



## INFORMATION UPDATE

<b>TO:</b>	Mayor and Members City Council
<b>DATE:</b>	February 17, 2021
<b>SUBJECT:</b>	2020 Tree Planting Update (ES21001) (City Wide)
<b>WARD(S) AFFECTED:</b>	City Wide
<b>SUBMITTED BY:</b>	Craig Murdoch Director, Environmental Services Division Public Works Department
<b>SIGNATURE:</b>	

The City of Hamilton's (City) Forestry and Horticulture Section provides tree planting and tree maintenance services throughout the municipality. Tree planting is a major focus that involves funding from several sources as well as engagement from community groups who assist in the various planting programs.

Trees in the urban environment are important assets that play a role in providing multiple ecosystem enhancements, including air and water filtration, carbon storage, storm water run-off mitigation, temperature moderation, cultural significance, improved aesthetics, and increased property values.

Significant events such as the incursion of the Emerald Ash Borer in Hamilton and the 2013 ice storm have resulted in tree loss throughout the city. In response, Forestry staff have implemented many tree planting initiatives. The success of these initiatives has reduced the negative impacts these threats have had or are having on the urban tree canopy of the City. A recent analysis of the urban tree canopy indicated that the canopy coverage has remained relatively consistent at approximately 21% between 2006 and 2017 which reflects positively on the efforts made by Council in investing in the urban tree canopy.

In 2020, the Forestry and Horticulture Section planted 12,218 trees on City property. The 2020 planting season was impacted by the COVID-19 pandemic and a drought period in mid-summer which resulted in fewer trees planted than planned. The commencement of the planting season was delayed by approximately 5 weeks, from

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the start of May to June, due to provincial legislation restricting non-essential activities. Tree planting was also temporarily suspended from mid-July to late August due to an extended period of low rainfall and high temperatures.

The following table provides details for each of the programs that contributed to this total:

Program	Trees Planted	Description
Street Tree Planting	2,100	Includes replacement of trees removed through maintenance activities and trees planted in road allowances requested by residents through the free street tree program.
Subdivision/ Development Planting	1,100	Fees received through development of new subdivisions funds the planting of street trees within the subdivision, with 1 being installed in each lot and 3 on corner lots.
Emerald Ash Borer Replacements	3,372	2020 was year 8 of 10 of the Emerald Ash Borer Management Plan with a target of 1:1 replacement for trees removed.
Community Planting	668	Through engagement with community groups, approximately 30 volunteers planted trees in 2 events. The Forestry Section supplied native trees and supplies for the volunteers.
Government Grant Program	4,800	The 50 Million Trees Program received funding from the Provincial government until 2018. Although funding was not provided in 2019, the Forestry Section continued with the program independently. Federal government funding was established for 2020 onward, with a planting event at Windermere Basin Park in Spring of 2020.

In 2018, Forestry staff began monitoring the health of newly planted trees by visiting a sample of trees for 2 consecutive years after the initial planting year. This City-wide sample of 281 trees is chosen at random and assessed visually to determine health. The review provides Forestry staff insight into the success of the tree planting season, as well as identifying any areas for improving health and survival of the young trees.

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In 2020, a tree health study was completed on a sample of street trees planted in the road allowance adjacent to homes and in boulevards. The overall mortality rate was 8.3% in 2017, 7.5% in 2018, and 9.4% in 2019.

The 2020 tree health study was completed on the same sample of trees from the 2019 study, which were planted in 2018, and a 5% random sample of trees planted in 2019. The following are the key results from the review completed in 2020:

Of the trees planted in 2018:

- 72.9% good condition
- 16.4% fair condition
- 3.2% poor condition
- 7.5% dead

Of the trees planted in 2019:

- 55.9% good condition
- 34.2% fair condition
- 0.5% poor condition
- 9.4% dead

The mortality rate over the past two seasons of planting averaged 8.45%, which is within the 5 - 10% target of municipal comparators. All trees identified as being in poor health or dead, have be investigated and actioned for remedial care or replacement.

As a result of analysis of the tree survival data collected in 2018 & 2019, staff have implemented improvements associated with the tree supply, installation and post-planting care, as well as monitoring. Continued implementation of best industry practices, and further data collection and analysis, will facilitate ongoing improvements in survival data in future years.

To further monitor the health of newly planted trees, a health review will be completed in 2021 which will include the trees that were planted in 2019 and assessed in 2020, as well as a new sample group of trees that were planted in 2020. The data collected in the 2021 review will be provided to Council in the 2021 Tree Planting Information Update.

## **APPENDICES AND SCHEDULES ATTACHED**

Not Applicable.