

# Proposed Policy for Trees and a new Tree Bylaw

## **RECOMMENDATIONS:**

That Committee of Council recommend that Council:

1. Give 1st and 2nd reading to an Official Community Plan Amendment Bylaw to set a tree canopy target and update planning policies;
2. Confirm the consultation for the Official Community Plan amendment to include information posted on the City's website throughout the review, the Let's Talk Trees program in 2017, and the 2018 public consultation on proposed changes;
3. Give first three readings to a new Tree Bylaw; and,
4. Give first three readings to amending the Fees and Charges Bylaw, Delegation of Authority Bylaw, Bylaw Notice Enforcement Bylaw, and Ticket Information Bylaw.

## **PREVIOUS COUNCIL/COMMITTEE ACTION**

At the July 18, 2018 Sustainability and Environment Committee meeting, the following resolution was approved:

- 1) *That the Sustainability and Environment Committee direct staff to make the following amendments for review by the Committee:*
  - a) *Replace Tree Bylaw, 2005, No. 3474 with a new tree bylaw;*
  - b) *Amend the Official Community Plan policy pertaining to trees;*
  - c) *Amend the Fees and Charges Bylaw to include a new schedule to set permit fees;*
  - d) *Amend the Delegation Bylaw to implement tree permit appeals; and,*
  - e) *Amend the Ticket and Notice Enforcement Bylaws to enforce tree regulations.*
- 2) *That the report to Committee with the proposed amendments include:*
  - a) *a canopy coverage target; and,*
  - b) *a proposed implementation program that will take reflect the approach that the City's first priority is education, then awareness and incentives and then penalties and enforcement.*

This was preceded by the following resolutions:

April 25, 2018 – Sustainability and Environment Committee: *That the Sustainability and Environment Committee host an open house and meeting to invite public comment on the proposed tree management policies and regulation.*

December 19, 2017 – Finance and Intergovernmental Committee: *That FIG authorize staff to prepare a strategy for a tree canopy target, draft an amended Tree Bylaw, and bring forward work program adjustments for its further consideration.*

June 15, 2017 – Finance and Intergovernmental Committee: *That staff be authorized to consult with the public on ideas to change the City's policies and bylaws related to planting and protection of trees within the City.*

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## **REPORT SUMMARY**

This report completes a comprehensive review of the direction to be taken by the City to better protect and enhance its urban forest. It also addresses concerns raised by the Sustainability and Environment Committee in its review of the proposed direction last July and proposes that a tree canopy target be set. Building on data and analysis presented to Committee in 2017, an extensive public consultation program, “*Let’s Talk Trees*”, conducted over that summer and fall, and the public’s review of the proposed regulations in 2018, the report recommends:

- (1) That a tree canopy target of 25% be set by Council as policy in the Official Community Plan;
- (2) That a new tree bylaw be adopted to replace the existing regulation; and,
- (3) That amendments to a number of associated bylaws be adopted to implement the new regulation.

This direction, complemented with educational materials and implementation actions to be proposed in upcoming work programs, are expected to improve the City’s regulation of tree cutting, increase the number of trees being planted and support best practices in tree management.

## **BACKGROUND**

In 2017, the City embarked on a review of its tree regulations to respond to concerns being raised by the public with respect to retention of the tree canopy, cutting of valued trees, and the City’s management of its urban forest. The review was intended to:

- evaluate potential changes to regulations and policies that could better meet community objectives;
- address gaps in the scope of current regulations as identified by staff;
- respond to concerns raised by a community group, PoCo Heritage Trees, with respect to the City’s recognition and protection of heritage and other significant trees;
- define tree cutting approval processes associated with the cutting trees on public lands; and,
- set administrative fees and charges in line with cost-recovery practices.

In summary, the following directions were provided during the review process.

- 1) June 9, 2017 – the Finance and Intergovernmental Committee considered tree-related policies currently included in the Official Community Plan, Heritage Strategic Plan and Environmental Strategic Plan as well as regulations of the current Tree Bylaw. The report also informed Committee that the City’s existing tree canopy is 23.8%. Staff were authorized to proceed with a public consultation process that would review these policies and regulations and identify community expectations.
- 2) December 19, 2017 – After the summer’s “*Let’s Talk Trees*” consultation program was concluded and the data from the public input analyzed, the staff report to the Finance and Intergovernmental Committee indicated that the community would generally support more rigorous measures to protect trees and require additional tree planting. Committee determined it would look to support changes that would not only better retain existing trees, but also require more tree planting to increase the total number of trees. It supported bringing forward

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regulatory changes that would eliminate the opportunity for owners to cut one tree per year without a permit fee; require tree replanting; impose greater control over cutting significant trees; require two replacement trees to compensate for cutting a significant tree; and, if on-site tree planting was not feasible at a site, to allow cash-in-lieu for off-site planting. Committee provided further direction that it wished to proceed with developing changes to current regulations and policies and, based on the potential outcome of these changes, subsequently define a tree canopy target.

- 3) On April 25, 2018 the Sustainability and Environment Committee endorsed proceeding with public review of the proposed changes to current tree protection and replacement requirements.
- 4) On July 18, 2018, after considering the public's response to the proposed amendments, the Sustainability and Environment Committee asked staff to respond to a number of questions as well as to bring forward a proposal for a tree canopy target before moving forward with proposed bylaw amendments.

The Committee reports referenced above are posted on line at [www.portcoquitlam.ca/talktrees](http://www.portcoquitlam.ca/talktrees) or available upon request from the Planning Division.

### **DISCUSSION**

#### **A. Response to Questions asked at the Sustainability and Environment Committee meeting**

- (1) *Should a tree permit be required for emergency removal of a hazardous tree? Should a fee be charged for removal of a hazardous tree?*

Committee's concern was that continuing to allow for emergency tree removals and waiving fees for hazardous trees could result in over-cutting. To assess this concern, staff reviewed past tree cutting applications and outcomes. In approximately 70% of the applications for tree cutting, the applicant/property owner indicated their concern that the tree posed a hazard. Parks staff conduct site inspections to evaluate the health of the tree prior to permit issuance of the permit and generally find only 10% of tree cutting applications are for trees that constitute a hazard. However, the process to determine whether a tree is hazardous, at no charge to the applicant, creates an opportunity for staff to exchange information about the tree with the owner and to promote the right tree being planted in the right place in keeping with the specific circumstances of the site. It is not recommended that any changes be made in this regard as current regulations and associated processes promote public safety and timely tree replacement.

- (2) *How many trees are being cut at the time of new development?*

The Committee expressed concern that developers may unnecessarily cut trees prior to submitting a development application and that too many trees are being cut to accommodate new developments. A sample of 196 tree cutting permits approved within the last two years was assessed to determine the distribution of property types and relation to redevelopment of

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sites where trees were cut. 67% of these applications related to sites where there was no redevelopment being proposed and 33% to sites associated with development. As shown in the table below, more trees are cut on sites being developed with an average of 5.8 trees per site compared to 1.6 trees per sites that are not being redeveloped. It was not possible to identify the number of trees required to be replanted to replace these cut trees.

	Sites not being redeveloped			Sites being redeveloped			All
	Single Family	Multi-family	ICI *	Single Family	Multi-family	ICI*	
<b># Tree Permits</b>	153	15	5	17	3	3	196
<b>Total Trees Cut</b>	184	57	21	52	52	28	394
<b>Ave # trees cut per site</b>	1.2	3.8	4.2	3.1	17.3	9.3	2.0

\* Industrial, Commercial and Institutional sites

### (3) *Should stricter regulations apply to developers than to residents? Higher fee charges?*

It is not suggested that the City treat developers differently than others with respect to tree cutting regulations. Potential developers of sites subject to redevelopment are informed of the City's landscaping and tree retention policies early in the application review process - whether for a small lot subdivision, a consolidation of lots for a new apartment building, or a major project. Owners are encouraged to work with staff to determine how the loss of trees can be minimized, including variance to regulations if it means a tree can be saved. This process, combined with development permit regulations which ensure on-site replacement of trees, is proving to be effective for most sites. The possible exception is the loss of trees on larger single family lots, which are not subject to development permit regulations. However, the proposal to require replanting for cut trees will, to a large extent, address this situation.

A fee structure could be proposed that would set higher costs to cut a tree on a site being developed than for a site that is not under development or to set different fees to cut a tree depending on the zoning of the property (for example, the City of Burnaby takes both approaches). The approach recommended by this report is to set one fee that will apply to any tree that is cut or who is cutting it (a home owner, a business, or a developer). This cost recovery approach recognizes the cost to process a tree cutting permit is the same no matter where the tree is located. Further, most owners who are developing a property will end up paying more than an owner who is not redeveloping because they are typically cutting more trees to accommodate new construction and servicing.

### (4) *Could staff further explain the proposal to vary tree replacement requirements for sites with a cluster of trees?*

The proposal that the City not require tree replacement if a tree to be removed is within 5 metres of a mature tree is a unique proposal. The City's proposal is intended to enhance the health of a property's tree canopy by allowing for 'thinning' to reduce crowding and allow the

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retained tree greater growing space, resulting in a more developed root system, larger crown, and better overall health.

Some other communities have variable regulations based on their own circumstances. For example, the City of Coquitlam requires replacement trees be based on the number of trees per lot, varying by lot size; the District of North Vancouver and Village of Anmore require replanting if a lot has a canopy cover below 20%; and, Burnaby, Maple Ridge, and White Rock determine replacement requirements based on the diameter of the tree to be removed.

*(5) Is the proposed tree replacement cost appropriate? Could the cash-in-lieu option result in owners defaulting to paying cash rather than replacing trees?*

In considering the proposal to set the cash-in-lieu payment at \$500 per tree, Committee was concerned this amount would be too low and result in owners choosing to pay cash rather than replacing trees on their sites.

The proposed amount is intended to be sufficient for the City to recover its costs. The actual cost of replacing a tree varies, but it generally costs less for a resident to replace a tree: the purchase of a tree sapling ranges from \$50 to \$150 and most home owners do not incur additional costs for adequate care such as summer watering whereas costs incurred by the City must include not only the price of the tree sapling and a water bag, but labour costs for planting and periodic watering.

The cash-in-lieu option will most often be utilized by owners of properties with insufficient space to accommodate replacement trees. The option will enable the City to increase the number of trees planted on public lands and, in the long run, could result in more trees attaining full maturity compared to replanting trees over underground parking structures or where there is insufficient area for the tree to develop a large crown.

*(6) Does the City sufficiently protect trees near watercourses?*

Areas adjacent to rivers, creeks and other watercourses are designated in the Official Community Plan as development permit areas for watercourse protection and the removal, alteration, disruption or destruction of vegetation is prohibited within these areas unless Committee has issued a development permit or there is an immediate hazard. If any trees must be cut, such work must be in accordance with the recommendations of an environmental consultant and typically requires replacement with native tree species. Although the City does not find that it has significant issues with unauthorized tree cutting, educational and other measures to promote community awareness will be pursued to promote tree protection. In addition, the draft tree bylaw has been amended to reference the development permit area designation to ensure applicants for tree cutting permits are aware of the restriction.

*(7) Should cottonwood and aspen trees be defined as significant trees?*

The proposal to expand the significant tree definition to include all trees  $\geq 60$  cm does not extend to cottonwood and aspen trees. Although these tree species can reach diameters beyond 60 cm, when this large they can also be hazardous due to internal rot and falling

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branches and requiring owners to obtain a tree risk report for their removal is considered to be unnecessarily burdensome. If a large cottonwood or aspen tree is located within a watercourse protection area (which is typical), it is also subject to the watercourse protection area designation ensuring protection if deemed appropriate through the watercourse protection development permit process.

*(8) How can the City better identify and protect trees with heritage qualities?*

In the past, the City has attempted to identify trees with heritage merit through its creation of heritage inventories, but there is a concern that these community-based initiatives did not result in a comprehensive list of trees with heritage merit or measures for their protection. The scope of work for this report did not extend to specific identification of trees considered to have heritage merit. If Council wishes to develop a definitive list, then the Parks and Planning Divisions would need to include this work as part of a future work program. It is worth noting that the new definition for a significant tree will help protect more older trees. Staff can support the Heritage Society or a tree group in nominating trees with heritage significance as an addition to the existing Heritage Inventory.

*(9) Could the City promote tree retention and replanting by offering incentives?*

This question reflects input from residents who had asked if the City could offer incentives such as property tax rebates to offset high tree maintenance costs.

Portland, Oregon provides a partial credit on its stormwater charges for half the cost of a new tree (up to \$50). Portland also has a green infrastructure stormwater rebate program in certain districts which may incorporate existing trees, although the value is limited (approximately \$4 per tree per year).

Offering tax reductions or other tree-related incentives is not within the scope of this report. While the effectiveness of a tax credit or other incentive is unknown, a program, if offered, could have high administrative costs as well as impact revenues. However, options such as to assisting residents with treed properties by providing additional green bins and providing free watering bags to improve sapling survival can be explored. Other actions which could provide an incentive at a lower administrative cost include offering discounted trees via a City tree sale, offering rebate vouchers for the purchase of trees, or developing a community tree farm. These options could be considered if brought forward as future budget decision packages.

*(10) How can Council ensure that cash-in-lieu funds collected for tree cutting are restricted to future tree planting (i.e., a "Tree Bank")?*

The City's budgeting process currently provides that permit funds are used for tree planting purposes in both parks and streetscapes and this process will be continued. Additionally, it is proposed that the City direct unspent funds from tree permits and cash-in-lieu payments to a reserve account, effectively implementing the desired "tree bank" concept. This approach is in keeping with best practices and provides a certain level of flexibility if, for example, funding was

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needed to enhance infrastructure that supports trees or the City wishes to provide a subsidy for purchase of trees as a tree planting incentive.

*(11) Is the proposal to require posting a tree permit in keeping with the requirements of other communities? What about the cost of the fine for not posting the permit? Cost of other fines?*

Posting a tree permit is recommended to notify the public of approved cutting and permit conditions, as well as advantageous to staff. When the City's urban foresters are out in the community they can quickly determine if an observed tree removal is lawful without having to call the office or take a trip back to the office to look up the location. The majority of other Metro Vancouver municipalities require tree permits to be visibly posted during tree cutting. In the future, online posting of tree permits will be explored as an option as the City continues to update its systems and procedures.

Fines for contravening posting requirements range from \$75 to \$500, with an average fine of \$246. The City's proposal is to charge a fine of \$100 (this amount was adjusted from an original proposal of \$200 in response to input from Committee). Other fines associated with trees and tree cutting are listed in Attachment 3.

*(12) How can the City require more trees with large canopies to be planted instead of columnar trees?*

The planting of columnar-shaped trees is typically common along commercial streets and in industrial zones, as this type of tree is less likely to impact business visibility or truck movements. Other advantages include the ability to be planted in a smaller space, create a focal point in a landscaped setting for design purposes, and add variety in the species of trees being planted. While they also provide habitat value, improvements to air and water quality, and help in managing storm flows, this type of tree contributes less to canopy cover and intercepts less rainfall than wider-crowned varieties.

The City's development permit area designations for multi-family, commercial and industrial areas in the Official Community Plan require the submission of a landscape plan, review of that plan by staff for compliance with applicable guidelines for development, and approval by the Committee of Council. This process provides for specific consideration of the appropriate type of tree to be planted in new developments. By setting a tree canopy target in the Official Community Plan, Council would be setting a clear objective to enhance the canopy. Accordingly, this report further recommends updating the landscape design guidelines of the Plan to promote the planting of trees that will meet this objective, where appropriate.

*(13) Would a tree cutting permit be required for properties within the Agricultural Land Reserve?*

This question was asked subsequent to the meeting of the Sustainability and Environment Committee and was reviewed with input from the municipal solicitor.

The City's regulations would likely be applicable to those parts of properties in the Agricultural Land Reserve which are not used for farm purposes, i.e. within the farm home plate as defined by the Zoning Bylaw. Regulating tree removal and requiring replacement trees is unlikely to be

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considered inconsistent with the *Agricultural Land Commission Act* where this part of the property is not used for farm purposes.

### B. Recommendation for a Canopy Cover Target

The City's canopy cover is approximately 23.8%, with the calculations used to obtain this figure described in Attachment 4. The proposed regulatory changes are projected to result in an estimated net canopy cover increase of 0.03% per year. This would bring the canopy cover level to 24.1% by 2030 and at this rate, to 25% by 2060.

Achieving a higher canopy level, such as 30%, in the foreseeable future would require more trees being planted. Options to further enhance the tree canopy cover and achieve a 30% canopy cover by 2060 by planting more trees include:

- Increasing the budget for municipal tree planting to plant an additional 480 trees annually at cost of \$240,000 per year (30% cover by 2060)
- Requiring owners to provide a 2:1 for replacement for all tree removals, which could result in an estimated additional 480 trees being planted per year
- Offering a program for discounted tree sales to property owners which could result in the planting of 600 trees annually on private properties at a cost of \$48,000 per year (assumes an 80% survival rate)

If Council determined it wished to implement each of the above measures, then it is estimated that 1440 additional trees would be planted annually at a cost to the City of \$288,000 per year. This could result in a 30% canopy cover being reached as early as 2037.

There are some concerns with the feasibility of each of the measures noted above: the requirement for a 2:1 replacement may not be supported by the community, as it further increases the cost for property owners to cut their trees; it may also be challenging to obtain sufficient space to plant that many trees on municipal lands as open spaces are also needed in park lands and boulevards are likely to require improvements such as curbs; and, the effectiveness of a discounted tree program is highly uncertain.

An alternative to setting an achievable canopy target would be to set an "aspirational" target, such as a target of 40% or a target of 30% if the proposed regulations or funding levels are not also amended. This approach can inspire creative efforts and could lead to some more trees being planted than required by the proposed regulations and municipal actions. However, an aspirational target can also be seen as misleading the public and is not recommended.

### C. Recommended Bylaw Amendments

#### a) Official Community Plan Amendment

It is recommended that an amendment to the Official Community Plan be approved. The proposed changes would:

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- Augment the environmental objective of the Plan by adding the phrase shown below in bold:  
“*Protect environmentally sensitive areas, provide adequate park space in the community and establish links between public open space **and enhance the urban environment of the City by growing its tree canopy***”.
- Include a new policy (11) in the Growth Management and Sustainability section of the Plan:  
“11. Work towards achieving a tree canopy target of 25% by 2060”.
- Revise policy (8) of the Environmental policy section of the Plan as shown below in track changes:  
"8. Promote the preservation of existing trees and the planting of new trees in application review and approval processes, including permits for tree cutting, demolition, soil removal and deposit, new developments and through DPAs and development control, road infrastructure projects, and the Tree Protection Bylaw.  
and
- Replace policy (9) of the Environmental policy section of the Plan as shown in track changes:  
"9. Require landscaping, preferably with native trees and plants, on intensive residential, commercial, and industrial development sites Ensure that landscape plans associated with new developments and infrastructure projects give consideration to the selection of trees that will contribute to enhancing the tree canopy, creating a diversity of tree species and use of native plant materials."

This report further recommends that Council confirm the consultation process for the Plan amendment to comply with s.475 of the *Local Government Act*.

### b) New Tree Bylaw

Following an extensive public consultation process, it is recommended that the attached tree bylaw be approved. The changes that would arise from adoption of this bylaw, which replaces the current bylaw, are detailed in Attachment 3.

### c) Other Bylaw Amendments

The following additional bylaws would be submitted to Council:

- i. An amendment to include a new schedule in the Fees and Charges Bylaw to set the recommended tree cutting permit fee (\$100/tree approved to be cut);
- ii. An amendment to the Delegation of Authority Bylaw to provide that the Committee of Council may consider a decision of the Manager of Parks Services with respect to the issuance of a tree cutting permit; and

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- iii. An amendment to the Bylaw Notice Enforcement Bylaw to increase the fines for unauthorized tree cutting. A comparison of the proposed fines with those charged by other communities is also included in Attachment 3.

## D. Future Communications

Providing educational materials and actions is planned to be an integral part of the City's tree management strategy, once the new policies and regulations are adopted. The strategy is projected to include an online tree portal describing the benefits of trees, tree hazard warning signs, how and when to acquire a tree permit, and penalties for bylaw contravention. Materials to be made available to the public would include tree pruning advice, a tree species selection tool, a list of local arborists, and instructional videos (e.g. how to plant a tree, etc.). The City would also look to collaborate with community organizations to increase awareness of the City's urban forest and its benefits, and to find ways to support volunteer initiatives such as by the Heritage Society and the Heritage Tree Group. There are no additional costs projected for this work.

## FINANCIAL IMPLICATIONS

The proposed increased tree cutting permit fees and cash-in-lieu of replanting, if approved, will increase the amount of funding available to plant new trees, limiting the need for additional, annual funding requests. Based on the adjusted figures, staff forecasted permit revenues to increase from an average of \$10,000 per year to approximately \$48,000 per year. This would allow for better species selection at tree nurseries, improved purchasing power, more strategic planting schedules and timelines, and better success and longevity rates leading to increased canopy densification. Unspent revenues will be placed in a reserve account to fund future tree planting.

## PUBLIC CONSULTATION

The recommendations of this report reflect the substantial public consultation that took place in 2017 ("Let's Talk Trees") and 2018 (review of proposed regulations). Further input would be obtained at the public hearing held in consideration of amending the Official Community Plan.

## OPTIONS

*With respect to amending the Official Community Plan and setting a tree canopy target:*

#	Description
1 	Recommend to Council that the Official Community Plan be amended to set a tree canopy target of 25% based on the calculation of achievable canopy and add policies and guidelines promoting enhanced tree protection, planting more trees and planting trees with larger crowns
2	Request staff bring forward a strategy to achieve a tree canopy target higher than 25% (such as 30%) including recommended changes to the proposed tree bylaw

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	and municipal budget, before making a decision on amending the Official Community Plan.
3	Set an “aspirational” canopy target of 40% and request staff bring forward a revised Official Community Plan amendment bylaw that would reflect this target.

*With respect to adopting a new tree bylaw and associated regulations:*

#	Description
1 	Recommend to Council that the new tree bylaw and regulations be adopted to enhance tree management, protection and replanting
2	Request additional information prior to making a decision on the proposed amendments
3	Determine that it does not wish to make any changes to current policies and regulations.

Report prepared by: Neil MacEachern, Doug Rose

### **ATTACHMENTS**

Attachment 1. Proposed Official Community Plan amendment

Attachment 2. Proposed Tree Bylaw 2019

Attachment 3. Comparison of regulations of current tree bylaw with proposed regulations;  
Comparison of fines

Attachment 4. Backgrounder: Calculating Port Coquitlam’s Tree Canopy

CITY OF PORT COQUITLAM

OFFICIAL COMMUNITY PLAN AMENDMENT BYLAW, 2018

Bylaw No.

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*Whereas an Official Community Plan was adopted by the "Official Community Plan Bylaw, 2013, No. 3838"*

*And whereas an amendment to the Official Community Plan has been prepared and after First Reading of this Bylaw the Council has:*

- (a) considered the amendment to the plan in conjunction with the City's financial plan;*
- (b) determined that no applicable waste management plan exists for consideration;*
- (c) determined that sufficient opportunities for consultation on the amendment to the plan have been provided;*
- (d) determined that the amendment to the plan does not affect the City of Coquitlam, District of Pitt Meadows, School District No. 43, the Metro Vancouver Regional District, TransLink, the Kwikwetlem First Nation or the provincial or federal government or their agencies.*

The Council of the Corporation of the City of Port Coquitlam enacts as follows:

**1. Citation**

This Bylaw may be cited as "Official Community Plan Bylaw, 2013, No. 3838, Amendment Bylaw, 2019, No. xxxx.

**2. Administration**

- 1) That Section 3, **Objectives**, be amended by augmenting the objective for Environment and Parks "Protect environmentally sensitive areas, provide adequate park space in the community and establish links between public open spaces" with the additional clause, "and enhance the urban environment of the City by growing its tree canopy".
- 2) That the following new policy 11. be added to Section 7.1, Growth Management and Sustainability,  

"11. Work towards achieving a tree canopy target of 25% by 2060."
- 3) That the objective referenced in the heading of Section 7.4, Environment and Parks, be replaced with the augmented objective, "Protect environmentally sensitive areas, provide adequate park space in the community and establish links between public open space and enhance the urban environment of the City by growing its tree canopy".
- 4) That policies 8 and 9 of Section 7.4, Environment and Parks, be replaced with the following policies:  

"8. Promote the preservation of existing trees and the planting of new trees in application review and approval processes, including permits for tree

cutting, demolition, soil removal and deposit, new developments and infrastructure projects.”

- "9. Ensure that landscape plans associated with new developments and infrastructure projects give consideration to the selection of trees that will contribute to enhancing the tree canopy, creating a diversity of tree species and use of native plant materials.”



# **THE CORPORATION OF THE CITY OF PORT COQUITLAM**

## **BYLAW NO.**

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***The Council of the Corporation of the City of Port Coquitlam, enacts as follows:***

### **1. CITATION**

1.1 This bylaw may be cited as “Tree Bylaw, 2019, No.x “

### **2. REPEAL**

1.1 City of Port Coquitlam Tree Bylaw, 2005, NO. 3474, as amended, is repealed.

2.1

### **3. INTERPRETATION**

2.1 In this bylaw, unless the context indicates otherwise:

- (a) **Arborist Report** means a document indicating the location, species, diameter, height, habitat features, and condition, in addition to relevant site conditions (e.g. infrastructure, watercourses, floodplain, etc.) produced and signed by a certified arborist and/or qualified tree risk assessor, as applicable;
- (b) **Bylaw Enforcement Officer** means an individual designated as a Bylaw Enforcement Officer;
- (c) **Caliper diameter** means the width of the main stem of a juvenile tree, measured at a height of 15 cm above the root ball;
- (d) **Certified Arborist** means a person certified by the International Society of Arboriculture as an arborist;
- (e) **City** means the City of Port Coquitlam;
- (f) **Cut** or **Cutting** means the severing, or knowingly allow to be severed the trunk or stem of a tree;
- (g) **Damage** means to conduct, or to knowingly allow to be conducted:

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- (i) severing or harming the roots growing inside the root protection zone of a tree;
- (ii) placing fill, building materials or structure upon land inside the root protection zone of a tree;
- (iii) operating trucks, backhoes, excavators or other heavy inside the root protection zone of a tree;
- (iv) denting, gouging or harming the stem of a tree;
- (v) removing bark from a tree;
- (vi) depositing concrete washout or other liquid or chemical substances harmful to the health of a tree on land inside the root protection zone of a tree;
- (vii) adding or removing soil from land inside the root protection zone of a tree which changes the original soil grade;
- (viii) undermining the roots inside the root protection zone of a tree;
- (ix) pruning a tree in such a way that may cause the instability or death of the tree; or
- (x) topping a tree by removing the vertical stem and upper primary limbs of a tree;

(h) **Development** means any building modification requiring a building permit from the City;

(i) **Diameter** means the width of the stem(s) of a tree, such that:

- (i) the diameter is the circumference of the stem of a tree measured 1.4 metres above natural grade, divided by 3.142;
- (ii) where natural grade is sloped, diameter shall be measured 1.4 metres above the mid-point between high and low sides of the natural grade;
- (iii) The diameter of a tree having multiple stems 1.4 metres above the natural grade shall be the sum of:
  - A. 100% of the diameter of the largest stem; and
  - B. 60% of the diameters of each additional stem;

- (j) **Drip line** means perimeter of the area directly beneath the ends of the outermost branches of a tree;
- (k) **Hazardous tree** means any tree which due to its condition, health or any other circumstances has been determined by a Qualified Tree Risk Assessor to present a hazard to the safety of persons, private property, or other tree(s);
- (l) **ISA** means International Society of Arboriculture;
- (m) **Location** of a tree means the point at which the main stem of a tree meets the ground;
- (n) **Lot** means a parcel of land registered in the Land Title Office and includes parcels created by bare land strata subdivision and common property shown on a strata plan;
- (o) **Manager of Parks Services** means the person appointed by the City as Manager of Parks Services and any duly authorized delegate of the Manager of Parks Services;
- (p) **Owner** means in respect of a lot:
  - (i) the registered owner;
  - (ii) the holder of the last registered agreement for sale;
  - (iii) a strata corporation if the lot is common property; or
  - (iv) an agent authorized in writing by the owner to act on the owner's behalf;
- (q) **Permit** means a permit issued by the City, including a building permit, demolition permit, development permit, development variance permit, heritage alteration permit, soil removal and deposit permit, temporary use permit, or any other permit deemed applicable by the City;
- (r) **Protective barrier** means fencing constructed around a tree in accordance with Schedule "B" of this bylaw to protect the tree from damage during site work or construction;
- (s) **Prune** or **Pruning** means the removal of living or dead parts of a tree, including branches, in order to maintain shape, health, flowering or to regulate growth;

- (t) **Qualified Tree Risk Assessor** means any person possessing a valid Tree Risk Assessment Qualification from International Society of Arboriculture;
- (u) **Remove** or **Removing** means to uproot, or cause or allow to be uprooted, or to move, or cause or allow to be taken off a lot;
- (v) **Replacement tree** means a tree with a minimum caliper diameter of 5.0 cm if deciduous, or a minimum height of 2.0 m if coniferous, planted on a lot to replace a tree which has been cut down on the same lot;
- (w) **Retained tree** means a tree on a lot in respect of which a tree cutting permit is issued that is not permitted to be cut;
- (x) **Root protection zone** means a circular area extending outward from the stem of a tree, whose radius is equal to six times the diameter of the tree;
- (y) **Shared tree** means a tree with any part of its trunk crossing a property line, including where the adjacent property is a highway, park, or other City-owned property;
- (z) **Significant tree** means a tree listed and identified in Schedule 'A';
- (aa) **Snag** means any dead standing tree;
- (bb) **Stem** means a main segment of a tree which grows upward from the ground;
- (cc) **Tree** means a woody perennial plant having a single stem or group of stems with a diameter of at least 15 cm measured 1.4 metres above natural grade or a height of at least 5 metres; and includes:
- (i) a replacement tree; or
  - (ii) a tree planted as a condition of a development permit;
- (dd) **Tree Cutting Permit** means a permit issued by the Manager of Parks Services in accordance with this bylaw, which shall permit the cutting and replacement of trees under the conditions stipulated in the permit;
- (ee) **Tree Cutting Plan** means a plan based on the tree survey, which shows the trees proposed to be cut;
- (ff) **Tree Replacement Plan** means a plan which shows the location, size (height and/or caliper diameter) and species of replacement trees to be planted upon a subject lot; and

- (gg) **Tree Risk Assessment** means an analysis of tree hazard that includes documented assessment of site factors, tree health and species profile, load factors, tree defects and conditions affecting the likelihood of failure, risk categorization, and mitigation options.
- 2.2 A reference in this bylaw to an enactment is a reference to that enactment as amended or replaced from time to time.
- 2.3 Words used in the singular form in this bylaw include the plural and gender specific terms include all genders and corporations.
- 2.4 Headings in this bylaw are for convenience only and must not be construed as defining or in any way limiting the scope or intent of this bylaw.
- 2.5 A decision by a court that any part of this bylaw is illegal, void or unenforceable severs that part of this bylaw and does not affect the validity of the remainder of this bylaw.

### **3. APPLICATION OF BYLAW**

- 3.1 This bylaw applies to all trees within the City except as provided in section 3.2.
- 3.2 This bylaw does not apply to:
  - (a) trees that are cut, removed, or damaged pursuant to the *Railway Safety Act*, SBC 2004, c.8, the *Hydro and Power Authority Act*, RSBC 1996, c.212, or the *Oil and Gas Activities Act*, SBC 2008, c.36; and
  - (b) trees on City-owned property or highways that are cut or removed by the City or its authorized agents in accordance with approved City operations.

### **4. PROHIBITIONS**

- 4.1 No person shall cut, remove or damage any tree, except in accordance with the terms of a tree cutting permit issued under this bylaw.
- 4.2 No person shall remove, conceal, or otherwise interfere with a posted Stop Work Order issued under this bylaw.
- 4.3 No person shall alter, falsify, or otherwise misrepresent any information on or for a tree cutting permit or application.
- 4.4 No person shall fasten any sign, notice, or other object to, around, or through any tree or shrub of any size located on City-owned or occupied land, including any tree or shrub located on a highway.

## 5. TREE CUTTING PERMITS

- 5.1 An owner may apply to the Manager of Parks Services for a tree cutting permit.
- 5.2 No tree cutting permit is required
- (a) to prune a tree in accordance with ISA guidelines; or
  - (b) where a hazardous tree is in imminent danger of falling and injuring persons or property due to natural causes and it is not possible to obtain a tree cutting permit prior to the tree falling. The owner may cut the tree or have it cut but shall report the cutting of the tree to the Manager of Parks Services the next business day along with a photograph of the tree prior to such cutting and shall forthwith apply for a tree cutting permit. The owner shall not remove the tree from the lot until the City has attended at the site. If the Manager of Parks Services determines that the tree was not in imminent danger of falling or was in imminent danger of falling due to reasons other than natural causes, the owner may be subject to the offences and penalties in section 10 of this bylaw.
- 5.3 An application for a tree cutting permit must be made in the form prescribed for that purpose from time to time by the Manager of Parks Services and must include all of the following:
- (a) the civic address and legal description of the lot or lots on which the trees proposed to be cut or removed are located;
  - (b) if the applicant is not the owner of the lot on which the tree proposed to be cut or removed is located, the written consent of all owners of that lot;
  - (c) a statement of purpose and rationale for the proposed tree cutting or removal;
  - (d) a non-refundable application fee set out in the *Fees and Charges Bylaw, 2015, No. 3892*;
  - (e) a tree replacement plan in accordance with section 6 of this bylaw;
  - (f) a security deposit in accordance with section 7 of this bylaw;
  - (g) details of the scale, methods, and timing of the proposed cutting or removal of trees;
  - (h) where the tree is a shared tree, a letter from the owners of the adjacent lot consenting to the cutting or removal of the shared tree, together with current contact information for each of those owners; and

- 5.4 In addition to the requirements in section 5.3, the Manager of Parks Services may also require an applicant for a tree cutting permit to provide:
- (a) an arborist report, a tree risk assessment, and a tree cutting plan;
  - (b) a title search for the lot or lots on which the trees proposed to be cut or removed are located, obtained from the Land Title Office, along with copies of any covenants or similar agreements registered against title to the lot and relating to the use of the lot or the cutting or removal of trees on the lot;
  - (c) where a tree is proposed to be cut for the purpose of a development, the permits associated with the property on which the tree is to be cut; and
  - (d) if the tree cutting permit is sought in respect of a lot in a development permit area identified in the *Official Community Plan, 2013, No. 3838*:
    - (i) where applicable, a report from an engineer assessing issues relating to slope stability, flooding, and erosion on the lot, certifying that the proposed cutting or removal of the tree(s) will not destabilize slopes or cause flooding or erosion, and specifying any conditions under which the proposed cutting or removal of the tree(s) may take place, including the appropriate extent, timing, and phasing of the cutting or removal to address public health and safety concerns, minimize impacts to adjacent properties, protect retained trees, and protect other environmental features or functions;
    - (ii) where applicable, proof of approval from the Ministry of Environment & Climate Change Strategy, Fisheries and Oceans Canada, or both for areas protected for fish habitat or flood-proofing purposes; and
    - (iii) where applicable, adherence to the watercourse development permit area designation in the Official Community Plan.

5.5 The Manager of Parks Services may:

- (a) issue a tree cutting permit; or
- (b) issue a tree cutting permit subject to terms and conditions with respect to the extent, timing and phasing of tree cutting, removal and replacement; the location of replacement trees to be planted; and proposed methods to access the site, control erosion, manage runoff, and protect retained trees.

5.6 The Manager of Parks Services may refuse to issue a tree cutting permit where:

- (a) the proposed tree cutting would take place during nesting season (March 1 through July 31) of any given year except where:

- (i) the applicant submits a biological survey prepared by a Qualified Environmental Professional identifying any active nests located upon or in the vicinity of the lot; and
    - (ii) the applicant provides detailed measures to be taken for the protection of such nests in accordance with any requirements under the *Wildlife Act*, RSBC 1996, c.488, and other applicable legislation; or
  - (b) the tree proposed to be cut is a significant tree, unless:
    - (i) the significant tree is a hazardous tree; or
    - (ii) the Manager of Parks Services determines following review of engineering, architectural, or landscaping drawings and an arborist report that cutting is necessary for:
      - A. the construction of or addition to a building;
      - B. the construction of off-street parking or an underground or above ground utility corridor; or
      - C. the construction of roads or services.
- 5.7 The Manager of Parks Services may suspend or revoke a tree cutting permit at any time if the Manager of Parks Services determines that:
- (a) tree cutting and replacement is not being carried out in accordance with the terms of this bylaw, the tree cutting permit or both; or
  - (b) the information on which the issuance of the tree cutting permit was based is incorrect.
- 5.8 Unless otherwise specified in a tree cutting permit, a tree cutting permit shall expire within one year after the date of issuance.
- 5.9 Every person issued a tree cutting permit shall post a copy of the permit in a conspicuous place at the front of the lot to which the tree cutting permit relates for the duration of the activities permitted in the tree cutting permit.
- 5.10 A tree cutting permit only grants permission pursuant to this bylaw and does not relieve the owner from complying with all other laws, regulations and requirements of any public authority having jurisdiction, nor relieve the holder from complying with civil, common law or contractual obligations.

## 6. TREE REPLACEMENT

- 6.1 Every applicant for a tree cutting permit shall provide a tree replacement plan acceptable to the Manager of Parks Services.
- 6.2 A tree replacement plan shall provide for one replacement tree to be planted for each tree proposed to be cut, except as provided in sections 6.3 and 6.4.
- 6.3 A tree replacement plan shall provide for two replacement trees to be planted for each significant tree proposed to be cut.
- 6.4 No replacement tree shall be required where the largest stem of the tree to be replaced is within a 5 metre radius of the largest stem of another tree.
- 6.5 Every owner who is issued a tree cutting permit shall plant replacement trees in accordance with the associated tree replacement plan.
- 6.6 Where an owner submits an arborist report that indicates that the subject lot cannot accommodate a replacement tree or replacement trees, the Manager of Parks Services may permit the owner to contribute \$500 in lieu of each replacement tree not planted.
- 6.7 Every owner shall maintain in good health in accordance with sound arboricultural practice every replacement tree planted pursuant to a tree replacement plan for a period of 1 year after planting.
- 6.8 Where a replacement tree does not survive for 1 year after planting, the owner shall, within 6 months, remove the deceased tree and provide a new replacement tree in a location satisfactory to the Manager of Parks Services. The owner shall thereafter maintain the new replacement tree in accordance with section 6.7.

## **7. SECURITY DEPOSITS**

- 7.1 Every applicant for a tree cutting permit shall submit with the application a security deposit, in the form of cash or irrevocable letter of credit drawn upon a chartered bank in a form acceptable to the Manager of Parks Services, for full and proper compliance with all the terms in a tree cutting permit, including the planting and maintenance of all replacement trees.
- 7.2 The amount of security shall be \$500 per required replacement tree.
- 7.3 If at any time an owner fails to comply with the provisions of this bylaw, a tree cutting permit or a tree replacement plan, the City may by its employees or contractors enter upon the lot that is the subject of the requirements and fulfill the requirements of the owner and, for such purposes, the City may draw upon the security provided and expend the funds to cover its costs and expenses of so doing.

- 7.4 The City shall release the security provided by an owner in respect of each replacement tree when the Manager of Parks Services determines, in his or her sole discretion, that a replacement tree has been planted and maintained in good health for a period of 1 year. In the event that the Manager of Parks Services determines an owner has not maintained a replacement tree in good health for 1 year, the City may retain the security until the Manager of Parks Services is satisfied that the replacement tree, or a tree planted to replace a deceased replacement tree, is in good health and is expected to grow to maturity.
- 7.5 The Manager of Parks Services may waive the requirement to post security under this section 7 if the owner has provided other security relating to a development on the lot that permits the City to draw down on such security to fulfill the owner's obligations under a tree cutting permit, tree replacement plan and this bylaw.
- 7.6 The Manager of Parks Services may waive the requirement to post security under this section 7 if the owner carries on an institutional or single residential use as set out in the *Zoning Bylaw, 2008, No. 3630*.

## **8. TREE PROTECTION DURING CONSTRUCTION AND DEMOLITION**

- 8.1 Where the drip line of a tree is within 4 metres from any excavation, demolition, construction, fill or engineering works proposed on a lot, the owner shall install a protective barrier around the root protection zone of the tree.
- 8.2 Where the drip line of a tree on an adjacent lot is within 4 metres from any excavation, demolition, construction, fill or engineering works proposed on a lot, the owner shall, with the consent of the owner of the adjacent lot, install a protective barrier around the root protection zone of the tree. In the event that the owner cannot obtain such consent from the owner of the adjacent lot, the owner shall install a protective barrier around the tree to the property line of the owner's lot.
- 8.3 No demolition permit, building permit, or fill permit shall be issued before the installation of protective barriers has been satisfactorily demonstrated to the City, if such barriers are required in accordance with sections 8.1 and 8.2.
- 8.4 A protective barrier must remain in place for the duration of all excavation, construction, demolition, or fill activity on the lot until removal of the protective barrier is approved by the Manager of Parks Services.
- 8.5 No person shall disturb the area within a root protection zone by site grading, deposition or storage of soil or any other material, disposal of any toxic material, access by any vehicular traffic or heavy equipment, use of the area as an amenity space during construction, use of tree trunks as a winch support, anchorage, or temporary power pole or in any other manner.

8.6 Notwithstanding sections 8.4 and 8.5, a protective barrier may be temporarily removed or relocated in order to allow work to be done within or near a root protection zone if the owner has, prior to such removal or relocation, provided the City with:

- (a) a report from a certified arborist, satisfactory to the Manager of Parks Services, setting out the reasons and proposed duration for such removal or relocation; and
- (b) a signed letter of undertaking from a certified arborist, in the form prescribed for that purpose from time to time by the Manager of Parks Services, confirming that the certified arborist will be onsite and supervising all such work,

and thereafter the owner shall only remove or relocate the protective barrier in accordance with the approved report and at those times during which the certified arborist is onsite and supervising all such work.

## **9. INSPECTIONS AND STOP WORK ORDERS**

9.1 Bylaw enforcement officers and any other employees or agents of the City authorized to administer or enforce this bylaw may, in accordance with section 16 of the *Community Charter*, enter any lot at all reasonable times without the consent of the owner to ascertain whether the requirements of this bylaw or a tree cutting permit are being observed.

9.2 No person shall obstruct or attempt to obstruct any bylaw enforcement officer, employee or agent of the City in the exercise of any of that person's duties under this bylaw.

9.3 A bylaw enforcement officer may issue a Stop Work Order if any tree is being cut or damaged in contravention of this bylaw or a tree cutting permit. A bylaw enforcement officer may post the Stop Work Order in a conspicuous location near the front of the lot. Upon receipt of a Stop Work Order, the owner and owner's agents shall immediately cease all tree cutting or damaging activities and shall not resume unless authorized by the Manager of Parks Services.

9.4 Where a tree has been cut or damaged in contravention of this bylaw or a tree cutting permit, the trunk, limbs, roots and remains of the tree shall not be removed from the lot until an investigation and assessment is complete and the removal is expressly authorized by the Manager of Parks Services.

## **10. OFFENCES AND PENALTIES**

10.1 This bylaw may be enforced by the provisions of the *Bylaw Notice Enforcement Bylaw No. 3814, 2013*, and the *Ticket Information Utilization Bylaw, 1992, No. 2743*.

10.2 Any person who:

- (a) contravenes or violates any provision of this bylaw or of a tree cutting permit issued under this bylaw;
- (b) allows any act or thing to be done in contravention or violation of this bylaw or of a tree cutting permit issued under this bylaw; or
- (c) fails or neglects to do anything required to be done by this bylaw or a tree cutting permit issued under this bylaw,

commits an offence, and where the offence is a continuing one, each day the offence is continued constitutes a separate offence.

10.3 Where one or more tree is cut, removed or damaged in contravention of this bylaw or a tree cutting permit or one or more tree is not replaced or maintained in accordance with a tree replacement plan, a separate offence is committed in respect of each tree.

10.4 Upon being convicted of an offence under this bylaw, a person shall be liable to pay penalties not exceeding the amounts provided for in the *Offence Act*, RSBC 1996, c.338.

10.5 In addition to any other penalty which may be imposed under this bylaw, where an owner cuts, removes or damages, or causes or allows any tree to be cut, removed or damaged in contravention of this bylaw or of any term or condition of a tree cutting permit issued under this bylaw, the owner shall, within 30 days of receiving notice of such requirement from the Manager of Parks Services:

- (a) submit for the Manager of Parks Service's approval a tree replacement plan prepared by a certified arborist providing for 3 replacement trees to be planted for each tree unlawfully cut and specifying the location of such replacement trees; and
- (b) submit security in accordance with section 7 of this bylaw.

10.6 Every owner who submits a tree replacement plan and security under section 10.5 of this bylaw shall plant replacement trees in accordance with the approved tree replacement plan and sections 6.5, 6.6, 7.3 and 7.4 of this bylaw shall apply to the replacement trees and the security.

SCHEDULE "A"

SIGNIFICANT TREES

TYPE	Minimum SIZE
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Rare Native Tree Species

- Pacific Dogwood (*Cornus nuttallii*) 10 cm diameter
- Arbutus (*Arbutus menziesii*) 10 cm diameter
- Western Yew (*Taxus brevifolia*) 10 cm diameter
- Western white pine (*Pinus monticola*) 10 cm diameter
- Garry oak (*Quercus garryana*) 10 cm diameter
- Oregon ash (*Fraxinus latifolia*) 10 cm diameter

Wildlife Trees

- Any dead, standing snag used as wildlife habitat.

Heritage Trees

- Any tree designated and registered by size, age or cultural significance that has been entered upon a list of heritage trees.

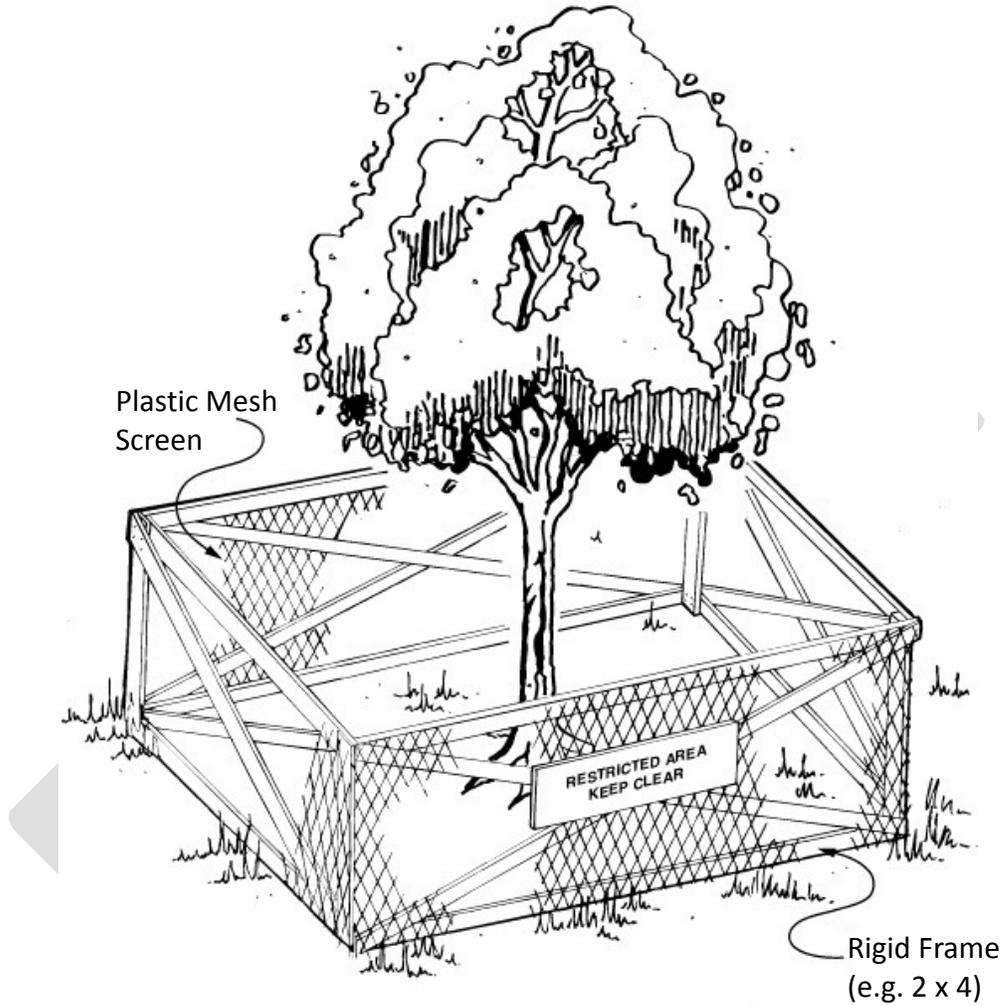
Specimen Trees

- Any tree with a diameter of 60 cm or greater, excluding Black cottonwood (*Populus balsamifera* ssp. *Trichocarpa*), Balsam poplar (*Populus balsamifera* ssp. *Balsamifera*), and Trembling aspen (*Populus tremuloides*).

SCHEDULE "B"

BYLAW xxxx

**PROTECTIVE BARRIER**



Tree Diameter (cm)	20	25	30	35	40	45	50	55	60	75	90	100
Minimum Distance from tree to Protective Barrier (m)	1.2	1.5	1.8	2.1	2.4	2.7	3.0	3.3	3.6	4.5	5.4	6.0

## Attachment 2: Comparison of Regulations

**Table 1: Comparison of Tree Bylaw, 2005 with Proposed Tree Bylaw, 2019**

Regulation	Current Bylaw	Proposed Bylaw
<b>Requirement to obtain a permit to cut a tree</b>	DBH larger than 20 cm. DBH is defined as the diameter of the trunk of the tree at breast height.	<p>DBH larger than 15 cm (i.e., tree permits will be required for smaller trees)</p> <p>Tree height more than 5m (i.e., a tall tree with a DBH less than 15 cm also requires a permit)</p> <p>A tree of any size required to have been planted per a landscape plan forming part of a development permit</p> <p>Any tree on City-owned property, including park, boulevard and other public property, if proposed to be cut by a private individual (not the City)</p>
<b>Definition of a significant tree</b>	<ul style="list-style-type: none"> <li>▪ a large native species</li> <li>▪ a wildlife tree (used for bird nest)</li> <li>▪ a registered heritage tree, or</li> <li>▪ an unusual specimen tree</li> </ul>	<ul style="list-style-type: none"> <li>▪ a rare native species with a DBH greater than 10cm</li> <li>▪ a dead, standing snag used as wildlife habitat</li> <li>▪ a tree listed as heritage on a list approved by Council</li> <li>▪ a very large tree having a DBH greater than &gt;60 cm. (about 2')</li> </ul>
<b>Refusal of permit to cut a significant tree</b>	May be refused unless tree is hazardous or within required area for services or building	No change to bylaw provisions. Proposed OCP policy promotes retention of significant trees through variance to siting of building/services
<b>Requirement to replant</b>	Not required by bylaw. Staff negotiate with owners to obtain replacement of a significant tree through the permit issuance process	Requires: <ul style="list-style-type: none"> <li>▪ one replacement tree planted for each cut tree</li> <li>▪ two replacement trees planted for each cut significant tree</li> </ul>
<b>Cash-in-lieu of replanting</b>	Not required. However, staff may negotiate with owners for funding	Provides option that cash-in-lieu of on-site planting may be paid in the amount of \$500
<b>Post tree cutting permit</b>	Not required	Require permit to be posted in a visible location during cutting
<b>Permit Fee</b>	<p>No fee to cut one tree per year on a property (permit required)</p> <p>Fee of \$50 plus \$20 per tree approved to be cut for a single residential lot owner to cut &gt; 1 tree/year; fee of \$75 plus \$25 per tree for all other lot owners</p>	Fee of \$100 for each tree approved to be cut.

Regulation	Current Bylaw	Proposed Bylaw
<b>Permit fee to cut a tree that the owner considers to be hazardous</b>	No fee.	No fee. Retroactive permit required to be obtained from City within 2 days that the tree is removed.
<b>Penalties</b>	Range from \$100 to \$500.	Range from \$100 to \$2000 For example: <ul style="list-style-type: none"> <li>▪ \$100 failure to display permit</li> <li>▪ \$2000 unauthorized cutting of a significant tree.</li> </ul>
	<u>One</u> replacement tree must be planted for each tree removed without authorization	<u>Three</u> replacement trees must be planted for each tree removed without authorization.
<b>Protective fencing around retained trees</b>	Not required. Often obtained as a condition of development approval or through negotiations in issuing a tree cutting permit	Required prior to issuance of: <ul style="list-style-type: none"> <li>▪ demolition permit</li> <li>▪ soil removal or soil deposit</li> <li>▪ development permit</li> <li>▪ tree cutting permit.</li> </ul>

**Table 2: Comparison of proposed fines with fines charged in other Metro Vancouver municipalities.**

Infraction	Other Metro Bylaws			Proposed in PoCo	
	<u>Min</u>	<u>Max</u>	<u>Average</u>	<u>Paid 14 days</u>	<u>Full</u>
Fail to display permit	\$ 75	\$ 500	\$246	\$ 100	\$ 200
Cut w/o valid permit	\$500	\$ 2,000	\$917	\$ 750	\$1,000
Remove tree w/o Permit	\$500	\$ 2,000	\$958	\$ 750	\$1,000
Damage to a tree	\$500	\$ 1,000	\$750	\$ 375	\$ 500
Remove heritage or significant	\$1,000	\$10,000	\$4,000	\$ 1,500	\$2,000
Damage heritage or significant	\$2,000	\$ 2,000	\$2,000	\$ 750	\$1,000
Fail to comply with conditions	\$500	\$ 2,000	\$906	\$ 375	\$ 500
Alter/falsify permit or app'n	\$500	\$ 1,000	\$750	\$ 375	\$ 500
Fail to plant or maintain replacement tree	\$300	\$ 1,000	\$619	\$ 750	\$1,000
Fail to install or maintain protective barrier	\$200	\$ 1,000	\$531	\$ 375	\$ 500
Disobey stop work order	\$500	\$ 1,000	\$667	\$ 750	\$1,000
Obstruct entry of City agent	\$100	\$ 1,000	\$460	\$ 375	\$ 500

## CALCULATION OF PORT COQUITLAM’S CANOPY COVER

A tree’s canopy is defined as the area underneath a tree’s leaf and branch cover and the City’s canopy cover is defined as the relative amount of land which is shaded by the tree canopy. Canopy cover level is an indicator of benefits derived from trees including perceived greenness, amount of rainfall interception, thermal regulation, and pollution absorption. A higher canopy cover level is generally seen as having greater social and environmental benefits than a lower canopy cover level.

An assessment of the canopy cover level using the USDA i-Tree tool<sup>1</sup> for the years from 2004 to 2016 indicated the City’s coverage is 23.8% and it has remained steady at this level during the 12 year period. This canopy covers some 1400 acres, with roughly 55% growing on privately-owned lands and 45% on public lands (parks, natural areas along rivers and streams, trails, schools, streets and other rights-of-way)<sup>2</sup>. Approximately 4,700 of these trees are located within active parks or along streets and actively managed by the City at an annual cost of \$460,000 (this budget includes watering, pruning, risk assessment, and tree removal when necessary).

**Estimated Canopy Cover Level by Land Use within Developed Areas<sup>3</sup>**

Use	Area (km <sup>2</sup> )	Canopy Cover		
		2004	2016	Change
<b>Ground-Oriented Residential</b>	7.62	22.1%	23.0%	+0.9%
<b>Apartment</b>	0.53	30.8%	25.6%	-5.1%
<b>Industrial (excluding CP Rail)</b>	2.61	7.3%	5.1%	-2.3%
<b>Commercial</b>	0.75	16.7%	10.4%	-6.3%
<b>Institutional</b>	1.32	26.5%	25.5%	-1.0%
<b>Parks</b>	2.21	72.7%	73.6%	+0.9%
<b>Roads &amp; Rights-of-Way</b>	4.85	14.9%	17.5%	+2.6%
<b>Vacant</b>	2.08	43.1%	35.3%	-7.8%
<b>Total</b>	21.98	23.8%	23.8%	0.0%

The assessment reveals there has been significant variation in change to canopy cover in different land use categories. In general, it has increased in ground-oriented residential areas (single family homes, duplexes, townhouses) and on public lands, primarily due to a widening of tree crowns as trees grow because the total number of trees within these land uses declined over the 12-year

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<sup>1</sup> This is a tool used to evaluate canopy density. Note that the tool does not distinguish between deciduous versus coniferous trees, or the height of trees. It also does not translate into an estimate of the number of trees in an area as this will vary depending on the individual crown size.

<sup>2</sup> This number is based on a calculation using the USDA i-Tree tool as further described in Section 3.3. It assumes an average tree crown is a medium-sized (9m diameter) tree.

<sup>3</sup> This table provides a calculation of the number of trees within the City’s Urban Containment Boundary as defined in the Official Community Plan. Ground-oriented residential uses includes lands zoned single residential, duplex and townhouse; vacant lands includes lands zoned Agriculture and designated for future development but not in the Agriculture Land Reserve.

Attachment 4: Backgrounder re Canopy Cover Calculation  
 (Information provided to Committee in 2017, updated with current data)

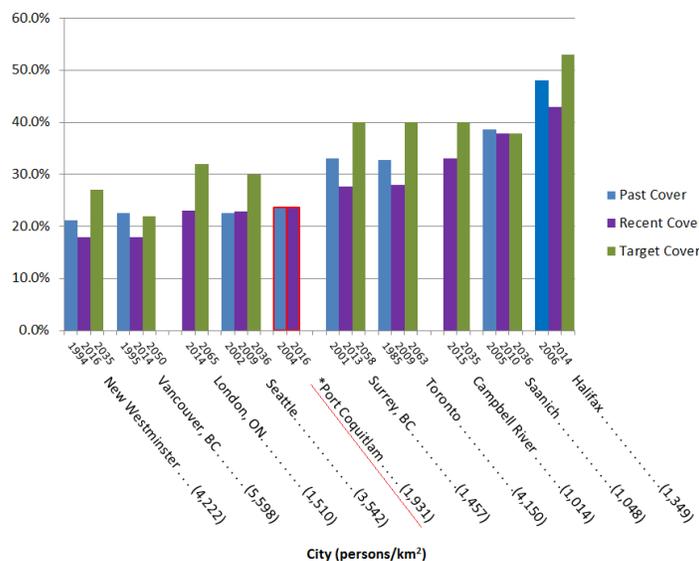
period. It decreased in areas developed for other land uses. As most of the original forest was cleared many years ago, the more recent decrease is primarily attributed to a loss of mature trees in areas redeveloping to higher densities, such as the downtown apartment area. When new apartment buildings replace older, small homes, sites must be cleared to their lot lines to accommodate the underground parking structure and existing vegetation cannot be retained.

Overall, the number of trees cut pursuant to issued permits ranged from 50 to 1500 trees per year, with an average of approximately 600. This loss is partially offset by the planting of new trees, as the City adds between 50 and 300 new trees per year in its streets and parks, depending on the amount of funding obtained from the tree cutting permit fees. Developers plant between 50 and 150 street trees per year plus an unknown number of on-site trees as part of their site landscaping requirements. The number of trees planted annually by property owners (mostly single family) is also unknown, but observations indicate this is insignificant.

Projecting the 12-year trend in the future is not definitive - there could be either a slight decrease or a slight increase in the canopy depending on when land is redeveloped and the number of treed sites included within this redevelopment. Another factor is the age of redevelopment as, for example, in areas where there was extensive replanting over a relatively short period of time, such as Citadel Heights, canopy growth over the last decade substantially increased but it is not expected to be sustained. Over time, residents will look to reduce shading, expand their building footprint, or enhance their views by cutting trees and the gains will be reduced.

**CANOPY COVER TARGETS IN OTHER COMMUNITIES**

Three Lower Mainland communities have set targets for the amount of tree canopy they wish to see in their communities: New Westminster plans to increase its existing canopy of 18% to 27% by 2035; Vancouver is looking for a 4% increase to 22% by 2050; and, Surrey has set a canopy target of 40% by 2058, an increase to its current coverage of 27.8%. Elsewhere, the City of Toronto has a canopy cover of 28%, similar to other older Canadian cities which have more large mature trees.



## OPTIONS FOR PORT COQUITLAM

- (1) **A no net loss scenario to maintain the existing tree canopy cover of 23.8%:** If the City retains its existing regulations, the tree canopy will start to decline. To keep to a no-net loss scenario, the City would need to enhance existing planting programs by an estimated 350 trees per year, or implement tree cutting regulatory changes which do not have the full scope of that proposed.
- (2) **An achievable canopy target of 25%:** This option would involve planting more trees along with fewer trees being cut. This target could be met by 2060 through the planting of an additional 13,000 small trees, 4,000 medium-sized trees or 1,250 large trees and it is anticipated that the City can achieve this target through implementation of the proposed regulatory changes.
- (3) **An achievable canopy target of 30%:** Achieving this target by 2060 would require a substantial increase in the tree canopy not only in ground-oriented residential areas and public lands but also in industrial and commercial areas, and would equate to the addition of 78,000 small trees, 24,000 medium-sized trees or 7,600 large trees, or an annual net gain of 480 medium-sized trees. It could likely only be achieved if there was a significant investment from the private sector responding to a significant shift in policy and regulations. To implement this scenario, developed sites would need to be reconfigured to replace their surface parking lots or informal storage areas with trees and new developments would be required to provide a significantly higher number of trees than currently achieved (at least two to one for each tree cut) in addition to substantial increases in street trees
- (4) **An aspirational canopy target of 40%:** An aspirational target may be set if a community wishes to inspire decisions in keeping with the desired direction, but it is not set with the expectation that such a target would actually be met within a defined timeframe.