

Tree Maintenance Review Update 2025

Date: September 25, 2025

To: Infrastructure and Environment Committee

From: Executive Director, Environment, Climate and Forestry

Wards: All

SUMMARY

Environment, Climate and Forestry (ECF) is committed to the continued implementation of tree maintenance service improvements as recommended by the Auditor General in their report entitled "Getting to the Root of the Issues: A Follow Up to the 2019 Tree Maintenance Services Audit".

Improvements have been focused on strengthening processes and increasing productivity and service quality to drive a more effective and efficient tree maintenance operation. Progress to date includes improved contract language and management practices, increased oversight of Urban Forestry Operations, and timely responses to complaints.

In line with these improvements, ECF continues to focus on the quality of its tree maintenance services through a multi-faceted review of operational practices. As reported to the Infrastructure and Environment Committee in the Tree Maintenance Review Update (2024), an external review was conducted in 2023 by Ernst and Young with a focus on service quality enhancements. Ernst and Young recommended a pilot project to evaluate service quality improvements and cost reductions achievable through insourcing of tree maintenance services.

In response to this recommendation, ECF completed a quality service pilot in 2024 that evaluated the most effective service model to deliver tree pruning and small tree removal services. The results of the pilot and subsequent cost analysis show similar quality, productivity and operating costs between insourced and outsourced tree maintenance crews. A key difference is that insourced crews offer greater operational flexibility than outsourced crews, in that insourced crews can be re-directed and customized quickly and easily to respond to changing priorities in real time.

Based on the results of the pilot, ECF recommends a phased approach to insourcing tree maintenance services, beginning with staff position conversions to optimize crew role assignments, enabling deployment of five (5) additional insourced tree maintenance crews in 2026. The phased approach will be monitored to assess impacts to service

levels, with an eventual target of providing equal levels of insourcing and outsourcing, to achieve a better balance between self performed and contracted service delivery.

Further to the quality service pilot, ECF is currently undertaking a comprehensive third-party review with Beacon Environmental Ltd. examining existing tree maintenance programs, including staff training and qualifications, and aligning with industry standards for tree pruning. This work incorporates engagement sessions with key industry and public stakeholders and a jurisdictional best practices review. The project will conclude in Q2 of 2026 with a framework of improvements to strengthen reactive and proactive tree maintenance services.

RECOMMENDATIONS

The Executive Director of Environment, Climate and Forestry recommends that:

1. City Council direct the Executive Director of Environment, Climate and Forestry to begin a phased approach to increase insourcing of tree maintenance services, to target an equal balance between self performed and contracted service delivery.

FINANCIAL IMPACT

This report recommends a phased approach to increase insourcing of tree maintenance services. The first phase of this approach optimizes existing staff resources to increase the number of insourced tree maintenance crews by five (5), converting five (5) full time Arborist 2 positions into five (5) full time Leadhand Arborist positions. Future phases of insourcing will likely require the creation of new Arborist positions and capital budget consideration necessary to purchase additional bucket trucks, chippers, tools and equipment.

There is no immediate financial impact on the 2025 Operating and Capital budget as a result of the first phase of increased insourcing of tree maintenance services.

Any financial impact identified as part of future phases of this approach will be treated as a new investment or enhancement to an existing program during future budget process and prioritized against other critical capital and operating City-wide priorities, subject to affordability, outcomes, and achievability.

The Chief Financial Officer and Treasurer has reviewed this report and agrees with the information as presented in the Financial Impact section.

DECISION HISTORY

On January 2, 2025, Urban Forestry branch moved from Parks, Forestry and Recreation division to the Environment, Climate and Forestry division. As a result of this reorganization, all directives related to Urban Forestry that had previously been the responsibility of Parks, Forestry and Recreation were assumed by Environment, Climate and Forestry.

At the May 28, 2024 Infrastructure and Environment Committee meeting, the General Manager, Parks, Forestry and Recreation was directed to report to the Infrastructure and Environment Committee in the third quarter of 2025 on the results of the quality service pilot, and to include items related to training, certifications, arboriculture standards and methods to retain mature trees in the scope of its tree maintenance program review.

[Agenda Item History - 2024.IE14.11](#)

At the March 29, 2023 City Council meeting, the General Manager, Parks, Forestry and Recreation was directed to report to the Infrastructure and Environment Committee in the fourth quarter of 2023 on options to improve tree maintenance services, including the feasibility of the City providing the service.

[Agenda Item History - 2023.AU1.7](#)

At the February 13, 2023 Audit Committee meeting, Parks, Forestry and Recreation presented its "Getting to the Root of the Issues - February 2023 Performance Update of Urban Forestry Contractors and City Crews", as directed by the Audit Committee. Parks, Forestry and Recreation asked to discontinue reporting to every Audit Committee Meeting as previously directed by City Council in 2021.

[Agenda Item History - 2023.AU1.7](#)

At the June 6, 2022, Audit Committee meeting, Parks, Forestry and Recreation presented its "Getting to the Root of the Issues - June 2022 Performance Update of Urban Forestry Contractors and City Crews", as directed by the Audit Committee.

[Agenda Item History - 2022.AU12.6](#)

At the April 6 and 7, 2022 City Council meeting, the City Solicitor and Chief Procurement Officer, Purchasing and Materials Management presented a supplementary report related to the January 2022 performance update, as directed by the Audit Committee.

[Agenda Item History - 2022.AU11.8](#)

At the February 18, 2022 Audit Committee meeting, Parks, Forestry and Recreation presented its "Getting to the Root of the Issues - January 2022 Performance Update of Urban Forestry Contractors and City Crews and Consolidated Summary and Analysis of 2021 Forestry Operations Related Complaints", as directed by the Audit Committee.

[Agenda Item History - 2022.AU11.8](#)

At the July 7, 2021 Audit Committee meeting, Parks, Forestry and Recreation presented its "Getting to the Root of the Issues - 90 Day Action Plan Update and Performance of Urban Forestry Contractors and City Crews", as directed by the Audit Committee.

[Agenda Item History - 2021.AU9.8](#)

At the May 5 and 6, 2021 City Council meeting, Parks, Forestry and Recreation presented its "Getting to the Root of the Issues - 60 Day Action Plan", as directed by the Audit Committee.

[Agenda Item History - 2021.CC32.5](#)

At the May 5 and 6, 2021 City Council meeting, City Council adopted Award of Negotiated Request for Proposal Ariba Document 2305234907 to Various Suppliers for the Provision of Arboricultural Services at various City of Toronto locations.
[Agenda Item History - 2021.CC32.6](#)

At the April 7 and 8, 2021 City Council meeting, Parks, Forestry and Recreation presented "Getting to the Root of the Issues: A Follow-Up to the 2019 Tree Maintenance Services Audit", as directed by the Audit Committee. A recommendation was given to the City Manager's Office to review the delivery of insourced and outsourced environmental services, including and organizational review, for overall opportunities for improvements.
[Agenda Item History - 2021.AU8.6](#)

At the February 16, 2021 Audit Committee meeting, the Auditor General tabled the report "Getting to the Root of the Issues: A Follow-Up to the 2019 Tree Maintenance Services Audit".
[Agenda Item History - 2021.AU8.6](#)

COMMENTS

ECF is responsible for Toronto's urban forest consisting of 11.5 million trees, including approximately 6.1 million trees on private property, 3.5 million trees in parks and ravines and 640,000 trees along streets. This role entails a complex range of responsibilities including tree maintenance, tree planting, tree bylaw administration, natural area management, public education and community partnership.

1.0 Background

ECF is committed to key improvements in contract management, crew oversight, and operational efficiencies as guided by Auditor General recommendations and City Council direction. Staff have reported to the Audit Committee nine times since 2021, summarizing the continuous improvements as demonstrated through the regular tracking and monitoring of key performance metrics such as physical observation, inspections and GPS review. These key performance metrics are used to analyze trends to make informed decisions on performance, productivity, and value for money.

According to the Auditor General, ECF has successfully implemented 19 of 27 recommendations from the 2019 and 2021 Audit Reports, in addition to successfully addressing a management letter issued by the Auditor General in 2023. ECF is committed to implementing all the remaining recommendations.

As such, ECF has intensified its focus on improvements to the quality of tree maintenance services provided to the public, as part of its commitment to service excellence. The 2023 Tree Maintenance Service Model Review report by Ernst and Young identified key benefits to strategic insourcing of tree pruning and small tree removal services including:

- operational flexibility to complete multiple services by the same crew

- simplified planning, scheduling and coordination of activities
- reduction in mobilization costs
- greater cost predictability in comparison to market-driven outsourced costs

The report identified pruning and small tree removal services as the best candidates for insourcing, given that these services represent substantial volumes of tree maintenance work orders. The two-person bucket crew, typically used to complete this type of work, was recommended for review. Of particular note, this crew type is the least specialized and most flexible to support tree maintenance services. The report recommended further comparative evaluation of insourced and outsourced two-person bucket crews based on the quality of services delivered.

2.0 Quality Service Pilot

ECF conducted a quality service pilot over a six-month period between June and December 2024 to evaluate the most effective service model to deliver pruning and small tree removal services on City-owned trees. The pilot methodology included a selection of criteria that represented the largest subset of this work:

- complaint based work orders originating from 311 service requests or internal channels;
- trees ranging from 35-60 cm in trunk diameter for pruning; and
- trees under 25 cm in trunk diameter for removal.

An equal number of insourced and outsourced two-person bucket crews were evaluated on work quality, completion time, and complaints. In total, 1831 work orders were completed and 1098 work orders were subject to quality control inspections. ECF ensured that similar type of work was assigned to all crews for an even comparison on the above noted criteria which is discussed in the subsections below.

Upon pilot completion, a cost analysis was conducted to evaluate the operational and capital cost implications of insourcing additional tree maintenance crews.

2.1 Work Quality

Quality control inspections are conducted regularly for all maintenance work done on City trees. Forestry Forepersons review completed work orders to determine whether work meets City and arboricultural industry standards. Criteria evaluated in quality control inspections includes adherence to arboricultural best practices, cleanliness of work site, property damage, and adherence to work order instructions. Where deficiencies are identified that can be corrected, such as deadwood or hanging branches left in a tree after pruning, the tree maintenance crew who originally performed the work is required to return to the work site to correct the deficiency. Suppliers are required to correct deficiencies at no cost to the City.

ECF uses the City's [Tree Pruning Guidelines](#) to determine adherence to proper arboricultural practices when conducting quality control inspections of tree pruning. The Tree Pruning Guidelines were developed to incorporate American National Standards

Institute (ANSI) standards with the goal of achieving the following tree pruning objectives:

- encourage the health of a tree
- clear tree limbs and branches interfering with structures, street lighting, pedestrian and vehicular traffic, utility conductors and traffic signals or signs
- encourage the natural form of the tree species
- remove dead, broken or split limbs
- maintain structural stability and balance of a tree

The City's Tree Pruning Guidelines are currently under review as part of the consulting project with Beacon Environmental Ltd., with a view to ensuring City pruning guidelines align with up-to-date industry standards.

Over the six-month pilot duration, 1098 quality control inspections were completed, representing 60 per cent of work orders in the pilot. The results of these inspections did not show a significant difference in quality of work between insourced and outsourced crews. Out of 1098 quality control Inspections, less than one per cent of deficiencies were documented. This result determines that both insourced and outsourced two-person crews provided good work quality in the delivery of tree pruning and small tree removal services.

2.2 Completion time

The results of the quality service pilot showed similar productivity between insourced and outsourced crews. Insourced crews were more efficient in terms of average completion time per tree, and outsourced crews were more productive in average number of trees completed per day. Table 2 identifies the overall results of the two groups within the pilot. Upon review of these results, it was noted that there is a nominal difference in workday between insourced and outsourced crews. Insourced crews work seven productive hours per day and outsourced crews work seven and a half productive hours per day.

Table 1 - Completion Time Data June to December 2024

	Target	Overall Average	Insourced Crews (7 productive hours per day)	Outsourced Crews (7.5 productive hours per day)
Trees Completed/Day	3 trees	2.3 trees	2.2 trees	2.5 trees
Time to Prune 35-45 cm	2 hours	1 hr 58 min	1 hr 47 min	2 hrs 3 min
Time to Prune 45-60 cm	3 hours	2 hrs 17 min	2hrs 9 min	2 hrs 21 min
Time to Remove <25 cm	1 hour	33 min	23 min	37 min

2.3 Review of All 2024 Quality Control Inspections and Complaints

Given the negligible rate of quality deficiencies observed in the quality service pilot, further review was done of all quality control inspections completed in 2024 for two-person crews. This more extensive review of 2301 quality control inspections showed outsourced crews followed proper arboricultural standards in 98.2 per cent of quality control inspections, and insourced crews followed proper arboricultural standards in 100 per cent of quality control inspections.

Of the 2301 quality control inspections noted above, 27 were related to complaints. All 27 complaints were against outsourced crews.

Table 2 - Quality Control Inspections of 2-Person Bucket Truck Crews in 2024

	Quality Control Inspections	Proper Arboricultural Practices Followed	Percentage	Complaints Received	Percentage
Insourced	459	459	100.0	0	0.0
Outsourced	1842	1809	98.2	27	1.5
Total	2301	2268	98.6	27	1.2

2.4 Cost Analysis

Following the completion of the quality service pilot, cost analysis was undertaken to evaluate the operational and capital cost implications of insourcing additional tree maintenance crews. Operating cost calculations were based on salaries, benefits, materials, supplies, fleet maintenance, fuel, and fleet reserve fund contributions. Capital costs were calculated based on the market cost of financing a new bucket truck, chipper, chainsaws and other tools and personal protective equipment needed to outfit a two-person tree maintenance crew.

Based on 2025 data, the annual operating cost of an insourced two-person crew is \$321,953. This is 1.1 per cent higher than the cost of the average outsourced crew which is \$318,522 at current contract pricing.

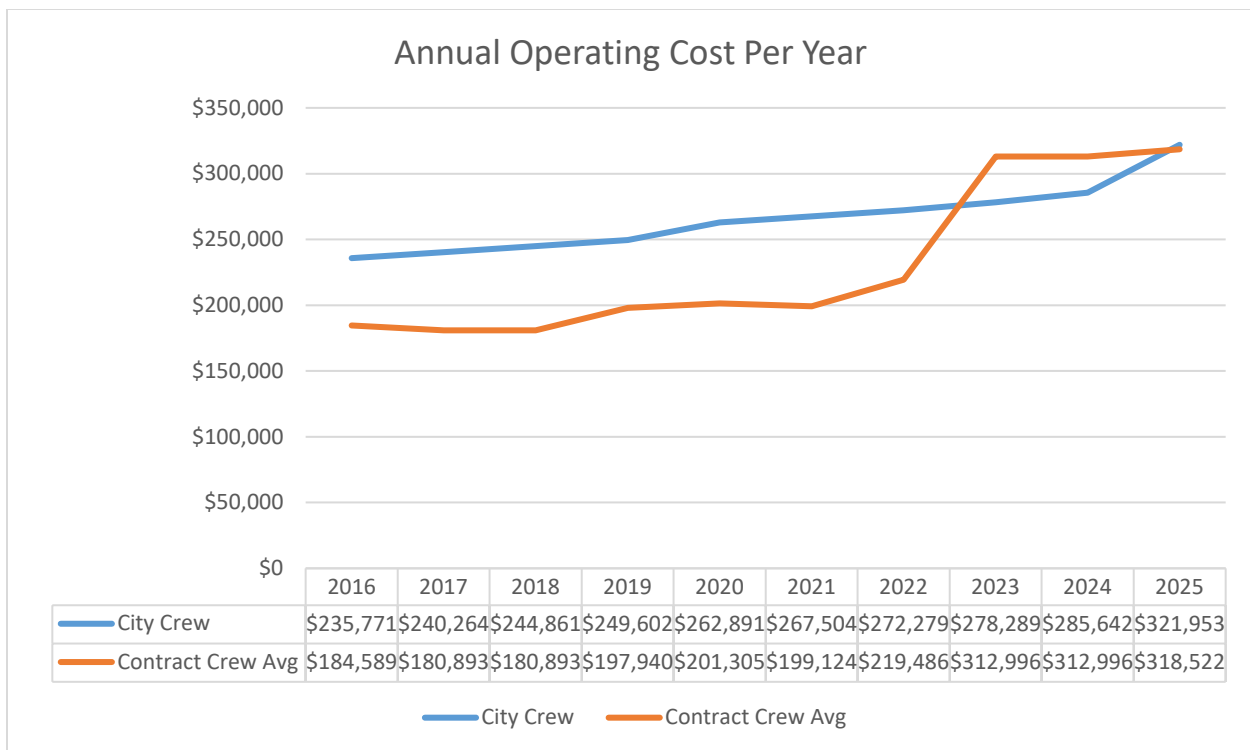
The net capital cost associated with insourcing a new two-person crew ranges from approximately \$600K to \$700K depending on the type of bucket truck purchased and is inclusive of the supporting wood and brush chipper, tools and personal protective equipment required.

2.6 Cost Stability

A key metric examined was cost stability over time based on the historical trend of insourced tree maintenance costs versus outsourced costs. Based on data from 2016 to 2025 (Table 4), the cost of outsourcing tree maintenance was substantially lower than insourced costs until the start of the current contract in 2023, when market prices for

tree maintenance surged dramatically due to various economic factors. The operating cost of insourced crews has increased at a steady and predictable rate, with salaries and benefits negotiated through collective bargaining at pre-determined intervals. The next round of procurement for outsourced tree maintenance services will take place in 2027, for contracts anticipated to begin January 1, 2028. This procurement could result in continued increases in costs dependent on market drivers for outsourced crews.

Table 3 - Annual Operating Cost of 2-Person Bucket Truck Tree Maintenance Crew



2.7 Service Improvements through Insourcing

Insourced crews offer greater operational flexibility than outsourced crews. An insourced crew can be re-directed and customized quickly and easily to respond to changing priorities in real time. Crew members coordinate directly with City staff who plan and schedule work, optimizing response times and reducing mobilization costs to high priority and emergency response work.

For example, when an insourced crew arrives at a high priority work site where a City tree has fallen and blocked the entrance to a school, the crew leader can contact their Supervisor where required requesting two additional crew members to form a larger crew with additional grounds people to complete the clean-up and restore public safety faster and more efficiently. City staff can facilitate this request quickly and easily by adjusting other insourced crew work assignments of lower priority in order to address a high priority work site. Conversely, adjusting an outsourced crew requires sending a second crew with a bucket truck, doubling the City's mobilization costs and introducing redundant trucks and equipment to the site.

Insourced crews have customer service training built into the onboarding and continuous professional development as City staff. In addition, it is likely an insourced tree maintenance crew will attend the same tree assets multiple times during the course of their career, building connection to the tree and the community. This institutional knowledge allows insourced crews to be ambassadors for City services through a lens of consistent front line customer service.

A recent job profile evaluation with management and the union has yielded improvements both parties are supportive of. Arborists hired by the City will now require provincial trade certifications or equivalent accreditation. Insourced tree maintenance crews will consist of certified arborists who have undergone a minimum of three years of practical experience in the industry, in addition to completing apprenticeship programs and passing certification exams. ECF is supporting all existing Arborists who are not yet certified through the certification application and examination process so that all tree maintenance crews consist of certified arborists. In addition to this initiative, ECF is currently reviewing the feasibility of introducing an apprenticeship program to onboard apprentice arborists enrolled in recognized provincial arborist training programs to attract and retain talent within the industry. As part of this process, ECF will be engaging with the union.

This move towards certifying City arborists represents a significant enhancement to the quality-of-service ECF provides through insourced tree maintenance, raising the skill level and professionalism of staff working on the City of Toronto's tree assets.

3.0 Restructuring to Increase Insourcing

The results of the quality service pilot and subsequent cost analysis show similar quality, productivity and operating costs between insourced and outsourced crews performing tree pruning and small tree removals. However, as discussed above, insourced crews offer greater cost stability from inflationary measures and flexibility to plan and coordinate planned and unplanned work. In addition, insourced crews have City staff-specific customer service training and will soon have a higher level of skill, training and qualifications achieved through provincial trade certification.

As a result of this analysis, ECF is recommending a phased approach to increasing levels of insourcing of tree maintenance services, with a gradual target of insourcing up to 50 per cent of two person crews. Currently ECF utilizes approximately 50 outsourced tree maintenance crews and has 24 insourced crews without vacancies.

The first proposed change to insourcing would see an increase of five crews, increasing the in-house level to 29 crews for tree maintenance services. This represents the first step in a longer-term plan to rebalance insourcing levels further through a phased approach, which will be evaluated and monitored to ensure the shift maintains or improves service levels and continues to provide excellent service quality and service level compliance over time, with an eventual target of providing equal levels of insourcing and outsourcing.

Generally, there are more crew members than crew leaders on City staff. This phase will convert five Arborist 2 positions (crew members) to five Leadhand Arborist positions (crew leaders), increasing capacity to deploy five additional insourced crews. This realignment will increase the insourced crew capacity using existing staff complement. It is estimated that optimization of these crews could result in the completion of an additional 2500-3000 work orders per year, representing an increase in work order completion of 5-6 per cent annually, dependent on improved vacancy rates of insourced crew positions.

This change does not require a capital investment given there is enough equipment to increase service capacity by five insourced crews. A minor increase in salary and benefits expenditures of approximately \$36,000 per year will be offset through reduced spending in other areas as part of the 2026 budget.

The first phase of insourcing will be monitored for a period of one year to assess impacts. Future phases of insourcing will likely require the creation of new Arborist positions and capital budget consideration necessary to purchase additional bucket trucks, chippers, tools and equipment. This financial consideration will be required prior to the procurement of the new arboricultural services contracts.

Future increases to insourcing levels will also be dependent on improved recruitment and retention of Arborist positions, currently at approximately 25 per cent vacancy. Vacancy is expected to decrease over the next two years as a result of recent job profile changes, wage grade increases and the proposed implementation of an apprenticeship program.

4.0 Tree Maintenance Program Review

ECF has hired Beacon Environmental Ltd. to undertake a comprehensive third-party review of existing tree maintenance programs including policies, training, staff qualifications, pruning guidelines and alternative methods for mature tree retention. This review includes a jurisdictional best practice review and engagement with key industry and public stakeholders. Concluding in May of 2026, the review will provide recommendations to strengthen both reactive and proactive tree maintenance services, with specific consideration for developing a robust proactive tree maintenance program inclusive of trees on the City road allowances and trees in parks, in consideration of economic pressures and costs.

Four focused engagement sessions with the arboricultural industry and key stakeholders are planned, in addition to a public survey. The schedule includes:

- August 2025 - engagement with the arboricultural industry focused on best practices for tree pruning (completed)
- October 2025 - engagement with the arboricultural industry focused on certifications, tree risk and alternative methods to retain mature trees
- January 2026 - engagement with City staff to envision a road map for improvements in tree maintenance services
- February 2026 - engagement with key public stakeholders, including resident associations and a public survey

The first engagement session with the arboricultural industry garnered valuable insights through consensus building exercises that identified key best practices for pruning trees at different stages of growth, location and level of urban conflict.

A review of the City's Tree Pruning Guidelines, training programs and Area Street Tree Maintenance Program have also been completed. Based on this review, there are early findings that improvements can be made to strengthen pruning guidelines and training programs to better align with current ANSI standards. Improvements include consistent language use in work orders and consideration of additional factors in the planning of proactive maintenance such as tree age and location.

A summary of the final report and an implementation plan of recommendations will be provided in the next Tree Maintenance Review Update scheduled for the first quarter of 2027.

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ATTACHMENTS
