

Proposed Bylaw for Tree Preservation and Protection

Recommendation

That the May 25, 2021, City Operations report CR_6801, be received for information.

Executive Summary

The City of Edmonton's Urban Forest, consists of approximately 380,000 boulevard and open space trees and over 3,000 hectares of natural stands and provides many environmental, ecological, economic and social benefits to Edmontonians. It is important that these valuable assets are responsibly managed, preserved and protected. Sustaining a healthy urban forest aligns with The City Plan's commitment to be Greener As We Grow, as well as ConnectEdmonton's strategic goals of Healthy City and Climate Resilience.

The City recognizes the need for a robust and well-defined tree protection mechanism that can preserve and protect Edmonton's urban forest. This report proposes a new Public Tree Bylaw aimed at preventing tree damage or loss on work sites and lays the foundation for a tree permit system to regulate work near City trees.

This report presents findings from the jurisdictional scan of tree protection measures in other North American municipalities, recommendations from the service design review of the tree permit process, findings from the permit pricing study, results from the public and stakeholder engagement, and the next steps to implement this new bylaw and permitting system.

Report

The City Plan lays out the City's commitment to be Greener as We Grow with a goal of planting two million new trees; in addition to a commitment to protect, expand and improve access to natural systems and open spaces in support of biodiversity and the health of all Edmontonians. The key to achieving these outcomes, especially in light of a changing climate and the intensification of development, is to plant and care for new trees and to preserve and protect the existing tree canopy.

Tree preservation and protection aligns with action 13 of the Infill Roadmap, which outlines the City's ongoing commitment to monitoring construction issues associated

with infill development, directing necessary improvements to how the City addresses and regulates construction practices, including mature tree protection.

Mature trees provide the largest ecosystem benefits, but their inventory is relatively small in Edmonton. Currently, City-owned mature trees (defined as having a 40 cm trunk diameter and above, measured at 1.2 metres height) make up for approximately 15 percent of the total inventory for boulevard and open space trees (excluding natural stands). Mature trees are estimated to have a total monetary value of over \$900 million and annual ecosystem benefits of over \$10 million. When mature trees are damaged or lost, their many benefits are degraded or lost for decades; a strong protection mechanism, like a bylaw and permitting process, is essential for the sustainability of the urban forest.

Recognizing the need for stronger tree protection measures, at the July 5, 2017, Urban Planning Committee meeting, Administration committed to reviewing existing bylaws and returning to Council with recommendations for tree protection, including a potential tree protection bylaw.

Current Context

There is currently no proactive tree protection or preservation bylaw in effect in the City of Edmonton. A review of existing City bylaws, such as the *Traffic Bylaw* and *Parkland Bylaw*, and processes reveal that the current tools for tree protection are more reactive than proactive (after damage has occurred) and have limited enforcement ability, specifically:

- The growth, sustainability, acquisition, maintenance, protection and preservation of the urban forest is governed through the City's Corporate Tree Management Policy (C456C). The policy and supporting administrative procedures were updated in 2019 and 2020 to provide more clarity on how the City manages the urban forest. The Policy also lays out Tree Preservation Guidelines for how to plan work around trees, but there is no way to ensure compliance as they are merely guidelines that cannot be enforced.
- As part of the interim solutions presented in the November 29, 2017, City Operations report CR_5059, Tree Protection Recommendations, tree protection plans are sometimes required through On Street Construction and Maintenance (OSCAM) Permits when temporary access across a boulevard is needed within five meters of a City tree. Rezoning applications, where Site Specific Direct Control Provisions (DC2) are proposed, typically include requirements for tree preservation or replacement at the Development Permit stage based on the specific site context. These current tree protection requirements, while helpful, only allow the City to capture a small percentage of work activities around City trees and exclude other potential projects that may impact a City tree. Even if tree preservation or protection plans are submitted

through OSCAM or DC2 applications, there is no bylaw requiring strict adherence to these plans.

Despite these existing measures, City trees are still damaged or lost. Soil compaction from vehicles, heavy equipment and storage of construction materials over tree roots can reduce pore space in soil which leads to limited water and air flow to the roots causing decline in the overall health and resilience of the trees. Between January 2019 and April 2021 alone, the City found 196 work sites that were left in poor condition with different levels of damage to City trees. Attachment 1 illustrates examples of such work sites, some of which had submitted tree protection plans, while others did not.

Jurisdictional Review

Administration began by conducting a jurisdictional review to understand the tree protection and preservation mechanisms used by other municipalities across North America. The first stage involved secondary research of publicly available data from 56 cities in North America, 11 of which were shortlisted for the second stage for more in-depth research. These included Vancouver, Richmond, Calgary, Regina, Toronto, Ottawa, Halifax, and some American cities.

High level findings of this review have been summarized in Attachment 2 and the full report is available on edmonton.ca/trees. Highlights include:

- A lack of resources in bylaw enforcement was cited by nearly all municipalities as the biggest challenge for tree protection.
- Tree protection tools vary widely across cities. Some municipalities have only one or two relevant bylaws, some rely on several bylaws and permitting processes for a comprehensive tree preservation system.
- In most municipalities, the measures in place are more reactive than preventative. Regulations typically involve permits for tree removal and enforcement for damages to trees.
- Of the few who have preventative measures, tree preservation requirements are built into certain types of development or building permits.
- Public education and outreach was perceived as key for building public support for tree preservation programs, which also helps increase bylaw compliance.

Public Engagement

In 2019 and 2020, Administration conducted comprehensive public and stakeholder engagement on how the City's urban forest should be protected, preserved, managed and enhanced. Feedback on the Corporate Tree Management Policy along with the policy updates were shared with Council in the October 5, 2020 City Operations report CR_7220rev, Corporate Tree Management Policy - Additional Public Consultation.

Edmontonians were asked to provide input on how the City currently manages and protects trees, whether they were in support of tools like a bylaw, to protect and preserve Edmonton's urban forest and what a tree protection bylaw should include. The engagement invited Edmontonians through multiple channels including:

- An electronic survey to the Edmonton Insight Community and the broader public on the project website, and to an independent panel of Edmontonians who have agreed to respond to surveys (3,343 participants in total).
- Three public drop-in sessions in north, central and south Edmonton targeting infill and newly developed neighbourhoods (143 participants in total).
- Three stakeholder workshops for industry, utility companies as well as environmental and not-for-profit groups (36 participants in total).

Summary of Engagement Findings:

- Across all platforms, there was a clear desire for increased education and engagement opportunities around how to protect and preserve trees as well as ensuring that there is enough enforcement to administer any future bylaw.
- Edmontonians who responded to the survey showed strong support for having a public tree bylaw and were interested to see more accountability for damages or loss of trees.
- Participants at all three stakeholder workshops emphasized the importance of simplicity and clarity in the bylaw and permit system to ensure compliance.
- Stakeholders wondered if a new permit system was needed and indicated interest in having tree protection requirements looped into existing permitting processes in the City such as Development Permits and OSCAM Permits to reduce redundancies and regulatory burden.
- Industry and utility stakeholders focused on the need for flexibility around permitting and tree protection to ensure that the requirements are not overly restrictive, time consuming and costly. They were concerned about the volume of work the new permit system will entail, both for them and the City.

The full What We Heard report is included in Attachment 3. All timelines mentioned in the What We Heard report were estimated before the COVID-19 pandemic and have changed substantially.

Since this What We Heard report was written, Administration has conducted many meetings with industry and utility companies to refine the proposed bylaw and permit process and get their feedback on potential areas of concern. Pricing research was also conducted using 35 one-on-one interviews and three focus groups to understand user perception and attitudes on potential permit fee options. The study results are summarized in Attachment 4 but key highlights include:

- Many felt that a permit is not necessary but support the bylaw itself so the City is able to enforce non-compliance.
- Many felt that there should be no permit fee, and that enforcing the bylaw with higher fines should be sufficient.
- There were concerns about the additional costs and time that will result from having to apply for a permit and meeting the requirements for developing a protection or preservation plan.
- There were concerns about the City not having the resources to implement, review, and approve a large volume of plans and permit applications.
- Among those who did provide a comment on the proposed fee options, generally agreed with the lowest fee option as their most preferred.

Administration will continue working with stakeholders and adjust its approach to meet ongoing COVID-19 pandemic response and Reimagine considerations.

Proposed Public Tree Bylaw

Based on these findings and current challenges with tree protection, Administration has developed a draft Public Tree Bylaw for preservation and protection of trees located on City land. The complete draft of the bylaw is presented in Attachment 5. Key highlights include:

- A tree permit will be required whenever work is occurring within five meters of a boulevard and open space tree or within 10 metres of a natural stand.
- “Work” means construction, demolition, excavation or laydown activities (storage), or vehicular access (other than on roadways, driveways, improved trails).
- A tree permit must be obtained by submitting a tree preservation or protection plan to the City which will be reviewed (and approved) by a City of Edmonton Urban Forester.
- City tree related sections transferred from two existing bylaws (Traffic Bylaw 5590 and Parkland Bylaw 2202) so as to have all requirements related to City trees consolidated under one standalone bylaw.

This proposed bylaw will allow Administration to hold parties accountable for both obtaining a tree permit prior to beginning work, and ensuring work is conducted in accordance with approved tree preservation or protection plans at all times. It will also promote proper planning and appropriate construction techniques for working around trees at the design phase rather than the construction phase and enable better monitoring and tracking of ongoing issues or recurring damages.

New Tree Permit

Through the proposed Public Tree Bylaw, Administration would introduce a new tree permit system that must be obtained by submitting a tree preservation or protection plan. Administration is proposing that a tree permit be separate from other permits, but

that the application process be integrated with existing permit processes. This is to ensure a streamlined experience for applicants and that the tree permit does not hold up other permits. To help identify viable, desirable and feasible ways of delivering this, a service design review of the tree permit process was completed. The findings are summarized in Attachment 6 but the key opportunities for the launch phase include:

- Potentially developing fast tracking of applications and/or recognition programs to encourage tree protection.
- Building easy to understand tutorials on tree protection, visual guides, and self-serve templates.
- Clearly defined payment roles and responsibilities, payment business process and training materials for monitoring and resolving payment issues.
- An integrated account-based application that includes self-serve capabilities for tracking application progress and receiving updates.
- An intuitive and simple online application process that acknowledges the principles of effectiveness, efficiency and satisfaction.

Administration had earlier explored the idea of adding tree protection requirements as a mandatory part of existing permits such as Development Permits or OSCAM Permits. These permits are governed through bylaws like the Zoning Bylaw and Traffic Bylaw, and adding any mandatory tree requirements to these permits is not feasible within the current constraints of these bylaws. Moreover, adding such requirements can substantially increase the review times to these permit processes and may end up increasing red tape rather than reducing it.

Tree protection plans will be required for work activities limited to a temporary crossing or a laydown area and include details such as protection distance around trees, installation of physical barriers for trees and their root zones, access points and property lines. Tree preservation plans will be required for work activities involving ground excavation, grade changes, aerial or ground activities and include details about site conditions, work type as well as recommendations and actions that will take place prior to, during and after work to conserve and protect City trees. Given the complex nature of tree preservation plans, they must be prepared or signed off by an ISA (International Society of Arboriculture) certified arborist, landscape architect, or other discipline approved by the City before submission to the City. Tree protection plans will not have any such requirements.

The tree permit program will have special provisions for emergency and routine infrastructure maintenance work around trees including, but not limited to, emergency repairs, preventative line maintenance and vegetation clearing for surveillance. These provisions may include tree protection measures built into standard operating procedures or issuing annual/blanket permits. Administration will work closely with internal and external stakeholders to develop these guidelines and provisions.

Administration is also considering an application fee for the tree permit to cover the basic administrative costs for review of the permit application and tree preservation or protection plans, as well as site visits by the City’s Urban Foresters.

Financial Implications

A successful bylaw and tree permit program will require sufficient resources to initiate and sustain. While costs related to setting up the tree permit technology, public education programs and performance reporting can be absorbed within the existing operating budget, other program costs will require additional operating funds. This includes:

- Additional enforcement capacity to ensure compliance with the new bylaw;
- Additional permit review and site inspection capacity to manage the permitting program and ensure a quick turnaround.

Administration intends to return later this year with proposed recommendations for the permit fee and budget requirements as part of an upcoming Supplementary Operating Budget Adjustment.

Next Steps

Based on Committee’s feedback, Administration will return to Council later this year for a formal approval of the bylaw:

- Using recommendations from the Service Design Review and a Gender Based Analysis Plus (GBA+) lens, work with the technology team to set up a simple, web-based permit application process that is integrated with other existing permitting processes.
- Develop the proposed permit application fee and funding details for the program.
- Create educational material and templates for tree preservation and protection plans, incorporating research relating to equity considerations for urban forests.
- Continue engagement with industry and utility partners, as well as internal City departments to streamline the online permit application process.
- Develop an integrated marketing and communication strategy for public and stakeholder education.
- Work on permit demand model scenarios keeping in mind Reimagine considerations.

Corporate Outcomes and Performance Management

Corporate Outcome(s): Edmonton is an environmentally sustainable and resilient city			
Outcome(s)	Measure(s)	Result(s)	Target(s)

Preservation and protection of existing CoE Urban Forest	Equitable compensation collected for tree removal or partial loss due to work related damage or loss	To be determined	To be determined
	Number of fines issued under the proposed new bylaw	To be determined	To be determined
	Number of sites with a tree permit and no visible damage to City trees	To be determined	To be determined
	Number of 311 complaints regarding work around City trees with no tree permit or tree protection in place	To be determined	To be determined

Attachments

1. Work Sites in Poor Condition and with Tree Damage
2. Jurisdictional Scan (Canadian Cities)
3. What We Heard Urban Forestry - Public Tree Bylaw
4. Tree Permit Pricing Research - Executive Summary Report
5. Proposed Public Tree Draft Bylaw
6. Service Design Review Findings

Others Reviewing this Report

- M. Persson, Chief Financial Officer and Deputy City Manager, Financial and Corporate Services
- C. Owen, Deputy City Manager, Communications and Engagement
- A. Laughlin, Deputy City Manager, Integrated Infrastructure Services
- K. Armstrong, Deputy City Manager, Employee Services
- R. Smyth, Deputy City Manager, Citizen Services
- S. McCabe, Deputy City Manager, Urban Form and Corporate Strategic Development
- K. Fallis Howell, Acting City Solicitor