

## **Black Walnut Trees in Toronto**

**Date:** February 7, 2017

**To:** Parks and Environment Committee

**From:** General Manager, Parks, Forestry and Recreation Division

**Wards:** All

### **SUMMARY**

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The purpose of this report is to respond to a request from the Parks and Environment Committee that the General Manager, Parks, Forestry and Recreation explain the effects of exempting black walnut trees (*Juglans nigra*) from protection under the City's tree bylaws with a focus on both community safety and canopy impacts.

### **RECOMMENDATIONS**

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The General Manager of Parks, Forestry and Recreation recommends that:

1. The Parks and Environment Committee receive this report for information.

### **FINANCIAL IMPACT**

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There are no financial implications resulting from the adoption of this report.

### **DECISION HISTORY**

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At its meeting of November 17, 2016, the Parks and Environment Committee requested that the General Manager of Parks, Forestry and Recreation report to the February meeting of the Parks and Environment Committee on the effects of exempting black walnut trees from the City's tree bylaws, with a focus on both the effects of community safety and the greater tree canopy.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2016.PE15.7>

## COMMENTS

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Urban Forestry receives requests on a regular basis for providing rationale for the regulation of preserving specific species of trees under *Chapter 813 of the Municipal Code*. The following concerns related to black walnut trees have been raised by property owners and applicants when applications for tree removal are submitted: fear of being struck and injured by falling walnuts, having an allergic reaction to walnuts, and not being able to grow other plants in proximity to black walnut trees.

Information was requested from the City of Toronto Corporate Finance, Insurance and Risk Management group as to whether the City had ever received a claim as a result of a falling walnut. Staff advised that they received one claim for property damage in September 2014. The claim was not paid and the file was subsequently closed. Historical claims experience suggests the risks associated with falling walnuts do not pose a significant exposure for the City.

Parks, Forestry and Recreation has consulted with Toronto Public Health who indicated that:

1. There is no evidence to support the removal of a nut-bearing tree to mitigate risk from an allergic response.
2. Anaphylaxis is highly unlikely to occur except through ingestion of nuts.
3. The allergen is in the nut itself and accidental exposure is not likely since the nut is covered by the shell.
4. Other measures (which are simpler and less expensive than tree removal) can mitigate the risk such as cleaning up tree nuts in play areas or teaching children to avoid tree-nuts.

Black walnut trees produce a chemical called juglone to reduce competition with other plant species and improve their chances of survival. This process is also known as allelopathy which is defined as the chemical inhibition of one plant (or other organism) by another, due to the release of biochemical substances into the environment acting as germination or growth inhibitors. Some plants are sensitive to juglone and will not survive growing in close proximity to black walnut trees. Reducing exposure of juglone to sensitive plants can be achieved by: collecting fallen leaves and fruit thereby reducing accumulation and decomposition into the soil, adding organic matter, aerating the soil and raising garden beds beneath the canopy of black walnut trees.

There are also many native species of trees, shrubs and perennial options that are tolerant of juglone. The Ontario Ministry of Agriculture, Food and Rural Affairs website provides helpful information for gardening under walnut trees.

Many of the tree species that grow in Toronto's urban forest produce fruit that some residents consider a nuisance. If black walnut trees are exempt from protection due to falling walnuts or the production of a natural allelopathic chemical, a case could be made to exempt other tree species based on their falling fruit or other similar characteristics. Every large growing tree has some degree of maintenance associated with it including removal of leaves, flowers, fruit, twigs and small branches. The benefits

that trees afford to a community far outweigh the maintenance inconvenience associated with falling debris.

Currently, an applicant may apply for permission to remove a black walnut tree under the provisions of the City's tree bylaws. If authority within bylaw provisions to issue a permit for tree removal is not possible, the applicant may appeal to the appropriate Community Council. This practice allows the applicant the opportunity to address their specific concerns and provides an opportunity for debate and a reasonable decision as to the merits of a specific application. If there is a perceived danger associated with nuts falling from a specific black walnut tree, or other concerns with the tree, it can be dealt with at Community Council and it is recommended that this process remain in place. There are always exceptions, and the tree bylaws in their current form have provisions to deal with those exceptions.

The intention of the City's various tree protection bylaws is to prevent the unnecessary removal of healthy trees. However, in an urban environment, there are instances where tree removal is required. The bylaws have delegated provisions included to deal with many of these situations, however, there are always exceptions or unforeseen circumstances that are not specifically addressed. These situations are dealt with through the bylaw appeal process in which members of City Council consider the unique circumstances of a particular situation and determine whether or not tree removal is necessary.

The black walnut is a large-growing, long-lived native tree that is resistant to insect pests and disease in Toronto's urban forest. Providing a species specific exemption would have a detrimental effect on the City's ability to preserve, protect and grow the urban forest and tree canopy. The existing bylaw provisions allow for an appeal of a decision by staff denying removal of a healthy tree. This appeal process to Community Council is an effective means of addressing situations where residents express a community safety concern related to a healthy black walnut tree.

## **CONTACT**

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## **SIGNATURE**

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