

Committee of the Whole (Working Session) Report

DATE: Wednesday, March 6, 2024

WARD(S): ALL

TITLE: URBAN FORESTRY MANAGEMENT PLAN AND WOODLAND MANAGEMENT STRATEGY

FROM:

Zoran Postic, Deputy City Manager, Public Works

ACTION: DECISION

Purpose

To seek council endorsement of the Urban Forest Management Plan and the associated Woodland Management Strategy that will provide a basis for the City's adaptive management of its urban forest resource, which will continue over the 20-year life of the plan.

Report Highlights

- First-ever Urban Forest Management Plan that will guide the sustainable management of Vaughan's urban forest resource for the next 20 years.
- The City consulted widely with members of the public as well as internal and external stakeholders during two public engagement phases.
- The plan includes a review of the current state of the urban forest, including a criteria and indicators assessment.
- The Urban Forest Management Plan has a vision, five goals, 14 strategies and 76 actions.
- There is a woodland management strategy to provide sustainable direction for the management of Vaughan's 27 community woodlands.
- A flexible lifecycle costing approach ensures a flexible approach to future budgets and impacts to service levels.
- A 10-year operating, and financial plan has been established that amounts to an annual operating budget of \$4.55M by 2028.
- A Five-Year Priority Action Plan has been developed to guide strategic planning efforts over the course of the next few years.

Recommendations

1. That the Urban Forest Management Plan (UFMP) as described in Attachment No. 1 be approved;
2. That the Woodland Management Strategy (WMS) as generally described in Attachment No. 2 be approved;
3. That the Ten-year Operating and Financial Plan as generally described in Attachment No. 3 be approved;
4. That the Five-Year Priority Action Plan as generally described in Attachment No.4 be approved; and
5. That the City Clerk forward a copy of this report to York Region, TRCA, York Region District School Board and York Region Catholic School Board.

Background

The City of Vaughan's Urban Forest is made up of over five million trees on public and private lands

Vaughan's urban forest includes all trees and their ecosystems within the city's municipal area. This includes trees on private lands, public parks and in conservation areas, as well as those along boulevards and streets, natural areas and the city's woodland communities. The urban forest provides important benefits for the health and livability of the community. Those benefits, often called ecosystem services, include providing habitat for wildlife, sequestering carbon, urban temperature cooling, stormwater interception and air purification. Trees and woodlands are vital components of the "green infrastructure" asset class and are the only municipal asset to increase in value and provide greater service to the community as they age.

Stewardship of the Urban Forest aligns with the Term of Council Service Excellence Strategic Plan

Urban Forestry in Vaughan has the unique ability to intersect with not only Environmental Sustainability, but every Term of Council strategic priority. Trees are a critical component of safe, clean, and beautiful neighbourhoods and are of considerable importance to our citizens. Forestry related citizen requests are consistently the highest volume of calls received in the Public Works portfolio. Forestry operations, permitting and plan review functions are vital components of many areas of municipal administration. Figure 1 illustrates the intricate framework within which urban forestry in Vaughan exists.

Figure 1: Vaughan's Urban Forest Network



The Urban Forest Management Plan builds on a strong foundation of urban forest management practices and award-winning Council endorsements already in place.

As recipients of the elite Tree Cities of the World designation two years in a row by the Arbor Day Foundation and the Food and Agriculture Organization of the United Nations, Vaughan already has the basic pillars in place to ensure that trees are properly maintained, effectively managed, and duly celebrated. The current forestry programming, when assessed against a set of criteria and indicators for sustainable urban forest programs scores “Fair” in 2023, indicating opportunities to achieve a healthier, more sustainable urban forest are present.

Previous Reports/Authority

[City of Vaughan Official Plan 2010](#)

[Green Directions Vaughan](#)

Asset Management Plan – Urban Forestry: [Extract from Council Meeting Minutes of September 27, 2021 \(Item 2, Report No. 42, of the Committee of the Whole \(Working Session\)\)](#)

[York Regional Forest Management Plan](#)

Analysis and Options

The City retained Diamond Head Consulting Ltd. to complete the development of the Urban Forest Management Plan and associated Woodland Management Strategy

The Urban Forest Management Plan (see attachment 1 – Urban Forest Management Plan) and Woodland Management Strategy (see attachment 2 – Woodland Management Strategy) offer a 20-year blueprint for citywide tree and woodland management - delineating goals, strategies, and actions to realize Vaughan’s urban forest vision. The first phase of the Urban Forest Management Plan development was to perform a background study on the current state of Vaughan’s urban forest. This background contains information, analysis and benchmarking that the City will use to plan for the continued management of the City’s urban forest. The analysis also serves as a reference point for assessing change and supporting comparison against evolving urban forest conditions.

Remote sensing technology and the City's street tree inventory of approximately 130,000 street trees were used in the central analysis of the State of the Urban Forest report

Part Two of the Urban Forest Management Plan – “What We Have” - provides a snapshot of Vaughan's urban forest, consisting of a summary of its current extent, composition and value, existing management practices, as well as the key challenges it faces.

- As of 2019, Vaughan's city-wide canopy cover was 20%
- Two-thirds of the canopy area in Vaughan is contained to urban areas
- 70% of the street tree inventory is made up of the seven most popular trees
- Estimated street tree asset replacement value of \$110 million

Vaughan residents ranked climate change benefits as the most important value of the urban forest

A robust and phased engagement plan was utilized in support of the development of the Urban Forest Management Plan. Phase one of public engagement occurred from March to April of 2023 and was designed to solicit input to inform the vision, principles, and goals of the Urban Forest Management Plan. The tactics deployed during phase one were:

- A community art contest to raise awareness of the project;
- An online survey to involve the community in developing a long-term vision incorporating resident's perspective on the urban forest;
- Earth hour event raising awareness of the project; and
- A virtual open house and stakeholder workshop to consult the community to identify opportunities to preserve, protect and grow the urban forest.

Preferences for urban forest values and goals, along with satisfaction levels of current programming were measured. Overall, tree pruning services were measured as having the highest level of satisfaction and tree planting & replacement were scored with the lowest satisfaction levels. Residents identified street tree planting as the highest priority locations for increased tree planting rates. A full phase one engagement summary is provided as appendix two in the Urban Forest Management Plan.

Protecting trees and woodlands for future generations was ranked as the most important goal for Vaughan's Urban Forest Management Plan

Phase two of public engagement took place from June to July 2023 with the goal of seeking feedback from the community on how the Urban Forest Management Plan draft vision, goals and strategies captured and addressed key concerns and for the management of Vaughan's urban forest. The tactics used during phase two to explore

the goals and strategies that should be prioritized in the final Urban Forest Management Plan are as follows:

- An online community survey;
- Targeted stakeholder workshops;
- City-wide open house; and
- A series of in-person pop up events throughout select Vaughan Public Library locations.

Among the most important strategic priorities measured in phase two of public engagement were: transitioning to a proactive maintenance program, increasing tree planting rates and aligning the forestry program with best practices. A full phase one engagement summary is provided as appendix three in the Urban Forest Management Plan.

“Our vision is for a healthy, growing, and sustainable urban forest canopy that supports biodiversity, human health, recreation and community climate resilience to provide a greener future for generations to come.”

The vision statement for Vaughan urban forest was crafted using all the inputs from State-of-the-Urban Forest Report, internal and external stakeholder consultation as well as phase one of public engagement efforts. When consulted in engagement phase two, 84% of respondents agreed with the vision statement.

The Urban Forest Management Plan was created for a 20-year horizon with five overarching goals informing detailed strategies and prioritized actions.

A strategic framework including goals, strategies and actions to steward Vaughan’s urban forest for a 20-year horizon was developed including a City-wide canopy cover target of 25%. The five goals guiding the implementation of Vaughan’s Urban Forest Management Plan are as follows:

1. To ALIGN urban forest management best practices
2. To MAINTAIN a healthy and safe urban forest
3. To EXPAND the forest canopy and associated benefits
4. To PROTECT trees and woodlands for future generations
5. To PARTNER in urban forest stewardship

The complete strategic framework as well as detailed Action & Monitoring Plans are detailed in attachment 1 – Urban Forest Management Plan, part five.

Financial Impact

A flexible and detailed lifecycle costing framework was developed to inform future budgets and service levels for Urban Forestry in Vaughan

A 10-year Operating and Financial Plan (Attachment Three – Operating and Financial Plan) was created to support the implementation of the Urban Forest Management Plan and Woodland Management Strategy. The asset management principles of lifecycle costing form the foundation of the Operating and Financial Plan. Systematic consideration of all costs associated with the installation, maintenance, and renewal of forestry assets over their entire lifecycle inform planning activities. The cost associated with lifecycle activities are annualized, which identifies a value that can be used to inform operating budgets that scale with the number or area of the urban forest asset under the City’s care. In consideration of present and future economic uncertainty, the Operating and Financial Plan offers a flexible plan allowing for informed, data-driven budget planning and associated outcomes for service levels of forestry assets.

Annual operating costs will increase from \$2.5 million in 2024 to \$4.6 million in 2028 to support the Urban Forest Management Plan priority programs and initiatives.

The estimated annual operating costs for the Urban Forest Management Plan are outlined in Table 1. The estimated cost of \$3.17 million listed for 2025 represents a \$672,680 increase over the approved 2024 operating budget.

Table 1: Estimated Annual Operating Costs

Year	Total Operating Cost (\$M)	Change in Operating Cost (\$M)
2025	\$3.17	+0.67
2026	\$3.86	+0.36
2027	\$4.43	+0.57
2028	\$4.55	+0.12
2029-2034	Annual increases based on lifecycle costing model	

An estimated annual average of \$1.75 million in capital investment is required to support the Urban Forest Management Plan

The annual capital investment estimates incorporate and build on existing capital funding for current tree replacement programming. A total annual average of \$1.75 million will be required to support increased tree planting costs as well as new programming to support the Woodland Management Strategy. Anticipated capital investments to support the Urban Forest Management Plan and Woodland Management Strategy are detailed in table 2.

Table 2: Estimated Capital Costs

Year	Capital (\$M)
2025	\$1.65
2026	\$1.77
2027	\$1.65
2028	\$1.68
2029-2034	\$9.16

Requests for capital and operating funding to bring the Urban Forest Management Plan to life will be considered as part of the annual budgeting process and evaluated against other City priorities.

Staff will continue to investigate and consider alternative funding sources and efficiencies to help reduce incremental budget impacts.

Estimates included as part of the strategy are currently at a planning level and will be further refined for specific projects and initiatives. These estimates will inform future capital and operating budget requests. In addition, support for the Urban Forest Management Plan and its initiatives, as they are developed from plan to implementation, is expected to require additional staffing resources in the order of four full-time employees over four years.

Staff will continue to explore and utilize grant opportunities, partnerships, and alternative funding sources to fund the strategy.

Operational Impact

Various internal stakeholder departments were consulted widely during the Urban Forest Management Plan and Woodland Management Strategy development. Many of the recommended action steps involve several City departments in a collaborative manner, further galvanizing Vaughan’s urban forest as a City-wide concern. The impacts on various City departments are detailed in the Action Plan contained in Part Two of the Urban Forest Management Plan (attachment 1 – Urban Forest Management Plan).

Broader Regional Impacts/Considerations

York Region Official Plan section 3.4.29. provides direction for lower-tier municipalities to develop Urban Forest Management Plans. Vaughan’s Urban Forest Management Plan was developed with consideration given to:

- York Region Official Plan
- York Region Forest Management Plan

- York Region Climate Action Plan
- York Region Forest Conservation By-law

Vaughan's Urban Forest Management Plan was designed in consultation with York Region Forestry Staff and aims to align with and complement existing forestry management directives.

Conclusion

Vaughan's new Urban Forest Management Plan has been developed to provide long-term direction in facing challenges associated with increasing urbanization and population densities coupled with climate change and resilience of the urban forest. The vision, goals and strategies in Vaughan's first Urban Forest Management Plan identify a path forward for the management of Vaughan's urban forest over the coming two decades.

Staff recommend Council endorse the Urban Forest Management Plan and associated Woodland Management Strategy, both so that the benefits derived from the urban forest are optimized given public investment, and so they may be enjoyed by generations to come.

For more information, please contact: Shanon Kalra-Ramjoo – Director of Parks, Forestry and Horticulture Operations ext. 6308.

Attachments

1. Urban Forest Management Plan
2. Woodland Management Strategy
3. Operating and Financial Plan
4. Five-Year Priority Action Plan

Prepared by

Miles Peart, Manager, Urban Forestry, ext. 6140.

Approved by

A handwritten signature in blue ink, appearing to be 'Zoran Postic', with a stylized, looped structure.

Zoran Postic, Deputy City Manager,
Public Works

Reviewed by

A handwritten signature in black ink, appearing to be 'Haiqing Xu', written in a cursive style.

Haiqing Xu, on behalf of
Nick Spensieri, City Manager