy.

Forestry staff remove approximately 350 publicly-owned trees annually that are, for the greater part, either dead or dying. These trees are replaced on a basis of 1 replacement for each removal. It is not proposed that the 3 for 1 compensatory planting apply to the removal of dead or dying trees. However, healthy trees that are removed should be replaced at a ratio of 3 to 1. Any anticipated increases in tree planting can be reflected in future Public Works budgets going forward. On the other hand, all construction projects that include the removal of healthy trees have for the last three years, budgeted for the replacement of these trees in a ratio of 3 trees for every 1 removed or equivalent areas of canopy where groups of trees are removed.

These compensatory mechanisms are designed to stabilize canopy losses going forward but it is important to note that there are no planting initiatives in the City specifically targeted at reversing the historic decline in canopy, other than small planting projects undertaken by ORCA and other volunteer groups.

### **Protecting the Urban Forest**

In tandem with a greater awareness of the values of the urban forest comes the requirement to regulate the removal of healthy trees and condition replanting in order to maintain and enhance those values.

As increasing instances of healthy tree removals attract public attention and are brought to the attention of staff, it is prudent to regulate more stringently the removal of all healthy trees whether private or publicly owned, if the objectives of the Plan are to be achieved and the urban forest is to be sustained.

The current growth and popularity of the City over the past two years has significantly increased the value to be realized through development, including severing existing lots and developing the land for intensified residential use. In many cases, land that is identified for further development contains healthy trees that are under threat if the owners pay no heed to the value of these existing trees.

Thus, with increasing pressures on healthy trees there is greater emphasis on preserving the existing canopy or receiving adequate compensation for permitted removals to ensure the sustainability of the urban forest.

### **Tree Protection By-Laws**

The purpose of the review of the existing By-laws and the introduction of a Tree Conservation and Woodland Conservation By-law is to regulate the removal of healthy trees and condition the appropriate replacement planting to ensure the sustainability of the urban forest.

The proposed Tree by-laws in this report have been developed based on the experience of other municipalities that have had tree conservation by-laws in place for many years.

The by-laws in this report recognize the value of all healthy trees to the community as a whole and seek to regulate their removal or injury through a permitting process. Trees may occur as individuals or in woodland areas, which will govern the by-law which will be applicable in each particular circumstance as follows:

- The injury or removal of trees with a trunk diameter of 15 cms or greater (measured at a height of 1.37 metres above grade) growing in properties of less than 1 hectare in size will require a permit under the Tree Conservation By-law.
- The injury or removal of trees with a trunk diameter of 7.5 cms or greater (measured at a height of 1.37 metres above grade) growing in properties of more than 1 hectare in size will require a permit under the Woodland Conservation By-law.
- Permits in both cases will specify what can be done and by who and may impose conditions, such as replanting and/or payment in lieu of permitted healthy tree removals.
- Discretion can be exercised on replanting conditions on an individual case basis.
- There are exemptions for dead, dying and hazardous trees and for ash trees infested by the emerald ash borer.
- Permit applications may or may not require an arborist report depending upon each individual circumstance.
- Penalties for contravening either by-law are controlled by the **Provincial Offences Act** but can be a maximum of \$100,000, reflecting the serious nature in which the unnecessary removal of healthy trees is held.

### **Public Education/Consultation**

Public education/consultation for these, or any by-laws, can be a lengthy but ultimately constructive and rewarding process, and it is recognized that public education and buy in is key to the success of both Tree by-laws.

However, it has been the experience of other municipalities and in Peterborough itself prior to the introduction of By-law 97-68, that a period of public education/consultation before the enactment of the Tree and Woodland Conservation By-laws would place a significant percentage of the urban forest at risk.

A Best Practice Tree By-law Information Package was produced by the Forest Conservation By-law Committee and the Lower Tier Advisory Group in January 2013. These are groups of municipal and provincial staff and other interested agency staff that meet to provide support, train and encourage consistent application of Tree By-laws across Ontario. This best practice document gives the following guidance:

“It should be noted that the **Municipal Act** does not require public consultation for the passing of a tree by-law. Public consultation is usually done to obtain

support for the by-law, and to ensure that the by-law reflects the specific issues present in the community.

“However, municipalities should be aware that once public consultation on a by-law begins, especially where there is not an existing Tree By-law in place, there may be an increase in tree removal in the community as some property owners will not want to be required to comply with additional regulations related to trees on their properties.

Some municipalities have passed a Tree By-law without public consultation, and then committed to a one year period of monitoring and public input, after which amendments may be made to improve the By-law. This option permits the Municipality to both protect its tree coverage and respond to public concerns”.

A public education and consultation program would commence following the enactment of the proposed by-laws. This program will include public information centres (both pre advertised and pop-up) and presentations, meetings with resident groups, developers, homebuilders, as well as businesses in the field of landscape planning and arborist work, all with the ultimate goal of recognizing trees as a shared natural resource that provides benefits to the entire community regardless of where they are located.

A report will come back to Council in the spring of 2019 that would include a review of the two by-laws together with information gathered as part of the education/consultation program and recommendations going forward from that time.

## Summary

The City has recognized the value and importance of the urban forest through its adoption of the 2011 Urban Forest Strategic Plan, The 2013 Emerald Ash Borer Management Plan and the 2016 Urban Forest Strategic Plan update.

All of these documents have recognized the community benefit of trees and the need to preserve healthy trees and plant adequate replacements for continued public health, environmental benefit and to mitigate to the effects of climate change in the future.

The proposed By-laws recognize the importance of retaining healthy trees and adequately compensating for any necessary removals as a crucial element of urban forest sustainability and community benefit.

Submitted by,

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Appendix A: Tree Conservation By-law

Appendix B: Woodland Conservation By-law

Appendix C: By-Law to Appoint By-law Enforcement Officers to Enforce Tree By-law -  
and Woodlot Conservation By-law