




COMMUNICATION UPDATE

TO:	Mayor and Members City Council
DATE:	January 13, 2023
SUBJECT:	2022 Tree Planting Update (City Wide) (ES23002)
WARD(S) AFFECTED:	City Wide
SUBMITTED BY:	Cynthia Graham Acting Director, Environmental Services Public Works Department
SIGNATURE:	

The purpose of this Communication Update is to provide a summary of the various tree planting programs administered through the Forestry and Horticulture section in 2022.

Trees in the urban environment are important assets that contribute to many ecosystem benefits and services, including air and water filtration, carbon storage, storm water run-off mitigation, temperature moderation, cultural significance, improved aesthetics, and increased property values.

The City of Hamilton Public Tree bylaw outlines the goal of the Forestry and Horticulture section to increase the City's urban tree canopy to over 35%. A 2018 analysis of the urban tree canopy indicated that canopy coverage is approximately 21%. Further to the programs and initiatives administered by the Forestry and Horticulture section, the draft Urban Forest Strategy will provide recommendations to protect and grow the urban tree canopy.

The City of Hamilton's (City) Forestry and Horticulture Section tree planting services are administered throughout the municipality through several programs and initiatives.

The tree planting programs and initiatives are supported mainly by funding from City sources through the capital budget and through revenues generated through canopy loss and public tree removal permits. To a lesser extent, but no less important, funding is provided through Councillor motions utilizing ward specific discretionary funds.

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The following table provides details of the total 2022 trees planted:

2022 Program / Initiative Summary			
Name	Description	Target	Actuals
Street Tree Planting	Replacement of trees within the public right of way removed through maintenance activities, and requests for street trees through the free Street Tree Planting Program.	2275	2366
Subdivision Tree Planting	Planting of street trees within new subdivisions (1 tree per standard lot and 3 trees per corner lot).	100	415
EAB Management Plan	Replacement of Ash trees removed through the Emerald Ash Borer Management Plan (year 10 of 10-year program) with a target of 1:1 replacement for trees removed.	2581	2948
Community Planting	Community groups and volunteer participate in tree planting events within publicly owned parks. Volunteers plant trees, and the Forestry section oversees the events, supplies the small native trees, wood chip mulch, water and planting tools for the volunteers.	1500	1970
Naturalization Plantings	Planting of native trees to expand urban forest canopy on public lands. In 2022, this mainly included tree planting within the Lincoln Alexander Parkway interchanges.	1081	1311
Free Tree Giveaway	Program provides a free small native tree to Hamilton residents to plant on their private property.	3000	3536
Councillor Motions	Tree planting supported through Ward specific Discretionary Funds. In 2022, this included 12 trees in Ward 3 for Hamilton City Housing and 117 in Ward 8 for the Hamilton Public and Catholic School Boards.	0	129
Total		10,537	12675

Overall planting targets for 2022 were tentatively set similar to previous years at 10,000 to 12,000 trees. As outlined above the total number of trees added to the City's forest canopy was 12,675. This is a significant number of trees, and will ensure an increase in the urban forest canopy.

Staff review the past planting achievement in order to set future targets. The total number of trees planted in 2019 was 8,857, in 2020 it was 12,218, and in 2021, 17,908 trees were planted. The contributing factor to the increase in 2021 was the high number

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of Emerald Ash Borer (EAB) replacements required to ensure the 10-year EAB Management Plan program met the 1:1 removal to replacement target. Staff continue to strengthen relationships within the community and these efforts led to significant increases in the number of trees added to the City's tree canopy. The Community Planting program has averaged 941 trees each year over the past 3 years. In 2022, 1970 trees were planted. This significant improvement is due to increased requests for events, creation of a program webpage and pilot projects utilizing the Miyawaki method of planting, which requires a large number of trees to be planted tightly together to encourage competition. The Free Tree Giveaway ran for a second year and exceeded the overall target of 3000 trees. Programs like these will be paramount in increasing the urban canopy as funding for the EAB Management Plan has ended.

Recognizing that number of trees planted is not the only factor in determining a successful urban forest, the Forestry and Horticulture section reviews data on newly planted trees to measure overall mortality rates. Although there is no specific standard, within the industry, mortality rates lower than 10% are considered acceptable since successful tree establishment is affected by several factors including site factors, quality of nursery stock, installation and aftercare. Data collection formally began in 2018 to a random sample of trees planted in the previous year. Staff reviewed the condition of the sample of trees to determine an overall mortality rate. Previous years data reported 7% to 9% mortality of newly planted trees. The value represents trees that were either dead or in poor condition and therefore required replacement. In 2022, the review was completed on all trees rather than a sample, and this was made possible through the process improvement of an accurate tree inventory. Data showed higher mortality than previous years, with dead trees totalling 10.7% of trees planted in 2021 and 2.5% were in poor condition. There are multiple factors that may have led to the increased value, however staff believe the two main factors are the drought conditions experienced this past summer and the review of all trees rather than a sample size. This review will continue annually, and the information will be reported through future updates.

In late 2022, due to the mortality noted, the extended period of drought and the concerns received staff reviewed the contracted services for watering newly planted trees completed. Staff have made changes to the distribution of work to contractors, number of water applications within a season, quality control process, and contract administration. The work will be re-tendered in early 2023 with the updates outlined.

Additional planned improvements in 2023 include the creation of a process to report on mortality of all publicly owned trees within the right of way, parks and cemeteries to aide in urban forest management. Staff also plan to review the approved species list in conjunction with species composition to ensure biodiversity and resiliency and look for patterns in mortality.

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A summary of the various tree planting programs administered through the Forestry and Horticulture section in 2023 will be provided to Council in 2023 Tree Planting Communication Update.

For further information please contact Robyn Pollard, Manager of Forestry and Horticulture by phone at (905) 546-2424 Ext. 3919, or by email at Robyn.Pollard@hamilton.ca

APPENDICES AND SCHEDULES ATTACHED

N/A