

Triple Bottom Line Review **Proposing a New Tree Protection Bylaw**

Process and Methodology

Administration used the City of Saskatoon's Triple Bottom Line (TBL) Improvement Tool to comply with Council Policy C08-001 - Triple Bottom Line.

In conducting the analysis, the Administration relied on the expertise of the Project Team and Subject Matter Experts from the Parks and Sustainability Departments.

This review is meant to be a high-level way to identify the initiative's environmental, social, economic, and governance outcomes, as well as to identify opportunities to achieve even greater sustainability benefits. The results are meant to support ongoing decision making, rather than be relied upon as a fixed sustainability evaluation.

Caveats and Limitations:

- Some TBL areas were considered out of scope of a tree protection bylaw for example waste reduction and diversion. Additional initiatives in the Urban Forest Management Plan address challenges around wood disposal.
- The following internal factors impacted the initiative's ability to achieve higher TBL outcomes in certain areas for example a lack of clarity around the impact to the local arboricultural industry. At this stage it is unclear how the arboricultural industry may be impacted by development of a tree protection bylaw.

Results & Findings

Overall, the results of Administration's TBL review indicate that:

- Tree protection bylaw achieves multiple TBL benefits.
- There are additional opportunities that could be explored to enhance the TBL outcomes of the initiative (see the "For Further / Future Consideration" sections later in this document).
- The bylaw will require additional operating resources as outlined in the financial implications in the report.

A summary of results for each TBL principle and indicator are included in the subsequent section of this document.

Principle: Environmental Health and Integrity

Indicator	TBL Outcomes
Renewable Energy	Trees can conflict with solar feasibility and production.
Conservation of Resources	Canopy shading reduces energy consumption, provides a windbreak, reduces the heat island effect, decreases evaporation and increases humidity.
Climate Change Mitigation and Adaptation	Trees store and sequester greenhouse gases and absorb and intercept stormwater.
Green Buildings and Sustainable Land Use	There are opportunities to apply different types of construction/demolition approaches that better protect trees and lead to better construction practices. Trees can create challenges for in-fill development that may require unique solutions to balance tree protection with green buildings and some sustainable land uses, for example solar power.
Sustainable Transportation	Tree protection may be in-conflict with some transportation projects. Major transportation projects would need to account for their impact on trees including compensation and replanting initiatives.
Healthy Ecosystems	Trees are a critical component of the green network and provide habitat and connectivity for many species.
Clean Air, Water, and Land	Trees improve air quality by absorbing pollutants and capturing airborne particulates on surfaces. Trees also improve water quality by slowing the movement of stormwater into the drains and sewers thereby reducing pollutant loading. Trees improve soil quality by preventing erosion and absorbing rainwater. Tree protection measures will also reduce soil compaction.
Storm Water Management	Trees help absorb stormwater, which is especially critical in areas with more hard surfaces and less green space, protecting trees is necessary to maintain this benefit.
Sustainable Food System	A tree protection bylaw would protect fruit trees on City property.

For Further/Future Consideration

- A tree protection bylaw will require more creative design solutions when developing sustainable transportation systems. Early planning will be important, especially in newer areas where there are limited opportunities for trees. If planned properly, negative impacts could be minimized

Principle: Social Equity and Cultural Wellbeing

Indicator	TBL Outcomes
Equity and Opportunity	Some areas of the city will be more impacted by a tree protection bylaw, specifically, older, centrally located neighbourhoods. City trees with social, cultural, historical significance would be protected.
Heritage, Arts, and Culture	Trees that have cultural significance will be protected along with other trees on City property.

Indicator	TBL Outcomes
Health and Wellbeing	Trees improve health by removing air pollutants, providing shelter from ultraviolet radiation, improving mental wellness, reducing stress and strengthening community
Safety and Resiliency	Tree failures can cause utility disruptions during hot and cold conditions, but tree protection measures help to ensure the trees are healthier and less prone to failure. Additionally, healthier trees are less likely to cause property damage.
Civic Participation	A tree protection bylaw will elevate the importance of tree protection in the community.
Recreation	People are attracted to treed areas for recreation. Tree-lined streets are part of an attractive city and help to soften the built environment.

For Further/Future Consideration

- The bylaw would enable the creation of processes for community planting on City property.

Principle: Economic Prosperity and Fiscal Responsibility

Indicator	Business As Usual
Innovation	There is greater economic activity in treed areas. Trees improve walkability and buffer noise pollution. Tree protection measures will lead to more sustainable practices by developers resulting in reduced tree loss, less compaction and preserved planting locations.
Sustainable Procurement	Goal is to remove fewer trees and therefore require fewer replacement trees
Financial Planning and Resourcing	A tree protection bylaw will help recover costs associated with tree loss. Permit fees, compensation for tree damage and fines can help offset the cost of bylaw enforcement and permitting.
Affordability for Users	Trees provide significant value at a reasonable cost - so applying a permit fee to protect the urban forest is reasonable. Trees are an asset that increases in value over time. Cost of enacting and formalizing tree protection through a bylaw is reasonable given the collective benefit and value of the urban forest.
Support the Local Economy	The specific cost structure with permitting and the number and type of infractions will determine the financial impact of a tree protection bylaw on the development industry. The bylaw may have positive impacts on the arboricultural industry in Saskatoon if arborists are brought in to assist in the development of tree protection plans (likely not a requirement of the bylaw but may be an option for some developers).
Asset Management	A bylaw will prevent removal and damage of City assets that are not yet at their end of life. The bylaw will also place a value on trees in cases where protection is not possible and trees must be removed.
Skills and Training	Forestry Technicians will require training on permitting and potential enforcement with support of Bylaw Officers.
Labour Rights and Employment	Tree protection measures protect people on job sites working around trees

Principle: Good Governance

Indicator	Business As Usual
Ethical and Democratic Governance	Bylaws create accountability and transparency. A tree protection bylaw will help to address goals in the Official Community Plan and Strategic Plan. The City’s current tree protection process is inconsistent and, while supported through a Council Policy, would be strengthened by specific updated language in a bylaw.
Effective Service Delivery	The purpose of the bylaw is to provide reliable, effective and consistent service that protects trees. The bylaw would elevate the importance of trees and highlight the services they provide
Education, Communication, Engagement, Capacity Building	Employee, public, stakeholder and subject matter expert engagement was completed and identified strong support for a tree protection bylaw. Future communication with stakeholders will occur as the bylaw is implemented.
Monitoring, Reporting and Compliance	Monitoring, reporting and ensuring compliance will be part of the Forestry Technician’s responsibilities
Agility and Adaptiveness	Development of the bylaw is adaptive and responsive, drawing on previous experience with the Trees on City Property Policy. Bylaws, once in place, are less adaptive.
Roles, Responsibilities and Rewards	Communication material could promote examples of effective tree protection and recognize developers that follow or exceed tree protection requirements.

For Further/Future Consideration

- Operationalizing a bylaw will require staff, training and public education
- There could in future be bonusing opportunities or incentives for developers to provide better tree protection, similar to options in the Zoning Bylaw.