

# Report to Council



**Date:** May 30, 2022  
**To:** Council  
**From:** City Manager  
**Subject:** Urban Tree Canopy Enhancement Strategy  
**Department:** Development Planning

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## **Recommendation:**

THAT Council receives, for information, the report from the Development Planning Department, dated May 30, 2022, with respect to urban tree canopy enhancement options; and

AND THAT Council directs staff to investigate the implementation requirements for the preferred six actions and report back to Council.

## **Purpose:**

This report will assess current urban tree protection policies within the City of Kelowna and, based on the gaps identified, present options for Council's consideration to address the urban tree canopy goals established by the 2040 Official Community Plan.

## **Background:**

### *Previous Council Resolution*

Council directed staff to develop a tree preservation bylaw (R0682/20/10/19) to increase the urban tree canopy, in order to achieve established City of Kelowna tree canopy enhancement goals, and support accelerated climate action. Staff initiated work on a tree preservation bylaw based on this direction in 2020. However, research into the implementation of similar bylaws in other jurisdictions indicated the following issues to consider:

- Intensive enforcement resourcing is required to support the new level of service;
- Enforcement investigations can be challenging, as it can be difficult to determine if the tree was harmed or poisoned to encourage its decline, requiring specialized staff expertise;
- Awareness of a new Tree Bylaw coming into force in other jurisdictions has led to the loss of existing trees as property owners seek to remove trees prior to the bylaw coming into force;
- Bylaws that require preservation of trees above a specific size (trunk diameter/caliper) may encourage owners to remove trees just prior to the tree reaching that size; and
- Bylaws that allow for one (or more) tree removal per year may lead to the removal of one tree per year until all the property's trees are gone.

Focusing resources solely on a “Tree Bylaw” could result in more tree canopy loss if not approached strategically. Multiple programs, regulations, and policies may better achieve tree canopy coverage goals by addressing the root drivers of tree loss – which are: (1) development pressures and (2) safety concerns.

### Existing Policy:

Staff are seeking Council’s direction on the appropriate mix of programs and regulations to avoid the above mentioned pitfalls and achieve the City of Kelowna’s tree canopy objectives, as established in the 2040 Official Community Plan (OCP):

<b>Table 1: Tree Canopy Comparison by City Sector</b>	<b>2040 OCP Tree Canopy Goals</b>	<b>2019 Tree Canopy LiDAR Assessment</b>
<i>Urban Centres</i>	12%	11.5%
<i>Core Area</i>	20%	14.3%
<i>Suburban (Gateway, Suburban Neighbourhoods and Rural Lands combined)</i>	25%	20.1%

It should be noted that tree canopy coverage averaged across the whole City was 22.9% in 2019. This is a result of high coverage (over 40%) in some suburban neighbourhoods while coverage in the urban core was lower. This assessment highlights the urban areas of the City that need the most attention with respect to trees.

The OCP 2040 canopy coverage objectives are rooted in several of the City’s over-arching strategic plans:

- Imagine Kelowna Goal - Strengthen the protection of our land, water, and air resources.
- Community Climate Action Plan (CCAP) identified increasing urban tree canopy as a key action.
- City of Kelowna Sustainable Urban Forest Strategy (SUFS) identified the natural asset value of the urban forest at \$1.1 billion (replacement value estimate).

As a result, the City has been working towards greater protection of trees as natural assets within the larger ecosystem for years. This work includes the Permanent Growth Boundary established by the 2040 OCP – a tool critical for protecting our remaining forests by directing growth towards our urban areas. *Attachment A* summarizes existing City policy and regulations that impact the urban tree canopy, to set the context for this report.

Best practices for tree canopy enhancement identified by the *Green Bylaws Toolkit* (produced by the Stewardship Centre for British Columbia), *Metro Vancouver Regional Planning Committee Tree Regulations Toolkit*, *BC Retooling for Climate Change Regional Adaptation Collaborative* (produced by the Fraser Basin Council and BC Ministry of Environment), and *Tree Canada* were reviewed for this report, in addition to interviews with other jurisdictions. A SWOT (Strengths-Weaknesses-Opportunities-Threats) analysis of potential canopy enhancement strategies was completed against existing procedures and regulations to identify gaps. These strategies are outlined below for Council’s consideration and staff have provided a concluding recommendation on how best to proceed.

## Discussion:

In this report, staff have identified the primary intervention opportunities for tree canopy enhancement. It is important to define protection versus canopy enhancement. Tree protection is focused on preventing tree removal, through deterrents. These can include permits and financial penalties like the cost to plant multiple new trees when tree removal is necessary. Tree canopy enhancement aims to deter removal and expand tree canopy coverage by requiring new tree planting independent of any existing trees.

The SWOT analysis indicated that discovering and managing infractions on private property is challenging, hence many bylaws are enforced on a reactive (complaint) basis. Focusing staff resources on punitive private property investigations where a tree is not being well cared for may be a losing battle and an intensive program for the City to resource. As an example, the City of Surrey has seven certified arbourist positions carrying out approximately 10,000 annual inspections related to their Tree Bylaw. Staff from the Town of Oakville, Ontario noted that while significant resources have been invested in responding to removal complaints while development sites are still where the largest number of trees are being removed in their community, so they are revising their permit process to reduce the amount of time spent on reviewing permits for individual tree removals.

Proactive protection at the key moment when the City has the opportunity to intervene and negotiate with property owners – during development or building permitting – may be a more effective strategy for enhancing our urban tree canopy. In 2021, the City issued building permits for 3,187 new residential units. Figure 1 indicates the coverage of those Building Permit applications is wide spread across the City, offering an opportunity to require tree planting and tree retention in both urban core and suburban areas. Strategies that build on existing processes managed by Development and Building Permit staff may be more effective, in terms of cost and ease of implementation, over creating a new process for private property tree assessment.

As a result of the research completed by staff, four strategies for tree canopy enhancement are presented below:

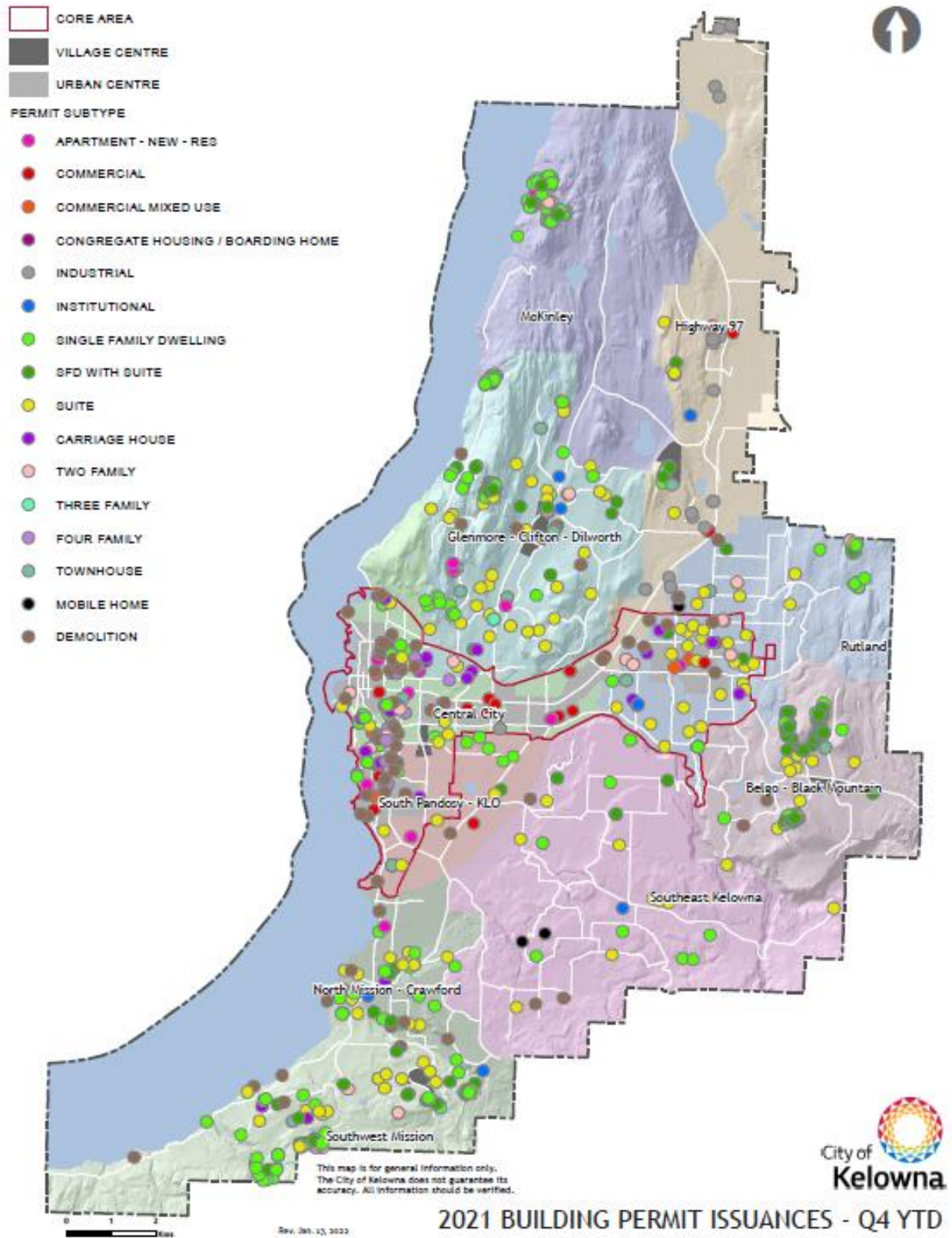
*Strategy 1 – Improve Development Regulations*

*Strategy 2 – Develop Landscape Standards Bylaw*

*Strategy 3 – Develop an Urban Tree Bylaw*

*Strategy 4 – Build on the existing NeighbourWoods Education and Tree Planting Program*

Figure 1: Geographic Distribution of 2021 Building Permits – development is widespread



Strategy 1 – Improve Development Regulations

Development pressure plays a major role in tree loss. Focusing resources on incremental improvements to existing policies, regulations, and processes allows staff to create a stepwise plan for successful implementation. Several existing City of Kelowna policies and bylaws have a role in tree retention, replacement, and canopy expansion (see *Attachment A* for detailed descriptions of these). Staff have looked for opportunities to improve upon these and address gaps in how they are currently implemented.

Trees within riparian management areas (lands adjacent to waterways) and on steep slopes (greater than 30%) are currently protected by the City of Kelowna Tree Bylaw No. 8041. It has generally been an effective tool along the City edges, where hillslopes meet forested areas, and on environmentally important riparian lands. During development on lands in those areas, a Natural Environment Development Permit (NEDP) is triggered, as required by the 2040 OCP, to provide a second layer of tree protection. This involves an environmental assessment to identify environmentally important areas (relying on Sensitive Ecosystem Inventory Mapping), waterways, and slopes exceeding 30%. This assessment is meant to direct development away from environmentally sensitive areas right from the start, directing lot layout and the eventual construction footprint. Highly ranked areas identified as No Disturbance Zones would retain trees (and associated ecological features) and direct development to areas of the property already disturbed if possible. If there are no options for avoidance, as the whole property is highly ranked environmentally, financial compensation is considered to improve natural features on-site or fund off-site restoration, including tree replacement at a 2:1 ratio.

If tree removal is desired in non-development times within the Riparian Management Areas or slopes steeper than 30%, a Tree Cutting Permit must be applied for under Bylaw No. 8041. The owner must prove the necessity of removal, due to disease or falling hazard, and commit to the 2 tree replacement requirement for each tree removed. Although restricted to riparian areas and steep slopes, this bylaw is otherwise like tree protection bylaws in other communities. As such, it is useful to look at the outcomes of its enforcement in Kelowna. Most calls received by staff are regarding safety concerns and those result in tree cutting approvals. The 2:1 tree replacement requirement appears to deter some – several cutting permit inquiries have not resulted in applications. However, staff do not have the capacity to visit these properties to investigate whether tree cutting has gone ahead anyway.

For Natural Environment Development Permits and some tree cutting permits (where the replacement tree cannot be planted prior to removal of the existing tree), staff hold a performance bond (financial) from the property owner. This bond covers 125% of the cost to plant and maintain a tree or restoration area, to ensure plant establishment in our dry climate. A portion of the bond is returned if planting has gone well after one year. The City holds on to a significant percentage of the bond to encourage the owner to continue to water and weed for two to three years after planting. Bond holdback is an important proactive tool that protects new plants and trees. However, Bylaw No. 8041 is currently over 15 years old and would benefit from updating and modernizing to be consistent with the objectives of the 2040 OCP. In particular, the bylaw would benefit from updates to include tree planting soil volume requirements and a formal definition of a Significant Tree consistent with the OCP 2040 definition.

There is no formal protection of trees in the urban areas of the City, although there is a strong culture amongst staff to seek to retain trees or add new trees as much as possible, and staff highlight tree protection as an added value, along with other infrastructure, to owners. An example of how tree protection has been implemented can be seen at 880 Saucier Ave (Figure 2).



*Figure 2: Copper Beech tree protected as part of development at 880 Saucier Ave*

Trees proposed as part of Urban Form & Character reviews (development permits on multi-unit residential, commercial, or industrial properties in non-NEDP areas) are only followed by staff for one year and there is no requirement to replace existing trees. The relatively low cost to pay for off-site replacement trees, if caught removing trees or not planting the new trees proposed, is not a significant financial incentive particularly in some commercial or large-scale multifamily development sites.

Despite staff requests for new trees, they can be challenging to retain when assessed against the numerous other considerations in the development process. Trees may be seen as a lower priority element over providing additional parking, placing an electrical transformer box, or addressing garbage storage/access when the cost to meet those obligations are compared to the cost of removing a tree and potentially not having to plant a replacement. Based on the gap analysis completed, staff may ask for tree retention and additions but lack:

- resources to increase the frequency of inspections during construction (to prevent paving/building in landscape areas);
- resources to extend the inspection period beyond 1 year;
- the regulatory ability to request tree retention or additions for small scale construction that only require a Building Permit (e.g. Single Detached Dwellings (SDD) do not require a Development Permit);

- the regulatory force to require applicants to identify trees on site pre-development through a tree survey and arbourist report on all development sites; or
- significant financial disincentives to discourage the omission/removal of new trees.

As part of the Zoning Bylaw update, there will be enhanced minimum ground cover and tree requirements within landscape areas required as part of multi-family, subdivision, and commercial development. This includes the front and rear setbacks to ensure that setbacks are appropriately landscaped and provides for masking or separation of various land uses. A tree is also required within each landscaped island that must be placed at the end of each parking aisle or every 15 spaces in parking lots. However, additional changes are suggested for Council's consideration to provide stronger tree protection:

- A. Increase staff time dedicated to inspecting installations - frequency of inspections to mirror Building Permit (BP) mid-construction inspection schedule. Work with BP staff to set up automated alerts. Expand site inspection period from one to three years following planting and reduce the amount of bonding returned in Year 1 from 90% to 40%. These actions require an amendment to Procedures Bylaw No. 12310.
- B. Add a requirement in the new Zoning Bylaw for 1 tree to be planted per lot in the low-density zones (RR1, RR2, RU1, RU2, RU3). This would be triggered by submission of a Building Permit but followed by Development Planning staff to inspect for Zoning Bylaw compliance.
- C. Offer density incentives for tree retention via the Zoning Bylaw, such as establishing a tree protection covenant in exchange for one extra story or reduction of setbacks by 10%, without requiring a variance. As this would be a significant incentive, its offer should be limited to the protection of Significant Trees, with a combined trunk diameter over 100 mm measured from 1 m above grade, as defined in the 2040 OCP as any tree that meets one or more of the following criteria and is not identified as an invasive species:
  - A tree listed as having heritage or cultural significance on a list approved by Council;
  - Any tree that contributes significantly to the location due to few adjacent trees and/or limitations posed by surroundings; and/or
  - A tree of locally rare species or unique character that enhances the diversity of the urban forest.

These regulations would likely lead to increased workload for staff and 1 additional position (1 FTE – Full Time Equivalent position) would be required, primarily to support inspection time. It will be important to monitor impacts to permit processing times and assess staffing needs as these changes are made.

### ***Strategy 2 – Develop Landscape Standards Bylaw***

This strategy builds on the previous one by linking trees to the complete green infrastructure system of a site and providing clear guidance on how to plant and maintain trees to support the long-term growth of our urban tree canopy. Key tree planting requirements, like soil volume, could be better regulated by linking to landscape permeability requirements and stormwater management, instead of trees being looked at in isolation. The City of Surrey has noted its success in improving tree retention when paired with permeable surface assessments. Metro Vancouver undertook a study in 2019 that found a strong inverse relationship between tree canopy and impervious surfaces. Where a city block had 50% or more impervious surface, the tree canopy of that area was less than 10%. Aiding property owners in



establishing the right tree species, suited to our dry climate, in the right place through a Landscape Standards Bylaw would help promote urban canopy longevity.

Replacement ratios and compensation, as a key deterrent to tree loss, could be incorporated into a Landscape Standards Bylaw. While this bylaw would primarily be triggered during development, it can impact trees pre- and post- development. A requirement to complete a pre-development tree inventory based on recent air photos (e.g. within last 5 years) may deter pre-development tree clearing. Applicants may be more willing to look at planning the site to accommodate existing trees as awareness increases of the potential costs for multiple replacement trees or compensation fees levied prior to development permit approval. As higher density residential and commercial/industrial sites must already supply a Landscape Plan from a certified professional, this additional step (completing an existing tree inventory) would be a minor addition to the regular requirement for a tree protection plan. It would also improve the quality of landscape plans as staff would be in a better position to encourage the retention of existing mature trees that provide higher value environmental services. Post-development tree protection could be enforced through a regulation in this proposed bylaw that protects trees planted as a requirement of City permitting. This approach focuses tree protection on trees that should be the right species for our climate planted in the best location for long term survival.

Creating a Landscape Standards Bylaw also provides an opportunity to require Landscape Construction Plans and formal schedules for all developments. Currently conceptual landscape plans are required as part of the Form & Character Development Permit for larger development projects, but often lack the soil volume and other details needed for successful tree planting. More thorough drawing requirements may help improve the enforcement of Water Conservation Reports already required by the City as part of its WaterSmart Program. However, a Development Permit is not required for Single Detached Dwellings (SDD) so there is no opportunity for the City to intervene in landscaping. Through coordination with Building Permit staff, a landscape review and inspection procedure for SDD could be undertaken by Development review staff if set out in a Landscape Standards Bylaw. This is a common procedure in many other BC municipalities.

Clear standards are needed to implement the high-level policies set out by the 2040 OCP and guide construction of Zoning Bylaw requirements. Landscape Standards Bylaws are a critical tool to guide the on-the-ground construction of the many green infrastructure elements the City has identified as important for climate resilience - healthy soils, pollinator-friendly landscapes, water conservation, and tree protection. This work would require a dedicated staff member to develop the bylaw over the course of 2022-2023 and a new position (1 FTE) to regularly review the Landscape Plans in detail.

### ***Strategy 3 – New Urban Tree Bylaw***

Based on urban tree bylaws used in other municipalities, and in consultation with staff in Parks Planning and Urban Forestry, a new tree protection bylaw was drafted to support staff in determining implementation requirements. All bylaw examples reviewed had specific requirements for which trees the bylaw would apply to on private properties. As such, the drafted bylaw focused on:

- Protection of trees with a trunk diameter larger than 100mm at 1m above grade (Diameter at Breast Height – DBH) or a replacement tree previously required by the City staff (e.g. through a development permit).
- Exemption for tree species that are invasive or a tree part of a farm crop (e.g. fruit trees or commercial tree growing operation).



These specifications help to focus protection on trees that have high value as well as avoiding the retention of trees that are environmentally problematic, like invasive species that prevent the establishment of habitat valuable to local wildlife.

It is important to note that the draft bylaw, as per the best practices reviewed in other municipalities, allows for tree removals if:

- a) the tree is proven to be a safety hazard by a qualified professional;
- b) the replacement trees proposed meet the requirements set by the City; or
- c) the owner is willing to pay the required compensation.

A tree replacement ratio must be set in the bylaw to ensure the services provided by the trees allowed to be removed are replaced equitably, but to also act as a disincentive to the removal of mature trees. Mature trees provide significantly more habitat, shading, air quality improvements, among other services than new trees. As noted above, municipalities commonly utilize a simple replacement ratio of 2 trees to replace each 1 removed (2:1). However, this ratio has not been shown to be a significant incentive to retain trees.

An alternative used by the Province of B.C. requires tree replacements (relating to their wildlife and fisheries legislation) based on size. The larger the tree, the greater the ratio.

This higher cost replacement ratio may help address the limited effectiveness of current tree retention efforts. However, if established in a Tree Protection Bylaw this cost will impact all land owners, not just those expecting to profit from new development. Penalties for cutting or damaging a protected tree, without a permit, should include a higher replacement ratio requirement. Replacement trees can be requested during development approvals based on a ratio like this through Zoning or Landscape Standards Bylaws. The difference with a tree bylaw would be that this replacement requirement would apply to all properties, not just those under development, increasing staffing needs for inspections to investigate tree damage complaints, to determine replacement requirements, and to undertake follow up replacement inspections.

As tree removals will be a reality in some circumstances, an option to compensate for an inability to plant a replacement tree on site is needed. The drafted bylaw includes a clear, simple to administer financial formula for the property owner to make a compensation payment to the City: \$500 per Suburban tree, \$1000/tree in the Urban Core (due to the higher planting cost required for soil cells). This compensation option should only be provided if there is no possibility of including all replacement trees on the lot due to reasonable lot size limitations. The draft bylaw recommends that compensation trees should be planted in a location identified by the City as needing more trees. A compensation fund would need to be established to hold collected funds specific to this purpose. This fund could help support existing programs like NeighbourWoods, building the private property tree canopy and reducing tree maintenance costs for the City, in addition to the boulevard and park tree planting program.

This new bylaw would require a major adjustment in staffing to support effective enforcement. Based on staffing in other municipalities, 2-3 new FTE positions would be required for arbourists inspections plus 1 to 1.5 FTE to support administration. Increased resourcing from Communications would also be needed to support public education on this new bylaw applying to all properties.

#### ***Strategy 4 – Education and Planting Program***

The City of Kelowna operates two programs to support property owners in managing their landscaping – NeighbourWoods and WaterSmart. Greater support to integrate these two programs could help to

increase tree retention and re-planting on private property. These programs target homeowners (through low-cost tree sales) and landscape professionals (via WaterSmart training and irrigation permit requirements) to promote sustainable yard care. Both have a significant role to play in tree protection, as homeowners rely on the advice of landscaping professionals to determine whether it is worth removing a tree. The WaterSmart program includes training for landscape professionals, which could include the benefits of trees and opportunities to promote the NeighbourWoods program as an added value to the landscaper's services.

Staff from the Town of Oakville, Ontario, note the high value they've gained from staff involvement in industry education and planting recommendations. Offering support in selecting the appropriate tree species and planting location will help promote healthy trees grown in the best place to minimize property damage risks. Their municipal staff have the mandate to spend time on encouraging tree retention and initiating challenging conversations with owners seeking tree removal permits, without the profitability pressure private contractors experience. They have also developed a business licencing program that ensures arbourists have certification and training on local bylaw requirements. Such training is similar to Kelowna's WaterSmart program, but with the added incentive of licencing to encourage businesses to commit to training.

Instead of funding bylaw inspections or staff time for permit review/processing, Council could allocate funds to offering more trees through these programs. This approach tackles a key gap in efforts to increase the urban tree canopy – private property not being developed/re-developed. It may also prevent the safety concerns that often come up when residents contact the City – falling risk due to poor choice in tree species or planting location. However, this program is completely reliant on voluntary homeowner participation. It does not address tree loss due to development pressures.

In terms of funding, NeighbourWoods would not likely require additional staff to be able to increase operations. However, funding would be needed to support the logistics of supplying trees as well as outreach resources to increase awareness of the program.

### **Recommended Approach:**

Staff are seeking direction from Council on the combination of strategies to pursue to improve our urban tree canopy coverage. Table 2 summarizes the strategies above to highlight key implications.

<b>Table 2: Strategy Comparison</b>		<b>Pro</b>	<b>Con</b>
<b>Strategy 1</b>	<b>Improved Development Regulations</b>	<ul style="list-style-type: none"> <li>• Financial incentive to retain trees (reduce new planting costs).</li> <li>• Improve enforcement of existing regulations to add and retain trees.</li> <li>• Seek compensation for tree losses prior to development.</li> <li>• Improved new tree establishment through longer period of maintenance inspections.</li> </ul>	<ul style="list-style-type: none"> <li>• New trees can only be requested at time of development– if less development occurring, fewer new trees.</li> <li>• Increased inspection time may delay permit approval if not supported by new staff.</li> <li>• Does not apply to established private property (not under development).</li> </ul>

<b>Strategy 2</b>	<b>Landscape Standards Bylaw</b>	<ul style="list-style-type: none"> <li>• Add and retain trees proactively.</li> <li>• Manage multiple natural features - stormwater, soil.</li> <li>• Standards and regulations get the right tree in the right place for long term canopy expansion.</li> <li>• Financial incentive to support tree establishment (Performance Security).</li> <li>• Financial penalties for non-compliance.</li> </ul>	<ul style="list-style-type: none"> <li>• Primarily applies at time of development but new inspections staff could monitor trees planted post-development.</li> <li>• Development Permit processing time many increase if staff resources not increased.</li> </ul>
<b>Strategy 3</b>	<b>Tree Bylaw</b>	<ul style="list-style-type: none"> <li>• Broad protection - a regulatory tool all staff can use.</li> <li>• Ticketing/Fines incentivize tree retention.</li> <li>• Some tree canopy expansion if compensation requirement set high, but trees will be young.</li> </ul>	<ul style="list-style-type: none"> <li>• Focus on retention, not expansion of tree canopy.</li> <li>• Punitive enforcement approach on non-development properties, leads to confrontational relationship between neighbours/City.</li> <li>• Focus on reactive enforcement instead of proactive site planning.</li> <li>• Development Permit processing will be slowed if staff resourcing not increased to handle complaint investigations and development site inspections.</li> </ul>
<b>Strategy 4</b>	<b>Education &amp; Planting Program (NeighbourWoods)</b>	<ul style="list-style-type: none"> <li>• Focused on canopy expansion - planting more trees.</li> <li>• Minimal to no increase to staffing - budget needed to support logistics of getting more owners interested in planting.</li> <li>• Focus program on neighbourhoods needing more trees.</li> </ul>	<ul style="list-style-type: none"> <li>• No regulatory incentive to retain trees.</li> <li>• Dependent on interest of owner.</li> <li>• Difficult to add trees to higher density new development that doesn't include space for trees.</li> </ul>

In recognition of the limited resources available, the City will likely need to take an incremental approach to tree protection. The budgetary implications of each strategy with respect to staffing are summarized in the following table:

<b>Table 3: Staffing Comparison</b>	<b>Expected Staffing Requirements (FTE – Full Time Equivalent position)</b>
<b>Strategy 1</b> Improved Development Regulations	Development Permit (DP) Application review and site inspection staff (1 FTE)
<b>Strategy 2</b> Landscape Standards Bylaw	DP/BP review and inspection resources (1 FTE Landscape Architect in addition to Strategy 1 inspections FTE).
<b>Strategy 3</b> Tree Bylaw	Investigation resources (2-3 FTE Inspectors; 1 FTE Landscape Architect for site plan review).
<b>Strategy 4</b> Education & Planting Prog. (NeighbourWoods)	Supplying trees and Outreach (may fund through Compensation Bank replenished via increased tree compensation requirements based on results of Strategies 1-3)

There is a great deal of support from the public for tree protection. Staff time can be directed to proactive protection and tree replacement in areas of new development, building on the existing Development/Building Permit point of connection to private lands. Or staff can focus on bylaw enforcement to investigate unauthorized tree removals with the goal of discouraging tree loss more broadly, but often retroactively to address tree removals. A combination may be desired.

Staff recommend the following prioritization of actions to develop an Urban Tree Canopy Enhancement Strategy, based on the analysis above:

Action 1. Support initial tree protection changes included in Zoning Bylaw update.

- a. As part of the current draft of the updated Zoning Bylaw, staff propose to enhance minimum ground cover and tree requirements within landscape areas required as part of multi-family, subdivision, and commercial development. A tree is also required within each landscaped island that must be placed at the end of each parking aisle or every 15 spaces in parking lots.

*Implementation – report to Council in June 2022.*

Action 2. Update Bylaw No. 8041 – Environmentally Sensitive Areas Tree Protection Bylaw

- a. Increase tree replacement requirements, to strengthen tree protection in environmentally sensitive areas, and make bylaw consistent with the OCP 2040.

*Implementation – report to Council in Summer 2022.*

Action 3. Amend Procedures Bylaw No. 12310 to allow an increase in staff time dedicated to inspect tree installations required by existing Zoning Bylaw regulations.

- a. Require existing tree survey and Qualified Professional (e.g. arbourist) report for all development permits.

- b. Establish a multi-year site inspection period and reduce the amount of bonding returned after the first growing season to encourage ongoing watering and weeding for support successful tree establishment.
- c. Consider staffing resources (1 FTE), through the budgeting process and to increase the frequency of inspections.

*Implementation – Consider FTE in 2023 budget process and implement in 2023 if the position is successful.*

#### Action 4. Increase tree planting requirements in the Zoning Bylaw.

- a. A requirement for 1 tree to be planted per new lot on low density lots that only need a Building Permit (e.g. Single Detached Dwellings). Coordinate with WaterSmart/NeighbourWoods programs to incentivize new drought-tolerant trees.
- b. Develop incentives for tree retention or new tree planting (through tree protection covenant) in exchange for 1 extra story or reduction of setbacks by 10%, without requiring a variance.

*Implementation – Develop recommendations for amendments to the Zoning Bylaw for Council's consideration in Fall 2022.*

#### Action 5. Support the implementation of tree planting/retention requirements in other bylaws by developing a Landscape Standards Bylaw.

- a. Establish clear landscaping requirements, such as minimum soil depths and soil cell installation guidelines, to aid staff in reviewing landscape plans.
- b. Require landscape plans to include an inventory of existing trees.
- c. Investigate mechanisms needed to promote effective maintenance of landscaping as many new plants die in Kelowna's dry climate without weeding and irrigation.
- d. Expand Landscape Plan requirements to include new Single Detached Dwellings (SDD).
- a. Require landscaping plans to identify landscaping solutions (green infrastructure) to support climate resilience – shade, stormwater pollution abatement, etc.
- b. Outreach and Communications resources should also be committed to enhance industry awareness of tree protection requirements via coordination with City of Kelowna WaterSmart Program Qualified Water Efficient Landscaper professional training.

*Implementation – develop bylaw and staffing recommendation for Council consideration in early 2024.*

#### Action 6. Monitor tree canopy and assess against OCP 2040 Objectives

- a. Track changes in the urban tree canopy, through the Sustainable Urban Forestry Strategy 2022-2023 Project, with goal of differentiating canopy loss/gain on private property in times of development and non-development.
- b. If tree canopy loss on non-development properties is significant, determine if NeighbourWoods Program can be funded through tree compensation fund to target low canopy areas. Funding contributions received from tree compensation payments, following implementation of the above Actions, could be used to increase outreach (door-to-door).
- c. Concurrently, investigate costs and long term need to resource a private property tree bylaw.

*Implementation – assess canopy status in 2022- 2023 and report to Council in 2026 on impact of development regulations.*

## **Conclusion:**

The above recommendations are based on the direction provided by the 2040 OCP – to establish clear development design guidelines that allow development to benefit our community now and in the future. While a standalone Tree Bylaw can also be used as a tool by development approvals staff, creating an implementation framework through improved development review and inspection procedures with a Landscape Standards Bylaw will allow staff to work with property owners to protect trees as part of the green infrastructure system. This year is an important opportunity to make changes to development review procedures as part of the Zoning Bylaw update and 2040 OCP adoption. Focusing on the opportunity to manage trees alongside other landscaping elements during development offers a more constructive moment to engage with property owners instead of at an adversarial time during a bylaw enforcement visit. Through the creation of landscaping policies and regulations using the recommended stepwise approach, staff will be in a better position to offer the community clear and consistent advice.

Establishing a tree protection bylaw may offer the broadest tree protection, but it may draw resources to losing battles for trees that will not be well maintained instead of directing staff resources to support property owners in getting the right tree in the right place, strengthening our urban tree canopy in the long term. For these reasons, a standalone tree bylaw is not recommended at this time.

## **Considerations applicable to this report:**

### ***Stakeholder Engagement:***

Once direction is provided by Council, an engagement process will be needed to investigate implementation constraints and opportunities.

Asking community partners to identify the support they need to implement changes in their operations to meet these regulatory requirements help focus staff efforts but also encourages those stakeholders to recognize their role in tree protection. It is recommended that staff engage with the development community as part of plans to engage on the implementation of the 2040 OCP and new Zoning Bylaw as discussed at the February 28, 2022, Council meeting.

### ***Future Considerations – Natural Asset Management:***

As noted, trees are often low priorities when compared to parking, utility service right of ways, and the numerous other development considerations. The minimum outdoor amenity area, 10% of townhouse and infill properties for example, is asked to accommodate seating, play space, and other elements in addition to trees. As with many ecological services, trees are undervalued.

Municipal natural asset management can help address this as trees would be included as an asset in the infrastructure system. A tree is a part of the stormwater management infrastructure, creating space for water infiltration, and having that role also helps the tree have access to water and more root space. Funding mechanisms, like a stormwater utility, that identify the specific natural assets being funded can help property owners see the direct value of those services. A financial model can be developed to show the value of natural assets in reducing wear and tear on pipes in the ground, or even avoid the costs of installing grey infrastructure. Additional analysis is still required to better understand the hydrologic benefits of an increased tree canopy.

***Legal/Statutory Authority:***

LGA S.527 (1) A local government may, by bylaw, require, set standards for and regulate the provision of screening or landscaping for one or more of the following purposes: ... (b)preserving, protecting, restoring and enhancing the natural environment; and (c)preventing hazardous conditions

LGA S.523 (2) A local government may, by bylaw, establish the maximum percentage of the area of land that can be covered by impermeable material.

Community Charter (15.2) allows Council to establish a standard based on a provincial standard such as the Canadian Landscape Standard as utilized by the B.C. Society of Landscape Architects and the B.C. Landscape and Nursery Association.

**Considerations not applicable to this report:**

***Legal/Statutory Procedural Requirements:***

***Financial/Budgetary Considerations:***

***External Agency/Public Comments:***

***Communications Comments:***

***Internal Circulation:***

Submitted by: J. Miles, Environmental Coordinator

**Approved for inclusion:**



D. Strachan, Community Planning and Development Manager

**Attachments:**

Attachment A - Summary of Existing City of Kelowna Policies/Regulations Relating to Trees