



Governance and Priorities Committee Report **For the Meeting of May 21, 2015**

To: Governance and Priorities Committee **Date:** May 8, 2015
From: Julie MacDougall, Acting Director - Parks
Subject: Urban Forest Master Plan implementation update

Executive Summary

The purpose of this report is to provide an update on the implementation of the Urban Forest Master Plan that was adopted by Council in 2013, and to outline actions for 2015/2016.

The Urban Forest Master Plan guides the management and enhancement of the treed environment throughout the City of Victoria. The plan sets out a vision, goals and strategy for the management of Victoria's urban forest through to 2060. The plan, which was approved by Council in January 2013, contains 26 recommendations for the improved management of trees on public and private lands. The development of the plan included a comprehensive community engagement process.

The Urban Forest Master Plan was approved with the understanding that implementation, over the next 5-10 years, could be accomplished within the existing resources of approximately \$1 million/year. The activities that have been completed to-date and the priorities identified in this report reflect the need to manage the City's risk of tree failures while taking the steps to maximize the benefits of the urban forest in the community through planting and young tree maintenance. If there is a desire to accelerate the implementation of the plan additional resources would be required.

Since the approval of the Urban Forest Master Plan the following actions have been taken:

- An inventory of all the trees on public land has been completed. There are approximately 32,500 trees in Parks and on boulevards as of March 2015. Trees identified as high risk of imminent failure were removed at the time they were discovered.
- A resource analysis has been completed which includes a description of the City-managed urban forest along with the ecological and economic value of the city owned trees.
- Young tree maintenance has continued to be a focus with an average of 250 new or replacement trees planted annually for a total of 1,500 young trees that can be maintained annually with current resources.
- The City of Victoria, Tree Canada and neighbouring municipalities successfully hosted the Canadian Urban Forest Conference in September 2014. This conference welcomed over 250 delegates from across Canada, the US and further abroad. UBC also hosted an alumni event just prior to the conference where staff shared the vision, goals and

recommendations contained in the Urban Forest Master Plan with UBC alumni that live and work in Victoria.

Actions planned in support of the Urban Forest Master Plan for 2015/2016 include:

- Development of a strategy for removing dead, hazardous and diseased trees and a tree planting strategy.
- Tree Assessments on trees identified in the inventory as requiring further assessment to determine risks. This could result in pruning, removal or other hazard-mitigation techniques. The removal notification process in the neighbourhoods is also being improved where removals are required.
- Continued tree planting and young tree maintenance, pruning and removal of trees that are most at risk of failure and engage the community in the development of neighbourhood planting strategies.
- Ongoing update of the tree inventory on public land (20% per year) and subsequent periodic reporting (3-5 years) on the age class, health, and benefits of the urban forest.
- Host an inaugural community workshop to share knowledge and information regarding the importance of the urban forest on public and private land and the immediate priorities for managing Victoria's public trees.

An annual update will be provided to Council that outlines the actions and activities that are completed in support of the Urban Forest Master Plan.

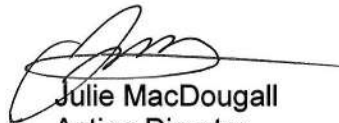
Recommendation:

That Council receives this report for information and directs staff to provide an annual update on the Urban Forest Master Plan implementation.

Respectfully submitted,



Brooke Stark
Manager
Parks Construction, Arboriculture
& Natural Systems



Julie MacDougall
Acting Director
Parks & Recreation



Susanne Thompson
Director, Finance

Report accepted and recommended by the City Manager:

Date:



May 15, 2015

Purpose

This report is to update Council on the status of the implementation of the Urban Forest Master Plan and to outline actions for 2015/2016.

Background

The City's Official Community Plan confirmed the need for an Urban Forest Master Plan and identifies some broad objectives for the plan, including developing mechanisms to increase the urban forest; integrating urban forest management with broader planning and management objectives; and using the urban forest as green infrastructure to enhance ecological services.

In January 2013, the Urban Forest Master Plan was approved by Council. Development of this plan took three years and involved considerable public input, including a community based project committee, open houses, meetings with community associations and involvement of the Urban Development Institute and the development community. The work also involved consultation with City staff as policy, plans and work regarding the urban forest impacts a wide range of municipal service areas including planning and development, engineering, sustainability and parks.

The plan identifies 26 recommendations and strategies to be considered by the City for the period 2013-2060 in the management of the urban forest, including trees on city lands, public open spaces and private lands. As indicated when the Urban Forest Master Plan was approved by Council in 2013, the plan is a high level planning document that looks at the future of the City of Victoria's urban forest through a 50 year vision and the implementation of the plan would be prioritized based on existing funding for the next 5-10 years. The plan recommends the need for additional resources and expansion of the City's current urban forestry program over time.

Appendix 1 outlines the recommendations, progress made to date and proposed activities for 2015/16, reflects what can be achieved with existing resources.

Issues & Analysis

Tree Inventory

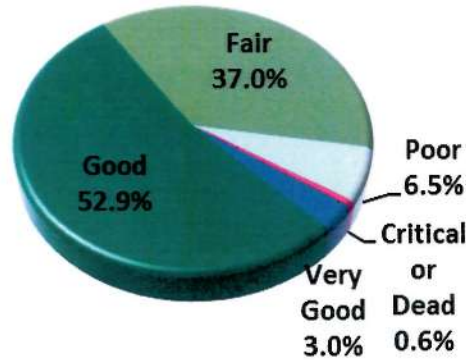
The City of Victoria completed an inventory trees on city property in early 2014. A certified arborist inspected each publicly owned tree and recorded information including species, size, condition, geographic location and current maintenance needs. Trees that were identified through this process to have significant safety hazards or that were at risk of imminent failure were removed immediately.

The inventory is used daily to prioritize and manage work in a way that balances hazard mitigation with operational efficiency. Each tree in the inventory has been assigned a 'work priority' including a description of the work required and the timeframe within which it should be conducted. The inventory database also contains many other tree attributes that will help staff adjust priorities and inform future management goals and objectives. Information about tree age, condition, diseases, defects, nearby utilities, sidewalk heave and location can all be used to optimize tree care operations and improve the health of the urban forest.

Previous reports indicated that there were 40,000 trees on City property however, while we have removed slightly more trees than we have planted, the methodology for this inventory provided a much more accurate number of trees on City land. As of March 31, 2015, the City of Victoria manages 33,576 trees (19,295 on boulevards and streets; 14,281 in parks). There are currently

285 stumps and 548 vacant sites for planting. The inventory also identified approximately 1,750 trees that require further assessment to determine risks, which may result in pruning, removal or other hazard mitigation techniques.

The overall condition of the urban forest is good to fair. The inventory found 56% of Victoria's trees in good or better condition and 37% in fair condition. Over 7% of the population was determined to be in poor, critical or dead condition.



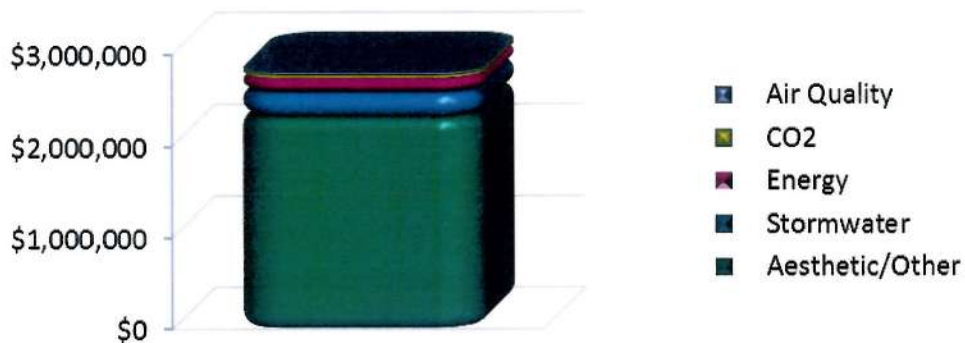
Ongoing updates of the tree inventory on public land will continue to ensure the quality of the database is maintained. Each year, including this year, staff will revisit approximately 20% of the inventory; 15% for routine cycle assessment and 5% for hazard/high risk tree review. This inventory data along with mapping and satellite imagery data will be used to monitor and report on the status of canopy coverage.

Resource Analysis:

An Urban Forest Resource Analysis of Inventoried Street Trees was completed in early 2014. Based on the information gained from the inventory, a detailed and quantified analysis of the current structure, function and value of the urban forest was prepared.

Trees have a value that is not often quantified and yet have environmental, social and economic benefits to the community. Through the resource analysis, the City of Victoria's urban street trees' value has been calculated. This calculation was determined by an analysis tool that was specifically developed to estimate the value of urban street trees, based on inventory information. Based on this analysis, Victoria's inventoried street trees are providing annual benefits of \$2,805,508 (\$35.05 per capita). These benefits include energy savings, air quality improvements, storm water interception, atmospheric CO₂ reduction, and aesthetic contributions to the social and economic health of the community.

For every \$1 invested in the Urban Forest, it is estimated that the City receives \$3.79 in benefits.



Canopy cover is the amount of tree canopy overlying a given area of land and is a common way of beginning to measure and assess the urban forest. The percent of the total area covered provides an indication of the relative abundance or 'density' of tree canopy across the landscape. The canopy from the total urban forest population (public and private trees) covers 343 hectares or roughly 18% of the city area. This level of gross canopy cover has stayed about the same for the past 20 years and plays an important role as mentioned above.

The full report is attached in Appendix 2.

Tree Replacement & Prioritized Young Tree Maintenance:

Young tree planting and maintenance continues to be a priority with an average of 250 new or replacement trees planted each year. Current resources enable staff to support the establishment of up to 1500 new trees through a young tree maintenance program. The program includes watering, fertilising, staking, pruning and mulching young and vulnerable trees to enable their long-term success. Newly planted trees are on establishment program for 5-7 years, depending on species and location. Traditionally, tree species have been selected based on historical planting replacement, aesthetic appeal, botanical interest or other influencing aspects. Through 2015/2016, staff will develop a tree planting strategy that will align with the objectives contained within the Urban Forest Master Plan. Future tree plantings will include community by involving neighbourhood associations to encourage broad public participation.

Community Awareness:

In 2014, the City of Victoria, Tree Canada and neighbouring municipalities successfully hosted the Canadian Urban Forest Conference. This conference welcomed over 250 delegates from across Canada, the USA and further abroad. The University of British Columbia (UBC) also hosted an alumni event just prior to the conference where staff shared the vision, goals and recommendations contained in the Urban Forest Master Plan with UBC alumni that live and work in Victoria.

A focus through 2015/2016 will be to host an inaugural community workshop that will engage the community in tree discussions relating to the urban forest on both private and public land and increase community support for the urban forest. This will be in addition to improving the

notification to the public regarding tree removals and the process that will be developed for engaging the public on neighbourhood planting strategies.

Recommendations

That Council receives this report for information and directs staff to provide an annual update on the Urban Forest Master Plan implementation.

Appendix 1: Urban Forest Master Plan implementation update

Urban Forest Master Plan Recommended Actions	Short term (1-3 years) activities
<p>Systematically map and measure the Urban Forest on public lands, identifying sites for new planting</p>	<ul style="list-style-type: none"> • Tree inventory completed in 2013 • 20% of inventory assessments reviewed and updated annually • Inventory is maintained as trees have been worked on or planted • Inventory has been used to: <ul style="list-style-type: none"> ○ identify high risk trees along arterial routes ○ identify young tree maintenance watering routes ○ visually record trees/tree damage/root damage ○ set priorities for work planning ○ research species diversity and distribution ○ record and monitor disease or insect pests ○ provide a better customer experience for the public
<p>Measure and report on the scope and value of ecosystem services provided by the urban forest on both public and private lands. Communicate this information as part of a broader effort to engage and educate the community on urban forest values and benefits.</p>	<ul style="list-style-type: none"> • Resource Analysis of street trees completed in 2014. • Complete Resource Analysis for all City of Victoria trees proposed for 2016.
<p>Increase community support for the Urban Forest.</p>	<ul style="list-style-type: none"> • Host an inaugural community workshop to share knowledge and information regarding the importance of the Urban Forest on public and private land (Resource Analysis) and the immediate priorities for managing Victoria's public trees in 2015. • A full Community Engagement Strategy is proposed for 2016.

Develop and implement an Urban Forest Action Plan to operationalize the Urban Forest Master Plan, including measures of success, realistic timelines and the provision of estimates and options to resource the plan.	2015/2016: <ul style="list-style-type: none"> • Removal strategy • Replanting strategy • Community will be engaged with as appropriate
Make young tree care a high priority within the Municipal Forestry Program	up to 1500 trees are maintained annually on a young tree maintenance program
Continue a vigorous street tree replacement program, selection species and locations so as to maximize species and age diversity, be ready for future climates, minimize nuisance and risk, minimize maintenance costs, and maximize green infrastructure and other benefits	up to 250 young trees planted annually
Manage existing mature street trees so as to extend their Safe Useful Life Expectancy (buying time for newer trees to develop and contribute meaningfully to the urban forest canopy).	Approximately 1750 trees have been identified through the inventory that require further assessment to determine risks which may result in pruning, removal or other hazard mitigation techniques.
Urban Forest Master Plan Medium Term (3-10 years) Recommended Actions	
Revise the Tree Protection Bylaw to address the removal of young (non-protected) trees and increase replacement tree ratios and compensation levels.	
Complete and implement the 5-year Municipal Forestry Plan for the Parks Division.	
Encourage connectivity between areas of natural habitat through strategic greenway and neighbourhood urban forest enhancement initiatives.	
Incorporate the goals, policy objectives and strategies of the Urban Forest Master Plan within other relevant City plans, policies, bylaws and development guidelines.	
Ensure that operational resourcing levels keep up with increases in the public urban forest inventory and its associated support services over the entire life cycle of the asset.	
Create a position for an Urban Forest Planner/Coordinator, who is empowered to work with other Departments to achieve the City's Urban Forest goals and to report annually to Council.	
Develop a biodiversity strategy, including measurable objectives for the protection, recovery or enhancement of sensitive ecosystems, species at risk and other important flora and fauna.	
Make use of opportunities to 'piggy-back' multiple functions into public spaces (e.g. transforming greenways into productive ecosystem corridors as well as attractive transportation corridors for pedestrians, cyclists and electric wheelchairs).	
Consider a pilot project to encourage homeowners to 'host' public trees in their front yards, in areas where there is a high level of conflict between street trees and underground services and infrastructure.	
Develop a Tree Risk Management Program for public trees (including a Comprehensive Tree Risk Management Policy and Strategy) in 2017.	
Empower homeowners to make good urban forest decisions on their property.	

Urban Forest Master Plan Long Term (10+ years) Recommended Actions

Increase urban forest cover to more optimal levels in neighbourhoods currently exhibiting low canopy cover.

Conserve or replace sufficient greenspace to sustain the urban forest, with particular attention to the needs of large canopy trees.

Develop a program to identify and conserve heritage and other significant trees and landscapes throughout the city, with particular attention paid to remnant Garry Oak ecosystems.

Work on Local Area Plans should consider the development of guidelines and standards for permeable areas and urban place-based forest design.

Develop urban forest design guidelines for new developments specific to each UPD. Guidelines should address desired functional objectives, landscape attributes, appropriate stocking levels, soil volume, and plant selection considerations as well as growth and densification objectives.

Consider establishing minimum stocking levels for new development to meet UPD-specific urban forest objectives.

Develop landscape design objectives that address urban forest or green infrastructure policy objectives, and include these as conditions to which a building, development or rezoning permit will be subject.

Improve oversight of landscape design, planting and construction on redevelopment sites to ensure that the City's design guidelines are met.