



Committee of the Whole Report

For the Meeting of December 12, 2019

To: Committee of the Whole **Date:** November 21, 2019
From: Thomas Soulliere, Director of Parks, Recreation and Facilities
Subject: Urban Forest Master Plan Implementation Update

RECOMMENDATION

That Council;

1. Approve the reallocation of \$110,000 from the Tree Preservation Bylaw project to the priority Urban Forest Master Plan actions outlined in this report and;
2. Direct staff to amend the Urban Forest Master Plan to reflect the updated canopy cover estimates, shown in Attachment A.

EXECUTIVE SUMMARY

The purpose of this report is to provide a summary of progress made and actions planned on the implementation of the Urban Forest Master Plan (UFMP).

The Urban Forest Master Plan was adopted in 2013. The Master Plan contains 26 recommendations to achieve the vision and goals for the City's urban forest over the next 50 years.

Over the past year, Council has reinforced the City's commitment to climate leadership and environmental stewardship by approving strategic actions relating to tree protection and management.

In response to Council's direction to expedite the implementation of the UFMP and in response to the climate emergency, staff have developed an implementation plan to complete high priority UFMP recommendations over next five years. The implementation plan prioritizes actions that align resources, projects and policies that contribute to climate adaptation and mitigation

PURPOSE

The purpose of this report is to provide an overview of the five-year implementation plan of the Urban Forest Master Plan and to update Council on actions completed and planned for the near future.

BACKGROUND

The City's urban forest is composed of approximately 150,000 trees. At present, the City directly manages roughly one-quarter (32,950) of the urban forest inventory. The other three-quarters consists of trees on private land.

Council approved the Urban Forest Master Plan in 2013, following extensive consultation with community members, staff and industry experts. The plan provides guidance on the long-term management and enhancement of the urban forest, with 26 recommendations relating to trees on public and private lands to be completed over the next several years.

Earlier this year, Council approved capital and operating funding to support expediting the implementation of the 50-year plan.

In March 2019, Council endorsed the declaration of a Climate Emergency. This aligned with the Capital Regional District's declaration brought forward by mayors including the City of Victoria.

The urban forest can contribute to the City's climate action goals because urban trees and soils sequester and store significant amounts of carbon. The contribution of urban trees on both public and private property will remain important to Victoria's health and liveability as the city adapts to climate change.

ISSUES & ANALYSIS

The Urban Forest Master Plan outlines 26 recommendations to help achieve the vision for the urban forest. In 2019, the City advanced several actions relating to the recommendations, including the following:

- Expanding the capacity of the Urban Forest Services team;
- Updating canopy cover and impermeable surfaces estimates;
- Update of the Tree Preservation Bylaw;
- Engaging with community advocates;
- Announcement of participation in the United Nations *Trees in Cities Challenge*;
- Hosting the 14th annual Tree Appreciation Day; and
- Developing a five-year implementation plan.

Earlier this year, staff procured Diamond Head Consulting, an environmental consulting firm specializing in urban forestry, to support the development of an implementation plan (Attachment B) for several of the priority recommendations in the UFMP. The implementation plan provides the City with a planning tool that identifies critical actions along with the anticipated resources and provides indicators of success for each action.

Implementation Plan

The UFMP Implementation Plan will contribute to climate action goals by improving tree planting, maintenance and protection outcomes across the City. This plan responds to the urgency of the Climate Emergency by prioritizing actions for both public and private land that will:

- Maximize the benefits produced by the urban forest (e.g., developing planting plans and programs to increase the rate and diversity of planting); and,

- Minimize the risk to urban forest assets (e.g., strengthening tree protection and implementing planting and maintenance practices that will increase resilience in the tree population).

Actions identified for immediate implementation in 2020 focus on addressing dependencies to set up the successful implementation of future elements of the plan. These actions will define long-term resourcing requirements, gather intelligence, develop planting strategies, create public stewards and further the alignment of City policies to strengthen tree protection.

1. Complete recruitment of Urban Forest team

The majority of new staff positions required to address the increased service needs for the Urban Forest team have been recruited. There are two remaining leadership positions that are expected to be filled in the coming months, which are integral to the planning and management of programs and projects for this section.

Estimated Time for Completion: Quarter 1, 2020

2. Strengthen tree protection

On November 14, Council approved an initial set of updates to the Tree Preservation Bylaw, which significantly expanded the number of protected trees in the city and addressed other definitions and permit requirements. A second phase of this project will conclude the comprehensive review and update of the Bylaw. This work will include a cross-jurisdictional review of leading practices in tree protection, the development of communication materials to clarify changes to the bylaw and a resource impact assessment. An updated Bylaw will be presented to Council for approval in the first quarter of next year.

In addition to the Bylaw update, staff plan to undertake an audit of the role of Urban Forest staff involved in the permit review process, to identify efficiencies, develop interdepartmental tree protection protocols and improve warranties on City trees planted by third parties.

Estimated Time for Completion: 7 months

Financial Impact: \$35,000

3. Set tree canopy cover targets and ecosystem service estimates

Tree canopy cover and impermeable surface estimates are currently being updated. This data will be used to inform new city-wide and neighbourhood canopy targets. Ecosystem services including carbon storage and sequestration, air quality improvement and avoided stormwater runoff will also be measured for City trees. These actions will help to prioritize the City's tree planting and preservation initiatives in the locations where they are needed most.

Estimated Time for Completion: 4 months

Financial Impact: \$15,000

4. Develop neighbourhood planting plans

Neighbourhood planting plans will guide the City's tree planting program, for parks and open spaces, over the next 10-years and align with targets and priorities set for canopy cover and ecosystem services. These plans will provide staff, developers and residents with information on where and when the City will be planting trees, the types of trees to be planted, the objectives of

those tree planting efforts (e.g., climate adaptation, biodiversity etc.), and general guidelines for planting in different neighbourhoods to align with neighbourhood plans and urban design guidelines.

Estimated Time for Completion: 8 months

Financial Impact: \$40,000

5. Develop and implement a citizen stewardship plan

The support and active participation of citizens is crucial to the long-term sustainability of the urban forest. One of the significant action the City can take is the development of a stewardship plan in collaboration with the public and stakeholders. The purpose of the plan is to communicate key facts relating to the value of the urban forest, as well as explore opportunities for the City and citizens to coordinate activities that foster environmental stewardship. The plan will guide City initiatives, which could include programs relating to tree planting and maintenance for private property, educational workshops, and citizen science initiatives to inventory private trees and monitor forest health.

Estimated Time for Completion: 1 year

Financial Impact: \$20,000

The priority actions outlined above will result in the full implementation of eight out of the 26 recommendations in the UFMP and make progress towards and additional 10. The remaining priority actions in the five-year plan are provided in Attachment B.

Updating Tree Canopy Cover Estimates

Obtaining accurate canopy cover and impermeable surface estimates and updating them over time is critical to inform the management and enhancement of the city's urban forest. As noted previously, the Urban Forest Master Plan utilized data from an assessment commissioned by Habitat Acquisition Trust's Urban Forest Stewardship Initiative to assess the coverage of the urban forest across the Capital Regional District. The canopy cover estimate was based on 2005 air photo classification and indicated that approximately 18% of the land in the City of Victoria was covered by tree canopy.

The previous assessment provided an initial region-wide estimate, however, more recent studies have identified issues with this type of analysis that limit its applicability for accurate canopy cover monitoring including:

- Known errors of tree canopy omission where shadows and buildings hide known trees
- Limited ability to replicate the study methodology given its use of "black box" computer classification technique; and,
- Inability to accurately and consistently track canopy changes over time as a result of air photo viewing angles and flight patterns

Technological improvements have advanced significantly since the 2005 regional tree cover assessment was completed. Notably, airborne laser scanning technology (i.e. LIDAR) has matured to the point where vendors and service providers are able to generate precise 3D representations of urban environments. LIDAR datasets are available for the City of Victoria for 2007 and 2013.

This year staff conducted an assessment of the tree canopy coverage using existing LIDAR data. The purpose of this study was to establish an accurate baseline across the city using a method that could be repeated with reliable results. The key finding of this reassessment showed that the 2013

canopy cover was estimated to be 26%. Based on this new analysis, staff recommend updating the UFMP with new canopy cover content using the 2013 LIDAR data.

Classification of the 2019 LIDAR data will be completed in Q2, 2020. This information will be utilized to set tree canopy cover targets and inform the development of planting plans.

OPTIONS AND IMPACTS

That Council direct staff to; i) reallocate \$110,000 from the Tree Preservation Bylaw Project to fund priority actions within the Urban Forest Master Plan Implementation Plan; and ii) amend the Urban Forest Master Plan to reflect updated tree canopy cover and impermeable surface estimates.

To fund the priority implementation actions from the Urban Forest Master Plan, staff recommend that funding be reallocated from the Tree Preservation Bylaw update project (now of reduced scope).

The recent work to assess the canopy cover estimate using LIDAR data, has resulted in more accurate information that the data included in the UFMP. Staff recommend that the UFMP be updated to reflect the new canopy cover estimates outlined in Attachment A.

Accessibility Impact Statement

Several actions in the implementation plan will be used to address accessibility of the parks and open spaces network by considering accessibility issues at the outset of planning and design projects. Specifically, neighbourhood planting plans and design guidelines will provide an opportunity to examine accessibility issues related to tree planting at the local scale.

Impacts to Financial Plan

In 2019, Council allocated \$110,000 towards the comprehensive review and update of the Tree Preservation Bylaw. Staff were able to complete the first phase of the project with internal resources, leaving the entire balance of \$110,000. Staff recommend reallocating this funding to implement the 2020 priority actions identified in this report. This would result in no impact to the Financial Plan.

2019 – 2022 Strategic Plan

The implementation of the Urban Forest Master Plan is a priority action identified for the Climate Leadership and Environmental Stewardship objective.

Official Community Plan Consistency Statement

The Official Community Plan contains the following objectives with respect to urban forest management:

- 10.14 Develop and maintain an Urban Forest Master Plan to enhance the urban forest on public and private land.

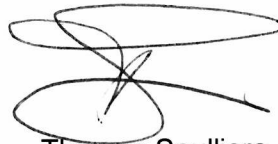
CONCLUSION

In 2019, Council approved actions relating to implementation of the Urban Forest Master Plan and the climate emergency. The five-year implementation plan outlined in this report will both expedite implementation of the Urban Forest Master Plan and support the City's climate adaptation efforts in the community.

Respectfully submitted,




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Assistant Director
Parks and Recreation



Thomas Soulliere
Director
Parks, Recreation and Facilities

Report accepted and recommended by the City Manager:


Date: Dec 4, 2019

List of Attachments

Attachment A: Proposed Tree Canopy Cover Estimates (LIDAR 2013)

Attachment B: Five-Year Implementation Plan