The purpose of this Communication Update is to provide a summary of the various tree planting programs completed in 2021.

The City of Hamilton’s (City) Forestry and Horticulture Section provides tree planting and tree maintenance services throughout the municipality. Tree planting is an important service provided to the residents of Hamilton that relies on engagement and partnerships with community groups, including Environment Hamilton and Green Venture. Tree planting programs are supported mainly by funding from City sources through the capital budget. In addition, funding in 2021 included donations from Hydro One and Facedrive, as well as Ward specific funding from Wards 2, 3, 5, 6, 7, and 8.

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.

A 2018 analysis of the urban tree canopy indicated that canopy coverage has remained relatively consistent at approximately 21% between 2006 and 2017. Although not yet approved, the draft Urban Forest Strategy has set an overall canopy target of at least 30% within Hamilton’s urban boundary.
Number of trees planted

In 2020, a total of 12,218 trees were planted through Forestry led programs. In 2021, 17,908 trees were planted, a 30% increase from the previous years. The largest contributing factor to the increase in 2021 was the high number of Emerald Ash Borer (EAB) replacements required to ensure the 10-year EAB Management Plan program meets the 1:1 removal to replacement target.

Another contributing factor was the Spring and Fall pilots for the Private Tree Giveaway Program. Wards 2, 3, 5, 6, 7, and 8 funded events for their Wards where 762 trees were provided to residents. After the successful implementation, Council approved the funding for City-wide events and 1,000 trees were provided to residents.

Lastly, an increase in requests for community planting events increased opportunities to utilize volunteers and plant more native container stock trees. Community planting events, and programs like the Private Tree Giveaway, will be paramount in increasing the urban canopy when funding for the EAB Management Plan ends at the end of 2022.

The following table provides details of the total 2021 trees planted:

<table>
<thead>
<tr>
<th>Program</th>
<th>Trees Planted</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street Tree Planting</td>
<td>2,111</td>
<td>Replacement of trees within road allowances removed through maintenance activities, and requests from residents for street trees through the free Street Tree Planting Program.</td>
</tr>
<tr>
<td>Subdivision / Development Planting</td>
<td>1,060</td>
<td>Planting of street trees within new subdivisions (1 tree per standard lot and 3 trees per corner lot).</td>
</tr>
<tr>
<td>EAB Management Plan</td>
<td>7,095</td>
<td>Replacement of Ash trees removed through the EAB Management Plan (year 9 of 10-year Program) with a target of 1:1 replacement for trees removed.</td>
</tr>
<tr>
<td>Community Planting</td>
<td>1,300</td>
<td>Through engagement with community groups, approximately 30 volunteers planted trees at 2 events. The Forestry Section supplied the native container stock trees, wood chip mulch, water and planting tools for the volunteers.</td>
</tr>
<tr>
<td>Naturalization Plantings</td>
<td>4,580</td>
<td>Planting of native container stock trees to naturalize areas within public lands and expand canopy coverage.</td>
</tr>
</tbody>
</table>
Planted Tree Health Monitoring

In 2018, Forestry staff began monitoring the health of trees for two years after installation. The City-wide sample of trees are chosen at random and assessed to determine health. The review provides data related to the success of new plantings, and if there are changes required to planting methods, locations, and species selection.

Staff review the information and make changes to the tree planting program to work to reduce the tree mortality rate and continue to collect data so staff can see how the implemented changes affect mortality. As a result of data analysis, staff have implemented improvements to sourcing, installation, post-planting care, and ongoing monitoring.

In an effort to prevent equipment damage to trees in municipal parks and cemeteries, staff implemented the installation of plastic tree guards and wood chip mulch for young trees, and this initiative will be monitored going forward to see if it results in a healthier tree population in these areas.

The average mortality rate over the last three years is 7.65%, which aligns with the 5 - 10% target of municipal comparators and highlights the successful efforts by staff to maintain low mortality rates. All trees identified as being in poor health or dead have been investigated and work orders are created to either replace the tree, or increase care to the tree in order to increase its health.

Staff will continue to monitor the health of trees planted, analyse root causes, and implement improvements to reduce mortality rates and ensure trees planted are successfully established.

Forestry Program Update

To ensure the continued support of the community and increase the success of community plantings, staff will be completing a full review of the current process from start to finish as well review mortality rates of sites planted over the past few seasons.

Staff will continue the targeted advertisement of the Street Tree Program through the City’s website and social media communications to encourage residents to request trees for the right of way adjacent to their property. In the Summer, Forestry will utilize our student workforce to canvas neighbourhoods for planting opportunities.
With approved funds and programs, Forestry anticipates planting 10,000 to 12,000 trees in 2022, lower numbers than in 2021 due to the reduced need for EAB replacements. Staff will continue to explore opportunities for grant programs to increase funds for tree planting.

In 2021, staff requested the Private Tree Giveaway Program become an annual Program funded through the tax operating budget. Approval of this request will allow Forestry to provide approximately 3,000 native container stock trees per year to residents to plant on private property. The goal of the Program is to increase canopy coverage utilizing private lands, with a focus on Wards where canopy cover is low.

A summary of data collected in the 2022 health review and a summary of trees planted within the Forestry Section's tree planting programs will be provided to Council in the 2022 Tree Planting Communication Update.

APPENDICES AND SCHEDULES ATTACHED

N/A