

Subject: Urban Forest Management Plan Update

File Number: ACS2023-PRE-EDP-0025

Report to Environment and Climate Change Committee on 20 June 2023

and Council 28 June 2023

Submitted on June 9, 2023 by David Wise, Director, Economic Development and Long Range Planning, Planning, Real Estate and Economic Development Department

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Ward: Citywide

Objet : Mise à jour sur le Plan de gestion de la forêt urbain

Dossier : ACS2023-PRE-EDP-0025

Rapport au Comité de l'environnement et du changement climatique

le 20 juin 2023

et au Conseil le 28 juin 2023

Soumis le 9 juin 2023 par David Wise, Directeur, Développement économique et planification à long terme, Services de la planification, des biens immobiliers et du développement économique

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Quartier : À l'échelle de la ville

REPORT RECOMMENDATION(S)

That the Environment and Climate Change Committee recommend that Council:

- 1. Receive the Urban Forest Management Plan (UFMP) Update Report; and**
- 2. Approve the work plan for the second management period of the UFMP; and**
- 3. Approve the transfer of \$250,000 from the materials and services account to the compensation account in Public Works – Forestry Services for the creation of 2 permanent FTEs.**

RECOMMANDATION(S) DU RAPPORT

Que le Comité de l'environnement et du changement climatique recommande au Conseil municipal de :

- 1. Prendre connaissance du rapport de mise à jour sur le Plan de gestion de la forêt urbaine (PGFU);**
- 2. Approuver le plan de travail pour la deuxième période de gestion du PGFU;**
- 3. Approuver le transfert de 250 000 \$ du compte Matériel et services au compte Rémunération sous Travaux publics – Services forestiers pour la création de deux (2) postes ETP permanents.**

EXECUTIVE SUMMARY

Background

Putting Down Roots for the Future is the City of Ottawa's 20-year strategic Urban Forest Management Plan (UFMP). It provides a comprehensive long-term vision and strategic direction for Ottawa's urban forest. The plan includes twenty-six recommendations to guide the City and its partners in improving the management of the urban forest. The plan is being jointly implemented by the Natural Systems and Rural Affairs Unit of the Planning, Real Estate and Economic Development Department (PRED) and Forestry Services of the Public Works Department (PW). Ottawa's UFMP is broken down into five four-year management periods. The plan is based on the concept of adaptive management. At the end of each management period, a review is completed which evaluates the status of the implementation of the UFMP's recommendations.

The UFMP provides a structured approach to managing Ottawa's urban forest and it has put a sharp focus on the value of the urban forest. Five years into the implementation of the UFMP, staff have observed a much broader recognition for the important role the urban forest plays in public health, both physical and mental, and climate change mitigation, as well as the associated benefits of trees in cities.

Discussion

With the first management period now complete, this report provides a review of what has been accomplished so far and the UFMP work plan moving forward into the second management period. The report includes:

- descriptions of the projects and work completed in the first management period;
- highlights of the successes achieved and the challenges encountered;
- a re-assessment of the Criteria and Indicators for Sustainable Forest Management, accounting for the accomplishments of the first management period;
- a detailed work plan for the second management period and
- the launch of the Tree Planting Strategy which is the feature project for the second management period.

First Management Period

The work done during the first management period focused on tree protection, data collection, and integration. Document 1 includes a summary of the accomplishments of the first management period. The highlights include:

- The Tree By-law Review and the development of a new Tree Protection By-law for Ottawa to better protect more trees in urban Ottawa, with a specific focus on better protecting trees in infill development scenarios.
- A baseline canopy cover analysis for the National Capital Region. This provides a baseline data set for Ottawa to use for future canopy cover comparisons over time.
- Improvements to the City's tree inventory. The street tree inventory is now complete and the inventory of trees in parks is 60% complete.
- Many improvements to policies and policy implementation through internal engagement and better integration. Staff were able to make great strides in

integrating with other city services to highlight the importance of considering trees in a variety of different projects and policy initiatives.

Challenges

The implementation of the first management period of the UFMP came with several challenges and lessons learned. The biggest challenge was that staffing capacity did not match the work plan. Current resources provide capacity to manage one large project at a time. Extreme weather events were also a major challenge. City of Ottawa and surrounding areas contended with several extreme weather events over the last five years which had a large impact on the urban forest. These events included several tornadoes, a derecho, and more recently an ice storm. Along with multiple years of spring flooding incidents, these extreme weather events proved to be high impact events and a drain on the capacity of Forestry staff – particularly in combination with the impacts on staffing and work processes associated with the global pandemic. In the case of the derecho, many staff in Forestry paused their regular work for months for storm recovery efforts. Despite these challenges, significant positive work was accomplished as highlighted above.

Second Management Period

The focus of the second management period will be tree planting, tree maintenance, and community outreach and engagement. The work plan for the second management period has been clustered into the following categories:

- Tree Planting Strategy
- Tree Maintenance
- Asset Management
- Outreach and Community Engagement
- Integration
- Tree Protection

A summary of the work plan for the second management period is included in Document 3. The Tree Planting Strategy is the feature project, and it will focus on how the City of Ottawa will achieve the new urban canopy cover target of 40%. The Tree Planting Strategy will be action focused and it will shift the City's approach to tree planting from reactive to proactive. It will use a neighbourhood lens and the City's canopy cover data to prioritize tree planting in areas of Ottawa that need trees the most.

It will take an equity approach by looking at socio-economic factors, as well as public health data, such as urban heat island mapping, to prioritize tree planting efforts. The Tree Planting Strategy actions will be rolled out for approval incrementally, including associated funding requests for implementation, enabling the City to take quick action to get trees in the ground. The City's Tree Planting Strategy will align with the Mayor's community tree planting challenge of 1 million trees.

Resiliency and Building Capacity

The UFMP provides the City of Ottawa with a solid plan to improve urban forest management, and in turn, urban forest resiliency. In order to move forward with the implementation of the work plan for the second management period of the UFMP, there is a need to build capacity and resiliency within the City's forestry team in PW. Staff are recommending the immediate creation of two FTEs which will create capacity on the forestry team in support of advancing the UFMP recommendations. Further resource requirements for the implementation of the work plan for the second management period of the UFMP are still being developed and will be considered through the annual budget processes, as resource requirements are defined.

RÉSUMÉ

Contexte

Le document *Des racines pour l'avenir* présente le Plan stratégique de gestion de la forêt urbaine sur 20 ans de la Ville d'Ottawa. Il propose une vision et une orientation stratégique à long terme détaillées, ainsi que 26 recommandations, qui aideront la Ville et ses partenaires à améliorer la gestion de la forêt urbaine d'Ottawa. Le plan est réalisé conjointement par l'Unité des systèmes naturels et des affaires rurales de la Direction générale de la planification, de l'immobilier et du développement économique (DGPIDE) et les Services forestiers de la Direction générale des travaux publics (DGTP). Basé sur le principe de la gestion adaptative, le PGFU s'échelonne sur cinq périodes de gestion d'une durée de quatre ans. À la fin de chaque période, on procède à un examen afin d'évaluer où en est la mise en œuvre des recommandations.

Le PGFU préconise une approche structurée de la gestion de la forêt urbaine d'Ottawa et met l'accent sur la valeur de cette forêt. Depuis l'exécution du plan, entamée il y a cinq ans, le personnel constate une reconnaissance plus vaste du rôle important que joue la forêt urbaine dans la protection de la santé publique, tant physique que mentale,

et l'atténuation des changements climatiques, ainsi que des avantages liés à la présence d'arbres dans les villes.

Analyse

Maintenant que la première période de gestion est terminée, le présent rapport passe en revue ce qui a été accompli jusqu'à présent et le plan de travail qui sera suivi pendant la deuxième période de gestion du PGFU. Le rapport comprend :

- les descriptions des projets et du travail exécutés pendant la première période de gestion;
- les principaux succès obtenus et les défis relevés;
- une réévaluation des critères et des indicateurs de gestion durable de la forêt, qui tient compte de ce qui a été réalisé pendant la première période de gestion;
- un plan de travail détaillé pour la deuxième période de gestion;
- le lancement de la Stratégie de plantation d'arbres, qui est le projet phare de la deuxième période de gestion.

Première période de gestion

Le travail exécuté pendant la première période de gestion visait la protection des arbres, la collecte des données et l'intégration. Le document 1 résume ce qui a été accompli au cours de cette période. En voici les points saillants :

- L'examen des règlements sur les arbres et l'élaboration d'un nouveau *Règlement sur la protection des arbres* afin qu'Ottawa protège mieux davantage d'arbres dans sa zone urbaine, en mettant l'accent sur une meilleure protection des arbres dans les scénarios d'aménagements intercalaires.
- Une analyse de base du couvert forestier de la région de la capitale nationale. Cela fournit une série de données de référence qu'Ottawa pourra utiliser pour comparer le couvert forestier au fil du temps.

- Des améliorations de l'inventaire des arbres de la Ville. L'inventaire des arbres de rue est à présent terminé et celui des arbres dans les parcs est achevé à 60 %.
- De nombreuses améliorations des politiques et de leur mise en œuvre grâce à la mobilisation interne et à une meilleure intégration. Le personnel a pu faire d'énormes progrès dans l'intégration avec d'autres services municipaux afin de mettre en évidence l'importance de tenir compte des arbres dans une variété de projets et d'initiatives en matière de politique.

Défis

Au cours de la première période de gestion du PGFU, nous avons relevé plusieurs défis et appris plusieurs leçons. Le principal défi a été que la capacité de dotation ne concordait pas avec le plan de travail : les ressources actuelles permettent de gérer un gros projet à la fois. Les conditions météo extrêmes ont aussi posé un énorme défi. La Ville d'Ottawa et les secteurs avoisinants ont en effet dû faire face à plusieurs événements météorologiques extrêmes au cours des cinq dernières années, qui ont eu un effet majeur sur la forêt urbaine. Parmi ces événements, on note plusieurs tornades, un derecho et, plus récemment, une tempête de verglas. Conjugués aux inondations printanières à répétition, ils ont eu de sérieuses conséquences et diminué les capacités du personnel forestier – en particulier quand on les combine aux conséquences de la pandémie mondiale sur le personnel et les processus de travail. Dans le cas du derecho, beaucoup d'employés des Services forestiers ont interrompu leur travail habituel pendant des mois pour participer aux efforts de rétablissement à la suite de la tempête. Malgré ces défis, un important travail positif a été accompli, comme nous l'avons expliqué précédemment.

Deuxième période de gestion

Au cours de la deuxième période de gestion, nous mettrons l'accent sur la plantation et l'entretien des arbres, ainsi que sur la sensibilisation et l'engagement communautaires. Le plan de travail pour cette période a été divisé selon les catégories suivantes :

- Stratégie de plantation des arbres
- Entretien des arbres
- Gestion des actifs

- Sensibilisation et engagement communautaire
- Intégration
- Protection des arbres

Le document 3 résume le plan de travail pour la deuxième période de gestion. La Stratégie de plantation des arbres est le projet phare qui orientera les efforts de la Ville d'Ottawa pour atteindre la nouvelle cible de couvert forestier urbain, fixée à 40 %. Cette stratégie axée sur les actions fera passer l'approche de plantation des arbres de la Ville de réactive à proactive. On envisagera la situation dans une optique de quartier et on se servira des données sur le couvert forestier de la ville pour planter des arbres en priorité dans des secteurs d'Ottawa qui en ont le plus besoin. On s'appliquera à prioriser les efforts de plantation d'arbres de manière équitable, en tenant compte des facteurs socioéconomiques et des données sur la santé publique, comme la cartographie des îlots thermiques urbains.

Les éléments de la Stratégie de plantation des arbres seront soumis pour approbation de manière graduelle, notamment les demandes de financement liées à la mise en œuvre, ce qui permettra à la Ville de prendre des mesures rapides afin de mettre les arbres en terre. La Stratégie de plantation des arbres de la Ville s'inscrit dans le cadre du défi relevé par le maire d'inciter à la plantation d'un million d'arbres.

Renforcement de la résilience et des capacités

Le Plan de gestion de la forêt urbaine (PGFU) fournit à la Ville d'Ottawa un plan musclé pour améliorer la gestion de la forêt urbaine et, par conséquent, la résilience de la forêt urbaine. Pour aller de l'avant avec la mise en œuvre du plan de travail pour la deuxième période de gestion du PGFU, il est nécessaire de renforcer les capacités et la résilience des équipes des Services forestiers de la Direction générale des travaux publics. Le personnel recommande de créer immédiatement deux ETP afin d'accroître les capacités des équipes des Services forestiers de donner suite aux recommandations relatives au PGFU. Les besoins de ressources supplémentaires afin de mettre en œuvre le plan de travail pour la deuxième période de gestion du PGFU sont encore en cours d'élaboration et seront examinés dans le cadre des processus budgétaires annuels à mesure que les besoins en ressources sont définis.

BACKGROUND

[Putting Down Roots for the Future](#) is the City of Ottawa's 20-year strategic Urban Forest Management Plan (UFMP). The plan was passed by Council in [June 2017](#) and provides a comprehensive long-term vision and strategic direction for Ottawa's urban forest. The UFMP recognizes the value and importance of the urban forest and supports ongoing stewardship of this valuable asset. The plan includes twenty-six recommendations to guide the City and its partners in working towards achieving the vision, principles, and objectives for the urban forest. The plan is being jointly implemented by the Natural Systems and Rural Affairs group of the Planning, Real Estate and Economic Development Department (PRED) and the Forestry Services of the Public Works Department (PW). The UFMP guides the work-planning for both groups.

Ottawa's urban forest includes all the trees and their growing environments within the City's urban boundary and urban expansion areas as defined by the City's Official Plan. The urban forest includes trees in parks and natural areas, along streets, and near waterways. It crosses property and jurisdictional boundaries and includes trees on private and institutional properties and lands managed by various public agencies, including the City of Ottawa, the National Capital Commission (NCC), Federal and Provincial Governments, and Conservation Authorities.

The City of Ottawa has direct jurisdiction over City-owned land but has policies and programs in place to address urban forest opportunities and challenges on privately-owned land as well. The City does not have jurisdiction over the NCC and Federal Urban Lands, nor the NCC Greenbelt. However, the NCC and the City continuously work together on shared goals and objectives for urban forest management in Ottawa. The NCC was a key stakeholder in the development of the UFMP and is a partner in the ongoing canopy cover assessment for the National Capital Region which is a key urban forest initiative for the region.

Although the plan is focused on the specific challenges and opportunities for Ottawa's urban forest, there are several principles and recommendations that also apply to Ottawa's rural area. In the implementation of the UFMP, there will be work that extends into the rural area, as well as related policies and projects that are developed specific to rural trees and forests.

Ottawa's UFMP is based on a 20-year planning horizon (2018-2037) and is broken down into five four-year management periods. The plan is based on the concept of

adaptive management. At the end of each four-year management period, a review is completed which evaluates the status of the implementation of the Plan's recommendations. The review considers new or ongoing challenges and opportunities related to the urban forest. These evaluations and considerations will be incorporated into setting the work plan for the next management period and reporting to Council. A detailed description of each UFMP recommendation can be found in [Section 5 of the plan](#).

The UFMP also includes a target setting and performance assessment framework in the form of 30 Criteria and Indicators for Sustainable Urban Forest Management (C&I). The C&I are a built-in monitoring system for the UFMP, and they will be reassessed at the end of each management period to determine progress of the UFMP and to inform planning for subsequent management periods.

Ottawa's UFMP is a community-built plan. Over the two years of its development, a large-scale public consultation program was carried out that provided opportunities to engage with hundreds of residents and stakeholders. The input of stakeholder groups and residents was actively taken into account in the development of the plan and the plan was made better for it.

DISCUSSION

The UFMP has provided a structured approach to managing Ottawa's urban forest and to protecting and enhancing its environmental, social, and economic services. It has also put a sharp focus on the value of the urban forest. Five years into the implementation of the UFMP, staff have observed a much broader recognition for the important role the urban forest plays in public health, both physical and mental, and climate change mitigation, as well as all the associated benefits of trees in cities. With the UFMP in place, Staff notice a difference in the level of commitment to the urban forest from other stakeholders across the corporation and from the residents of Ottawa.

A theme arising during the consultations on the UFMP, and then again during the Tree By-law Review project, was the need for a culture change to better value trees in Ottawa. Acknowledgement of this need in the UFMP empowered staff to push against systemic barriers to the consideration of trees in City processes. This enabled many of the successes of the first management period and an overall better integration of trees into decision making in planning and development scenarios and beyond. Staff are seeing this culture change in action.

With the first management period now complete, this report provides a review of what has been accomplished so far and the UFMP work plan moving forward into the second management period. The report includes:

- descriptions of the projects and work completed in the first management period;
- highlights of the successes achieved and the challenges encountered;
- a re-assessment of the Criteria and Indicators for Sustainable Forest Management, accounting for the accomplishments of the first management period;
- a detailed work plan for the second management period and
- the launch of the Tree Planting Strategy which is the feature project for the second management period.

The first management period of the UFMP was originally set to span from 2018 to 2021. However, this period came with several challenging events that had staff contending with tornadoes, a global pandemic, and a derecho.

These events contributed to a higher than expected urban forest workload. The increased workload and cascading delays in other priority work items like tree planting delayed the reporting on the first management period. In response, Staff extended the first management period by one year (Memo to Council, May 10, 2022). This had the benefit of aligning the UFMP management periods with the terms of Council moving forward. This positive change will allow the priorities of the UFMP to be highlighted for each term of Council, to align with budgeting as needed, and to embed timely UFMP work within the strategic priorities of future terms of Council. With this new timeline, the first management period ended this past December.

Accomplishments of the First Management Period

The work done during the first management period focused on tree protection, data collection, and improving policy implementation through better integration. Several of the key accomplishments completed are highlighted below and Document 1 includes a summary of all the accomplishments of the first management period.

Tree By-law Review (UFMP Recommendations 8 and 14)

The feature project of the first management period was the Tree By-law Review and the development and implementation of a new Tree Protection By-law for Ottawa ([December 2019](#) and [November 2020](#)). The review was focused on improving the

protection of trees in the urban area of Ottawa, specifically in infill development scenarios, by developing an integrated approach to tree protection, and transparent tree permitting and compensation requirements. The result was a new harmonized Tree Protection By-law and an extensive overhaul of the processes to implement the by-law. Key elements of the new Tree Protection By-law and associated processes include:

- The protection of more trees through the reduction of the distinctive tree diameter from 50 cm to 30 cm in the inner urban area;
- Improved provisions for tree protection and improved requirements for Tree Information Reports submitted as applications for distinctive tree permits;
- Formalized tree compensation requirements for the removal of City trees and new compensation requirements for privately owned distinctive trees;
- Increased tree permit application fees for regular distinctive tree permits and for permits associated with infill development, to offset the cost of implementation;
- Earlier consideration of trees in the infill development process by:
 - requiring tree information to be submitted with all urban Committee of Adjustment (COA) applications and creating an Infill Forester position in PRED to review those applications with a tree protection lens, and
 - better integrating trees and tree protection with the building permit process and assigning three Forestry Inspectors in PW to oversee the review of tree reports related to building permit applications;
- Clear rules around when a tree permit will or will not be issued in infill development scenarios, for clarity and transparency. More information on this can be found in the [Planning Around Trees](#) section of the Tree Protection by-law section of the City's website;
- Broad education and training on the new tree by-law and associated implementation for both internal City staff and external stakeholders, such as arborists, foresters, planners, engineers, the development community, and the construction community.

The new [Tree Protection By-law](#) came into effect on January 1, 2021. The implementation is going well. As a result of changes to the Bylaw and associated implementation processes, along with additional staff and earlier review of trees in the development process, staff are seeing better tree protection in infill development. At a site level, Staff have been able to identify trees for retention early, identify tree planting locations, and ensure that adequate space and soil volume will be available for trees to

grow to their full capacity at maturity. Consequently, trees are being retained that would not have been in the past, and overall tree protection has improved.

Staff will continue to monitor the implementation of the Tree Protection By-law. Any required process changes or by-law amendments will be made as necessary to ensure that the tree protection goal is being realized. The oversight and monitoring of the tree by-law is listed as an ongoing item on the work plan moving forward.

Staff continue to create an annual summary of the number of by-law applications reviewed and tree permits issued. This can now be found on [Open Data Ottawa](#). Given the nature of the changes to the tree by-law, the numbers starting in 2021 are not comparable to the previous years' numbers. The urban forest is a dynamic entity; it is changing every day. There are many reasons for trees to be removed and many trees are planted throughout the city every year. The best way to monitor the impacts of changes to the urban forest is by undertaking regular tree and forest canopy cover assessments. The comparison of canopy cover data over time can show if the urban forest is trending towards growth or not. It gives a more overarching and all-inclusive look at the urban forest than counting tree removals.

Urban Forest Canopy Cover Study (UFMP Recommendation 4)

A [Tree Canopy Assessment for Canada's Capital Region](#) was completed in 2019, based on 2017 data. This was a collaborative project by the City of Ottawa, the National Capital Commission (NCC), and the City of Gatineau. The canopy cover was mapped for the entire National Capital Region. This provides a baseline data set for Ottawa to use for future comparisons over time. For the City of Ottawa, canopy cover data was broken down by urban and rural areas, by ward, and by neighbourhood. Breaking down the metrics to smaller areas like this is valuable to paint a better picture of how the tree canopy coverage can vary across the City and across the urban area of the City. The [interactive canopy cover map](#) is available through the NCC mapping site and the data is available to residents through [Open Data Ottawa](#). The assessment was presented to the previous Council in October 2019.

The baseline assessment found that the tree canopy coverage for Ottawa's urban area is 31 per cent. Within Ottawa's urban area, the canopy cover by ward varies from 22 per cent in Somerset Ward to 48 per cent in College Ward and rural wards range from 34 per cent in Cumberland to 44 per cent in West Carleton-March.

The City's new Official Plan has a new canopy cover target of 40% for the urban area. The urban canopy cover data will enable staff to monitor the impact of tree protection and tree planting efforts, as well as impacts from weather events. Staff will complete the canopy cover assessment every 5 years and have begun the first re-assessment. This will track Ottawa's progress towards 40% canopy cover, and it will enable staff to make more informed decisions regarding the management of Ottawa's urban forest.

Using the baseline canopy cover data staff have started work on the mapping of "plantable" urban space in Ottawa to aid in the prioritization of tree planting across the urban area with the goal of increasing canopy cover. This work will continue into the UFMP second management period, forming the basis of the Tree Planting Strategy.

Urban Forest Inventory Collection and Maintenance (UFMP Recommendation 3)

Tree inventories are an essential tool to help maintain diversity in tree populations, to plan and budget forestry operations, and to protect and enhance urban and rural forests. These inventories help to ensure healthy forests for generations to come. Through the first management period, the data collection method and processes to update the dataset were developed to maintain the tree inventory. To date, the street tree inventory (over 205,000 trees) has been completed and staff are now focusing on trees found in active parkland. The active park inventory is approximately 60% completed.

New street tree data is collected and updated on an ongoing basis as tree inspections and routine tree maintenance work are completed. The tree inventory dataset is available on various public platforms including [Open Data Ottawa](#) and geoOttawa.

The Forest Management Branch in PW was able to hire a new staff member to support the inventory work which was critical to the ongoing work on this UFMP recommendation.

The inventory work will be ongoing into the second management period where the focus will be completing the parks inventory, developing a methodology to collect data in the City's more densely forested areas, and begin that data collection.

Improve Policy Implementation through internal engagement and integration (UFMP Recommendation 6)

During the development of the UFMP, a disconnect was observed between the urban forest efforts being undertaken by the Forestry groups in PW and PRED, and other City

Services that do work that could impact the urban forest. Coordination was occurring on an informal basis and was often reactive if a problem arose. The purpose of including this recommendation in the UFMP was to highlight the need to shift the culture on trees and expand internal awareness of the policies and mechanisms in place to protect and enhance the urban forest. This ongoing integration work is a big part of fostering a tree-aware culture at the City.

In the first management period, staff was able to make great strides in integration with other City Services in several different ways to highlight the importance of considering trees in a variety of projects and policy initiatives. Some examples include:

- Internal staff working groups were formed for major urban forest projects such as the UFMP and the Tree By-law Review. This brought staff from different groups together to discuss the challenges faced by the City around urban forest management, tree protection, and general consideration of trees in development and infrastructure projects. Making these connections also sparked action to better integrate trees into processes and decision making in other areas.
- Forestry staff in PRED and PW worked closely with other staff groups to integrate better consideration for trees into several existing development and construction related processes, including:
 - The building permit review process for infill development
 - Committee of Adjustment applications, review, and approvals
 - Right of way approvals such as for road cut permits and water services work
 - Planning and implementation of City infrastructure projects
 - More work will be done to improve this integration with Infrastructure Services in the next management period.
- Forestry staff in PRED and PW established regular communications with specific staff groups on trees, including:
 - Planning Services staff responsible for development review
 - Building Code Services responsible for permit approvals and circulations
 - Asset Management (AM) staff on AM planning and incorporating “natural assets” into the City’s AM planning processes
 - Climate Change and Resiliency staff on tree-related actions for climate resiliency and public health
 - Policy Planning staff on the development and implementation of the new Official Plan and the development of the new Zoning By-law
 - Committee of Adjustment staff on the integration of trees into their processes

- The value of urban trees and the protection and growth of the urban tree canopy were better integrated and incorporated into several important policy projects, including:
 - **Official Plan** – The importance of urban trees is embedded in the strategic directions of the OP. A new set of urban forest policies sets a new urban canopy cover target of 40% with equity as a guiding principle. The policies give direction to protect and grow the urban forest in planning and development decisions by:
 - Providing space to protect mature trees and plant new trees
 - Considering cumulative impacts of planning decisions on tree canopy
 - Prioritizing tree retention first over re-planting
 - Supporting the tree by-law and early consideration of trees
 - Protection of Peri-urban woodlands through the extension of the tree by-law to all lands evaluated and considered for urban expansion.
 - **Growth Management Strategy** – The growth management strategy associated with the OP considered how the consideration of rural lands for urban expansion could result in pre-emptive tree removals on those lands. Accordingly, the growth management report recommended amending the Tree Protection By-law to protect all lands evaluated and considered for urban expansion. This gives protection to the peri-urban woodlands on these lands from pre-emptive clearing, subject to the provisions of the Tree Protection By-law. It allows for long-term tree retention plans to be developed for these sites through the appropriate planning processes, and subject to the Tree Protection By-law.
 - **Zoning By-law** – Through the Infill 3 project, the Zoning team introduced a landscape first approach to zoning for infill development. The Foresters worked with zoning staff to develop a requirement for a sufficiently sized front yard soft landscaped area for infill sites, that allows for adequate space to protect existing trees or for the soil volume required to plant new trees, depending on the size of the property. This was applied to zoning requirements for all neighbourhoods within the greenbelt. A similar approach was then applied in both the Westboro and R4 zoning projects for rear yards. This landscape first approach to zoning is fundamental to ensuring that space is provided for trees in new residential development scenarios. Foresters are continuing work with the Zoning team on using these tools and more to better

- integrate trees and space for trees into the City's new Zoning By-law across the urban area.
- **High Performance Development Standards** – Ottawa's proposed new green building standards include several metrics around trees to further support the need for the consideration for trees and the inclusion of trees in new developments. The tree metrics included are:
 - Tree Planting – Requires adequate soil volume for street trees
 - Plant Species – Requires that a minimum of 50% of the trees planted are native species and that no invasive species are planted.
 - Cool Landscaping and Paving – Includes provisions for using canopy cover to shade new development sites and for planting one tree for every 5 parking spaces distributed across surface parking areas.
 - **Landscape Plan Terms of Reference** – In conjunction with the new Official Plan, new terms of reference have been developed for several studies and plans that are required for submission with development applications. A new Landscape Plan terms of reference has been developed to better reflect the tree policies in the new OP, the High Performance Development Standards, and to bring the requirements up to date with current best practices. The review and approval of Landscape Plans for new developments is an important part of building healthy communities and getting Ottawa to 40% canopy cover over time.
 - **Update to the Local Street Cross Sections** – Over the years it had been getting difficult to ensure that adequate space is provided along streets in new subdivisions to plant trees or to provide space for adequate soil volume so that any trees planted will grow to their full potential over time. For this and several other reasons, the standard road cross sections needed updating to ensure that all competing elements are addressed in the right-of-way. PW Foresters were part of the team, along with infrastructure and engineering staff, and the utility companies, that worked to update the local street cross section specifications. The resulting revised cross sections include the use of a joint utility trench under sidewalks and adequate setbacks to curbs / sidewalks and foundations to support tree planting along streets along with adequate soil volume for the trees to grow to their full potential.

This policy and integration work to foster tree awareness will be ongoing through the next management period as well. The success of this work has been in large part due to the culture change, discussed above, around better valuing trees.

For a full list and summary of each of the accomplishments of the first management period, please refer to Document 1.

Challenges encountered in the First Management Period

The implementation of the first management period of the UFMP came with several challenges and lessons learned. The biggest challenge was that staffing capacity did not match the work plan. The work plan for the first management period was quite large and it was not possible to complete all the items listed within the available resources. The Tree By-law Review project was a much bigger project than expected because it involved completely changing the implementation processes for distinctive tree permits and for permits associated with infill development. Current resources provide capacity to manage one large UFMP project at a time.

Extreme weather events were also a major challenge. City of Ottawa and surrounding areas contended with several extreme weather events over the last five years which had a large impact on the urban forest. These events included several tornadoes, a derecho, and more recently an ice storm. Along with multiple years of spring flooding incidents, these extreme weather events proved to be high impact events and a drain on the capacity of Forestry staff – particularly in combination with the impacts on staffing and work processes associated with the global pandemic.

When extreme weather events happen, many trees across the city are impacted at once. Forestry Services staff in Public Works are required to pivot to storm response for long periods of time. This means that other work must be put on hold to respond to clean up and recovery. In the case of the derecho, many Forestry Services staff paused their regular work for months for storm recovery efforts. This delays other work and regular programs such as tree maintenance, tree planting, tree by-law implementation, and UFMP project work.

In the past few years, there has been a substantial increase in interest in Ottawa's urban trees with a sharp focus on the city's urban forest management programs, and policies. Throughout the pandemic, residents have been more keenly observing their neighbourhoods. The important role that trees play in building healthy and liveable cities is now broadly understood and the expectations for Ottawa's urban tree canopy are high. This is a good thing. However, this increased attention has resulted in an increase in communication on trees to Forestry staff in PRED and PW which intensifies around the timing of these extreme weather events.

As a result of these weather events and capacity challenges, there are several projects that were not completed during the first management period. Most of this work is listed below in the work plan for the second management period.

For instance, the Outreach and Stewardship Coordinator position was hired in Fall 2022. The development of an Outreach and Engagement Strategy and its implementation will take place in the second management period. Related is the establishment of an external urban forest working group. An external working group was formed for consultation on the Tree By-law Review project and the development of a new Tree Protection By-law, and that group provided feedback throughout the project. Since the implementation of the new tree by-law in 2021, the formation of a more general urban forest working group has been on hold due to other priorities. As part of the work plan for the second management period, staff will consider the best approach, an established group or project-based groups. The group will be formed in the second management period and can be found in the associated work plan below.

Similarly, given the challenges faced in the first management period, there was not sufficient capacity to prioritize the review of the tree planting programs and development of tree planting guidelines. These items will be key components of the upcoming Tree Planting Strategy in the second management period.

Ottawa has a solid plan in place through the UFMP. The biggest lesson learned in the first management period is that there is a need to build capacity to enable staff to deliver existing programs and services, to respond to the higher level of extreme weather events, and to implement the UFMP. The Resiliency and Resources section of this report discusses building capacity in more detail.

Criteria and Indicators for Sustainable Urban Forest Management

The UFMP includes a target setting and performance assessment framework in the form of 30 Criteria and Indicators (C&I) intended to allow urban forest managers to identify where specific goals or targets have been met and when adaptation to management approaches may be necessary. A baseline assessment of the urban forest management program in Ottawa was done using the C&I framework at the start of the development of the UFMP to establish the status of urban forest management and to identify areas for improvement.

The C&I were re-assessed at the end of the first management period to determine the current status of Ottawa's urban forest management program. This re-assessment will

take place at the end of each management period and will help to inform how the UFMP work is advancing overall urban forest management.

One of the strategic objectives of the UFMP is to achieve an indicator ranking of “good” or “optimal” for each of the 30 criteria. Following the work done in the first management period, staff have assessed the C&I and identified several areas of improved ratings already. The work planned for the second management period will improve the ratings further.

Document 2 shows the C&I including the ratings from the baseline assessment and the recent ratings following the completion of the second management period.

Work Plan for the Second Management Period

Where the focus of the first management period was tree protection, data, and integration, the second management period will be focused on tree planting, tree maintenance, and community outreach and engagement.

The work plan items for the second management period have been clustered into categories given the overlap amongst various recommendations. Most of the items were identified in the original UFMP report but some of them are new items being added to the work plan.

The work plan categories for the second management period are:

- Tree Planting Strategy
- Tree Maintenance
- Asset Management
- Outreach and Community Engagement
- Integration
- Tree Protection

The work plan for the second management period was developed by considering what was completed in the first management period and the related work ongoing, the outstanding recommendations in the UFMP, the C&I re-assessment, and the lessons learned in the first 5 years of implementation.

Starting with the feature project of the second management period, the Tree Planting Strategy, the work plan is outlined below, by category. A summary of the work plan for the second management period is included in Document 3.

Tree Planting Strategy (UFMP Recommendations 9 and 13)

The City's new Official Plan introduced an urban canopy cover target of 40% with equity as a guiding principle. The feature project of the second management period is a Tree Planting Strategy to achieve that long-term goal.

Achieving 40% canopy cover in Ottawa will require everyone's participation: homeowners, renters, business owners, developers, institutions, hospitals, universities, schools, the NCC, and other government agencies. The Tree Planting Strategy will be action focused and it will identify the programs, capacity, and conditions needed to plant more trees each year in Ottawa and grow the urban forest over time. To advance the Council approved objective of a 40% canopy cover, the City's Tree Planting Strategy will align with the Mayor's community tree planting challenge of 1 million trees.

In addition, key to the Tree Planting Strategy will be ongoing work on shifting the culture around trees through internal integration and external engagement and outreach. The Strategy will continue to make systemic improvements to remove barriers and frictions to tree planting in Ottawa. This will happen through ongoing involvement in the development of policies, specifications, guidelines, etc. for planning, zoning, engineering, infrastructure, parks, and various other groups to ensure adequate space for sufficient soil volumes to plant trees and to protect existing trees. Public engagement and outreach on the Tree Planting Strategy will contribute to fostering a tree-aware culture in Ottawa. These elements of the Strategy are directly in line with the integration and engagement elements of the work plan for the second management period described below.

The Tree Planting Strategy will shift the City's approach to tree planting from reactive to proactive. It will use a neighbourhood lens and the City's canopy cover data to prioritize the planting of larger sized saplings (i.e. "caliper trees") in areas of Ottawa that have low canopy cover. It will take an equity approach by looking at socio-economic factors such as vulnerable and low-income populations, as well as public health data, such as urban heat island mapping, to prioritize tree planting in areas that will benefit the most from increased tree cover. This will involve adjusting existing tree planting programs or creating new programs that are best suited to deliver tree planting in the areas of the City that need it the most.

The Tree Planting Strategy actions will be rolled out for approval incrementally over time. As various program changes are made or new programs or approaches are

developed, staff will report back with details and with any funding or resource requests for implementation. This will enable to the City to take quick action and implement the strategy without waiting on one big tree planting report to get going.

The Tree Planting Strategy will include:

- A review of the City's existing tree planting programs and adjusting the programs to ensure that they are meeting resident demands and the objective of increasing the urban canopy cover equitably (UFMP Recommendation 13).
- The prioritization of areas for tree planting based on criteria such as existing canopy coverage, urban heat island mapping, socio-economic factors, and overall access to greenspace.
- Taking a proactive approach to tree planting on City property, within the road right-of-way, in parks, and on other City property.
- The creation of new tree planting programs including, but not limited to:
 - Backyard and private land tree planting programs and incentives for residents and business owners
 - Depaving projects in areas where there is a lack of plantable space and trees are needed
 - Proactive identification of tree planting locations in areas of low canopy cover
- Exploring opportunities to leverage funding for tree planting through partnerships, programs, grants, and sponsorships.
- The development of tree planting guidelines for Ottawa, including for planting in urban hardscapes (UFMP Recommendation 9). This will include a list of recommended tree species.
- A framework for tracking and spending tree compensation funds that are being collected under the new Tree Protection By-law.
- Continued work on integrating tree considerations into planning policies, like the Zoning By-law, to ensure that space for trees is provided in new developments.

With respect to the development of a City program for tree planting on private property; on August 30, 2022, Council directed staff to report back on options to support adding trees on private property. This would bolster residents looking to replace trees on private property that were lost due to the May derecho (2022). Through the Tree Planting Strategy, staff will look at a variety of options for private property tree planting programs and report back.

The Tree Planting Strategy will be focused on the planting of caliper trees in the urban area. Meanwhile in the rural area, the Green Acres tree planting program will continue, which plants approximately 75,000 seedlings each year on private rural property. Several other City projects will work to grow rural tree canopy through reforestation by creating an inventory of City-owned rural lands to be reforested, by targeting acquisition of properties suitable for reforestation, and by supporting stewardship of private properties.

The impact of the Tree Planting Strategy, like other projects under the UFMP, will be tracked by measuring canopy cover growth over time through repeating canopy cover analyses every five years. The canopy cover will be presented at a neighbourhood level to determine the efficacy of tree planting efforts from the Tree Planting Strategy over time.

As the focus of the UFMP second management period, the Tree Planting Strategy will enable targeted action to reach the City's canopy cover goal through quality tree planting in neighbourhoods most in need of forest cover. By working together, Ottawa will reach 40% canopy cover over time.

Tree Maintenance (UFMP Recommendations 12, 15 and 16)

Tree maintenance is fundamental to fostering a resilient urban forest. Reviewing maintenance practices and programs over time to ensure that they are in line with existing best practices and that they are meeting the specific challenges associated with the urban forest over time is a key part of a City's urban forest management program.

The City of Ottawa currently aims to implement a 7-year inspection and pruning cycle for street and actively managed park trees in the urban area under the "[Trees and Forests Maintenance Program, Quality Standards, and Improvement Implementation Strategy](#)". The UFMP recommends a review of this 7-year lifecycle maintenance program and an assessment of maintenance levels of service for newly planted street and park trees (UFMP Recommendations 15 and 16).

A 7-year pruning cycle is generally consistent with arboricultural and urban forestry best practices. The maintenance focus in the second management period will be on developing and piloting a structural pruning program. Background work on this was already started in the first management period. Structural pruning focuses on directing growth that will improve and strengthen the tree's structure over time.

The results of the structural pruning pilot will be considered and applied more broadly across the urban area as appropriate. Following the structural pruning work, staff will begin to look at a project to assess the 7-year lifecycle maintenance program. These projects will be ongoing into the third management period.

The implementation of the Forested Areas Maintenance Strategy (FAMS) is also a component of Ottawa's urban forest / tree maintenance (UFMP Recommendation 12). The strategy was developed in the first management period, it is described in Document 1. A key component of the implementation of FAMS is the completion of the forested area tree inventory, which will take place in the second management period.

The FAMS is designed to recommend appropriate timeframe and cycle for the maintenance activities to be performed in each forest category. To accomplish those activities, a fulsome inventory of the forested area inventory is essential.

Asset Management (UFMP Recommendations 3 and 5)

The Asset Management category for the second management period includes several recommendations. They are:

- *Inventory collection and maintenance* (UFMP Recommendation 3) – Over the 2nd management period, staff will continue updating the street tree inventory as new subdivisions are completed and finish the active parkland tree inventory. Staff will also focus on developing a methodology to collect data in the City's more densely forested areas and begin the data collection.
- *Re-assessment of Ottawa's urban forest canopy cover* (UFMP Recommendation 4) – The second canopy cover assessment is underway, and it is estimated to be completed in Q4 2023. It will provide an assessment of the current canopy cover for Ottawa and an analysis of the canopy cover change over time in comparison to the baseline assessment.
- *Integrate urban forest resources into the City's asset management planning and reporting* (UFMP Recommendation 5) – Forestry staff in PW and PRED have been working with Asset Management staff on the development of an Asset Management Plan for Greenspace and Urban Forest Services. This will be the first of its kind for Ottawa and it will be completed in Q2 2024. This work will be ongoing into the second management period and beyond.
- *Valuation of Ottawa's urban forest* (NEW Recommendation) – Following in the steps of many other municipalities, a valuation of the ecosystem services and

environmental benefits provided by Ottawa's urban forest will be undertaken. This valuation will be incorporated into the natural asset management planning and reporting, and it will help to rationalize investment in urban forest management over time.

- *Assumption of trees in new developments and infrastructure projects* (UFMP Recommendation 11) – This is the process to bring any trees planted on City property through new developments or infrastructure projects into the City's tree inventory. The process currently in place is not functioning consistently. It is important to get these trees into the City's inventory so that they can be added to the City's watering and maintenance schedules accordingly. This will involve work with both Planning Services and Infrastructure staff.
- *Wildland Fire Mapping and Risk Assessment Project* (NEW Recommendation) – Ottawa requires Wildland Fire Hazard Mapping to meet Provincial planning requirements and to guide the management of the City's forested lands. This project will be completed in the second management period.

Outreach and Community Engagement (UFMP Recommendations 22 and 23)

The UFMP recommended the creation of a staff position focused on facilitating communication, engagement and stewardship related to the urban forest with stakeholders and community groups (UFMP Recommendation 22). This was achieved in the last year of the first management period. The next step is to develop and implement an urban forest outreach and engagement strategy (UFMP Recommendation 23), which will be done in the second management period.

The newly created Forestry Outreach and Stewardship Coordinator position is responsible for the development of the Trees and Forests Outreach and Engagement Strategy which will propose stewardship, outreach, and educational opportunities based on input from internal and external stakeholders. This will enhance existing programs and incentives and create new opportunities for the community to understand and care for its green assets.

The goal is the development of an effective and innovative strategy that can be utilized to undertake successful outreach and engagement efforts - thereby ensuring the City of Ottawa's trees and forests will be broadly recognized by the community as an integral part of community health and sustainability.

To date, the development of a framework has been completed which will support the creation of the strategy. There were also some web updates completed to facilitate navigating Ottawa.ca to access pertinent forestry-related information. An internal process review is also underway to navigate future stewardship activities and ensure proper approvals are met.

Improve policy implementation through internal engagement and integration
(UFMP Recommendation 8)

There was much work done in the first management period to foster a tree-aware culture at the City by improving the integration and consideration of trees and the urban forest and improving implementation of related policies across the corporation. That work will continue into the second management period and beyond. (UFMP Recommendation 8)

Some of the key integration work that will take place in the second management period includes:

- Support to Planning Services staff on the implementation of the new tree policies in the Official Plan.
- Ensuring the integration of tree conservation report review and the Tree Protection By-law into the new development review processes being rolled out in response to Bills 109 and 23.
- Continue work with Zoning staff on incorporating the landscape first approach and other tree friendly approaches into the new Zoning By-law.
- Work with Infrastructure Services staff to develop a process for the integration of PW Foresters into the project planning, review, and implementation of City infrastructure projects.
- Work with Climate Change and Resiliency staff on integrating tree and urban forest related solutions into the Climate Change and Resiliency Strategy.
- Participation in other projects and policy initiatives as they come up.

Tree Protection (UFMP Recommendation 10)

With the completion of the Tree By-law Review, staff are now focused on the ongoing implementation and enforcement of the Tree Protection By-law. This includes monitoring, identifying issues and fixing implementation processes or making

amendments to the by-law as necessary. It also includes improving enforcement, and ongoing training and education of staff and external partners and stakeholders.

Towards the end of the second management period, staff will begin to assess the need for review of the Tree Protection By-law in the next management period.

Document 3 provides a summary of the work plan for the second management period: some work ongoing from the first management period, some new, and some that will be ongoing into the next management period. The workplan is ambitious. Building on the work of the first management period, it focuses on tree planting, tree maintenance, and stewardship.

Resiliency and Resources – Building Capacity to implement the UFMP

Through the UFMP, Ottawa has a solid plan in place to improve urban forest management, and in turn, urban forest resiliency. In order to move forward with the important work outlined for the second management period of the UFMP, there is a need to build capacity and resiliency within the City's Forestry team in PW. To meet this need, staff are recommending the immediate creation of two FTEs by leveraging the reallocation of existing funds. These FTEs will create capacity in the forestry team in support of advancing the UFMP recommendation while maintaining existing programs and services.

Further resource requirements for the implementation of the work plan for the second management period of the UFMP are still being developed and will be considered through the annual budget processes, as resource requirements are defined. The implementation of the work plan will proceed based on availability of resources.

FINANCIAL IMPLICATIONS

The report's third recommendation will result in the transfer of \$250,000 from the materials and services account into the compensation account of Public Works – Forestry Services, and the addition of two Permanent FTE's.

LEGAL IMPLICATIONS

There are no legal impediments associated with the implementation of the recommendations of this report.

CONSULTATION

The UFMP was developed in consultation with a broad cross-section of interested stakeholders. This included members of the general public, staff from many City departments directly and indirectly involved in urban forest management, and external stakeholders such as local community associations, environmental groups, the development community, and others.

A public launch event for the UFMP project was held, and that was followed by a two-phased consultation on the development of the plan and then the plan itself. The input from the first phase was used to develop a draft UFMP. The second phase was based on that draft and the feedback received was actively incorporated into the final plan. Hundreds of people participated in these consultation events. The UFMP is considered to be a community-built plan.

From the early stages of the UFMP project, organizations such as Ecology Ottawa, the Greenspace Alliance, CAFES, Ottawa Stewardship Council, the Federation of Citizen's associations, the Big Trees of Kitchissippi, the Champlain Park Community Association, and many other Community Associations supported the development of the plan and participated in the consultations.

Public support for implementation of the UFMP remains high. The second management period of the UFMP continues the implementation of the plan so well supported by the public. Currently, a [Trees and Forest Outreach and Engagement Survey](#) has been launched on Open Ottawa to seek input from residents, community groups, organizations, and business to inform the development of the Trees and Forest Outreach and Engagement Strategy. The request for input will be open until June 30th. Moving into the next management period, public consultation programs will be developed for the Tree Planting Strategy.

ACCESSIBILITY IMPACTS

There are no accessibility implications associated with this report. However, accessibility will be considered as each of the projects outlined here are implemented.

ASSET MANAGEMENT IMPLICATIONS

The information contained within this report is consistent with the City's Comprehensive Asset Management Program objectives. The UFMP outlines key action to improve the management of the City's urban forest resource, resulting in timely decisions that can minimize life cycle costs and ensure the long-term affordability of forest assets and the

benefits they provide. The adaptive management basis for the UFMP enables the City to better respond to future challenges and opportunities as they arise, taking innovative approaches. The UFMP is a strategic, long-term plan that helps the City take a holistic and systematic approach to urban forest management.

The City of Ottawa's first Asset Management Plan for Greenspace and Urban Forest Services is currently in development and is scheduled to be completed in Q2 2024. The work outlined in this report will contribute to the upcoming asset management plan and to future asset management planning.

The Urban Forestry Management Plan supports mitigation of development impacts on the City's storm drainage systems.

CLIMATE IMPLICATIONS

The UFMP is a key instrument to implement the Climate Change Master Plan.

The Climate Change and Vulnerability Risk Assessment (2022) identified several risks requiring attention in the next 1-3 years related to the urban tree canopy. These include risks to tree health from extreme heat and drought, wildfire, invasive species and pests, additional road salts, and extreme weather such as freezing rain and extreme winds. There will also be increased demand for trees to provide shade and reduce the urban heat island effect to reduce public health risks. There will also be increased pressures for preventative and responsive maintenance to reduce the risks of trees falling on power lines and damaging property.

The Environmental Implications section provides further information on how this report will build climate resiliency and liveability.

ECONOMIC IMPLICATIONS

N/A

ENVIRONMENTAL IMPLICATIONS

The urban forest is a vital part of the City of Ottawa's green infrastructure, and it provides numerous benefits and services to residents. Through the approval of the UFMP, Council has recognized the central role the urban forest plays in public health, urban design, climate adaptation, and resiliency, by providing ecosystem services such as shade, mitigation of urban heat island effects, reduced urban run-off, and many

mental and physical benefits. Protecting, growing, and managing the urban forest is a core means of building climate resiliency and of ensuring that Ottawa is adapting to future climate conditions. Shaded streets and neighbourhoods, for example, are essential for ensuring liveability in a much warmer future.

INDIGENOUS GENDER AND EQUITY IMPLICATIONS

The focus project of the second management period of the UFMP will be the Tree Planting Strategy which will take an equity-based approach to growing Ottawa's tree canopy across the urban area. This will involve ensuring the delivery of City tree planting programs is appropriately accessible for all communities and neighbourhoods in urban Ottawa.

RISK MANAGEMENT IMPLICATIONS

There are risk implications associated with the recommendations of this report.

The risks of not implementing and not funding the Urban Forest Management Plan include:

- Reduced climate change resiliency – A healthy and vast urban forest is fundamental to mitigating the impacts of increased heat that will be the reality of future years in Ottawa.
- Increased impacts from extreme weather – A well-managed and well-maintained urban forest will be better able to sustain and recover from the kinds of extreme weather events Ottawa has faced in recent years.
- Reduced public health – The urban forest has many public health benefits from improving both mental and physical health to pollution abatement to mitigating urban heat island effects.

RURAL IMPLICATIONS

There are no rural implications associated with the recommendations of this report.

SUPPORTING DOCUMENTATION

DOCUMENT 1 – Accomplishments of the First Management Period of the Urban Forest Management Plan for the City of Ottawa

DOCUMENT 2 – Criteria and Indicators analysis of Ottawa's urban forest management program after the completion of the first management period of the UFMP

DOCUMENT 3 – Work Plan for the Second Management Period of the Urban Forest Management Plan (MP2) for the City of Ottawa

DISPOSITION

Once this report is received by Environment and Climate Change Committee and Council, Planning, Real Estate and Economic Development (PRED) and Public Works (PW), in conjunction with any other relevant Departments, will implement the work plan for the second management period of the Urban Forest Management Plan outlined in this report. In addition, PW will work with Finance and HR to transfer the applicable funds and create the 2 permanent FTEs.

PRED and PW will work with Public Information and Media Relations to develop and carry out a communication plan and provide the necessary information to internal staff and the public.

DOCUMENT 1**Accomplishments of the First Management Period of the Urban Forest Management Plan for the City of Ottawa**

Reco #	Title	Description	Status
1	Adaptive Management	Adaptive management through each management period and at the end of each / start of the next management period. Includes a re-assessment of the Criteria and Indicators, and an assessment of new challenges and/or opportunities, to develop the work plan for the next management period. This is being done through this UFMP update report which summarizes and assesses the work done in the first management period and accordingly maps out the work plan for the second management period.	Ongoing
2	Urban Forest Working Groups	<ol style="list-style-type: none"> 1. Form an internal urban forest working group to facilitate communication on urban forest issues between staff in different city departments to achieve urban forest objectives. This is being done on a project specific basis (i.e., the tree by-law review project) and through ongoing integration of PRED and PW Foresters in projects and policy initiatives across the corporation. This will be ongoing throughout the implementation of the UFMP and beyond. Currently it will be implemented as project specific groups, but consideration for a longer term identified group will be ongoing. 2. Form an external urban forest working group to facilitate cooperation and information exchange between the City and external stakeholders. An external stakeholder group was formed 	Ongoing

Reco #	Title	Description	Status
		specifically for the Tree By-law Review project as that was the focus of the first management period. Staff will consider the best approach, an established group or project-based groups, in the second management period.	
3	Urban Forest Inventory Collection & Maintenance	Complete the inventory of City owned trees and forests and create a formal process for inventory collection and maintenance. This work will be ongoing as the urban forest is always growing and changing. In the first management period, the street tree inventory was completed (over 205,000 trees), and new street tree data is continuing to be collected on an ongoing basis. An inventory of active park is approximately 60% complete, and this work will continue into the second management period. More detail on this can be found within the accompanying report.	Ongoing
4	Urban Forest Canopy Cover Study	Establish canopy cover targets for Ottawa, carry out a baseline assessment of the current canopy cover in Ottawa, and use this data to assist in the prioritization of tree planting efforts. The new Official Plan established a new urban canopy cover target of 40% with equity as a guiding principle. The baseline canopy cover assessment was completed in Fall 2019. The canopy cover will be re-assessed approximately every 5 years to understand the impact of policy and program efforts on overall canopy cover growth. More detail on this project can be found within the accompanying report.	Complete / Ongoing

Reco #	Title	Description	Status
5	Asset Management	Integrate urban forest resources into the City's asset management reporting and planning program. Forestry staff in PW and PRED have been working with Asset Management staff on the development of an Asset Management Plan for Greenspace and Urban Forest Services. This will be the first of its kind for Ottawa and it will be completed in Q2 2024. This work will be ongoing into the second management period and beyond.	Ongoing
6	Improve policy implementation through internal engagement and integration	The purpose of this effort is to foster a tree-aware culture by expanding awareness among City staff who make decisions that affect the existing and future urban forest about the policies that are in place, mechanisms for implementing them, and how these policies also help implement other City-wide strategies and plans. The Foresters in PRED and PW have made great strides in this area and the successes are described in detail within the accompanying report. This is a work plan item that will be ongoing throughout the implementation of the UFMP.	Ongoing
7	Significant Woodlands	The purpose of this recommendation was to update the City's Official Plan policies and associated implementation guidance on significant woodland identification and protection. The policies in the new Official Plan have been updated for significant woodlands protection. A set of guidelines has been created and approved by Council to explain the significant woodlands policies and how they shall be implemented in the City's planning processes, which can be found	Complete

Reco #	Title	Description	Status
		<i>here (link to them)</i> . The City's Environmental Impact Study Guidelines have been updated to reflect the new policies and the significant woodlands have been included in the Natural Heritage Feature overlay on Schedules C11 A-C of the Official Plan.	
8	Tree By-law Review	The City's tree by-laws were reviewed, and a harmonized Tree Protection By-law was developed for Ottawa which improves tree protection across the urban area and better incorporates trees into infill development planning requirements through the earlier consideration of trees. More detail on this project can be found within the accompanying report.	Complete
12	Forested Areas Maintenance Strategy (FAMS)	Staff developed a Forested Areas Maintenance Strategy with the objective to improve the health, resilience, and safety of Ottawa's City-owned woodlands. It identifies woodland areas requiring management and ensures successful regeneration of desirable indigenous vegetation instead of invasive species. The FAMS is an operational working document to be used for future proactive tree maintenance cycles for forested areas. A key component for the implementation of this recommendation is the completion of the forested area tree inventory, which is scheduled to start in the 2nd management period. Nevertheless, the principles and activities identified in the FAMS are being implemented on a reactive basis.	Complete / Ongoing

Reco #	Title	Description	Status
14	Tree Compensation Guidelines	New tree compensation requirements for trees that are permitted to be removed were developed and integrated into the new Tree Protection By-law. This includes how to value and calculate compensation for the removal of City owned trees using the Trunk Formula Method and a ratio system for compensating for the loss of distinctive trees on private property, based on the size of the tree removed.	Complete
16	Assess Maintenance for newly planted trees	The purpose of this recommendation is to improve success in the planting of new trees and to reduce mortality. This was scheduled to be completed in the second management period; however, staff was able to begin work in the first. Forest Field Operations staff began to look at how best to adjust early pruning strategies for better long-term success. Some pilot pruning was started, and this work will continue into the second management period and beyond.	Ongoing
22	Expand community education and outreach	The purpose of this recommendation was to create a staff position dedicated to the facilitation of communication, engagement and stewardship related to Ottawa's trees and forests. In response to this recommendation, PW prioritized the addition of a Stewardship and Outreach Coordinator role within the Forest Management Unit in Budget 2022 and that position was filled in September of 2022.	Complete

Reco #	Title	Description	Status
24	Incentives for tree conservation	Identify and implement incentives for tree protection, tree planting, and the retention of permeable space on private lands in the urban area of Ottawa. Through the Tree By-law Review, research was done to find examples of incentives for tree protection and nothing appropriate for Ottawa was found. Staff is continuing to consider and research this through continuing education and discussions with colleagues in other municipalities. Regarding incentives for tree planting and the retention of permeable space, this will be considered through the Tree Planting Strategy in the second management period.	Ongoing

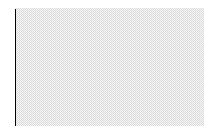
DOCUMENT 2

Criteria and Indicators analysis of Ottawa's urban forest management program after the completion of the first management period of the UFMP

LEGEND: Re-assessment after first MP /
no change -



Baseline assessment -



Number	Group	Criteria (Reco. #)	Low	Moderate	Good	Optimal	Key Objectives	Comments
V1	Vegetation Resource	Relative Canopy Cover (4)	The existing canopy cover equals 0-25% of the potential.	The existing canopy cover equals 25-50% of the potential.	The existing canopy cover equals 50-75% of the potential.	The existing canopy cover equals 75-100% of the potential.	Achieve climate-appropriate degree of tree cover, community-wide	Canopy Cover data now available, analysis of potential not yet complete.
V2	Vegetation Resource	Age distribution (3)	Even-age distribution, or highly skewed toward a single age class (maturity stage) across entire population.	Some uneven distribution, but most of the tree population falls into a single age class.	Total tree population across municipality approaches an ideal age distribution of 40% Class I, 30% Class II, 20% Class III, and 10% Class IV	Total population approaches that ideal distribution municipality-wide as well as at the neighbourhood level.	Provide for uneven-aged distribution city-wide as well as at the neighbourhood level.	Baseline analysis (UFMP Appendix 1) based on City street tree inventory. This analysis will happen approximately every 10 years. It will be re-done when the city tree inventory is complete.

Number	Group	Criteria (Reco. #)	Low	Moderate	Good	Optimal	Key Objectives	Comments
V3	Vegetation Resource	Species suitability (3)	Less than 50% of trees are of species considered suitable for the area.	50% to 75% of trees are of species considered suitable for the area.	More than 75% of trees are of species considered suitable for the area.	Virtually all trees are of species considered suitable for the area.	Establish a tree population suitable for the urban environment and adapted to the regional environment.	Baseline analysis (UFMP Appendix 1) based on City street tree inventory. See V2 comments.
V4	Vegetation Resource	Species diversity (3)	Fewer than 5 species dominate the entire tree population city-wide.	No single species represents more than 10% of total tree population; no genus more than 20%; and no family more than 30%.	No single species represents more than 5% of total tree population; no genus more than 10%; and no family more than 15%.	At least as diverse as "Moderate" rating (10/20/30) municipality-wide – and at least as diverse as "Good" (5/10/15) at the neighbourhood level.	Establish a genetically diverse tree population city-wide as well as at the neighbourhood level.	Baseline analysis (UFMP Appendix 1) based on City street tree inventory. See V2 comments.
V5	Vegetation Resource	Condition of Publicly-owned Trees (trees managed intensively) (3)	No tree maintenance or risk assessment. Request based/reactive system. The condition of the urban forest is unknown	Sample-based inventory indicating tree condition and risk level is in place.	Complete tree inventory which includes detailed tree condition ratings.	Complete tree inventory which includes detailed tree condition and risk ratings.	Detailed understanding of the condition and risk potential of all publicly-owned trees	Full inventory exists for street trees within GIS. Condition rating is housed within SAP and is not yet complete for street tree inventory. Both should be housed within GIS and condition ratings must be completed.

Number	Group	Criteria (Reco. #)	Low	Moderate	Good	Optimal	Key Objectives	Comments
V6	Vegetation Resource	Publicly-owned wooded natural areas (trees managed extensively, e.g. woodlands, ravine lands, etc.) (7, 12)	No information about publicly-owned wooded natural areas.	All publicly-owned wooded natural areas are identified based on desktop studies.	All publicly-owned wooded natural areas are identified based on field verification and assessed in a "natural areas survey" or similar document.	The ecological structure and function of all publicly-owned wooded natural areas are well-documented through desktop and field assessments, and included in the city-wide GIS.	The ecological structure and function of all publicly-owned wooded natural areas is well-understood and can be used as a basis for their protection and management.	Wooded natural areas survey done in 2005 and 2006.
V7	Vegetation Resource	Trees on private property (4)	No information about privately owned trees.	Aerial, point-based assessment of trees on private property, capturing overall extent and location.	Ground-based SAMPLE assessment of trees on private property, as well as basic aerial view (as described in "Moderate" rating).	Ground-based SAMPLE assessment on private property, as well as detailed Urban Tree Canopy (UTC) analysis of entire urban forest, including private property, integrated into municipality-wide GIS system.	Understanding of extent, location, and general condition of privately owned trees across the urban forest.	

Number	Group	Criteria (Reco. #)	Low	Moderate	Good	Optimal	Key Objectives	Comments
C1	Community Resource	Municipal agency cooperation (2)	Municipal departments/agencies take actions impacting urban forest with no cross-departmental coordination or consideration of the urban forest resource.	Municipal departments/agencies recognize potential conflicts and reach out to urban forest managers on an ad hoc basis – and vice versa.	Informal teams among departments and agencies communicate regularly and collaborate on a project-specific basis.	Municipal policy implemented by formal interdepartmental/interagency working teams on all municipal projects.	All municipal departments and agencies cooperate to advance goals related to urban forest issues and opportunities.	Urban forestry staff sit on formal and informal teams with other departments and collaborate on specific projects to advance joint urban forest goals.

Number	Group	Criteria (Reco. #)	Low	Moderate	Good	Optimal	Key Objectives	Comments
C2	Community Resource	Involvement of large private and institutional land holders (26)	Large private landholders are generally uninformed about urban forest issues and opportunities.	Municipality conducts outreach directly to landholders with educational materials and technical assistance, providing clear goals and incentives for managing their tree resource.	Landholders develop comprehensive tree management plans (including funding strategies) that advance municipality-wide urban forest goals.	As described in "Good" rating, plus active community engagement and access to the properties forest resource.	Large private landholders embrace and advance municipality-wide urban forest goals and objectives by implementing specific resource management plans.	Staff observe more awareness since as a result of the new Tree Protection By-law, but the City is not being specifically proactive in this regard yet. This will come with the outreach and engagement work in the second management period.
C3	Community Resource	Utilities cooperation (2, 6)	Utilities take actions impacting urban forest with no municipal coordination or consideration of the urban forest resource.	Utilities employ best management practices, recognize potential municipal conflicts, and reach out to urban forest managers on an ad hoc basis – and vice versa.	Utilities are included in informal municipal teams that communicate regularly and collaborate on a project-specific basis.	Utilities help advance urban forestry goals and objectives by participating in formal interdepartmental/interagency working teams on all municipal projects.	All utilities – above and below ground – employ best management practices and cooperate with municipality to advance goals and objectives related to urban forest issues and opportunities.	

Number	Group	Criteria (Reco. #)	Low	Moderate	Good	Optimal	Key Objectives	Comments
C4	Community Resource	Green industry cooperation (26)	Little or no cooperation among segments of green industry or awareness of municipality-wide urban forest goals and objectives.	Some cooperation among green industry as well as general awareness and acceptance of municipality-wide goals and objectives.	Specific collaborative arrangements across segments of green industry in support of municipality-wide goals and objectives.	Shared vision and goals and extensive committed partnerships in place. Solid adherence to high professional standards.	Green industry works together to advance municipality-wide urban forest goals and objectives, and adheres to high professional standards.	The C&I defines the "Green Industry" as businesses involved in the production, distribution and services associated with trees and ornamental plants (such as nurseries, consulting arborists, and landscape architects).
C5	Community Resource	Citizen involvement and neighbourhood action (2, 22, 23, 25)	Little or no citizen involvement or neighbourhood action.	Some neighbourhood groups engaged in advancing urban forest goals, but with little or no overall coordination by municipality or its partnering NGOs.	Many active neighbourhood groups engaged across the community, with actions facilitated by municipality and/or its partnering NGOs.	Proactive outreach and coordination efforts by municipality and NGO partners resulting in widespread citizen involvement and collaboration among active neighbourhood groups engaged in urban forest stewardship.	At the neighbourhood level, citizens participate and groups collaborate with the municipality and/or it's partnering NGOs in urban forest stewardship activities to advance municipality-wide plans.	This double rating reflects that the community and neighbourhood groups have grown into the next indicator but not through the coordination of the City. The City will move on this now that the Stewardship position is filled, through the development of the Outreach and Engagement Strategy.

Number	Group	Criteria (Reco. #)	Low	Moderate	Good	Optimal	Key Objectives	Comments
C6	Community Resource	<p align="center">General appreciation of trees as a community resource</p> <p align="center">(7, 22, 23, 25)</p>	<p>General ambivalence or negative attitudes about trees, which are perceived as neutral at best or as the source of problems. Actions harmful to trees may be taken deliberately.</p>	<p>Trees generally recognized as important and beneficial.</p>	<p>Trees widely acknowledged as providing environmental, social, and economic services resulting in some action or advocacy in support of the urban forest.</p>	<p>Urban forest recognized as vital to the community's environmental, social, and economic well-being. Widespread public and political support and advocacy for trees, resulting in strong policies and plans that advance the viability and sustainability of the entire urban forest.</p>	<p>Stakeholders from all sectors and constituencies within municipality – private and public, commercial and non-profit, entrepreneurs and elected officials, community groups and individual citizens – understand, appreciate, and advocate for the role and importance of the urban forest as a resource.</p>	<p>Since the adoption of the UFMP, the pandemic, climate change this has improved substantially. The work on policy integration contributes to this jump in the ratings.</p>

Number	Group	Criteria (Reco. #)	Low	Moderate	Good	Optimal	Key Objectives	Comments
C7	Community Resource	Regional collaboration (2)	Municipalities have no interaction with each other or the broader region. No regional planning or coordination on urban forestry.	Some neighbouring municipalities and regional agencies share similar policies and plans related to trees and urban forest.	Some urban forest planning and cooperation across municipalities and regional agencies.	Widespread regional cooperation resulting in development and implementation of regional urban forest strategy.	Cooperation and interaction on urban forest plans among neighbouring municipalities within a region, and/or with regional agencies.	<p>This double rating reflects a different for general forest planning vs. forest health issues.</p> <p>For general urban forest planning this remains at "good". This includes the Conservation Authorities and the National Capital Commission, among others.</p> <p>For forest health and invasive species this is rated as optimal given the widespread partnerships that Ottawa participates in across the province and beyond.</p>

Number	Group	Criteria (Reco. #)	Low	Moderate	Good	Optimal	Key Objectives	Comments
M1	Resource Management Approach	Tree Inventory (3)	No inventory	Complete or sample-based inventory of publicly-owned trees	Complete inventory of publicly-owned trees AND sample-based inventory of privately-owned trees.	Complete inventory of publicly-owned trees AND sample-based inventory of privately-owned trees included in city-wide GIS	Complete inventory of the tree resource to direct its management. This includes: age distribution, species mix, tree condition, risk assessment.	The City's tree inventory currently includes city owned street trees and approximately 60% of the park trees.
M2	Resource Management Approach	Canopy cover assessment and goals (4, 20)	No assessment or goals set; or goals not based on potential canopy cover.	Low-resolution and/or point-based sampling of canopy cover using aerial photographs or satellite imagery and no goal-setting based on potential canopy cover.	Complete, detailed, and spatially explicit, high-resolution Urban Tree Canopy (UTC) assessment based on enhanced data (such as LiDAR) – accompanied by comprehensive set of goals by land use and other parameters.	As described for "Good" rating – and all utilized effectively to drive urban forest policy and practice municipality-wide and at neighbourhood or smaller management level.	Urban forest policy and practice driven by accurate, high-resolution, and recent assessments of existing and potential canopy cover, with comprehensive goals municipality-wide and at neighbourhood or smaller management level.	Given the completed baseline canopy cover assessment, Ottawa has moved to good here. With recognition that there is work to come on setting land use goals.

Number	Group	Criteria (Reco. #)	Low	Moderate	Good	Optimal	Key Objectives	Comments
M3	Resource Management Approach	Environmental justice and equity (4, 20, 25)	Tree planting and outreach is not determined equitably by canopy cover or need for benefits.	Planting and outreach includes attention to low canopy neighbourhoods or areas.	Planting and outreach targets neighbourhoods with low canopy and a high need for tree benefits.	Equitable planting and outreach at the neighbourhood level is guided by strong citizen engagement in those low-canopy/high-need areas.	Ensure that the benefits of urban forests are made available to all, especially to those in greatest need of tree benefits.	This will be a focus of the second management period through the Tree Planting Strategy.
M4	Resource Management Approach	Municipality-wide urban forest management plan (all)	No plan	Existing plan limited in scope and implementation	Recent comprehensive plan developed and implemented for publicly owned forest resources, including trees managed intensively (or individually) and those managed extensively, as a population (e.g., trees in natural areas).	Strategic multi-tiered plan for public and private intensively- and extensively-managed forest resources accepted and implemented with adaptive management mechanisms.	Develop and implement a comprehensive urban forest management plan for private and public property.	We now have the UFMP in place and are actively implementing it.

Number	Group	Criteria (Reco. #)	Low	Moderate	Good	Optimal	Key Objectives	Comments
M5	Resource Management Approach	Municipality-wide urban forestry funding (all)	Funding only for emergency, reactive management.	Funding sufficient for some proactive management based on urban forest management program.	Funding from public sources sufficient to implement a proactive urban forest management program.	Sustained funding from public and private sources to fully implement comprehensive urban forest management program.	Develop and maintain adequate funding to implement municipality-wide urban forest management program.	
M6	Resource Management Approach	Municipal urban forestry program capacity (all)	Team limited by lack of trained staff and/or access to adequate equipment	Team able to implement some of the goals and objectives of the urban forest management program.	Team able to implement many of the goals and objectives of the urban forest management program.	Team able to implement all of the goals and objectives of the urban forest management program.	Maintain sufficient well-trained personnel and equipment – whether in-house or through contracted or volunteer services – to implement municipality-wide urban forest management program.	Some capacity building has been done but with recent challenges of extreme weather, more capacity is required to ensure the UFMP can continue to be implemented.

Number	Group	Criteria (Reco. #)	Low	Moderate	Good	Optimal	Key Objectives	Comments
M7	Resource Management Approach	Tree establishment planning and implementation (2, 7, 9, 13, 20)	Little or no tree planting; tree establishment is ad hoc.	Some tree planting and establishment occurs, but with limited overall municipality-wide planning and post-planting care.	Tree planting plan is guided by municipality-wide goals, with some post-planting establishment care.	Comprehensive tree establishment plan is guided by needs derived from canopy and other assessments, includes both planting and young tree care, and is sufficient to make progress toward canopy cover objectives.	Comprehensive and effective tree planting and establishment program is driven by canopy cover goals and other considerations according to plan.	This will come through the Tree Planting Strategy and tree maintenance work in the second management period.
M8	Resource Management Approach	Growing site suitability (9)	Trees selected and planted without consideration of site conditions.	Appropriate tree species are considered in site selection.	Municipality-wide guidelines in place for the improvement of planting site conditions and selection of suitable species.	All trees planted in sites with adequate soil quality and quantity, and with sufficient growing space and overall site conditions to achieve their genetic potential and thus provide maximum ecosystem services.	All publicly owned trees are selected for each site and planted in conditions that are modified as needed to ensure survival and maximize current and future tree benefits.	This is a "patchwork" across the City.

Number	Group	Criteria (Reco. #)	Low	Moderate	Good	Optimal	Key Objectives	Comments
M9	Resource Management Approach	Maintenance of publicly-owned, intensively managed trees (15, 16)	No maintenance of publicly owned trees, or on a reactive basis only.	Publicly owned trees receive only ad-hoc inspection and maintenance (as time and budgets allow).	All publicly-owned trees are systematically maintained on a cycle longer than seven years.	All mature publicly-owned trees are maintained on a seven-year cycle. All immature trees are structurally pruned.	All publicly-owned trees are maintained to maximize current and future benefits. Tree health and condition ensure maximum longevity and minimizes risk potential.	The seven year maintenance cycle has been impacted by weather events and inventory issues. Trees that are planted by Forestry are structurally pruned but this does not necessarily apply for trees planted by others across the City.
M10	Resource Management Approach	Tree Risk Management (18)	No tree risk assessment or risk management program. Response is on a reactive basis only.	Level I (limited visual assessment) inspection and follow-up conducted periodically.	Level II (basic assessment) conducted periodically, resulting in scheduled follow-ups.	Level III (advanced assessment) undertaken when recommended during a level II inspection. Appropriate mitigation promptly implemented.	Comprehensive tree risk management program fully implemented, according to ANSI A300 (Part 9) "Tree Risk Assessment" standards, and supporting industry best management practices.	

Number	Group	Criteria (Reco. #)	Low	Moderate	Good	Optimal	Key Objectives	Comments
M11	Resource Management Approach	Tree retention and protection policy development and enforcement (6, 7, 8, 14, 24)	No tree retention and protection policy.	Policies and industry best management practices in place to retain and protect public and private trees, but inconsistently enforced.	Policies and industry best management practices in place to retain and protect public and private trees, generally enforced.	Integrated municipality-wide policies and industry best management practices to retain and protect public and private trees, consistently enforced and supported by significant deterrents.	The benefits derived from trees on public and private land are ensured by the enforcement of municipality-wide policies, including tree care best management practices.	This has improved due to new Tree Protection By-law.
M12	Resource Management Approach	Wooded natural area retention and protection policy development and enforcement (7, 8, 12)	No wooded natural area retention and protection policy.	Policies in place to retain and protect public wooded natural areas and employ industry best management practices, but inconsistently enforced.	Policies and industry best management practices in place to retain and protect public wooded natural areas, generally enforced.	Integrated municipality-wide policies and industry best management practices to retain and protect public and private wooded natural areas, consistently enforced.	The benefits derived from wooded natural areas are ensured by the enforcement of municipality-wide policies, including woodland conservation best management practices.	

Number	Group	Criteria (Reco. #)	Low	Moderate	Good	Optimal	Key Objectives	Comments
M13	Resource Management Approach	Publicly-owned wooded natural areas planning and implementation (12, 22, 23, 25)	No stewardship plans or implementation in effect.	Reactionary stewardship in effect to facilitate public use of wooded natural areas (e.g. hazard abatement, trail maintenance, etc.)	Stewardship plan in effect for each publicly-owned wooded natural area to facilitate public use (e.g. hazard abatement, trail maintenance, etc.)	Stewardship plan in effect for each publicly-owned wooded natural area focused on sustaining the ecological structure and function of the feature.	The ecological structure and function of all publicly-owned wooded natural areas are protected and, where appropriate, enhanced.	
M14	Resource Management Approach	Native vegetation (9)	No coordinated focus on native vegetation.	Voluntary use of native species on publicly and privately owned lands; invasive species are recognized.	Use of native species is encouraged on a project-appropriate basis in all areas; invasive species are recognized and discouraged on public and private lands.	Native species are widely used on a project-appropriate basis in all areas; invasive species are proactively managed for eradication to the full extent possible.	Preservation and enhancement of local natural biodiversity.	This has been improved through the review of Landscape Plans and planting plans for new developments. The proposed High Performance Development Standards require at least 50% native species and no invasive species.

Number	Group	Criteria (Reco. #)	Low	Moderate	Good	Optimal	Key Objectives	Comments
M15	Resource Management Approach	Urban wood, green waste /residue, food utilization (17)	No utilization plan; wood, other green waste /residue, and food goes to landfill with little or no recycling, reuse, or distribution.	Some green waste/residue is reused or recycled for energy, products, and other purposes beyond chips or mulch. Some food is collected for distribution.	The majority of green waste/residue is reused or recycled for energy, products, and other purposes beyond chips or mulch. Programs in place to identify urban food tree sources and to collect food products.	Comprehensive plan and processes in place to utilize all green waste/residue and food, to the fullest extent possible.	Create a closed system diverting all urban wood, green waste/residue, and food (fruit and nuts) through reuse, recycling, and distribution.	
M16	Resource Management Approach	Value of the Urban Forest (4, 5)	Value of the urban forest has not been determined.	Value of sample areas of the publicly owned portion of the urban forest is known.	Value of the publicly owned portion of the urban forest is known and adopted by the City within the Asset Management program.	Value of urban forest, public and private, is known and adopted by the City within the Asset Management program.	The value of the full urban forest resource (including economic, environmental, and social aspects), both publicly and privately owned, is known, is fundamental to decision making within the City, and is reflected in the City's Asset Management program.	This will come in the second management period.

DOCUMENT 3

Work Plan for the Second Management Period of the Urban Forest Management Plan (MP2) for the City of Ottawa

Reco #	Title	Description	Status	Dept. Lead	To be completed without additional resources
1	Adaptive Management	Adaptive management through each management period and at the end of each / start of the next management period. Includes a re-assessment of the Criteria and Indicators, an assessment of new challenges and/or opportunities, and the development of the work plan for the next management period.	Ongoing	PRED	Yes
TREE PLANTING STRATEGY					
NEW	Tree Planting Strategy	The feature project of the second management period is a Tree Planting Strategy which will guide the City of Ottawa towards that 40% urban canopy cover target with equity as a guiding principle. The Tree Planting Strategy will shift the City's approach to tree planting from reactive to proactive. It will use a neighbourhood lens and the City's canopy	MP2 / Ongoing	PRED	Yes – scoped down

Reco #	Title	Description	Status	Dept. Lead	To be completed without additional resources
		cover data to prioritize tree planting efforts in areas of Ottawa that have low canopy cover.			
9	Tree Planting Guidelines	Tree planting guidelines will be developed for Ottawa, including for planting in urban hardscapes. This will include a list of recommended tree species.	MP2	PRED	Yes
13	Review Tree Planting Programs	A review of the City's existing tree planting programs will be done which will include adjusting the programs to ensure that they are meeting resident demands and the objective of increasing the urban canopy cover equitably.	MP2	PRED	Yes – scoped down
NEW	Private Land Tree Planting Program	On August 30, 2022, Council directed staff to report back on options to support adding trees on private property. This would bolster residents looking to replace trees on private property that were lost due to the May derecho. Through the Tree Planting Strategy, staff will look at a variety of options for private property tree planting programs and report back.	MP2	PW	Yes – started

Reco #	Title	Description	Status	Dept. Lead	To be completed without additional resources
TREE MAINTENANCE					
12	Implement the Forested Areas Maintenance Strategy	The FAMS recommends appropriate timeframes and cycles for the activities to be performed in different forest categories. To accomplish the activities, a fulsome inventory of the forested area inventory is essential. Once this section of the inventory is complete, staff will be in a position to proactively support the implementation of the FAMS.	MP2 / Ongoing	PW	No
15 & 16	Review Lifecycle Maintenance Program & Assess Maintenance for newly planted trees	The UFMP recommends a review of the City's 7-year lifecycle maintenance program for trees, and an assessment of maintenance levels of service for newly planted street and park trees. The maintenance focus in the second management period will be on developing and piloting a structural pruning program. Following the structural pruning work, staff will begin to look at a project to assess the 7-year lifecycle maintenance program.	MP2 / Ongoing	PW	No

Reco #	Title	Description	Status	Dept. Lead	To be completed without additional resources
ASSET MANAGEMENT					
3	Urban Forest Inventory Collection & Maintenance	Staff will continue updating the street tree inventory as new subdivision are completed and finish the active parkland tree inventory. Staff will also focus on developing a methodology to collect data in the City's more densely forested areas and begin the data collection.	Ongoing	PW	Yes – scoped down
4	Urban Forest Canopy Cover Study	The second canopy cover assessment will provide an assessment of the current canopy cover for Ottawa and an analysis of the canopy cover change over time in comparison to the baseline assessment.	MP2 / Ongoing	PRED	Yes
5	Integration into the City's Asset Management program	Staff will continue work with Asset Management staff on the development of an Asset Management Plan for Greenspaces and Urban Forest Services.	Ongoing	PW	Yes – scoped down

Reco #	Title	Description	Status	Dept. Lead	To be completed without additional resources
NEW	Valuation of Ottawa's urban forest	Staff will be looking at improving the valuation of the greenspace and urban forest over time to integrate into future asset management planning and will undertake a valuation of the ecosystem services and environmental benefits provided by Ottawa's urban forest.	MP2	PRED	No
11	Assumption of trees in new developments	This project will improve the process to bring any trees planted on City property through new developments or infrastructure projects into the City's tree inventory.	MP2	PRED	No
NEW	Wildfire Risk Assessment	The province requires municipalities to map wildland fire hazard risk. This mapping will be done for Ottawa to meet that requirement and to guide the management of the City's forested area.	MP2	PRED	Yes
STEWARDSHIP					
2	External urban forest working group	Staff will consider the best approach, an established group or project-based groups, in the second management period.	MP2 / Ongoing	PRED	No

Reco #	Title	Description	Status	Dept. Lead	To be completed without additional resources
23	Develop and implement an urban forest outreach and engagement strategy	The newly created Stewardship and Outreach Coordinator position is responsible for the development of the Trees and Forests Outreach and Engagement Strategy which will propose stewardship, outreach, and educational opportunities based on input from internal and external stakeholders. This will enhance existing programs and incentives and create new opportunities for the community to understand and care for its green assets.	MP2	PW	Yes
INTEGRATION					
6	Improve policy implementation through internal engagement and integration	<p>Staff will continue the work started in the first management period on improving the integration and consideration of trees and the urban forest, as well as improving policy implementation. This will include:</p> <ul style="list-style-type: none"> • Implementation of new Official Plan • Integrating tree report review into new development approval processes responding to Bills 109 and 23. 	Ongoing	PRED / PW	Yes, for PRED Scoped down for PW

Reco #	Title	Description	Status	Dept. Lead	To be completed without additional resources
		<ul style="list-style-type: none"> • Integrating trees into the new Zoning By-law • Improve the integration of trees in infrastructure projects • Tree and urban forest solutions for the Climate Resiliency Strategy 			
TREE PROTECTION					
NEW & 10	Oversight, enforcement, and ongoing assessment of Tree Protection By-law	Staff will focus on the ongoing implementation and enforcement of the Tree Protection By-law. This includes monitoring, identifying issues and fixing implementation processes or making amendments to the by-law as necessary. It also includes enforcement, and training and education of staff and external partners and stakeholders.	Ongoing	PRED / PW	Yes, slower implementation
24	Incentives for tree conservation	Staff will continue to consider and research options for incentives through continuing education and discussions with colleagues in other municipalities.	Ongoing	PRED	No