

Staff Report



To	Committee of the Whole
Service Area	Public Services
Date	Tuesday, September 8, 2020
Subject	Urban Forest Management Plan Implementation Update and Second Phase Plan Report

Recommendation

1. That the Urban Forest Management Plan Implementation Update and Second Phase Plan Report dated August, 2020, included as Attachment-1 to this report, be approved.
 2. That that funding requirements for the Urban Forest Management Plan be prioritized within future operating and capital budgets in order to implement the recommendations of this plan.
-

Executive Summary

Purpose of Report

To provide Council with an update to the Urban Forest Management Plan (UFMP) and seek approval of the second phase of the action plan.

The implementation report outlines the City's progress towards achieving the recommendations of the UFMP since approval in 2013 until now (considered the first phase of the 20-year UFMP). The second phase presents priority actions, timing, and resource requirements for implementation between 2020 until approximately 2023.

It is to be noted that this report was originally scheduled to be presented at the Committee of the Whole meeting on April 6, 2020. However, challenges related to COVID-19 resulted in the cancellation of this meeting. The original attachment dated July 2020 has been revised to reflect the changes in previously approved capital and operating budgets. Most significant was the deferral of the projects and operations into subsequent years due to operational impacts associated with COVID-19.

Key Findings

Parks Operations and Forestry developed the report in collaboration with other City departments. The purpose of the report is to establish and implement adaptive management of the urban forest as recommended in the UFMP. This ensures effective management and monitoring systems are in place to continually and adaptively integrate new findings, trends and information into action planning.

- The City has made significant progress towards achieving the strategic goals of the UFMP and sustainability of the urban forest. Guelph's urban forest is healthy with a replacement value of \$803 million.
- Priorities for implementation include preserving and increasing urban forest canopy cover, proactive risk management and maintenance, monitoring the effectiveness of urban forest management approaches, valuation of the goods and services of trees, and building community collaboration and engagement.
- Forty per cent canopy cover may be achievable in a 50-year time-period in consideration of current and emerging threats and challenges.
- Staff will continue to provide annual updates to Council on the implementation status of the UFMP.
- This report was intended to be presented to Council in April, during the early stages of the COVID-19 Pandemic. Modifications have been incorporated into this report to reflect impacts.

Financial Implications

Approval of the UFMP will require continued funding support through both the capital and operating budgets. The current capital forecast includes \$1,504,000 between 2021 and 2023 to support the second phase of the UFMP, as well as associated operating impacts of \$345,000 that are required to ensure ongoing maintenance and upkeep of these assets. The next phase of the UFMP is scheduled to commence in 2024. In efforts to align timeframes identified within the UFMP with City budget timeframes, the 2024 capital forecast calls for \$1,081,000 in funding to support ongoing UFMP implementation, plus \$420,000 in associated operating budget impacts. This total operating impact of \$765,000, 2021 – 2024, equates to approximately a 0.30 per cent tax rate increase over four years, without any other adjustments within the Parks Operations and Forestry operating budget. This tax rate increase includes the addition of three full time employees (FTEs) between 2022 and 2024. Endorsement of the UFMP will prioritize these requests for funding during budget preparation and ensure that Council is asked to approve sufficient funding to see this work completed as required.

Report

Background

The 2012 approval of the strategic Urban Forest Management Plan (UFMP) marked the commitment to foster the health and sustainability of Guelph's urban forest. The plan is an expression of the community's recognition for a more comprehensive and strategic approach to the management of our urban forest. Continued leadership and support throughout the implementation of the plan has resulted in significant and effective achievements to this point.

The original development of the UFMP's framework in 2007 addressed initiatives in City plans that were supportive of urban forest resources and natural heritage assets such as the Official Plan (2002), Smart Guelph (2003), Environmental Action Plan (2003), Natural Heritage Strategy (2006), and Strategic Plan (2006).

Since then, updated and new City plans, bylaws and policy, such as Guelph's updated Official Plan (2018) and Strategic Plan (2019), have recognized the urban

forest as “green infrastructure” as well as continued to support the importance of protecting and enhancing the urban forest and associated benefits.

Guelph’s UFMP is a 20-year renewable roadmap for understanding and improving the management of Guelph’s urban forest, particularly that which is owned by or under management agreement with the City. It is a long-term plan with nested short-term management and operating plans (phases). The overall plan has 22 recommendations which address gaps and opportunities in four key areas:

- Management and monitoring;
- Planning;
- Protection, enhancement, and planting; and
- Outreach, stewardship, and partnerships.

This report summarizes the progress that has occurred since the plan’s inception. It also identifies gaps and challenges in working toward our goals, recommends opportunities for improvement, and suggests approaches to achieving those goals.

The second phase of the plan prioritizes the next set of recommendations based on available resources, alignment with other City plans and strategies, community priorities, continuing efforts on ongoing projects, and developing comprehensive management strategies.

State of the urban forest

The City recognizes that the urban forest is a valuable part of our green infrastructure system and most importantly, that it is an integral part of a sustainable community. Guelph’s 20-year strategic UFMP prioritizes Guelph’s urban forest management goals and provides an implementation plan for protecting, maintaining, growing, and monitoring our urban forest as part of a livable and sustainable city, which along with the Natural Heritage Action Plan (HNAP), has been identified as a priority in Guelph’s Strategic Plan.

The UFMP recommended producing a state of the urban forest report at the end of each phase of implementation. As a result, in 2019 the City retained L’allemand/Bioforest with KBM to undertake the City’s first ever comprehensive urban forest study for the purpose of collecting, studying, and reporting detailed information about Guelph’s urban forest resource including:

- Baseline data on the structure of Guelph’s urban forest and the ecological services it provides;
- A detailed land cover and tree canopy map; and
- Priority tree planting maps for the City of Guelph.

The study, included as Attachment-2, is an important component of the City of Guelph’s efforts to improve urban forest resilience and vitality, and to enhance the social, ecological, and environmental benefits the urban forest provides to the City’s residents.

The report highlights some of the key benefits the urban forest provides and outlines opportunities and challenges of caring for and growing an urban forest. The report also makes links between the study findings and possible management implications. This information has been used to inform Guelph’s next implementation phase of the plan and future phases.

The urban forest is a vital part of Guelph's green infrastructure. Guelph's urban forest canopy cover is 23.3 per cent. The total number of trees in Guelph is estimated at 2,973,000, and the structural value of Guelph's urban forest is \$803 million.

Urban forest assets provide valuable benefits. Guelph's tree canopy provides an estimated \$9.7 million in environmental benefits each year. Specifically, trees provide home energy savings of approximately \$1.9 million, remove 156 tonnes of pollutants and 6,455 tonnes of carbon dioxide, and prevent nearly 400,000 cubic metres of runoff.

However, the urban forest is also vulnerable. It is under threat from climate change, extreme weather events, pests, diseases, and pressure from development and urbanization.

Recommendations of the urban forest study

- Increase canopy cover;
- Improve forest structure and function;
- Increase quality of sites for optimal tree growth;
- Increase resilience to climate change and other threats;
- Increase coordination across City departments and external agencies;
- Use adaptive management to make evidence based decisions;
- Empower community members;
- Invest in green infrastructure; and
- Prioritize tree planting based on benefit needs.

Implementation 2013 - 2019

Since the implementation of the UFMP in late 2013, our understanding of Guelph's urban forest has substantially improved and we have consistently transitioned towards proactive management.

In the first phase of the twenty-two recommendations, three were completed and 15 initiated due in large part to Council's budget approvals supporting increased staffing capacity in Forestry and support from other City departments.

Key recommendations in the first phase focused on developing urban forest policy, standards and guidelines; dedicating additional resources to urban forest initiatives; gaining comprehensive understanding of City-managed trees and forested natural areas; and building community frameworks through partnerships, engagement and stewardship.

The notable achievements of the UFMP include:

- Addition of technical and professional urban forestry capacity via five new positions;
- Implementation of Guelph's Emerald Ash Borer Plan;
- Completion of the Urban Forest Study;
- Development and implementation of new and updated tree related plans, policies and guidelines;
- Increased management of natural areas;
- Creation of the Urban Forest Working Group of external stakeholders;
- Creation of a Tree Team comprised of internal stakeholders;
- Completion of forest inventory; and

- Increased capacity for community engagement and coordination of community stewardship activities.

Second phase action plan (2020 - 2023)

The second of four phases builds on the established vision, strategic goals, and first phase of the 20-year UFMP. Consistent with the UFMP, the plan is divided into four key management areas containing a combined 22 recommendations. The second phase includes actions consisting of projects, initiatives, and programs prioritized based on available resources, community priorities, alignment with other City plans and strategies, focusing on building on our achievements, achieving measurable targets, and developing comprehensive management strategies.

Based on the above prioritization, the next phase focuses on:

- Maintaining ongoing initiatives/actions;
- Preserving and increasing urban forest canopy cover;
- Proactive risk management and maintenance;
- Monitoring the effectiveness of how we manage the urban forest;
- Valuation of the goods and services of trees; and
- Building a community collaboration and engagement.

Specifically, actions in the four key management areas are recommended below.

Management and monitoring

Internal coordination, tree inventory, canopy cover assessment, proactive tree maintenance, tree establishment, and ongoing monitoring

- Develop Forest Management Plans in conjunction with NHAP related plans;
- Implement Tree Allocation Fund (cash-in-lieu from Private Tree Bylaw compensation);
- Hire one new Arborist and one new Inspector Arborist to support street and park tree planting, a maintenance program and the proactive management required
- Implement grid pruning cycles;
- Hire additional seasonal staff for tree planting and maintenance in natural areas;
- Initiate interim pest and disease monitoring;
- Develop invasives management strategy;
- Develop forest health plan including integrated pest management strategies for tree related pests and diseases;
- Continue implementation of Emerald Ash Borer plan;
- Develop and implement risk management strategy;
- Develop storm response plan;
- Implement proactive inspection cycles;
- Update Tree Maintenance Protocol; and
- Prepare an update for second phase of the UFMP.

Legislation, policies and guidelines

Practices and strategies on City-owned and -operated lands (management and operations) and tree-related activities on private lands

- Review and enhance Private Tree Bylaw and need for public tree bylaw;

- Hire one new Forest Technologist to support inspection and administration of Private Tree Bylaw; and
- Align City policy, plans, and guidelines (e.g. Community Plan, Strategic Plan, Official Plan Update, Commercial Built Form Standards).

Protection, establishment, and enhancement

Planning considerations, protocols, and best practices for protecting, sustaining, and enhancing the urban forest

- Implement the Tree Technical Manual (TTM);
- Audit design and implementation of existing soil cell structures;
- Develop and implement tree planting strategy to increase canopy cover;
- Coordinate tree plantings and restoration work through Ecological Restoration Internal Committee (ERIC);
- Track data for tree removals and replacements; and
- Implement subdivision Street Tree Plan and Park Planting Plan inspections.

Outreach, education, and partnerships

Communications, awareness, engagement, partnerships and external funding sources

- Develop UFMP Communications Strategy and Engagement Plan;
- Celebrate achievements (National Forestry Week, Earth Day); and
- Pursue regional coordination of urban forest management.

Financial Implications

Implementation of the second phase of the UFMP (2020-2023), which is aligned with the upcoming four-year budget cycle, will require continued investment through both operating and capital budgets. Approval of specific annual capital investment and associated operating impacts will be included in future budget requests.

The capital requirements identified in the second phase of the UFMP are the same as presented in the 2021 capital budget: \$14,000 (2021), \$657,000 (2022), \$833,000 (2023) and \$1,081,000 (2024). The associated operating impacts for 2021 to 2024 operating budgets were not included. They are estimated to be as follows: \$0 (2021), \$90,000 (2022), \$255,000 (2023), and \$420,000 (2024). This total of \$765,000 increase in operating expenditures equates to approximately a 0.30 per cent tax rate increase, without any other adjustments within the Parks Operations and Forestry operating budget. This tax rate increase includes the addition of at least three FTEs between 2022 and 2024. Requests for FTEs in 2024 is yet to be determined and will be taken to Council through the annual budget cycles.

Table 1: Summary of financial impacts of plan implementation 2021-2024

Budgets and FTEs	2021	2022	2023	2024	Total
Capital budget	\$14,000	\$657,000	\$833,000	\$1,081,000	\$2,585,000

Budgets and FTEs	2021	2022	2023	2024	Total
Operating budget	\$0	\$90,000	\$255,000	\$420,000	\$765,000
FTE additions	0	1	2	TBD	3

The Council approved 2012 UFMP was forecasted to require funding of \$6 million over the first phase (five years) of the plan. The first phase was shifted to 2013-2019; during this period Council approved capital spending of \$2,664,000. Almost 100 per cent of the funding was dedicated to manage the devastating impacts of the emerald ash borer. This impact and the reduced total funding, approximately 44 per cent of the original estimate, limited our ability to complete or initiate all the priority recommendations in the first phase of the 20-year plan.

The forecasted financial impacts are required due to the:

- Expected direct and indirect impacts from the alignment with existing and new plans and strategies (e.g. strategic plan, natural heritage action plan) with the Urban Forest Management Plan;
- Requirements to achieve targets within the recommended timeframe of the Urban Forest Management Plan such as the 40 per cent canopy cover target; and
- Need to provide resources to implement underfunded priority actions identified in the Urban Forest Management Plan such as expanding the City’s capacity for planting and maintaining municipal trees, and development and implementation of an invasive species and pest management strategy beyond the immediate threat associated with emerald ash borer.

Combined with current projects underway, the funding identified above will mean spending of \$3.7 million from now until 2024. This level of funding will allow for significant progress to be made on identified priorities and achievement of targets as identified in the Corporate Strategic Plan. Endorsement of the UFMP will prioritize these requests for funding during budget preparation and ensure that Council is asked to approve sufficient funding to see this work completed as required.

For recommendations within the 20-year UFMP to be fully achieved, their impacts to current operational challenges will need to be addressed. For instance, the current work orders assigned to Forestry Operations (3,925) for planned tree maintenance and removal are scheduled to March 2021. This work relates, in great part, to the approximately 1,600 annual service calls from residents. This timing delay may be further increased unless appropriate resources are provided and engaged. This work was further impacted during the spring as we were handling hazard tree work only due to COVID – 19. Through preparation of the upcoming three year operating and capital budgets, staff will make efforts to mitigate the impacts of this challenge.

Consultations

Internal engagement

The Urban Forest Management Plan implementation phase and second phase was developed with key staff in Parks Operations and Forestry and Environmental Planning. An online survey was also circulated to the internal, cross-departmental Tree Team and additionally available to all City staff as part of the external engagement.

External engagement

Community feedback has supported the development of the second phase action plan by helping inform priorities of the UFMP. An online survey was completed between December 12, 2019 and January 8, 2020 using Guelph's "Have Your Say" online community engagement site.

Ninety-five per cent of respondents support the current vision of the UFMP, the strategic goals, the ongoing initiatives, and the long-term investment in the urban forest. Eighty-nine per cent of respondents agree with the current vision of the UFMP and the City's management approaches, and are supportive of the UFMP vision, strategic goals, ongoing initiatives and long-term investment in the urban forest.

Priority themes in the survey comments of protecting our natural heritage as part of complete healthy communities are reoccurring across both tree and non-tree related consultations such as the original UFMP framework (2009), Natural Heritage Action Plan (2018), Clair-Maltby Secondary Plan (2019), and the Community Plan (2019). A summary of survey results on the UFMP is included in Attachment-1 and on the City of Guelph's website.

Strategic Plan Alignment

Sustaining our future

- Create and execute an ambitious and achievable climate adaptation plan;
- Plan and design an increasingly sustainable city as Guelph grows; and
- Mitigate climate change by reducing Guelph's carbon footprint.

Powering our future

- Help businesses to succeed and add value to the community.

Building our future

- Maintain existing community assets and secure new ones.

Attachments

Attachment-1 Urban Forest Management Plan Implementation Update and Second Phase Plan Report (2020)

Attachment-2 Urban Forest Study Report (2019)

Attachment -3 Urban Forest Management Plan Implementation Update and Second Phase Plan Council Presentation

Departmental Approval

Gene Matthews, Manager Parks Operations and Forestry

Report Author

Timea Filer, R.P.F., Urban Forestry Field Technologist

This report was approved by:

Heather Flaherty
General Manager, Parks and Recreation
Public Services
519-822-1260 extension 2664
heather.flaherty@guelph.ca

This report was recommended by:

Colleen Clack
Deputy Chief Administrative Officer
Public Services
519-822-1260 extension 2588
colleen.clack@guelph.ca