THE CORPORATION OF THE TOWN OF GEORGINA

REPORT NO. OID-2025-002

FOR THE CONSIDERATION OF COUNCIL

January 15, 2025

SUBJECT: EMERALD ASH BORER TREE REMOVAL PROGRAM CONCLUSION AND SUMMARY

1. RECOMMENDATION:

1. That Council receives report No. OID2025-002 prepared by the Operations Division, Operations & Infrastructure Department dated January 15, 2025, regarding the EMERALD ASH BORER TREE REMOVAL PROGRAM CONCLUSION AND SUMMARY.

2. PURPOSE:

To provide information regarding the completion of the emerald ash borer tree removal program with a focus on capital project 22-CI-OI-01, EAB Tree Removal Program, and outline remaining items to be completed

3. BACKGROUND:

The emerald ash borer (EAB), an invasive insect native to Asia, was first detected in North America in 2002 and quickly spread throughout Ontario. The EAB targets ash trees, laying its eggs under the bark where larvae feed on the tree's inner tissues, ultimately killing the tree. EAB first entered the Town of Georgina around 2009-2010, rapidly spreading and infecting the ash trees throughout the area. Virtually all ash trees over 10 centimeters diameter at breast height were killed. For more information on the history of EAB, visit the link for more information: Emerald ash borer-inspection.canada.ca.

The Town of Georgina maintains an inventory of over 25,000 trees that require maintenance, replacement, and removal on a regular basis. The tree inventory is managed by the Operations Division, specifically Forestry Services. As of 2014, approximately 19 per cent (or approximately 5,000 trees) were of ash species. Beginning in 2014, the Town took many preventative steps including creating an inventory of ash trees, conducting health assessments, performing thousands of removals of dead or dying trees, stump removals, and tree replacements. Around 2020, tree decay became evidently higher risk as many trees were failing, creating hazardous conditions both on roads and adjacent parks/private property. Thus, a larger initiative resulted in fast tracking the removals, being the 2022 business case 22-CI-OI-01.

Project Timeline

2009-2010

EAB was introduced into the area of the Town of Georgina and quickly spread to all mature ash trees.

2010-2014

The slow decline of ash trees began throughout the Town of Georgina.

Report NO.OED-2012-0056 presented to council seeking recommendation that Town staff work with York Region through a technical working group to develop an implementation plan to address EAB issues.

Report NO. OED-2012-0068 presented to council seeking recommendations to further investigate an implementation plan for EAB and further develop the current tree inventory within the Town and to report back seeking budget for the 2013 year.

2014-2020

Between the years of 2014-2020, \$1.2M was spent on ash tree removals, stump grinding, tree planting, inventory and assessments combined. On average, approximately \$171k per year.

2020-2022

A capital case for the tree removal program was developed with the goal of rectifying the legacy issue of over 10 years and addressing the increasing risks posed by the EAB infestation. Tree removals, stump grinding and tree planting did not take place in 2021 due to staffing shortages as well as focusing staff time on developing the capital project. In 2022, the program was expanded to accelerate the removal process, as a significant portion of the ash trees had become high risk. This led to the creation of the capital project to remove all affected trees on municipal property within the Town over a three-year period, 2022-2024, as approved by Council during the 2022 budget deliberations (22-CI-OI-01, EAB Tree Removal Program).

2022-2024

The tree removal program began in May 2022, and was carried out in phases, with sweeping removals and stump grinding where appropriate. The work was organized into five distinct areas: west, central, east, north, and northwest. 3003 ash trees and 1528 ash stumps were estimated to remain throughout Georgina in the beginning of 2022. See Appendix 1 for a map of all ash trees inventoried. By the end of 2024; 4,868 ash trees and 669 stumps were removed. Ash tree removals exceeded initial predictions; however, stump removals were less than half of what was predicted. See Figure 1 below for a graph illustrating the projected timeline for ash tree removals by year, compared to the actual timeline of removals. Please note; that this graph reflects only

the removal of ash trees, not stump grinding, as stump removal was a less urgent activity and was planned loosely around the production of tree removal.

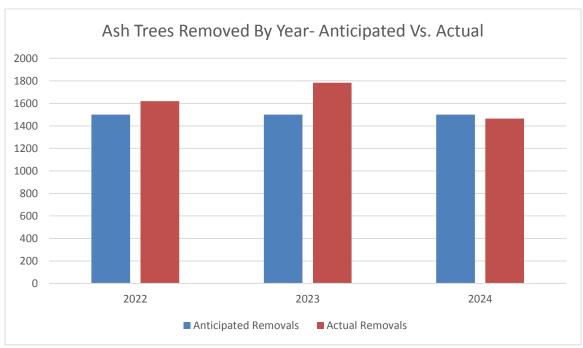


Figure 1: Ash Trees Removed 2022-2024

Tree replacement commenced in the fall of 2022. While not all removed trees were replaced, particularly those in woodlots or along rural roadsides, all trees removed from urban areas such as boulevards and parks were replanted. In total, 1,412 trees were planted as a direct replacement of ash trees from 2022-2024, or 1:3½ relationship of replantings:removals. There was no originally established timeline for the number of trees to be planted. See Figure 2 below for a graph illustrating the number of trees planted by year.

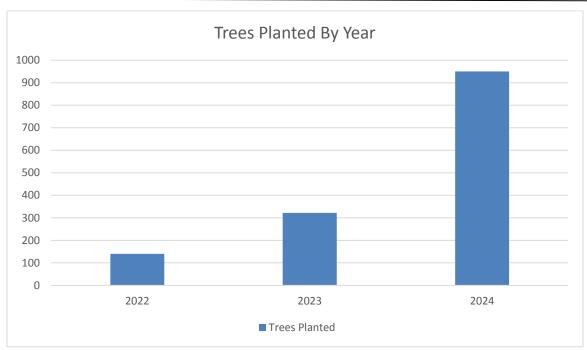


Figure 2: Trees Planted by Year 2022-2024

4. ANALYSIS:

Budget and Financial Overview

The 2022 Capital budget request 22-CI-OI-01 was approved for the removal of ash trees and stump grinding. The budget request of \$3,300,000.00 over 3 years included tree removals and stump grinding estimated at \$2,400,000.00, planting programs estimated at \$750,000.00 and project management estimated at \$150,000 (see Table 1 for a breakdown).

Table 1: 2022 Estimated Budget

	Amount (\$)
Budget 22-CI-0I-01	\$3,300,000.00
Ash Tree removal and stump grinding	(\$2,400,000.00)
Tree Planting and replacement	(\$750,000.00)
Contract Management	(\$150,000.00)
Expected Closing Balance	\$0.00

Table 2: 2024 Actual Closing Balance

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	Amount (\$)	
Budget 22-CI-0I-01	\$3,300,000.00	
Ash Tree removal and stump grinding	(\$1,600,000.00)	
Tree Planting and replacement	(\$1,100,000)	
Contract Management	(\$200,000.00)	
Carry forward balance into 2025	\$400,000.00	

Table 2 shows a carry forward balance as a result of the decline in the amount of money spent on ash tree removal and stump grinding. Fewer than half of the expected stumps were removed leading to reallocations to removals and planting. This reduction also enabled supportive installations such as beaver guards at certain tree planting locations, which allowed us protect newly planted trees in areas that were previously unplanted due to tree mortality by beavers. It also facilitated the installation of barn owl nesting boxes to offset the loss of habitat due to tree removals. Additionally, the additional funds allowed for an increased tree planting budget, which supported further planting efforts and initiatives which will be discussed below. These enhancements contributed to the overall success and environmental impact of the project. Contract management costs slightly increased from estimated due to the timeframe alignment to the project and the associated position salary.

Project Outcomes and Deliverables

Removals 2022-2024

As mentioned above, it was estimated that there were 3003 ash trees remaining in Georgina at the beginning of 2022. Table 3 represents milestones created to track progress and provide a clear framework for measuring the success of this project and to align stakeholders and management, helping to stay informed on the project's status. Milestones 7-9 were added as a provisional 2024 year to capture the possibility of additional ash trees beyond the original estimate of 3003 ash trees. Unlike ash trees, there were no scheduled milestones for the removal of ash stumps. Ash trees were scheduled to be removed as follows:

Table 3: Ash Tree Removal Milestones

Milestone	Cumulative # Trees Removed Only	Date
1	500	July 15, 2022
2	1000	September 15, 2022
3	1500	December 1, 2022
4	2000	June 1, 2023
5	2500	September 1, 2023
6	3000	December 1, 2023
7*	3500	June 1, 2024
8*	4000	September 1, 2024
9*	4500	December 1, 2024

^{*}Provisional year and quantities.

By the end of 2024, 4868 ash trees and 669 stumps were removed. There were not any significant delays or changes from the anticipated timeline to the actual timeline. However, all ash trees and stumps were anticipated to be removed by the end of 2024.

There are 38 ash trees that remain in Georgina, mainly along the waterfront of Duclos Point Road and Moore's Beach Road, which will be removed when the ground is frozen, likely January 2025. There are no remaining stumps to be removed within the Town, and none of the remaining 38 trees scheduled for removal will require stump grinding. See Appendix 2 for a map of the ash trees that remain in the Town at the end of 2024.

Removals 2014-2021

Between 2014 to 2020, there is no specific breakdown as to the volume of trees removed, stumped and planted for each year. However, the annual breakdown of the amount of money that was spent each year on ash tree removals, stump grinding, tree planting, inventory and assessments can be seen in Figure 3: Annual Expenditure 2014-2020.



Figure 3: Annual Expenditure 2014-2020

There is an increase in the amount of money required to keep up with EAB related activities between the years of 2014 to 2018 as the ash trees continued to decline throughout the Town. The significant drop off in 2020 was due to the forestry team halting the non-emergency related removals and stumping as they worked through the initial stages of the COVID19 pandemic and worked to develop the capital case to deliver the removals in a project managed systematic program. In 2021, there was no tracking of EAB specific tree removal or stump grinding.

Resident Feedback

The Town's in-house, resident inquiry tracking system (Work Tech) allows operations to receive and track public service requests (PSRs). These are formal submission by a resident or community member who is seeking assistance, reporting an issue, or requesting a service related to public infrastructure, maintenance, or safety. Between 2016 and 2024, a total of 555 EAB-related PSRs were generated. As shown in Figure 4 below, there was a significant volume of PSRs prior to the project's initiation in 2022, followed by a notable decline in 2023 and 2024 after the project commenced.

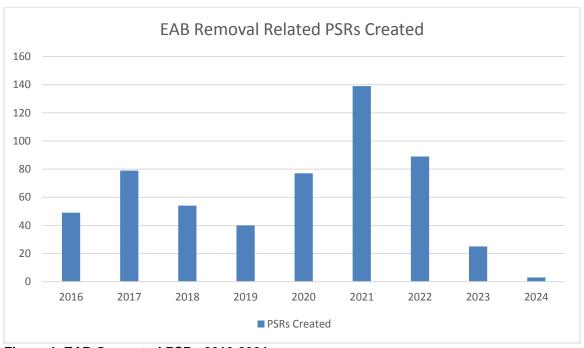


Figure 4: EAB Generated PSRs 2016-2024

A total of 1,412 trees were planted as direct replacements for ash trees between 2022 and 2024. In 2022, 140 trees were planted, followed by 322 trees in 2023, and 950 trees in 2024. In 2022, tree planting was limited to the fall, as the program began in May, and planting only occurs during spring and fall to ensure optimal weather conditions for root establishment and minimize stress on the trees. In 2023, trees were successfully planted in both the spring and fall, although the program remained heavily focused on ash tree removal and stump grinding. By 2024, tree planting efforts significantly increased as the focus shifted from removals to planting. With the ability to budget based on actual removals and increased planting locations available from previous tree removals, staff were able to expand the planting program accordingly. Upon commencement of this project, there was not an estimate of the volume of trees that were to be planted or a breakdown as to the budget distribution for each year.

Between 2016 and 2024, a total of 135 tree planting or tree replacement PSRs were generated. As shown in Figure 5 below, similarly to PSRs generated regarding EAB related PSRs, there was a steep decline once the program began in 2022.

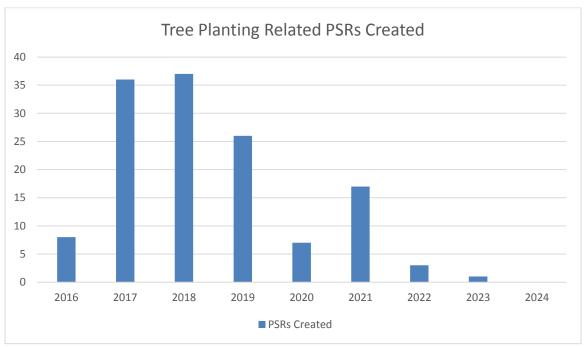


Figure 5: Tree Planting Generated PSRs 2016-2024

Supportive initiatives

In support of the EAB program deliverables, being removals, stumping and replanting of trees, the following additional deliverables were necessary:

- To address the loss of potential owl habitat due to the volume of tree removals in certain areas, 10 owl nest boxes were installed throughout Georgina.
- 2. Beaver guards installed were necessary to be added at locations where beavers posed a threat. This addition was made to provide extra protection for the newly planted trees and improve their long-term survival rate in areas with beaver activity.
- 3. In addition to the tree planting conducted within this project, the Town was given approximately \$180,000 in grant funding through the Disaster Mitigation and Adaption Fund (DMAF) provided by York Region. The implementation of this grant was made possible due to the resources provided by the EAB Program inclusive of the tree planting contractor, and the project coordination delivered under the contract administrator position. Through this grant, the Town focused on selecting planting locations that were most impacted by the heat island effect caused by climate change and were able to plant an additional 186 large trees.

4. Furthermore, the Town funded a community planting event in partnership with the non-profit organization Local Enhancement and Appreciation of Forests (LEAF), leading to the planting of an additional 400 small trees and 600 shrubs with the help of 175 volunteers. The implementation of this partnership was made possible due to the resources provided by the EAB Program inclusive of the tree planting contractor, and the project coordination delivered under the contract administrator position

Assessment of the Project's Impact on the Community or Stakeholders

The removal of ash trees and stumps in the Town of Georgina has provided several key benefits. First and foremost, it has improved safety by preventing tree failures and reducing hazards, ultimately minimizing the Town's liability. Additionally, this initiative promotes healthy tree growth by freeing up resources for the remaining trees, encouraging new growth and strengthening the overall urban forest. The removal also enhances the aesthetic appeal of the Town by maintaining the landscape and improving urban green spaces. Furthermore, it plays a vital role in protecting infrastructure by preventing damage to utilities, private property, and Town property, thereby reducing the potential for costly repairs and liability issues.

Tree planting in the Town of Georgina offers numerous benefits across various aspects of community life. Environmentally, it improves air quality, helps regulate the local climate, aids in carbon sequestration, supports biodiversity, and contributes to the expansion of the urban canopy. In terms of health, the presence of trees promotes both mental and physical well-being, providing residents with calming and restorative environments. Economically, tree planting increases property values and helps reduce energy costs by providing shade and natural cooling. Aesthetically, it beautifies public spaces, fostering community engagement and enhancing the overall visual appeal of the area. Additionally, trees play a crucial role in stormwater management, helping to prevent flooding and control erosion, which is vital for the protection of infrastructure and natural resources.

Future Tree Protection

A key lesson learned through this project is the importance of creating a tree protection bylaw to safeguard the trees planted. These trees are valuable assets and without legal protection, the trees are vulnerable to removal or damage, undermining the investment made in this project. A tree protection bylaw would ensure the long-term health and preservation of these vital environmental assets. Forestry Services within the Operations and Infrastructure department will be working closely with the Development Services Department to create a Tree Protection Bylaw to be implemented in the Town.

Stakeholder Communication

Throughout the EAB tree removal project, the Town prioritized clear and consistent communication with residents, stakeholders, and other departments. A dedicated inspector was appointed to liaise directly with residents, ensuring they were informed and involved in the process. Various communication channels, including the town's website (georgina.ca/eab), portable variable message signs, resident letters, door hangers, and on-site signage, were used to keep the community updated on project progress and key developments. Additionally, regular updates were provided to the Town Council to ensure transparency and alignment.

The project team also worked closely with several departments, including the Customer Service Division, Parks and Facilities Division, Communications Division, Legislative Services, GIS Services staff, to ensure a smooth and coordinated effort. Feedback from the community was largely positive, with residents generally appreciative of the project's impact on safety, aesthetics, and the health of the urban forest. Any concerns raised were addressed promptly, with efforts to provide clear explanations and mitigate disruptions during the tree removal and tree planting activities.

Sustainability and Long-Term Impact

The next steps generated from this project include a focus on enhancing the Town's tree inventory to ensure the newly planted trees are properly maintained. This will be followed by ongoing tree maintenance. These efforts will help preserve the health and growth of the urban forest and support local wildlife.

A key lesson learned is the importance of proactively monitoring for and removing invasive species. Invasive species can quickly spread, outcompeting native species for resources and disrupting natural habitats. By addressing these threats early, the Town can minimize environmental damage, reduce long-term management costs, and preserve the integrity of its landscapes. Being proactive is also financially important, as catching invasive species early is far less costly than letting the issue grow unchecked. Delaying action can lead to expensive and extensive removal efforts, making early intervention a cost-effective approach. This ensures a healthy and resilient environment for both residents and wildlife, while saving valuable resources.

Tree planting initiatives, such as the partnership with York Region in securing of the DMAF grant, the addition of LEAF community planting, and tree giveaways, further contribute to sustainability goals by enhancing the urban canopy and improving the local environment. These efforts support the Climate Change Action Plan, as discussed in the Climate Change Action Plan Status Update Report No. SI-2024-0022 by strengthening community well-being and resilience, fostering community engagement, and building partnerships. By focusing tree planting in areas impacted by tree removal and expanding efforts to regions most affected by extreme heat, the project directly supports the Climate Change Action Plan's goal to mitigate the urban heat island effect.

The Town is committed to promoting and maintaining a safe and healthy urban forest, and the removal of dead ash trees across Town lands was essential for public and road safety, as well as risk mitigation. The project also opens previously unused recreational areas by eliminating the proximity of dead ash trees. Additionally, the projects existing commitment secured grant funding and identified innovative opportunities for environmental improvement.

Remaining work

The carry forward amount will continue to be used in 2025 to complete the few remaining deliverables from the originally proposed business case, being the remaining Ash tree removals and remaining spring and fall seasonal plantings. Maintenance routines tied to warranty periods will continue to be delivered. Any remaining surplus at the end of 2025 will be returned to the reserve.

5. RELATIONSHIP TO STRATEGIC PLAN:

Advancing Environmental Sustainability

Celebrate and respect Georgina's natural environment, including Lake Simcoe

Delivering Service Excellence

Proactively manage infrastructure and assets to ensure service continuity

6. FINANCIAL AND BUDGETARY IMPACT:

There is no additional financial or budgetary impact as a result of this update.

7. PUBLIC CONSULTATION AND NOTICE REQUIREMENTS:

An update to the Towns webpage will take place during January of this year, as well as a presentation to the Environmental Advisory Committee.

8. CONCLUSION:

The completion of this project marks a significant achievement for the Town of Georgina in its efforts to address the devastating effects of the EAB infestation. This initiative involved the removal of 4,868 ash trees and 669 stumps, with 1,417 trees planted in direct replacement, helping the urban forest remain sustainable.

The project not only mitigated the risks associated with the spread of the infestation but also enhanced the aesthetic appeal of the community and promoted the health of the local ecosystem. Throughout the project, challenges were effectively managed through

collaborative efforts between the Town, staff, stakeholders, and residents, demonstrating a strong commitment to environmental stewardship. The project's success aligns closely with Georgina's strategic plan to foster environmental sustainability and build community resilience in the face of climate change.

<u>APPROVALS</u>

Prepared By: Nicole Luke, Contract Administrator

Reviewed By: Niall Stocking, Manager, Operations

Recommended By: Michael Vos, Director, Operations and Infrastructure

Approved By: Ryan Cronsberry, Chief Administrative Officer

Attachments:

Appendix 1: Ash Tree Inventory at the Beginning of 2022

Appendix 2: Ash Tree Inventory at the End of 2024

Appendix 1: Ash Tree Inventory at the Beginning of 2022

