

**CITY OF MAPLE RIDGE  
TREE PROTECTION & MANAGEMENT BYLAW**

**BYLAW NO. 7133-2015**

A bylaw to manage the urban forest and tree canopy and regulate, prohibit and impose requirements in relation to tree cutting and removal in Maple Ridge.

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**WHEREAS**, section 8(3)(c) of the *Community Charter* enables Council by bylaw to regulate and prohibit, and impose requirements in relation to the cutting and removal of trees;

**AND WHEREAS**, sections 15 and 194 of the *Community Charter* enable Council to permit and establish conditions and fees for permit issuance;

**NOW THEREFORE**, the Municipal Council of the City of Maple Ridge enacts as follows:

**1. Citation**

This bylaw may be cited for all purposes as the “Maple Ridge Tree Protection and Management Bylaw No. 7133-2015”.

**2. Repeal**

The “Maple Ridge Tree Protection Bylaw No. 5896-2000” is hereby repealed.

**3. Definitions**

“Agricultural use” means the use of land for the growing of crops or the raising of livestock as permitted under the Maple Ridge Zoning Bylaw.

“Certified Arborist” means a person who is certified by the International Society of Arboriculture (ISA).

“City” means the City of Maple Ridge.

“City Arborist” means a person employed by the City of Maple Ridge, who has current certification as a Certified Arborist and uses that certification as part of their job description.

“City Tree Fund” means the money collected by the City through replacement cash-in-lieu as per Schedule “E” of this Bylaw for the sole use of replacing lost tree canopy through the planting of trees on public and private properties, and affiliated extension activities to educate the public on the importance of trees and requirement of tree permits within the City.

“Conservation Area” means a streamside protection and enhancement area as defined in the Streamside Protection Regulation or slopes over 25% or land subject to a geotechnical covenant or habitat protection covenant.

“Critical Root Zone” means the area of land surrounding the trunk of a tree contained within a circle of radius equal to the DBH of the tree multiplied by 18; or equal to the dripline of the tree; whichever is greater.

“Cut” and “Cutting” means the removal, knocking down or cutting into, any or all parts, of any tree in such a manner that damages or is detrimental to the health of any tree; and shall include the topping of a tree.

“Damage” and “Damaging” means any action which will cause a tree to die or to decline in health; including, but not limited to, cutting, ringing, poisoning, burning, topping, or excessive pruning.

“DBH” means the diameter of a tree at breast height, measured from a height of 130 cm above natural grade of the ground, as measured from the base of the tree. For multi-stemmed trees, the DBH is equal to the cumulative total of the DBH of each stem.

“Developable Area” means the parts of a parcel which are not in a Conservation Area

“Drainage System” means the system and network of streams, creeks, waterways, watercourses, waterworks, ditches, drains, or sewers located in the City on private or public property, by which water is conveyed or travels from lands.

“Drip Line” means the vertical line extending down from the outer most branches of the tree to the natural grade of the land.

“Environmental Technician” means the person employed by the City of Maple Ridge with the job title of Environmental Technician.

“Excessive Suspended Solids Discharge” means an indirect or direct fluid discharge containing suspended solids exceeding 75 milligrams per litre into any drainage system.

“Farm Plan” means a plan prepared by a professional Agrologist that indicates the proposed use of agriculturally zoned land for agricultural purposes. The Farm Plan would indicate placement of structures and production areas, ponds, pastures and fencing specifically for agricultural use.

“Floodplain” means the land that is adjacent to a watercourse that is subject to regular flooding, as depicted on the current Maple Ridge mapping floodplain layer.

“Hazard tree” means a tree that is determined to be currently in a condition dangerous to people or property in a report prepared by a Qualified Tree Risk Assessor, that is to be reviewed and approved by the City.

“Heritage Tree Protection Area” means the area of land designated for tree protection as shown in Schedule “A” to this Bylaw.

“Large Scale Building Permit” means a permit for the construction of the following:

- Building complexes such as apartment buildings, multiple residential developments, or townhouses with more than five units;
- A building that is designated for industrial, commercial, or institutional use;
- A large structure where the building lot coverage is equal to or larger than 2000 square metres.

“Large Woody Debris” means fallen trees, dead trees and snags, eroded root structures and logs within a Conservation Area.

“Manager” means the Manager of Development and Environmental Services for the City of Maple Ridge and his/her designate.

“Natural Causes” means death or decline of a tree as a result of natural diseases, pests, climatic conditions, or inherent structural defects.

“Owner” means the registered owner or owners of a fee simple parcel of land, or the strata corporation of a strata lot.

“Permit” means a permit issued by the Manager under the authority of this bylaw to cut or remove a tree or trees.

“Permit Tree” means a tree that is 20 centimetres DBH or greater.

“Prune” or “pruning” means the selective cutting of living or dead branches of a tree consistent with promoting the health and growth of the tree, as consistent with the International Society of Arboriculture’s standards of arboriculture practice. This does not include topping of a tree.

“Public Utility” means a utility service provided by the City of Maple Ridge, BC Hydro, Telus, Terasen Gas and any other company, utility or authority providing a public service or utility.

“Qualified Tree Risk Assessor” means a person who has a valid Tree Risk Assessment Qualification as awarded by the International Society of Arboriculture (ISA).

“Replacement Tree” means a tree required to be planted to replace a tree that has been cut or damaged in accordance with this Bylaw.

“Rural Area” means areas of the City of Maple Ridge outside the Urban, Urban Reserve, and Suburban Area boundaries as shown on Schedule “B” of the current Maple Ridge Official Community Plan.

“Significant Tree” means a tree that is greater than 50cm DBH in the urban and suburban area, and 70 cm DBH for trees in the rural area; not including Cottonwood or Alder species.

“Significant Tree Stand” means a stand of three or more Significant Trees with less than ten metres between any two trees, and all vegetation within the outer dripline of that stand.

“Streamside Protection Regulations” means the watercourse setback protection methodology that is adopted and used by the City for protecting watercourses, ponds, wetlands, and water features.

“Topping” means the removal of major portions of a tree crown by cutting branches to stubs or cutting of the main leader or branches, and includes re-topping of previously topped trees.

“Tree Management Plan” means a plan prepared by a Certified Arborist or Registered Forester to indicate the removal and retention of trees as per City requirements in Schedule “B”.

“Tree Protection Barrier” means a barrier erected to protect a tree and its roots from damage during site work or construction; and as specified in Schedule “C” of this Bylaw.

“Tree Risk Assessment” means a written assessment prepared by a Qualified Tree Risk Assessor of the risk of trees to persons and property using the most current International Society of Arboriculture Tree Risk Assessment Standards and Tree Risk Assessment Qualification.

“Tree Survey Plan” means a survey plan prepared by a registered BC Land Surveyor. The plan illustrates the location of trees in relation to the property lines of a lot, along with the size and species of each tree, plus any other information required for the purpose of assessing a Permit application.

“Urban and Suburban Area” means the areas of land designated as “Urban Residential”, “Estate Suburban Residential”, “Suburban Residential”, “Urban Reserve”, “Commercial”, “Industrial” and “Institutional” on Schedule “B” of the current Maple Ridge Official Community Plan,.

“Vulnerable Aquifer” means an aquifer that has been provincially designated as high vulnerability by the BC Water Resource Atlas and aquifers identified in the Aquifers Map Figure 7 in the Maple Ridge Official Community Plan, Bylaw No. 7060-2014.

#### **4. Prohibitions**

- 4.1 No person shall cut or damage or cause or permit the cutting or damaging of a Permit Tree without first obtaining a Permit.
- 4.2 No person shall cut or damage or permit to be cut or damage a tree in the Heritage Tree Protection Area without first obtaining a Permit and written confirmation that the tree is a Hazard Tree.
- 4.3 No person shall cut or damage or permit to be cut or damaged a tree in a Conservation Area without first obtaining a Permit and written confirmation from a Qualified Tree Risk Assessor that the tree is a Hazard Tree.
- 4.4 No person shall cut or damage or permit to be cut or damaged a Significant Tree and a tree and all vegetation within a Significant Tree Stand without first obtaining a Permit.
- 4.5 No person shall cut or damage or permit to be cut or damaged a tree that is on a highway, park or land owned by the City unless the work is undertaken by or on behalf of the City.
- 4.6 Without limiting sections 4.1 to 4.5, no person shall carry out any of the following activities in respect of any tree protected by those sections without a Permit or contrary to a Permit issued pursuant to this bylaw:
  - a. topping so as to significantly alter a tree's natural canopy except if the tree forms part of a hedge;
  - b. cutting or damaging the roots within the Critical Root Zone of a tree;
  - c. operating or storing heavy equipment within the Critical Root Zone of a tree;
  - d. placing fill, building materials, asphalt or erecting a structure within the Critical Root Zone of a tree;
  - e. stripping bark, gouging or otherwise damaging the trunk of a tree;
  - f. depositing, within the Critical Root Zone of a tree, concrete washout or other liquids harmful to the health of a tree;
  - g. removing soil from within the Critical Root Zone of a tree; and
  - h. undermining the roots within the Critical Root Zone of a tree.

## 5. Exemptions

### 5.1 No Permit is required to cut a tree for which a Permit is required under section 4 where:

- a. Cutting is undertaken by or on behalf of the City on park, highway or land owned or held by the City;
- b. Cutting is undertaken by a public utility for the purpose of safety, maintenance or operation of the public utility's infrastructure following standard arboricultural practices;
- c. Pruning is required to ensure the health and sustainability of the tree following standard arboricultural practices;
- d. The tree is an alder or a poplar tree (including a cottonwood) located in the Rural Area, outside of a Conservation Area and provided that:
  - i) not more than 10 Permit Trees have been cut on the parcel in the previous twelve months; and
  - ii) 40 trees per hectare (16 trees/acre) are being retained on the parcel.
- e. Cutting of no more than 10 trees in any twelve month period on parcels greater than half a hectare in the Rural Area; provided that there remains 40 trees per hectare over 20 cm DBH on the parcel, and the trees being cut are not over 70 cm DBH.;
- f. The tree is a Hazard Tree;
- g. The cutting is permitted by statute;
- h. Trees that are being cut for survey lines less than 2 metres wide, and the trees are less than 30 centimetres DBH; and
- i. Cutting is required for construction, improvement, repair or maintenance of public works or services undertaken by a government authority.

## 6. Permits

- 6.1 An application for a Permit or an amendment to a Permit shall:
- be submitted to the Manager;
  - include a completed and signed application form as set out in Schedule “D”;
  - include all required plans and approvals in accordance with Section 7 of this Bylaw; and
  - be accompanied by the applicable Permit fee in accordance with the Maple Ridge Development Application Fees Bylaw No. 5949-2001.
- 6.2 Subject to Section 12 of this Bylaw, after reviewing an application for a Permit, the Manager may do any of the following:
- issue a Permit which may impose terms and conditions in accordance with this Bylaw;
  - refuse to issue a Permit and provide written notice of the reasons for refusal within 15 days of the date of refusal.
- 6.3 The Owner who is subject to a decision of the Manager to grant or refuse a Permit, or to impose conditions on the granting of a Permit is entitled to appeal to Council to have the decision reconsidered. An application for reconsideration must be made in writing to the City Clerk. There is no fee for an appeal application for reconsideration.
- 6.4 When a Permit authorizes a tree to be Cut, cutting shall be undertaken in compliance with the conditions imposed by this Bylaw and the Permit.
- 6.5 All work authorized by a Permit shall be conducted by the Owner or by a tree service company that has a valid business license to work within the City of Maple Ridge.
- 6.6 A Permit in respect of a Significant Tree or a tree in a Significant Tree Stand shall not be issued unless one of the following circumstances applies:
- The tree is a Hazard Tree;
  - The land use and density permitted under the Maple Ridge Zoning Bylaw cannot be undertaken on the parcel in accordance with all the provisions of the Zoning bylaw without the cutting of the tree;
  - The tree is within 2 metres of an existing building foundation wall;
  - The tree is causing structure or infrastructure damage as determined by the City or a qualified professional engineer with the approval of the City;
  - A Permit related to subdivision or building has been issued and identifies tree removal and protection areas in an approved Tree Management Plan as per Schedule “B” or an Arborist Report as per Schedule “F”;
  - The Cutting of the tree is required to site a building, driveway, septic field, roadway, or utility corridor as approved by the City prior to issuance of a building permit;
  - The tree is on a lot zoned for agricultural use, with active farm status or a Farm Plan that shows that the tree will interfere with the best use of the land for agricultural purposes; and

h) More than 50% of Significant Trees on the parcel shall be retained where possible and there will be a minimum of 40 Permit Trees per hectare (16 trees/acre) retained.

6.7 For the purpose of calculating whether a parcel retains 40 Permit Trees per hectare under section 6.6(h), there will be credit granted for the retention of trees on the parcel as per the table below where the number in the right column indicates how many Replacement Trees each retained tree of specified size in the left column equals:

DBH of trees to be retained	# of Tree Credits
20cm - 50 cm	1 tree
50cm - 70 cm	3 trees
More than 70 cm	6 trees

6.8 All Owners and contractors shall ensure that all tree work is performed in a safe manner as outlined in WorkSafe BC regulations and International Society of Arboriculture Best Management Practices.

6.9 A Permit is valid for a period of four months from the date of issuance. Application for amendments to the Permit can be made within the four month period.

6.10 A Permit may be revoked by the Manager if the terms and conditions of the Permit have been breached or the information supplied by the applicant is determined to be inaccurate, incomplete or erroneous.

#### **Notice of Tree Cutting or Removal**

6.11 Written notice of a Permit shall be posted on the parcel in respect of which the Permit has been issued in a location visible to the public at least 24 hours prior to the commencement of any tree cutting; and shall remain posted on the parcel until the completion of the work. The notice shall provide the Permit number, address, number of trees to be removed, expiry date of the Permit, a City contact number, and a map showing where trees are being removed.



## 7. Plans and Conditions

Where an application for a Permit is required by this Bylaw, the application must contain the following information:

- a. **Proposed planting plan** for required Replacement Trees in accordance with Schedule 'E' with security deposit required by section 9.7 of this Bylaw;
- b. Any applicable **Federal or Provincial submissions for approvals**, including a Bird Nesting Survey if removing trees between March 15 and August 1 as per the Wildlife Act (British Columbia) and its regulations;
- c. **Tree Management Plan**, in accordance with Schedule "B"; where:
  - (i) the parcel is subject to a permit application related to development,
  - (ii) more than 20 Permit trees are proposed to be cut; or
  - (iii) clearing more than 500 square metres of land.
- d. **Arborist Report**, in accordance with Schedule "F", where
  - (i) the parcel is subject to a development permit application and 20 or less Permit Trees are proposed to be cut; or
  - (ii) the parcel is in the Rural Area on a parcel greater than 0.5 hectares and between 11 and 20 Permit Trees less than 70cm are proposed to be cut;
  - (iii) the parcel is in the Urban and Suburban Area or the parcel is less than 0.5 ha in the Rural Area and more than 5 Permit Trees between 20 and 50cm DBH are proposed to be cut; or
  - (iv) one or more Significant Trees are proposed to be cut.
- e. Where tree removals will be within 50 metres of a watercourse or slopes over 25%, a survey prepared by a B.C. Land Surveyor that identifies top-of-bank or top of ravine bank, along with watercourse setbacks and geotechnical setbacks approved by the City will need to be identified and prepared by a B.C. Land Surveyor on the ground and in a legal survey plan.

## 8. Tree Cutting

A person cutting a tree must:

- a. dispose of the tree parts in a manner approved by the City and in accordance with Provincial and City regulations;
- b. keep the Drainage System free of Excessive Suspended Solids Discharge originating from the tree cutting area, as per the *Maple Ridge Watercourse Protection Bylaw No. 6410-2006*;
- c. stabilize all bare and exposed soil by Oct. 15 of any given year in order to reduce potential erosion impacts in accordance with City regulations;
- d. restrict all tree cutting work to the hours of 8:00 a.m. to 6:00 p.m. Monday to Saturday, excluding holidays;

**On parcels on which the applicant proposes to cut more than 20 Permit Trees or all trees within an area of 500 square metres or more:**

- e. cut trees between August 1 and October 15, unless an erosion control plan prepared by a Qualified Professional in accordance with the current Maple Ridge Watercourse Protection Bylaw has been approved by the City and implemented prior to site disturbance; and,
- f. obtain a bird nesting survey prepared and submitted by a Qualified Professional Biologist if cutting trees between April 15 and August 1;

**Conservation Area:**

- g. when cutting a Hazard Tree, within a Conservation Area, leave the larger pieces of the tree as Large Woody Debris and leave the cut tree stump at a safe habitat height in order to retain fish and wildlife habitat;

**9. Replacement Trees**

- 9.1 Where a person cuts a tree for which a Permit is required under this Bylaw, the owner of the parcel on which the tree was located shall install Replacement Trees in accordance with Schedule E.
- 9.2 An owner shall maintain Replacement Trees in good health in accordance with standard arboricultural practice.
- 9.3 A person shall provide Replacement Trees as per Schedule "E" and approved by the City Arborist in respect of trees unlawfully cut on highways and City-owned lands.

**Cash in Lieu Option**

- 9.4 If an owner determines it is not feasible or desirable to provide Replacement Trees on the same parcel on which the trees were cut, the Owner shall provide to the City a cash-in-lieu payment for each required Replacement Tree not replaced on the parcel into the City Tree Fund in accordance with Schedule 'E'.
- 9.5 Replacement Trees of all sizes cannot be cut without a Permit.
- 9.6 Trees that were planted as part of a landscaping plan pursuant to a Development Permit for multi-family and commercial units shall require an Arborist report as per Schedule 'F', and a phased removal and replanting plan approved by the City in accordance with the intention of the original Development Permit landscape plan.

**Security Deposits for Replanting**

- 9.7 Prior to the issuance of any Permit, the Owner shall provide the City with a refundable security deposit in cash or irrevocable letter of credit in the amount of \$425.00 per Replacement Tree to a maximum of \$17,000 per hectare and a maximum of \$100,000 per application.
- 9.8 The security required under section 9.7 shall be held by the City for one year from the date a Replacement Tree is planted, and shall thereafter be released to the Owner provided that the Manager is satisfied that the Owner has complied with the tree replacement criteria and has

maintained the Replacement Tree in good health for one year from the date of planting. No interest shall be paid by the City on security deposits.

- 9.9 If the Owner has not complied with the tree replacement criteria as outlined in this Bylaw, the City may use the security provided under section 9.7 to meet the replacement conditions specified in the Permit.

## **10. Tree Protection and Mitigation Requirements**

- 10.1 Where the Critical Root Zone of any tree to be retained, either on the parcel or on an adjacent parcel is within 5 metres of any excavation, demolition, construction or engineering works, the owner must install a Tree Protection Barrier around the tree.
- 10.2 No work authorized by a demolition permit, building permit, or tree permit shall commence before all Tree Protection Barriers required by this Bylaw have been installed and approved by the Manager.
- 10.3 No subdivision servicing works shall be permitted before the Tree Protection Barrier has been installed and approved by the Manager.
- 10.4 Tree Protection Barriers shall remain in accordance with Schedule "C" until all construction is completed and a final completion certificate or final occupancy permit is issued by the City.
- 10.5 The Owner shall protect all land dedicated or transferred to the City, and all covenanted conservation lands on the parcel, by erecting a fence, as per the specifications in Schedule "C" around that dedicated or transferred land prior to any development. The on-site clearing or removal of any vegetation, the alteration of on-site grades, and the removal or deposition of soil from or to this dedicated or transferred land is prohibited.

## **11. Administration and Enforcement**

- 11.1 The Manager, the Environmental Technician, a Bylaw Enforcement Officer and all City employees under their direction will have the right at all reasonable hours to enter upon and inspect any land or premises in the City to determine if the provisions of the Bylaw are being met.
- 11.2 The Manager may suspend work carried out under a Permit or in violation of this Bylaw if the work is not being undertaken in accordance with the terms and conditions of the Permit or this Bylaw.

## **12. Offense and Penalty**

- 12.1 Every person who violates any provision of this Bylaw or who suffers or permits any act or thing to be done in contravention of this Bylaw commits an offence against this Bylaw and is liable to the penalties hereby imposed.
- 12.2 Every person who commits an offence against this Bylaw is liable to a fine and penalty of not more than \$10,000.00 for each offence.

- 12.3 Where more than one tree is cut or damaged in violation of this bylaw a separate offense is committed with respect to each tree.
- 12.4 Each day that a violation exists or continues shall constitute a separate offense.
- 12.5 When a tree has been cut or damaged in violation of this Bylaw, the Owner shall submit a complete Permit Application and the applicable fee, a post-cutting assessment fee, plus a refundable security deposit for Replacement Trees in cash or letter of credit in the amount specified on the Permit or penalty notice. When a post-cutting assessment does not provide evidence satisfactory to the City of the size of the tree cut or damaged, the tree shall be deemed to be > 70 cm DBH for the purpose of providing Replacement Trees.
- 12.6 If work not in compliance with Permit conditions is proceeding, a stop work order shall be posted on the parcel, and no further work shall take place on the parcel until the work is in compliance with the conditions of the Permit.
- 12.7 Any owner who cuts or damages, or suffers or permits any tree to be cut, or damaged in contravention of this Bylaw or in violation of any terms and conditions of a Permit shall be required to submit a Permit application (including appropriate fees and securities) for the trees cut or damaged and to replace trees on the same parcel in accordance with Schedule "E".
- 12.8 If an owner fails or refuses to plant the required replacement trees as specified on the Permit or in the Replacement Planting Criteria in Schedule "E", within ninety (90) days of receiving written direction from the City to do so, the City may use the security collected to either have the trees planted on the Owner's parcel or to plant the trees on City-owned property.
- 12.9 Where an owner fails to comply with section 9.1 or 12.5 of this Bylaw, the City may plant Replacement Trees in accordance with Schedule 'E' of this Bylaw on the parcel on which trees were cut and the Owner shall pay the City's costs, which costs may be collected in the same manner and with the same remedies as property taxes and if due and payable by December 31 and unpaid on that date shall be deemed to be taxes in arrears.
13. If any section or lesser portion of this Bylaw is held invalid, it will be severed and the validity of the remaining provisions of this will not be affected.
14. Schedules "A", "B", "C", "D", "E", and "F" attached to this Bylaw are incorporated herein and form part of the Bylaw.

**READ** a first time the 8<sup>th</sup> day of December, 2015.

**READ** a second time the 8<sup>th</sup> day of December, 2015.

**READ** a third time the 8<sup>th</sup> day of December, 2015.

**ADOPTED** the 12<sup>th</sup> day of January, 2016.

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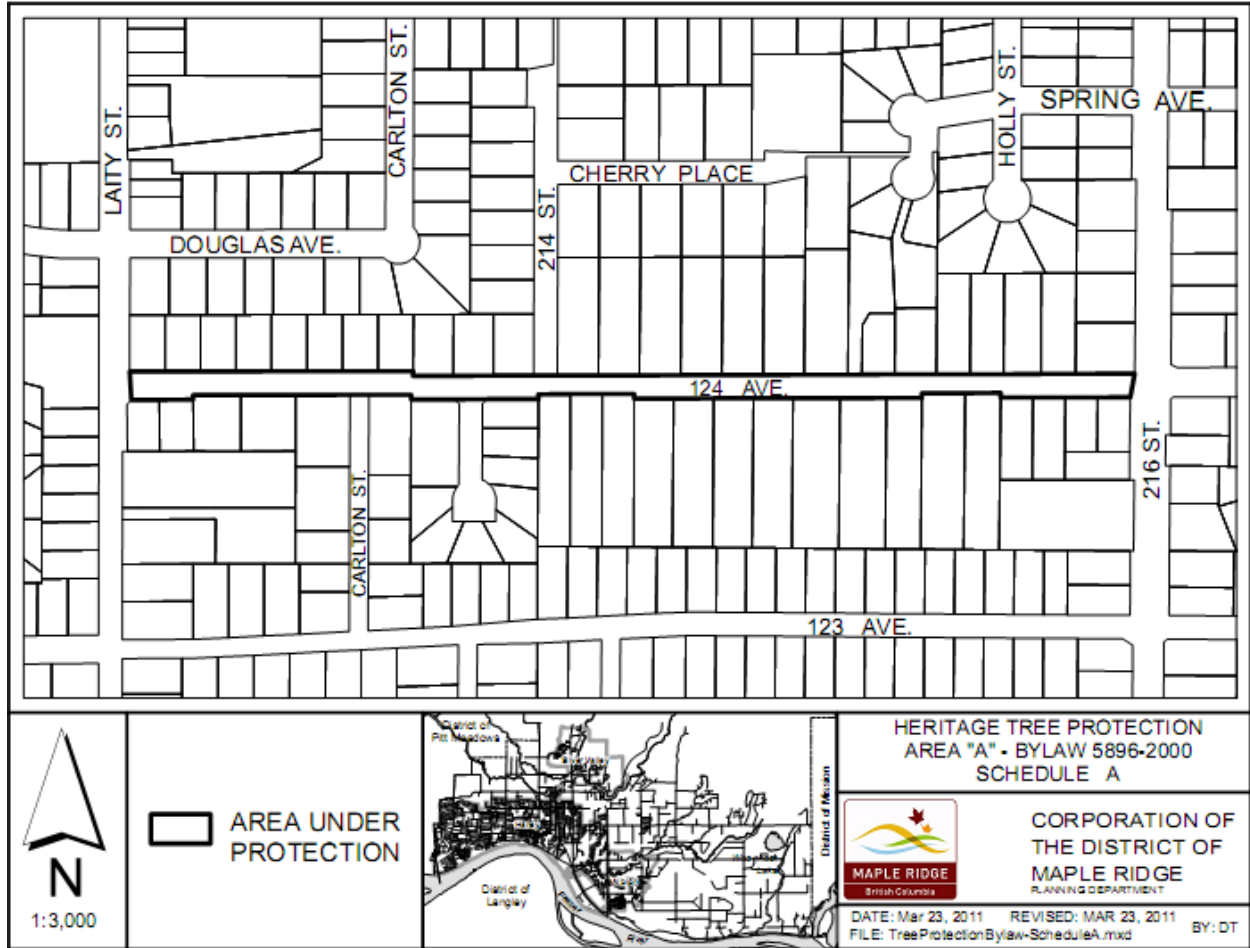
**PRESIDING MEMBER**

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**CORPORATE OFFICER**

Maple Ridge Tree Management Bylaw No. 7133-2015

**SCHEDULE "A"**  
**HERITAGE TREE PROTECTION AREA**



## Maple Ridge Tree Management Bylaw No. 7133-2015

**SCHEDULE "B"****TREE MANAGEMENT PLAN REQUIREMENTS**

For lands under development permit applications  
And for tree permit applications proposing the removal of more than 20 trees  
And for tree permit applications proposing the clearing of more than 500 square metres

Applicants shall provide a comprehensive Tree Management Plan prepared by a Certified Arborist or registered Forester and approved by the City before any trees are cut. This Plan is required to clarify the intent with respect to protection, management, replacement and hazard assessment of trees that are on and adjacent to the site.

A Tree Management Plan shall include the following:

**1. Initial Tree Assessment** to be prepared by a qualified professional forester or Certified Arborist.

The assessment and initial sketch plan shall include the following information:

- i) the location, species, size (dbh) and number of Permit Trees to be removed within the Developable Area where tree cutting is required or proposed;
- ii) the location, species, size, age class, health condition, and number of Significant Trees and Significant Tree Stands outside of Conservation Areas to be retained or removed within the site where tree cutting, disruption or development activity is proposed;
- iii) the location, species, age class, and health condition of Permit Trees identified for retention or replacement on Developable Areas of the parcel. This includes:
  - Permit Trees within 10 metres of the property boundary line and Conservation Areas;
  - Permit Trees within 10 metres of Significant Trees, Heritage Tree Protection Areas, or Significant Tree Stands where development activity and Tree Cutting is being proposed; and
  - Permit trees within 10 metres of the existing or proposed building envelope footprint including building structures, accessory buildings, servicing and infrastructure;
- iv) location of the proposed development layout and/or building envelope layout including existing or proposed structures, accessory buildings, services, and other infrastructure.

2. **Tree Retention Plan** to identify trees to be retained outside Conservation Areas using selective clearing methods that demonstrates an intention to achieve the following:
- retain trees along the perimeters of parcels with consideration for windfirm forest edges, critical root zones, and privacy;
  - to minimize impacts to adjacent properties including consideration of retention of trees to minimize impacts to groundwater, drainage, blowdown; and
  - to retain Significant Trees and Significant Tree Stands through appropriate development or building layout siting and low impact design efforts.

A Tree Retention Plan shall include a complete description of proposed trees to be retained, including the names (common and botanical names), locations, quantities, health condition, and size in centimetres DBH of trees to be retained, and the Critical Root Zone for each retained tree.

3. **Tree Protection Measures During Construction** with recommendations for tree protection measures and monitoring during construction, including consideration for grading, drainage, irrigation, space, and placement of Tree Protection Barriers around the Critical Root Zone of retained trees and trees located on property boundaries in accordance with Schedule D.
4. **Tree Risk Assessment** completed by a Qualified Tree Risk Assessor to identify all trees that are a potential hazard to proposed development during and after construction. Tree Risk Assessments shall be submitted to the City before construction begins and after construction is complete; and will include trees within Conservation Areas or adjacent City-owned lands that are within 10 metres of proposed structures. All mitigation for risk of Hazard Trees identified in the report shall be addressed and confirmed prior to final approval of the works under the Permit.
5. **Replacement Planting Plan** in accordance with Schedule "E".  
If the proposed development does not retain a ratio of 40 Permit Trees per hectare within the Developable Area, then replacement trees are required. The replacement plan must identify locations for re-planting, numbers of Replacement Trees, species and size of Replacement Trees, or the cash-in-lieu total to be paid.

Trees to be retained within the Developable Area count as Replacement Trees. Size of retained tree determines equivalent number of replacement trees, as per the following:

DBH of trees to be retained	Replacement Credits
20cm - 50 cm	1 tree
50cm - 70 cm	3 trees
More than 70 cm	6 trees

6. **Monitoring Schedule** for tree retention and planting on the site during and after the construction. A Certified Arborist must be retained as a monitor to ensure proper protection measures and planting quality. Monitors may be requested by the City to report on issues that arise on site throughout the construction phases.
7. **Calculation of security** amount on the planted and retained trees, to be paid by the applicant in accordance with Schedule 'E'. Each tree to be planted or retained requires \$425 security; not to exceed a total of \$17,000 per hectare to a maximum of \$100,000 per application. This security shall be returned one year after the trees have been planted by the applicant with the submission of a Certified Arborist report confirming the healthy condition of the trees, and approved by the Manager.

Other plans that are required as per the site conditions include:

8. **Groundwater Impact Assessment** as related to tree removals when removing more than 20 Permit Trees or clearing more than 500 square metre area over a Vulnerable Aquifer. The assessment shall be prepared by a qualified hydrological professional.
9. **Phased Clearing Plan**, (except for farm use), if the area to be cleared has slopes over 15%, or is on a Floodplain. The Plan will indicate how cutting will be phased to minimize the immediate impacts of clearing.
10. **Windfirm Assessment** for clearing activity that will create a new forest edge; to address blowdown risk and mitigation including tree removal, pruning and replacement recommendations, and retention of Large Woody Debris within Conservation Areas. This Assessment shall be prepared by a Registered Forester or a Certified Arborist with experience in blowdown risk mitigation.
11. **Detailed Tree Survey** to be prepared by a registered BC Land Surveyor to indicate proposed tree retention and replacement areas that require restrictive covenants. A BCLS survey will also be required for location of trees to be cut within five (5) metres of property boundary lines, Conservation Area boundaries, or areas with steep slopes over 25%.

**All protection and mitigation measures shall be inspected and reported by the Certified Arborist, and submitted to and approved by the City, before development work can begin on site.**



## Maple Ridge Tree Management Bylaw No. 7133-2015

**SCHEDULE "C"****Tree Protection Specifications**

Trees that are identified for protection through a Permit require the following protection measures to be implemented if any demolition, construction or change of land grade will take place within 5 metres of the Critical Root Zone of the tree; and for all existing trees on the highway fronting the parcel on which construction is to take place:

A protection barrier or temporary fence of at least 1.2 meters in height shall be placed around the Critical Root Zone of the tree. This barrier shall be in place before any excavation or construction work begins, and the barrier shall remain intact throughout the entire period of construction.

**Specifications for Construction:**

1. 1.2 m (~4') height;
2. 2"x 4"s to be used for vertical posts, top and bottom rails and cross-bracing (in an "X"); round, untreated vertical posts may be used with a minimum diameter of 9 cm;
3. Spacing between vertical posts to be a minimum of 3.7 m (12') on center;
4. Structure shall be sturdy with vertical posts driven firmly into the ground;
5. Continuous plastic mesh high visibility screening (e.g. orange snow fencing);
6. Posted with visible all weather signage advising that encroachment inside the protected area is forbidden;
7. Located at a distance from the tree based on the calculation of its Critical Root Zone.

The area within a Tree Protection Barrier shall remain undisturbed and not be used for any purpose including storage, dumping, parking and machinery operation.

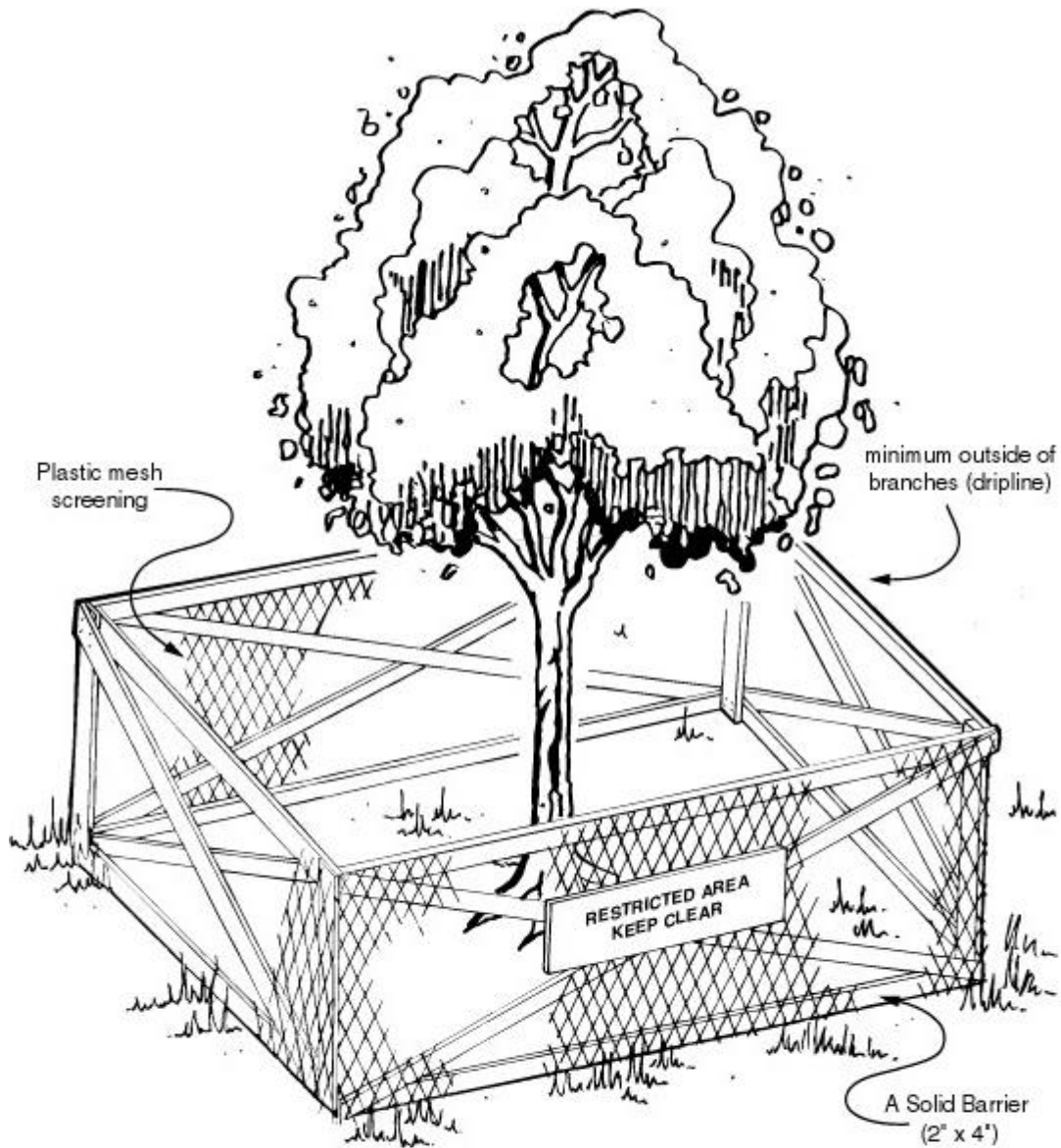
Any required excavation in and around the Critical Root Zone of a tree shall be approved by the City and shall be completed by hand. (eg. underground servicing, footings, etc.) under the supervision of a Certified Arborist.

Grades within the Critical Root Zone shall be maintained as original. Re-grading outside the Critical Root Zone shall not negatively affect the drainage or the health of the retained trees. Trees within the Critical Root Zone shall be adequately cared for throughout the construction process.

If trees within the Critical Root Zone are damaged beyond repair, the Owner shall provide 4 Replacement Trees for each tree damaged.

SCHEDULE "C" con't

Tree Protection Specifications



**Tree Protection Barrier**

Note: no storage of building materials  
within or against protection barrier

Maple Ridge Tree Management Bylaw No. 7133-2015

Schedule "D"
Tree Cutting Permit Application

1. Full name(s) and address of applicant:

Postal Code: home phone: cell:

Email: \_\_\_\_\_

2. Full name(s) and address of owner (if different than applicant):

Postal Code: Telephone:

Email: \_\_\_\_\_

A consent form signed by the Owner must accompany this application if applicant and owner are not the same.

3. Full name(s) of tree cutting company:

Telephone: \_\_\_\_\_ email: \_\_\_\_\_

4. Property proposed for tree cutting:

Street Address: \_\_\_\_\_

Or Legal Description: \_\_\_\_\_

5. Purpose of proposed tree cutting:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. Number and Species of trees to be cut:

\_\_\_\_\_  
\_\_\_\_\_

7. Drainage and erosion control methods to minimize impacts to adjacent lands or to nearby watercourses from the tree removal site. Attach erosion control plan in accordance with the Maple Ridge Watercourse Protection Bylaw No.6410-2006.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- 8. Methods proposed to restore the site to a suitable condition, including appropriate disposal of wood waste and stabilization of bare and exposed soil:

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- 9. If trees to be removed are not affiliated with a subdivision or Large Scale Building Permit, then attach a dimensional sketch of the parcel which shows the location of the trees to be cut, the location of the trees to be protected, the location of barrier fencing, the location and species of any required Replacement Trees, topographic and hydrological features, structures, roads and other information useful in determining location.

- 10. A Tree Management Plan must accompany this application if tree cutting is taking place on parcel that is under a development application, when cutting more than 20 trees; or when clearing more than 500 square metres of land.

FEE: Applications for a permit shall be accompanied by the prescribed fee as set out in the Maple Ridge Development Application Fees Bylaw No. 5949-2001.

I HEREBY DECLARE that the above information is correct, and that I have read a copy of the City of Maple Ridge Tree Management Bylaw No. 7133-2015 and that I will abide by all the applicable provisions of the said bylaw and such terms and conditions as may form part of any Tree Removal Permit issued pursuant to this application.

Name of Applicant(s):

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Signature of Applicant(s):

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Date: \_\_\_\_\_

## Maple Ridge Tree Management Bylaw No. 7133-2015

**SCHEDULE 'E'****REPLACEMENT TREE CRITERIA**

The criteria below applies to the replacement of trees required under Section 9 of the City of Maple Ridge Tree Management Bylaw. The Bylaw sets a target of 40 trees per hectare (16 trees per acre) to be on every site within the Developable Area of the parcel.

<b>Size of Tree Removed cm DBH</b>	<b>Replacement Requirement per tree removed</b>	<b>Retention requirement or cash-in-lieu</b>
0-20	1 in Conservation Areas	N/A
20-50	2 in Conservation Areas or if not retaining 40/ha (16/acre)	40 trees/ha (16/acre) or \$425 per replacement tree
50-70	4 in Conservation Areas or if not retaining 40/ha (16/acre)	40 trees/ha (16/acre) or \$425 per replacement tree
>70	6 in all areas	\$425 per replacement tree

Notwithstanding the above, Replacement Trees will NOT be a requirement:

1. When the parcel is being actively used for agricultural uses –with farm status or with a proposed Farm Plan reviewed by the City;
2. When the tree being removed is dead;
3. On parcels that are retaining a minimum of 40 Permit Trees per hectare (16/acre) outside of Conservation Areas, provided that the trees being removed are < 70 cm DBH.

**City Tree Fund**

If trees cannot be replaced on the same parcel, the Owner shall pay cash in lieu of \$425 per Replacement Tree; to a maximum of \$17,000 per hectare. The cash compensation will be placed in a City Tree Fund and will be used to plant trees on public and private lands to replace tree canopy lost and for the promotion and stewardship of maintaining a healthy tree canopy in the community.

### SCHEDULE 'E' con't

Trees to be retained count as Replacement Trees if they are not in Conservation Areas

The size of a retained tree determines how many Replacement Trees it equals, as per the following:

DBH of trees to be retained	Replacement Credits
20cm - 50 cm	1 tree
50cm – 70 cm	3 trees
More than 70 cm	6 trees

#### **Species and Size:**

Replacement Trees shall be a species proposed by the Owner and approved by the City and shall meet the current BC Landscape and Nursery Standards for quality of plants, spacing and installation.

#### **Replacement Trees**

- For sites under a rezoning, subdivision or building permit shall be a minimum of 6 cm DBH at time of planting for deciduous trees and 2 metres in height for coniferous trees;
- for residential non-development sites shall be a minimum 4 cm DBH or 10 gallon pot size for deciduous trees and 1.5 metres in height for coniferous trees.
- Two small stature trees (mature height of less than 10 metres) are required to equal one large stature tree (mature height over 10 metres).

#### **Location and Spacing:**

In determining the location of Replacement Trees, the Owner shall consider the mature space requirements for the species and shall not plant trees within 3 metres of a building foundation wall or within 1.5 metres of a property line.

Proposed locations must be approved by the City Arborist.

#### **Time of Replacement Planting:**

Where no construction or site disturbance is proposed that would affect the planting of Replacement Trees, the Replacement Trees shall be planted within ninety (90) days of the date of tree removal or of the issuance of a notice of compliance from the City.

Where construction or site disturbance is proposed within 10 metres of the Replacement Tree installation, the tree shall be planted within ninety (90) days of the end of construction.

## Maple Ridge Tree Management Bylaw No. 7133-2015

**SCHEDULE 'F'****ARBORIST REPORT**

An Arborist Report is required for a Permit as per Section 7(d) in the following instances:

- (i) the parcel is subject to a development permit application and 20 or fewer Permit Trees are proposed to be cut;
- (ii) the parcel is in the Rural Area and between 11 and 20 trees are proposed to be cut; or
- (iii) the parcel is in the Urban and Suburban Area and more than 5 trees are proposed to be cut
- (iv) the tree to be Cut is a Significant Tree.

The Arborist Report shall include the following:

1. **Tree Assessment** which identifies:
  - a. The location, species, size DBH and health conditions of Permit Trees proposed to be removed from the parcel;
  - b. The location, species, size DBH and health conditions of Permit Trees proposed to be retained or replaced within 10 metres of property boundary lines, Conservation Area boundaries, or proposed building footprints including infrastructure;
  - c. The location, species, size DBH and health conditions of any Significant Trees being retained or removed within the proposed building envelopes; and
  - d. The locations of any park boundaries, conservation or setback areas on the parcel along with existing or proposed building layout and infrastructure.
2. **Replacement Plan** If the proposed cutting activity does not retain a ratio of 40 Permit Trees per hectare within the Developable Area of the parcel, then Replacement Trees are required. The replacement plan must identify locations for re-planting, numbers of Replacement Trees, species and size of Replacement Trees, or the cash-in-lieu total to be paid.
3. **Protection and Mitigation Plan** which details mitigation and protection measures that will be in place to avoid or reduce negative impacts to protected trees on the parcel and on neighbouring parcels. This plan shall include measures to protect Critical Root Zones and to address blowdown concerns, drainage issues and Hazard Trees.
4. **Final Tree Survey** to be prepared by a registered BC Land Surveyor of proposed tree retention and replacement areas that require restrictive covenants. A BCLS survey will also be required for location of trees to be cut along property boundary lines, or within 5 metres of Conservation Area boundaries, or areas with steep slopes over 25%.