

CITY OF NANAIMO

BYLAW NO. 7126

A BYLAW FOR THE MANAGEMENT AND PROTECTION OF TREES
WITHIN THE CITY OF NANAIMO

WHEREAS a Council may, in accordance with the *Community Charter*, regulate, prohibit and impose requirements in relation to trees;

WHEREAS a Council may, pursuant to Heritage Conservation provisions of the *Local Government Act* designate trees that Council considers to have cultural or historical value;

WHEREAS a Council may, pursuant to the *Wildlife Act* of British Columbia, designate trees that Council considers valuable as wildlife habitat;

WHEREAS Council's objective is to ensure the long term sustainability of the trees within Nanaimo's urban forest and the preservation of existing trees as a priority;

NOW THEREFORE the Council of the City of Nanaimo, in open meeting assembled, ENACTS AS FOLLOWS:

1. Title

This Bylaw may be cited as the "Management and Protection of Trees Bylaw 2013 No. 7126".

2. Interpretation

In this Bylaw, unless the context otherwise requires:

"Bylaw Enforcement Officer"	means a person or persons appointed from time to time by resolution of the City Council pursuant to Section 36 of the <i>Police Act</i> , to enforce regulatory bylaws of the municipality.
"Boulevard Tree"	means a tree planted on the boulevard beside the sidewalks managed by either the property owner or the City of Nanaimo.
"Branch"	means the lateral secondary woody growth originating from the stem of a tree.
"Building Permit"	means a permit required by the City of Nanaimo for any construction, alteration, reconstruction, demolition, removal or relocation of any building or structure.

"Certified Arborist"	means a person certified by the International Society of Arboriculture or the National Arborist Association as an Arborist.
"City"	means the City of Nanaimo.
"City Tree"	means any tree located on property owned or in the control of the City including a street tree, a Boulevard Tree and a median tree.
"Cut"	means to cut down, kill or remove a tree by any means and without limiting the generality of the foregoing includes the topping of a tree or stem of a tree.
"Dbh"	means diameter of a stem at 1.4 metres off the ground.
"Diseased or Damaged Tree Limbs"	means a tree limb identified by a qualified person that may be considered to be a potential hazard to people or property or a significant risk to the health of other trees in the immediate future.
"Development Permit Area" or "DPA"	an area of land designated as such in an Official Community Plan of the City.
"Director"	means the person or persons appointed from time to time by Council as the Director of Development and any duly authorized designate of the Director.
"Drip Line"	means a line on the ground around the stem of a tree directly beneath the ends of the outermost twigs and branches of a tree.
"Fire Interface Tree"	means a tree designated and listed in Schedule J of this Bylaw.
"Guide For Plant Appraisal"	means the standard guide for tree appraisals as published by the International Society of Arboriculture and authored by representatives of the Council of Tree and Landscape Appraisers.
"Hardscape"	includes a sidewalk, footpath or other surface installed as a means of public passage or to surface an area of public assembly.
"Hazard Tree"	means any tree which due to its location, condition, health or any other circumstances has been determined by a Certified Arborist as presenting a hazard to the safety of persons or to the public or to private property.

"Hedge"	means a row of shrubs, bushes or trees planted close together, especially when forming a fence or boundary.
"Heritage Tree"	means a tree designated and listed in Schedule A of this Bylaw.
"Landmark Tree"	means a tree of the genus or species and size outlined in Schedule C of this Bylaw.
"Median Tree"	means a tree growing in a hard or soft surface between traffic lanes.
"Permit"	means written permission from the Director authorizing the <i>pruning, cutting or removal</i> of one or more trees from a specified parcel of land.
"Protected tree"	means: <ul style="list-style-type: none">(a) a City tree;(b) a significant tree;(c) a tree within a Development Permit Area;(d) a tree within an area designated by a covenant to:<ul style="list-style-type: none">(i) protect stability of a slope; or,(ii) provide a landscape buffer;(e) a tree designated to be retained within an area pursuant to an approved development permit landscape plan; or,(f) a tree with scientific value.
"Protection"	means taking any and all actions necessary to ensure that trees on a parcel of land are not in any way damaged.
"Prune"	means the removal of living or dead parts of a tree, including branches, in order to reduce size, to maintain shape, health, and flowering or to regulate growth, but does not include topping.
"Provincial Crown Land"	means Crown Land under the administration and control of Her Majesty in right of a province or any agency thereof, e.g. DL56 / Newcastle Island / Brannen Lake Correctional Centre.
"Qualified Environmental Professional" or "QEP"	means an applied scientist or technologist, registered and in good standing in British Columbia with an appropriate professional organization constituted under an Act, acting under that association's code of ethics and subject to disciplinary action by that association. The applicable professional may be a professional Biologist, Agrologist, Forester, Geoscientist, Engineer, or Technologist.

"Registered Professional Forester" or "RPF"	means a person who is registered under the <i>Foresters Act</i> .
"Replacement Tree"	means any tree, regardless of size, that is shown on a tree management or landscape plan, as a replacement for a tree which has been removed or damaged on the same property.
"Retained Tree"	means a tree not to be cut, removed or damaged.
"Riparian areas"	means the areas of land and vegetation adjacent to watercourses that need to remain in a largely undisturbed state in order to maintain healthy watercourse environments, as defined in DPA 1 of the Official Community Plan as amended from time to time.
"Scientific Value"	means a tree may be considered to be of scientific value when it: <ul style="list-style-type: none">(a) is evidence of the former range limits or extent of the species or an ecological community; or,(b) is endangered or vulnerable species that is endemic to the territory or local region now reduced in range or abundance; or,(c) demonstrates a likelihood of providing information which will contribute significantly to a wider understanding of natural history by virtue of its use as a research site, teaching site, type locality or benchmark site; or,(d) is of botanical or genetic value and is not well represented elsewhere in the City; or,(e) significant habitat element for a threatened native species.
"Significant Tree"	means any tree that is of particular significance to the City, due to size, age, landmark value, overall cultural, ecological, heritage or social impact, scientific value, and any tree that is protected as wildlife habitat for an egg or nest as defined in the <i>Wildlife Act</i> and has been listed in Schedules A, B or C.
"Stem"	means the main ascending axis of a woody plant.
"Steep slope"	means land, in its natural state, that has a slope angle of 20% or greater.
"Street Tree"	means a tree planted within the public right-of way in a hardscape (sidewalks) managed by the City of Nanaimo.

"Subdivision"	means the process of dividing a parcel of land into two or more parcels under the <i>Land Title Act</i> or the division of land into strata lots under the <i>Strata Property Act</i> .
"Top" or "Topping"	means the removal of crown branches and main leader to stubs or lateral branches that are not large enough to assume the terminal role.
"Tree"	means a living native or non-native, living self-supporting perennial woody plant, including native shrubs, that is a species of coniferous or deciduous genus where the diameter of tree stem is six (6) cm or more and is capable of reaching a mature height of 4.5 m or greater within its natural range.
"Tree Management Plan"	means a plan of a parcel of land prepared by or for an owner identifying the trees proposed to be cut or removed, the retained trees, replacement trees and any tree protection area.
"Tree Protection Area"	means an area of treed land to be protected within a development as laid out in a Tree Management Plan.
"Urban Forest Plan"	means a plan developed to preserve, protect and enhance the green spaces in Nanaimo.
"Wildlife Tree"	means a tree or dead tree which: (a) contains the nest of an eagle, peregrine, falcon, gyrfalcon, osprey or heron; or, (b) the nest of a bird not referred to in paragraph (a) when the nest is occupied by a bird or its egg; or, (c) contains a nest of a forest mammal; or, (d) is listed in Schedule B of this Bylaw.

3. Application

This Bylaw applies within the City of Nanaimo.

4. Tree Designation

In Schedules A, B, C and J, the City hereby designates the trees listed in:

- (a) Schedule A to this Bylaw as Heritage Trees.
- (b) Schedule B to this Bylaw as Wildlife Trees.
- (c) Schedule C to this Bylaw as Landmark Trees.
- (d) Schedule J to this Bylaw as Fire Interface Trees.

5. Prohibitions

- (1) No person shall carry out any of the following activities in respect of a tree without first obtaining a Permit issued by the Director for that purpose:
 - (a) cut any tree or suffer any tree to be cut;
 - (b) undertake any activity contrary to any permit conditions;
 - (c) cut or damage the roots of a tree inside the drip line;
 - (d) place fill, building materials or asphalt or deposit concrete washout or other liquid or chemical substances or any other materials harmful to a tree on land inside the drip line of a tree;
 - (e) operate trucks, backhoes, bobcats, excavators or other construction equipment over the roots of a tree inside the drip line;
 - (f) dent, gouge or damage the trunk or branches of a tree;
 - (g) remove bark from a tree;
 - (h) construct or place a building or structure on land inside the drip line of the tree;
 - (i) remove soil from land inside the drip line of a tree, except that a person may remove a small quantity of soil if the act of doing so is not likely to damage the health of the tree;
 - (j) blast inside the drip line of a tree or blast outside the drip line so as to damage roots or disturb soil inside the drip line;
 - (k) undermine the roots inside the drip line;
 - (l) cable or brace a tree for purposes other than tree support and protection;
 - (m) top or prune a tree except as permitted under section 6(1) of this Bylaw;
 - (n) attach a sign to a tree.

6. EXEMPTIONS

- (1) Notwithstanding Section 5, a person may cut or remove a tree, other than a protected tree, without first obtaining a Permit if:
 - (a) a Certified Landscape Horticulturist or Certified Arborist has determined that a tree, tree limb or root is diseased, damaged or hazardous and:
 - (i) prior to any removal or pruning written approval from the Director has been received;
 - (ii) the removal or pruning is undertaken using standard arboricultural practices; and
 - (iii) if a significant tree is removed, another tree is planted as required by this Bylaw.
 - (b) the tree is located on lands to which the *Private Managed Forest Land Act* applies;
 - (c) the tree is a City tree and the pruning or removal by the City is required to facilitate the repair of City works or to correct intersection sight lines;
 - (d) the tree is a City tree and the work is being done as part of a tree maintenance schedule by the City or one of its contractors;
 - (e) the tree is cultivated as part of commercial tree farms or nursery operations;
 - (f) the cutting and removal of trees is undertaken by a BC Land Surveyor cutting survey lines which have a width of less than 2 m and the trees are not a protected tree or trees growing in riparian assessment areas;

- (g) an owner is removing or pruning an existing hedge located on their parcel of land;
 - (h) an owner is removing a tree other than a significant tree from that owner's parcel of land, to a maximum total of four (4) trees in a calendar year on their parcel of land (this exemption is void where a subdivision or other development permit has been applied for);
 - (i) the tree is affecting overhead utility lines and pruning operations are not considered practical; as determined by a Certified Arborist.
 - (j) the tree is dead; or,
 - (k) pruning is carried out as part of the customary care and maintenance of a tree using standard arboricultural practices.
- (2) In addition to the powers of the Director under Section 11, the Director may refuse approval under subsection (1) if the Director considers that the hazard presented by the tree can reasonably be addressed in some way other than tree removal.

7. EMERGENCY REMOVAL

- (1) Emergency removal of a hazard tree or branches as the result of a weather event or motor vehicle accident is permitted without a permit if the removal is undertaken using standard arboriculture practices and:
- (a) an owner notifies the City within forty-eight (48) hours of the removal; and
 - (b) an owner replaces such tree or trees as required in accordance with the requirements of this Bylaw.

8. TREE PERMIT REMOVAL CRITERIA

The Director may approve removal of a tree when one or more of the following criteria have been met:

- (1) the tree has been determined to be a hazard tree and at risk of failure that cannot be mitigated by pruning or other practical means;
- (2) the tree is endangering the health or stability of other trees;
- (3) the tree is interfering with or inhibiting the normal development of a more desirable tree;
- (4) the tree poses an extreme public nuisance or hazard due to its species, size, location or position;
- (5) the tree's removal has been approved as part of a park plan;
- (6) the tree is impeding the development of highways, utilities, public works or facilities;

- (7) the removal of the tree is expressly authorized or reasonably necessary to permit development authorized under a building permit or development permit and is not a retained tree or a tree within a tree protection area.

9. TREE PERMIT APPLICATIONS

- (1) The owner of a parcel of land shall make application for a permit on forms, as provided for this purpose, by the City of Nanaimo.
- (2) An application for a permit and Tree Management Plan shall be reviewed by the Director to ensure compliance with the Official Community Plan.
- (3) The City of Nanaimo shall make application for a permit prior to the removal of trees for its own development purposes.
- (4) The owner must provide with the application, a Tree Management Plan which clearly indicates the species, size and locations of the trees to be removed and retained. The plan must also show in detail how the retained trees will be protected. (See Tree Removal Permit application requirements for details.)
- (5) An application for a permit and all supporting drawings and documents shall become the property of the City.
- (6) When an application for a permit is submitted, the City may inspect all trees on the parcel of land that are to be removed or retained for verification of species, location, size, condition or impact.
- (7) If an application is received proposing that one or more protected trees are to be cut during the course of the development of a parcel of land, the Director may authorize removal of such trees subject to submission of a Tree Management Plan with the application that indicates trees will be replaced with species in accordance with Schedule H of this Bylaw.
- (8) Where the application for a permit is to facilitate the subdivision of a parcel of land, the owner shall submit to the Director a Tree Management Plan which shall provide for:
 - (a) the protection or replacement of all protected trees on the parcel of land or an approved replanting plan of appropriate urban trees on or near the site such as an adjacent park, boulevard or median strip, and
 - (b) the protection of at least 20% of the trees on the parcel of land exclusive of any area set aside for the park dedication, pursuant to the provisions of the *Local Government Act*, when the parcel of land to be subdivided is greater than 0.5 ha (1.0 acre) in size, and
 - (c) the replanting of one tree per lot, for single-family and duplex dwellings, not before and within six (6) months following the issuance of an Occupancy Permit, in accordance with a Tree Management Plan approved by the Director.

- (9) An application for a Permit to facilitate the logging of commercial timber shall not be granted if the parcel is subject to an application for rezoning or development and the outcome of the rezoning or development process could affect the logging or Tree Management Plan.
- (10) An owner applying for a permit to facilitate logging of commercial timber on a parcel of land 0.5 ha or greater in size, shall provide information through a Tree Management Plan prepared by a Registered Professional Forester on the logging methods and measures for the protection of trees which are to be retained on the parcel of land.
- (11) A Tree Management Plan developed to facilitate the issuance of a permit to facilitate logging of commercial timber on a parcel of land under subsection (10) shall include provision for the retention of at least 20% of the trees 6 cm or more in diameter on the parcel of land over a five (5) year period as well as the replanting of forest seedlings in accordance with a reforestation plan approved by the Director.
- (12) An application for a Permit to facilitate development shall not be considered until completion of logging operations and expiry of the Tree Removal Permit.
- (13) Every application for a permit in respect to a Steep Slope Area shall be accompanied by a report prepared by a qualified geotechnical engineer, at the applicant's expense, to ensure that the proposed tree removal will not create a danger from flooding, erosion, landslip or avalanche.

10. Tree Permit Approval and Conditions

- (1) A permit which has been issued under this Bylaw may not be assigned or transferred to any other person except with the consent of the Director and under the following conditions:
 - (a) the person applying for the transfer of the permit is an owner of the parcel of land in respect of which the permit has been issued;
 - (b) the person to whom the permit was issued is not in breach of any condition of the permit or any provision of this Bylaw; and,
 - (c) the person seeking transfer of the permit has paid to the City of Nanaimo a permit transfer fee as required pursuant to Section 16 of this Bylaw.
- (2) An owner who has been issued a permit must notify the Director prior to commencing any work authorized by the permit and upon completion of the work authorized by the permit.
- (3) An owner who has been issued a permit must notify the Director of any work that cannot be carried out in accordance with the permit.
- (4) The owner must clearly mark in a manner satisfactory to the Director by methods such as flagging tape, tree tags or surveyor's paint, all trees that the owner is applying to remove prior to the issuance of the permit.

- (5) Where a permit is issued to prune a tree, the owner shall ensure that the tree is pruned in accordance with proper arboricultural / horticultural practices.
- (6) Where a permit is issued to prune or remove a tree or trees, all pruned or cut materials must be removed from the site and the site must be cleaned up and left safe within thirty (30) days of completion or cessation of the work.
- (7) Where a permit has expired, all work permitted under the permit must cease until the owner applies for and obtains a new permit.
- (8) The Director has authority to impose conditions in a permit as reasonably required to effectively administer this Bylaw in accordance with the *Community Charter*, based on the review of the application and all supporting drawings and documents.

11. Tree Removal Refusals

- (1) The Director may refuse an application for the cutting or removal of a tree if the purpose is to:
 - (a) maintain or enhance view corridors;
 - (b) prevent a City tree or a tree on Provincial Crown Land from shading areas on private property;
 - (c) cut or remove a City tree or a tree on Provincial Crown Land due to issues with leaf, flower or seed litter; or,
 - (d) cut or remove a tree in contravention of the Development Permit Area Guidelines as defined in the City's Official Community Plan.
- (2) The Director may refuse an application for the cutting or removal of a tree if this would cause a breach of the City's obligations under the Riparian Areas Regulation.

12. Expiry, Renewal and Revocation of Permits

- (1) All permits expire after 12 months from the date of issuance.
- (2) A permit may be renewed under the following conditions:
 - (a) the permit holder applies for renewal of the permit prior to the expiry date of the issued permit;
 - (b) an application for renewal shall be subject to all bylaw requirements that are in effect at the time of the renewal application.
- (3) The Director may revoke a permit where:
 - (a) there is a contravention of any provision of this Bylaw;
 - (b) there is a contravention of any term or condition under which the Permit was issued;
 - (c) the permit was issued on the basis of incorrect information supplied by the applicant;

- (d) in the case of a permit to permit the logging of a parcel of land, where the applicant failed to prepare a Tree Management Plan required by this Bylaw.
- (4) The owner shall be notified in writing of the revocation of the permit.
- (5) The owner shall not be entitled to recover permit fees originally paid in the case of a revocation or an expired permit.

13. Replacement of Trees Unlawfully Removed

- (1) An owner must replace every tree that is removed contrary to this Bylaw as prescribed pursuant to Schedule G of this Bylaw.

14. Replacement of Trees

- (1) A tree replacement:
 - (a) shall be in accordance with Schedules D and G – Tree Replacement, and Schedule H in the case of a protected tree to which section 9 (7) applies;
 - (b) in the case of a silviculture operation to which this Bylaw applies, includes replacement with forest seedlings in accordance with a reforestation plan prepared by a Registered Professional Forester; and,
 - (c) include substitute species replacement under Schedule D Option 1 and 2 only where the original species is not available or practical and the substitution is approved by the City.

- (2) Where any person:
 - (a) cuts down a tree or allows a tree to be cut down contrary to the provisions of this Bylaw or a tree cutting permit; or,
 - (b) cuts down a protected tree, with or without a permit;

and is required to plant one or more replacement trees pursuant to this Bylaw, the person must submit a Tree Management Plan to the Director. (See Schedules D, G and H for replacement guidelines.)

- (3) The Tree Management Plan required under subsection (2) must include a detailed and comprehensive maintenance agreement.
- (4) Where a person is required to plant one or more replacement trees pursuant to this Bylaw, the person must provide security as required pursuant to Section 15 of this Bylaw.
- (5) Where replacement trees are required in relation to a development, the number of trees required to be replaced may be reduced by the number of trees proposed in a Landscape Plan approved by the City included as part of a development permit.

15. Security Deposit for Replacement or Retention Trees

- (1) Where replacement trees or retained trees are required as a condition of a permit or as a consequence for cutting or removing trees without a permit, or damaging trees beyond repair, or cutting or removing trees in excess of the number allowed by the permit, the owner or person responsible for the cutting, removal or damage shall provide to the City a security deposit and the security deposit:
 - (a) shall be in the form of a cash deposit or an automatically renewable, irrevocable letter of credit drawn upon a chartered bank in the form acceptable to the City of Nanaimo;
 - (b) shall be equal to 120% of the value of all the replacement trees or retained trees, site restoration and clean up measures required by the City of Nanaimo. Replacement trees or retained trees, restoration and clean up values shall be estimated by a Qualified Environmental Professional, Certified Arborist or Landscape Architect having reference to the *Guide for Plant Appraisal* or similar reference.
- (2) 50% of the value of the security shall be withheld for the first year, commencing after the landscape installation has been completed, inspected and approved by the City and 10% for the second year to ensure the replacement or retention is successful.
- (3) Should the permit holder fail to comply with the terms and conditions of a permit or a requirement of this Bylaw, the City of Nanaimo may enter the property and perform the necessary work, and may retain all or a portion of the security deposit to cover the cost of the work.

16. Fees

- (1) The fees for applications, permits, transfers and renewals shall be prescribed in Schedule E of this Bylaw.
- (2) Notwithstanding subsection (1), a person who cuts or removes a tree without holding a permit must pay a fee equal to twice the amount of the fee payable otherwise.
- (3) The City is exempt from fees.

17. Reconsideration

- (1) If a decision is made by the Director with regards to the issuance or refusal of a permit, the owner has a right to have Council reconsider the matter.
- (2) If an owner would like Council to reconsider a decision, the owner shall deliver written notice to the Corporate Officer within fourteen (14) days of receiving notice of the decision.

- (3) The owner shall be notified by the Corporate Officer of the date that Council will reconsider the decision.
- (4) Council may confirm, overturn or modify the decision of the Director.

18. Penalty

- (1) A person who contravenes, violates or fails to comply with any provision of this Bylaw, or who suffers or permits any act or thing to be done in contravention or violation of this Bylaw, or who fails to do anything required by this Bylaw, commits an offence and shall be liable, upon conviction, to a fine of not more than ten thousand dollars(\$10,000) and not less than the fines prescribed in Schedule F of this Bylaw, the cost of prosecution and any other penalty or order imposed pursuant to the *Community Charter* (British Columbia) or the *Offence Act* (British Columbia) as amended from time to time.
- (2) Each day that an offence against this Bylaw continues or exists shall be deemed to be a separate and distinct offence.

19. Enforcement

- (1) The Director and bylaw enforcement officers are authorized to enforce this Bylaw and for that purpose, to enter onto real property in accordance with the *Community Charter*.

20. Schedules

- (1) The following Schedules attached to and forming a part of this Bylaw are:
 - (a) Schedule A – Identified Heritage Trees
 - (b) Schedule B – Identified Wildlife Trees
 - (c) Schedule C – Landmark Trees – Native Trees of Nanaimo
 - (d) Schedule D – Landmark Tree Replacement
 - (e) Schedule E – Fees
 - (f) Schedule F – Fines
 - (g) Schedule G – Street and Natural Areas Tree Replacement
 - (h) Schedule H – Regulations for Protected Tree Replacement
 - (i) Schedule I – Tree Removal Guidelines
 - (j) Schedule J – Fire Interface Trees

21. Severability

- (1) If any section, subsection, sentence or phrase of this Bylaw is for any reason held to be invalid by the decision of any Court of competent jurisdiction, it shall not affect the validity of the remaining parts of this Bylaw or the validity of this Bylaw as a whole.

22. Repeal

- (1) City of Nanaimo "Tree Protection Bylaw 1993 No. 4695" and all amendments thereto are hereby repealed.

PASSED FIRST READING 2013-NOV-18
PASSED SECOND READING 2013-NOV-18
PASSED THIRD READING 2013-NOV-18
ADOPTED 2013-DEC-02

J. R. RUTTAN

MAYOR

K. KING

CORPORATE OFFICER

SCHEDULE A

IDENTIFIED HERITAGE TREES

Trees that Council considers important to the community for heritage value.

SPECIES	NO.	ADDRESS (or abbreviated Legal Description)
Pseudotsuga menziesii (Douglas Fir)	2	Pipers Lagoon (Hammond Bay/Chinook)
	Collection	Bowen Park (<i>original trees cannot be distinguished from others</i>)
	2	Lot 1, Plan 34409 (5890 Waldbank Road)
	5	Sealand Park
	3	Rosstown Road, Blvd. 2474, 2498, 2502
Sequoiadendron giganteum Sierra Redwood	1	480 Caledonia Avenue
	1	3255 Stephenson Point Road
Quercus robur (English Oak)	4	577 Sixth Street Strata P.L. 519, Lots 1-24 (Howard Avenue)
	19	Row from Jingle Pot to Third Street – R/A+ Addison Road Blvd or Lot 3, Plan 35726, VIP 71816 1780, 1900 Jingle Pot Road Lot 1, Plan 28980 (Buttertubs Marsh)
	3	165 Pryde Avenue, Rem. Sec. 13, Range 8
	3	Seventh Street and Howard Avenue (2 Blvd)
	3	Sixth Street at Howard Avenue, adj 577 Sixth Street
	60	Millstone River Bank south and east side (from Pryde to Bowen) – <i>ownership uncertain</i>
	Chamaecyparis lawsoniana (Lawson-Cyprus)	2
Acer macrophyllum (Big Leaf Maple)	4	911 Comox Road
Catalpa bignonioides (Indian Bean Tree)	1	129 Milton Street
	1	321 Wesley Street

SPECIES	NO.	ADDRESS (or abbreviated Legal Description)
	1	225 Vancouver Avenue
Araucaria araucana (Monkey Puzzle Tree or Chilean Pine)	1	536 Kennedy Street
	1	330 Machleary Street
	1	120 Victoria Road
	1	100 Cameron Road (Museum)
Robinia pseudoacacia (Black Locust or False Acacia)	Collection	Third Street blvd, adj to Vancouver Island University)
	7	324 Howard Avenue (Third Street)
Fagus sylvatica atropunicea (Copper Beech)	1	126 Mount Benson Street
Trachycarpus fortunei (Windmill Palm)	1	897 Howard Avenue
Castanea sativa (Spanish Chestnut)	1	745 Townsite Road
Albizzia julibrissin (Mimosa or Silk Tree)	1	522 Victoria Road
Juglans nigra (Black Walnut)	1	215 Newcastle Avenue
Aesculus hippocastanum (Chestnut)	1	Lot 1, Plan 14199 – Corner of 575 Albert Street and 510 Prideaux Street
Robins Gardens – selection of tree genera		Lots 1 – 8, Blk 2, Plan 584 1150 Milton Street
Quercus garryana (Garry Oak)	Collection	Neck Point Park
	Collection	Pipers Lagoon Spit
	Collection	Nob Hill Park
	1	Below Bastion, Lot A, P.L. 44834 94 Front Street
	1	By Lighthouse Bistro, part of Blk 56 40 Anchor Way

SPECIES	NO.	ADDRESS (or abbreviated Legal Description)
	3	Bowen Park
Thuja plicata (Native Red Cedar or Western Cedar)	1	Lot 1, Plan 34409 Waldbank Road
	2	Sealand Park
Abies grandis (Grand Fir)	6	Bowen Park
Tsuga heterophylla (Western Hemlock)	1	Bowen Park
Populus trichocarpa (Western Black Poplar)	1	Charlaine Boat Ramp
Pinus ponderosa (yellow) (Yellow Pine)	1	150 Townsite Road (Vancouver Avenue blvd)
Ulmus glabra (Camperdown Elm, or Wych Elm)	1	555 Bowen Road
Platanus x acerifolia (London plane)	8	200 Irwin Street and Milton Street adjacent to Deverill Square Park
Tilia cordata (Linden tree)	6	200 Irwin Street and Milton Street adjacent to Deverill Square Park

SCHEDULE B
IDENTIFIED WILDLIFE TREES

Trees that Council considers important to the community as wildlife habitat.

Bald eagle (BAEA), Great blue heron (GBHE)

REFERENCE NUMBER	TREE SPECIES	LOCATION	WILDLIFE
<i>BAEA-105-115</i>	<i>Douglas fir</i>	<i>6695 Seabold Road</i>	<i>Bald eagle</i>
<i>BAEA-105-114</i>	<i>Douglas fir</i>	<i>6294 Icarus Drive</i>	<i>Bald eagle</i>
<i>BAEA-105-113</i>	<i>Douglas fir</i>	<i>6258 Icarus Drive</i>	<i>Bald eagle</i>
<i>BAEA-105-305</i>	<i>Douglas fir</i>	<i>6166 Icarus Drive</i>	<i>Bald eagle</i>
<i>BAEA-105-112</i>	<i>Douglas fir</i>	<i>6098 Icarus Drive</i>	<i>Bald eagle</i>
<i>BAEA-105-111</i>	<i>Douglas fir</i>	<i>5890 Waldbank Road</i>	<i>Bald eagle</i>
<i>BAEA-105-038</i> <i>BAEA-105-039</i> <i>BAEA-105-040</i>	<i>Douglas fir</i> <i>Douglas fir</i> <i>Douglas fir</i>	<i>6100 Driftwood Place</i>	<i>Bald eagle</i>
<i>BAEA-105-110</i>	<i>Douglas fir</i>	<i>5410 Bayshore Drive</i>	<i>Bald eagle</i>
<i>BAEA-105-037</i>	<i>Douglas fir</i>	<i>5398 Bayshore Drive</i>	<i>Bald eagle</i>
<i>BAEA-105-036</i> <i>BAEA-105-078</i>	<i>Douglas fir</i>	<i>3947 Gulfview Drive</i>	<i>Bald eagle</i>
<i>BAEA-105-109</i>	<i>Douglas fir</i>	<i>1055 Morningside Drive</i>	<i>Bald eagle</i>
<i>BAEA-105-035</i>	<i>Douglas fir</i>	<i>970 Morningside Drive</i>	<i>Bald eagle</i>
<i>BAEA-105-101</i>	<i>Douglas fir</i>	<i>3455 Stephenson Point Road</i>	<i>Bald eagle</i>
<i>BAEA-105-100</i>	<i>Douglas fir</i>	<i>3455 Stephenson Point Road</i>	<i>Bald eagle</i>
<i>BAEA-105-079</i>	<i>Douglas fir</i>	<i>250 Dogwood Road</i>	<i>Bald eagle</i>
<i>BAEA-105-029</i>	<i>Douglas fir</i>	<i>501 Duke Point Hwy</i>	<i>Bald eagle</i>
<i>BAEA-105-332</i>	<i>Douglas fir</i>	<i>501 Duke Point Hwy</i>	<i>Bald eagle</i>
<i>BAEA-105-333</i>	<i>Douglas fir</i>	<i>501 Duke Point Hwy</i>	<i>Bald eagle</i>
<i>BAEA-105-030</i>	<i>Douglas fir</i>	<i>501 Duke Point Hwy</i>	<i>Bald eagle</i>
<i>BAEA-105-060</i>	<i>Douglas fir</i>	<i>1140 Hooker Road</i>	<i>Bald eagle</i>
<i>BAEA-105-059</i>	<i>Douglas fir</i>	<i>1150 Hooker Road</i>	<i>Bald eagle</i>
<i>BAEA-105-065</i>	<i>Douglas fir</i>	<i>1180 Phoenix Way</i>	<i>Bald eagle</i>
<i>BAEA-105-058</i>	<i>Douglas fir</i>	<i>1060 Phoenix Way</i>	<i>Bald eagle</i>
<i>BAEA-105-032</i>	<i>Douglas fir</i>	<i>900 Douglas Avenue</i>	<i>Bald eagle</i>

REFERENCE NUMBER	TREE SPECIES	LOCATION	WILDLIFE
<i>BAEA-105-304</i>	<i>Douglas fir</i>	<i>6466 Lewis Road</i>	<i>Bald eagle</i>
<i>BAEA-105-078</i>	<i>Douglas fir</i>	<i>3947 Gulf View</i>	<i>Bald eagle</i>
<i>BAEA-105-108</i>	<i>Douglas fir</i>	<i>3600 Place Road</i>	<i>Bald eagle</i>
<i>BAEA-105-307</i>	<i>Douglas fir</i>	<i>ROW Bonnie Drive</i>	<i>Bald eagle</i>
<i>BAEA-105-033</i>	<i>Douglas fir</i>	<i>150 Dogwood Road</i>	<i>Bald eagle</i>
<i>BAEA-105-313</i>	<i>Douglas fir</i>	<i>2243 Arbot Road</i>	<i>Bald eagle</i>
<i>BAEA-105-308</i> <i>BAEA-105-309</i>	<i>Douglas fir</i>	<i>3945 Biggs Road</i>	<i>Bald eagle</i>
<i>BAEA-105-061</i>	<i>Douglas fir</i>	<i>N Jack Point (central)</i>	<i>Bald eagle</i>
<i>BAEA-105-341</i>	<i>Douglas fir</i>	<i>N Jack Point (water)</i>	<i>Bald eagle</i>
<i>BAEA-105-062</i>	<i>Douglas fir</i>	<i>S Jack Point</i>	<i>Bald eagle</i>
<i>BAEA-105-063</i>	<i>Douglas fir</i>	<i>Biggs Point- Jack Point</i>	<i>Bald eagle</i>
<i>BAEA-105-031</i>	<i>Douglas fir</i>	<i>1141 Frew Road – estuary</i>	<i>Bald eagle</i>
<i>BAEA-105-339</i>	<i>Douglas fir</i>	<i>1560 Island Hwy S - estuary</i>	<i>Bald eagle</i>
<i>BAEA-105-059</i>	<i>Douglas fir</i>	<i>Jackson Road</i>	<i>Bald eagle</i>
<i>BAEA-105-102</i>	<i>Douglas fir</i>	<i>Leask Road</i>	<i>Bald eagle</i>
<i>BAEA-105-057</i>	<i>Douglas fir</i>	<i>Dodd Narrows (South)</i>	<i>Bald eagle</i>
<i>BAEA-105-106</i>	<i>Douglas fir</i>	<i>960 Phoenix Road</i>	<i>Bald eagle</i>
<i>BAEA-105-064</i>	<i>Douglas fir</i>	<i>732 Maughan Road</i>	<i>Bald eagle</i>
<i>BAEA-105-080</i>	<i>Douglas fir</i>	<i>1390 Fielding Road</i>	<i>Bald eagle</i>
<i>BAEA-105-330</i>	<i>Douglas fir</i>	<i>48 Cutlass Lookout</i>	<i>Bald eagle</i>
<i>New location</i>	<i>Atlas cedar</i>	<i>104 Esplanade</i>	<i>Bald eagle</i>
<i>BAEA-105-326</i> <i>BAEA-105-327</i>	<i>Douglas fir</i>	<i>86 Captain Morgans Blvd</i>	<i>Bald eagle</i>
<i>BAEA-105-070</i> <i>BAEA-105-071</i> <i>BAEA-105-072</i> <i>BAEA-105-073</i> <i>BAEA-105-323</i> <i>BAEA-105-324</i>	<i>Douglas fir</i>	<i>Newcastle Island</i>	<i>Bald eagle</i>
<i>GBHE-105-031</i>		<i>5414 Lost Lake Road</i>	<i>Great blue heron</i>
<i>GBHE-105-009</i>		<i>3669 Rock City Road</i>	<i>Great blue heron</i>
<i>GBHE-105-021</i>		<i>2140 Departure Bay Road</i>	<i>Great blue heron</i>
<i>GBHE-105-007</i>		<i>11 Capt. Kidds Terrace</i>	<i>Great blue heron</i>
<i>GBHE-105-037</i>		<i>140 Tenth Street</i>	<i>Great blue heron</i>
<i>GBHE-105-025</i>		<i>1105 Old Victoria Road</i>	<i>Great blue heron</i>

List not comprehensive

SCHEDULE C

**LANDMARK TREES
NATIVE TREES OF NANAIMO**

Trees that Council considers important to the community for landmark value.

TREE	STATUS	SIZE OF TREE DIAMETER FOR RETENTION
Western White Pine (<i>Pinus monticola</i>)	Very Uncommon	20 cm +
Shore Pine (<i>Pinus contorta</i> vari. <i>contorta</i>)	Fairly Common	20 cm +
Sitka Spruce (<i>Picea sitchensis</i>)	Very Uncommon	80 cm +
Western Hemlock (<i>Tsuga heterophylla</i>)	Common	50 cm +
Douglas-Fir (<i>Pseudotsuga menziesii</i>)	Abundant	80 cm +
Grand Fir (<i>Abies grandis</i>)	Fairly Common	80cm +
Western Red-Cedar (<i>Thuja plicata</i>)	Common	80cm +
Rocky Mountain Juniper (<i>Juniperus scopulorum</i>)	Uncommon	10 cm +
Western Yew (<i>Taxus brevifolia</i>)	Uncommon	15 cm +
Trembling Aspen (<i>Populus tremuloides</i>)	Very Uncommon	20 cm +
Black Cottonwood (<i>Populus balsamifera</i>)	Fairly Uncommon	80 cm +
Pacific Willow (<i>Salix lasiandra</i>)	Fairly Uncommon	15 cm +
Hooker's Willow (<i>Salix hookeriana</i>)	Very Uncommon	15 cm +
Sitka Willow (<i>Salix sitchensis</i>)	Fairly Uncommon	15 cm +
Red Alder (<i>Alnus rubra</i>)	Common	30 cm +
Garry Oak (<i>Quercus garryana</i>)	Fairly Uncommon	10 cm +
Pacific Crabapple (<i>Malus fusca</i>)	Uncommon	10 cm +
Black Hawthorne (<i>Crataegus douglasii</i>)	Uncommon	10 cm +

TREE	STATUS	SIZE OF TREE DIAMETER FOR RETENTION
Bitter Cherry (Prunus emarginata)	Fairly Uncommon	30 cm +
Bigleaf Maple (Acer macrophyllum)	Common	80cm +
Douglas Maple (Acer glabrum)	Very Uncommon	40 cm +
Cascara (Rhamnus purshiana)	Fairly Common	15 cm +
Pacific Dogwood (Cornus nuttallii)	Common	10 cm +
Arbutus (Arbutus menziesii)	Common	50 cm +

SCHEDULE D

LANDMARK TREE REPLACEMENT

RECOMMENDED REPLACEMENT TREE GENUS AND SPECIES:

Tree Species Removed	Replacement Required	Unable to replant with replacement required Option 1	Unable to replant with replacement required Option 2
Pinus monticola	Pinus monticola	Pinus ponderosa - Ponderosa Pine	Pinus sylvestris - Scots Pine
Pinus contorta vari. contorta	Pinus contorta vari. contorta	Pinus nigra - Austrian Pine	Pinus strobus – Eastern White Pine
Picea sitchensis	Picea sitchensis	Picea abies - Norway Spruce	Picea omorika - Serbian Spruce
Tsuga heterophylla	Tsuga heterophylla	Pseudotsuga menziesii - Douglas Fir	Abies concolour - White Fir
Pseudotsuga menziesii	Pseudotsuga menziesii	Tsuga heterophylla - Western Hemlock	Abies concolour - White Fir
Abies grandis	Abies grandis	Abies amabilis - Amabilis Fir	Pseudotsuga menziesii - Douglas Fir
Thuja plicata	Thuja plicata	Thuja occidentalis 'Nigra' – Eastern cedar	Chamaecyparis nootkatensis - Yellow Cypress
Taxus brevifolia	Taxus brevifolia	Taxus baccata - English Yew	Taxus cuspidata - Japanese Yew
Populus tremuloides	Populus tremuloides	Betula utilis 'jacquemontii' – White barked Himalayan birch	Betula papyrifera - White Birch
Populus balsamifera	Populus balsamifera	Betula utilis 'jacquemontii' – White barked Himalayan birch	Betula papyrifera – White Birch
Salix lasiandra	Salix lasiandra	Salix alba – White willow	Salix capre – Pussy willow
Salix hookeriana	Salix hookeriana	Salix capre - Pussy willow	Salix alba – White willow
Salix sitchensis	Salix sitchensis	Salix hookeriana – Hookers willow	Salix alba – White willow
Alnus rubra	Alnus rubra	Alnus glutinosa – Black alder	Fagus sylvatica - Beech
Quercus garryana	Quercus garryana	Quercus robur – English oak	Quercus rubra "Red Oak"
Malus fusca	Malus fusca	Malus floribunda – Japanese crabapple	Pyrus calleryana – Callery pear
Crataegus douglasii	Crataegus douglasii	Crataegus columbiana - Columbia Hawthorn	Crataegus oxyacantha - Hawthorn
Prunus emarginata	Prunus emarginata	Prunus virginiana - Choke Cherry	Prunus padus – common bird cherry

Tree Species Removed	Replacement Required	Unable to replant with replacement required Option 1	Unable to replant with replacement required Option 2
Acer macrophyllum	Acer macrophyllum	Acer platanoides - Norway Maple	Acer pseudoplatanus - Sycamore Maple
Acer glabrum	Acer glabrum	Acer circinatum - Vine Maple	Acer ginnala - Amur Maple
Rhamnus purshiana	Rhamnus purshiana	Cornus nuttallii - Western Dogwood	Cornus kousa – Kousa dogwood
Cornus nuttallii	Cornus nuttallii	Cornus nuttallii - White Wonder Dogwood	Cornus kousa – Kousa dogwood
Arbutus menziesii	Arbutus menziesii	Acer griseum – Paperbark maple	Prunus serrula – paperbark cherry

SCHEDULE E

FEES

- (1) The minimum charge for a tree permit will be fifty dollar (\$50) (application fee) plus the cost of each tree as indicated below.
- (2) Prior to issuance of a permit, the applicant shall pay the municipality a fee of:
 - (a) Ten dollars (\$10) for each tree of 6 cm Dbh or more, other than a significant tree, to be cut or pruned; and
 - (b) One Hundred dollars (\$100) for each significant tree to be cut or pruned.
- (3) Notwithstanding subsections (1) and (2) of this section, the fee for a permit shall not exceed:
 - (a) Five hundred dollars (\$500) per hectare of land upon which trees are to be cut; or,
 - (b) Twenty-five hundred dollars (\$2500) in total.
- (4) There shall be no fee charged for a permit authorizing the removal of a hazardous tree.
- (5) The fee for transfer of a permit shall be fifty dollars (\$50).
- (6) The fee for renewal of an expired permit shall be fifty dollars (\$50) and may require an updated application.

Application Fee – New Permit	\$50.00
Trees, other than significant, over 6 cm diameter	\$10.00 each tree
Significant Trees	\$100.00 each tree
Permit Transfer Fee	\$50.00
Permit Renewal Fee	\$50.00

SCHEDULE F

FINES

Fines for tickets issued pursuant to this Bylaw, shall be as follows:

DESCRIPTION OF OFFENCE	SECTION #	FINE
Cut any tree	5(1)(a)	500.00
Work contrary to tree removal permit conditions	5(1)(b)	250.00
Cut or damage roots	5(1)(c)	500.00
Place prohibited material inside the drip line	5(1)(d)	150.00
Operate equipment inside drip line	5(1)(e)	250.00
Damage trunk or branches	5(1)(f)	250.00
Remove bark	5(1)(g)	500.00
Place structure inside drip line	5(1)(h)	150.00
Remove soil from inside drip line	5(1)(i)	150.00
Blast inside drip line	5(1)(j)	500.00
Undermine roots inside drip line	5(1)(k)	500.00
Improper cable or brace	5(1)(l)	250.00
Improper pruning or topping	5(1)(m)	500.00
Attach sign to tree	5(1)(n)	150.00
Fail to notify within 48 hours	7(1)(a)	150.00
Fail to replace tree	7(1)(b)	150.00
Illegal transfer of permit	10(1)	150.00
Failure to notify the Director	10(2)	150.00
Failure to notify the Director for work not carried out	10(3)	150.00
Failure to mark trees	10(4)	150.00
Failure to prune with proper practices	10(5)	150.00
Failure to clean up site	10(6)	300.00
Work after expiry of permit	10(7)	500.00
Fail to replace tree	13(1)	150.00

SCHEDULE G

STREET AND NATURAL AREA REPLACEMENT GUIDELINES

A person who cuts or removes a tree, including cutting or removal contrary to the Bylaw, shall replace the tree by planting one or more replacement trees as set out below and maintain the replacement trees for a minimum of at least two years:

- (a) Table 1 in the case of a Street Tree; and,
- (b) Table 2 in the case of other trees

Table 1

Dbh of trees cut or removed	Replacement Criteria
Less than 300mm	1 replacement tree
301mm to 600mm	2 replacement trees
601mm or greater	3 replacement trees

Table 2

Dbh of trees cut or removed	Replacement Criteria
100 mm to 151mm	2 replacement trees (min height of 1.5m)
152mm to 304mm	3 replacement trees (min height of 1.5m)
305mm to 456mm	4 replacement trees (min height >2.0m)
457mm to 609mm	6 replacement trees (min height > 2.0m)
610mm of greater	8 replacement trees (min height 2.0m)

SCHEDULE H
REGULATIONS FOR PROTECTED TREE REPLACEMENT

LOCATION	SIGNIFICANT TREES (per tree)	INDIVIDUAL TREES (per tree)	SPECIES	SIZE
Watercourse Leave Strip	Ratio of replaced/removed trees ≥ 3 , and minimum density of 1 tree per 10 sq. m over affected area	Ratio of replaced/removed trees ≥ 2 and minimum density of 1 tree per 10 sq. m. over affected area	Native trees and shrubs	Maximum size which is free to grow after 2 years
Steep Slope and Similar DPA's	Ratio of replaced/removed trees ≥ 2 , and minimum density of 0.5 trees per 10 sq. m. over affected area	Ratio of replaced/removed trees ≥ 1 and minimum density of 0.5 trees per 10 sq. m. over affected area	Native trees and shrubs	Maximum size which is free to grow after 2 years
Character Protection and Tree Protection Zones	Sufficient number to provide screening pursuant to the City of Nanaimo Official Community Plan - Nanaimo Parkway Design Guidelines	Sufficient number to provide screening per Nanaimo Parkway Design Guidelines	Pursuant to the City of Nanaimo Zoning Bylaw	Pursuant to the City of Nanaimo Zoning Bylaw
Other Areas	Ratio of replaced/removed trees ≥ 1 or per current Zoning Bylaw regulations	Current Zoning Bylaw regulations	Pursuant to the City of Nanaimo Zoning Bylaw	Pursuant to the City of Nanaimo Zoning Bylaw

SCHEDULE I

TREE REMOVAL GUIDELINES

	Repair and Maintain 1	Repair and Maintain 2	Repair and Maintain 3	Remove	Remove ASAP
General Condition	Fair	Poor	Very poor and / or minor indication of poisoning	Unlikely to recover and/ or indication of mortal poisoning	Dead
Trunk	1 or 2 wounds < diameter of the trunk in any dimension	1 or 2 wounds > diameter but <2x diameter of the trunk in width, or 2-4x diameter in height or 3-5 wounds < diameter but <2x diameter of the trunk in any dimension	1 wound >2x diameter of the trunk in width, or > 4x diameter but <6x diameter in height or 3-5 wounds > diameter but <2x diameter of the trunk in any dimension	Less than 1/10 of the circumference of bark and cambium alive at any height of 2 or more wounds >2x diameter of the trunk in width, or >4 x diameter in height or biological attack present that will make the tree structurally unsafe within five years	Structurally unsafe due to physical or biological damage
Branches	Less than ¼ of branches dead, removed or damaged but acceptable structure remains	¼ to ½ of branches dead, removed or damaged but acceptable structure remains	More than ½ of branches dead, removed or damaged but acceptable structure remains or can be developed.	Branch(es) dead, removed or damaged such that acceptable structure redevelopment is unlikely	Branch(es) removed or damaged making the tree unstable
Canopy	Less than ¼ foliage killed or damaged but should recover within two years	¼ to ½ foliage dead or badly damaged, may take more than two years to recover	More than ½ of foliage dead or badly damaged, may take more than five years to recover	Most of foliage destroyed, recovery of the tree is unlikely	
Young Tree	Loss of less than 25% of roots between circles of radius 5x and 10x DbH of trunk	Loss of >25% but <50% of roots between circles of radius 5x and 10x DbH of trunk or loss of < 20% of roots within circle of radius 5x DbH of trunk	Loss of >50% but <75% of roots between circles of radius 5x and 10x DbH of trunk or loss of >20% but <40% of roots within circle of radius 5x DbH of trunk	Loss of >75% of roots between circles of radius 5x and 10x DbH of trunk or loss of >40% of roots within circle of radius 5x DbH of trunk	Tree unstable due to root loss or damage or loss of more than 75% of roots
Roots	Loss of <10% of roots between circles of radius 10x and 15x DbH of trunk	Loss of >10% but <25% of roots between circles of radius 10x and 15x DbH of trunk	Loss of >25% but <50% of roots between circles of radius 10x and 15x DbH of trunk or loss <10% of roots between circles of radius 10x DbH of trunk	Loss of >50% of roots between circles of radius 10x and 15x DbH of trunk or loss of >10% of roots within circle of radius 10x DbH of trunk	Tree unstable due to root loss or damage or loss of more than 60% of roots

SCHEDULE J

FIRE INTERFACE TREES

The following table indicates some characteristics of flammable versus fire resistant vegetation. Nursery and landscape professionals are a source of information on species appropriate for your area that may also be fire resistant.

Flammable Vegetation	Fire Resistant Vegetation
Areas of largely dead vegetation (forest with disease or insect infestation)	Little or no accumulation of dead vegetation
Resinous plants that produce flammable sap or pitch (e.g. pine or juniper)	Non-resinous plants (most other deciduous species)
Drought intolerant plants (many shallow rooted or wetland species subjected to drought)	Drought tolerant plants (e.g. deeply rooted plants with thick heavy leaves)
Trees with lots of lower branches that can "ladder" a ground fire into the crown	Trees with fewer branches between the ground and the canopy
High maintenance vegetation (plants that grow or reproduce rapidly such as annual grasses)	Low maintenance vegetation (slow growing plants that require little care)
"Flash Fuel" vegetation (plants that ignite easily and burn rapidly (such as dry grass)	Plants that require prolonged heating to ignite (those with woody stems and branches)