

AGENDA ADDENDUM

REGULAR MEETING OF COUNCIL

Monday, May 9, 2016

7:00 p.m.

Council Chamber, Municipal Hall

355 West Queens Road,

North Vancouver, BC

Council Members:

Mayor Richard Walton

Councillor Roger Bassam

Councillor Mathew Bond

Councillor Jim Hanson

Councillor Robin Hicks

Councillor Doug MacKay-Dunn

Councillor Lisa Muri



NORTH VANCOUVER
DISTRICT

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REGULAR MEETING OF COUNCIL

7:00 p.m.
Monday, May 9, 2016
Council Chamber, Municipal Hall
355 West Queens Road, North Vancouver

AGENDA ADDENDUM

THE FOLLOWING LATE ITEMS ARE ADDED TO THE PUBLISHED AGENDA

9. REPORTS FROM COUNCIL OR STAFF

9.3. Montroyal Bridge Replacement Project

File No.

Recommendation:

THAT the application to the New Building Canada Fund – Small Communities Fund (NBCF-SCF) for the replacement of Montroyal Bridge be supported;

AND THAT sufficient District funds are included in the 2016-2020 Financial Plan Bylaw for the District's share of the project.

9.4. 1970 Pemberton Avenue – Douglas Fir Tree in Unopened Laneway

File No. 12.6300.01/000.000

Recommendation:

THAT the May 5, 2016 report of the Section Manager – Natural Parklands entitled 1970 Pemberton Avenue – Douglas Fir Tree in Unopened Laneway be received for information.

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REPORTS

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AGENDA INFORMATION	
<input checked="" type="checkbox"/> Regular Meeting	Date: <u>May 9, 2016</u>
<input type="checkbox"/> Workshop (open to public)	Date: _____

9.3

		
Dept. Manager	GM/ Director	CAO

The District of North Vancouver REPORT TO COUNCIL

May 3, 2016
File:

AUTHOR: Andy Wardell, Acting General Manager, Finance and Technology
Steve Ono, Deputy General Manager, Engineering, Parks and Facilities

SUBJECT: Montroyal Bridge Replacement Project

RECOMMENDATION:

THAT the application to the New Building Canada Fund – Small Communities Fund (NBCF-SCF) for the replacement of Montroyal Bridge be supported;

AND THAT sufficient District funds are included in the 2016-2020 Financial Plan Bylaw for the District's share of the project.

REASON FOR REPORT:

A resolution of Council is required to support the grant application to the NBCF - SCF. Project costs, based on the latest estimate, total \$7.5 million, eligible costs total \$6.6 million and the grant request is for 2/3rds of eligible costs or a maximum of \$4.4 million. Sufficient funds are included in the 2015 and 2016 Financial Plan Bylaws for the District's share of this project. This application was submitted for the April 28, 2016 program deadline with select supporting documentation to follow including a Council Resolution.

Respectfully submitted,



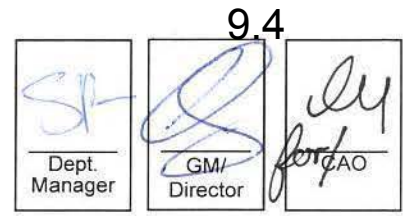
Andy Wardell,
Acting General Manager,
Finance and Technology



Steve Ono,
Deputy General Manager,
Engineering, Parks and Facilities

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AGENDA INFORMATION	
<input type="checkbox"/> Regular Meeting	Date: _____
<input type="checkbox"/> Committee of the Whole	Date: _____



The District of North Vancouver REPORT TO COUNCIL

May 5, 2016
File: 12.6300.01/000.000

AUTHOR: Wayne Maskall, Section Manager Natural Parklands

SUBJECT: 1970 Pemberton Avenue – Douglas Fir Tree in Unopened Laneway

RECOMMENDATION:

THAT the May 5, 2016 report from the Section Manager Natural Parklands be received for information.

REASON FOR REPORT:

Mr. Metcalfe who resides at 1970 Pemberton Avenue attended Council on April 4 requesting that Council re consider his request for tree removal.

SUMMARY:

Mr. Colin Metcalf, who resides at 1970 Pemberton Ave, has requested the removal of a large, mature Douglas fir tree located in an unopened lane easement adjacent to his property. Mr. Metcalf contends that the tree poses a hazard to his property. Mr. Metcalf made a presentation to Council on Monday April 4, 2016.

Staff, and an independent report prepared by an arborist certified by the International Society of Arboriculture (ISA), and commissioned by Mr. Metcalf, have concluded the tree presents no major structural defects, decay, health, or wind exposure issues that warrant whole tree removal.

Mr. Metcalfe presented his case to Council on Monday April 4, 2016, outlining his concerns. He would like Council to re-consider his request for tree removal.

BACKGROUND:

The following information is a chronological review of the tree in question.

12/15/2014- RFS-2014-8450- Request by Colin Metcalfe

"7-8 trees removed from District green space behind property for development of lot behind resident. One tree (labelled #9) is still standing. Resident is concerned with safety of tree."

12/17/2014

DNV Parks Field Arborist attended the site and assessed tree. Notes entered on Tidemark, "*Dfir, deadwood removal, crown clean*", indicating that DNV Field Arborist would arrange for the tree to be professionally pruned, removing deadwood and cleaning the crown. No recommendation to remove tree was made.

12/22/2014

Burley Boys Tree Services LTD attended site and performed pruning and crown cleaning on tree, per DNV Field Arborist recommendations.

9/3/2015 - RFS-2015-6879- Request by Colin Metcalfe

"DNV tree in backyard is dropping large limbs. A large branch dropped onto and damaged the fence. Resident is concerned tree is a safety hazard and would like tree removed."

9/8/2015

DNV Field Arborist attended site and assessed tree again. Notes entered on Tidemark, "*No visible hung up limbs or hazards. No further action*". Case finalized.

11/30/2015

District Community Forester and Colin Metcalfe had a telephone discussion regarding the tree.

1/4/2016- RFS-2015-6879- re-opened

Case re-opened by DNV Community Forester. Notes entered on Tidemark, "*Reviewed tree and sent letter with options. Awaiting independent arborist report. Further email received and letter but no report as required.*"

DNV Community Forester provided a letter to Mr. Metcalfe stating, "There are no typical visual indicators of significant structural defects or decay. The tree appears to be in fair health condition given the species, age, rooting location and the environmental conditions i.e. recent construction disturbances, summer drought, tree fort attached to trunk (now removed)", "The tree is a dominant anchor tree that has developed normal trunk taper being exposed to the prevailing winds and storms for many years", "In light of recent environmental changes and as a cautionary measure, and inspection of the tree health and structure by the Parks Field Arborist has been scheduled for the autumn period 2016", and concludes, "the present condition of the subject tree does not justify whole removal or pruning to mitigate an imminent risk of failure".

Two options were provided by DNV Community Forester:

Option 1-"if you are dissatisfied with the District's decision you can, in accordance with the District Tree Work Policy, have the right to pursue your own independent professional opinion".

Option 2- apply for a permit under Section 2 of the policy, however also stated, *"As requested, the District has considered "Option 2". I can confirm that given the present condition of the tree, its significance within the local landscape and the ecosystem services provided by a large mature tree such as this, that a tree permit for removal is not supported."*

2/11/2016

Independent arborist report submitted by Consulting Arborist John P Martyn dated January 16, 2016, on behalf of Colin Metcalfe.

In response to the August 29, 2015 windstorm the report states, *"I could not see any clear signs of recent branches breakages on the Douglas-fir. Furthermore, not that the stubs in Zone C did not contain any recent breakages. So, all in all, in my view this tree weathered the most recent summer storm fairly well"*.

In response to recent cutting of trees on an adjacent development site, the report states, *"... the removal of the 4 trees did not enhance the health of the tree. Yet at the same time, their absence cannot be considered a huge factor. The reason for this is simply that they did not block the large vertical wind space. If another large conifer was beside the Douglas-fir and it had been taken out, then that would have been a whole new ball game"*.

The report concludes that, *"This tree is presently asymmetrical and is fairly exposed out in the open. The top of the tree is a little more balanced than the rest. A proper pruning to remove deadwood, cross limbs and weak/inferior branches could improve its overall health and appearance in the neighbourhood."*

The report makes three final recommendations; **1)** to remove existing bolts from the trunk of the tree, **2)** *"pruning- a competent individual could do a thorough pruning on this tree"*, and **3)** *"monitoring - an annual review by a competent professional arborist preferably before the winter storm season - generally mid-October to mid-February to spot any deficiencies in the tree such as broken branches"*.

The report makes no recommendations for whole tree removal.

2/23/2016

Letter sent by DNV Community Forester to Colin Metcalf. The letter states, *"The Parks Department and I have reviewed the report content and pursuant to sec 1.2 of the "Tree Work in the District" corporate policy have come to an agreed consensus and a final decision made not to remove the tree for the following reasons: the independent arborist has not identified any major structural defects or decay or health or wind exposure issues that require whole tree removal or major pruning to mitigate an imminent probability of failure. This is reflected in the report Conclusions section where only minor pruning is prescribed which "could" improve the overall health and appearance". "The application to remove the subject District tree is now complete and a decision has been made to retain the tree"*.

Three recommendations were made; **1)** to leave the bolts to avoid further damage to the tree, **2)** that additional minor pruning is not considered appropriate, and **3)** that parks has added the subject tree to their scheduled inspections this fall 2016.

EXISTING POLICY:

The District has a Tree Protection Bylaw - 7671, which is a bylaw to protect, preserve and conserve trees and their physical, societal, economic and environmental characteristics as associated with the forested characteristics as associated with the forested character of the District of North Vancouver. Under the bylaw, all trees on District property are protected.

The District has a policy to address Tree Work in the District- Policy 13-5280. The policy is in place to preserve and enhance the District's forested character, ecological systems and natural parklands while recognizing the responsibilities to minimize risk to the public and property.

The policy outlines the procedures to evaluate hazardous trees on District property, the permit process and outlines the arboricultural Tree Rating Process to evaluate and rate the trees in accordance with internationally accepted standards, as defined by the International Society of Arboriculture.

Concurrence:

Parks and the Environment Department have reviewed this case and have concluded the tree does not warrant removal.

Liability and Risk:

Within Mr. Metcalf's letter to the District, received April 4, 2016, Mr. Metcalf states, *"Given the history I have provided and knowing that the tree will either continue to drop limbs onto our respective properties or fall onto one of our homes, we the undersigned put the District of North Vancouver on notice that they will be held liable for any and all future damages and/or injuries or loss of life associated with the tree on DNV property. Legal action will be taken when this eventually happens"*.

Environmental Impact:

This tree is a dominant tree within the area, providing valuable habitat for birds, wildlife, and significant ecosystem benefits.

Conclusion:

DNV staff have reviewed the tree on multiple occasions. An independent arborist has also reviewed the tree, in accordance with sec. 1.2, Hazardous Trees on District Property, of the Tree Work in the District corporate policy.

Parks staff recommended, and had a DNV Prime Contractor perform, professional pruning and crown cleaning of the tree, in an effort to minimize the risk of property damage.

Three arborists have reviewed the tree. All three have concluded that this tree does not warrant removal.

The independent arborist made no recommendations for whole tree removal and suggested only minor pruning be undertaken, and recommended annual inspection.

Parks staff have agreed to re-inspect the tree in Fall 2016.

Respectfully submitted,



Wayne Maskall
Section Manager – Natural Parkland

REVIEWED WITH:		
<input type="checkbox"/> Sustainable Community Dev.	_____	
<input type="checkbox"/> Development Services	_____	
<input type="checkbox"/> Utilities	_____	
<input type="checkbox"/> Engineering Operations	_____	
<input type="checkbox"/> Parks	_____	
<input type="checkbox"/> Environment	_____	
<input type="checkbox"/> Facilities	_____	
<input type="checkbox"/> Human Resources	_____	
<input type="checkbox"/> Clerk's Office	_____	
<input type="checkbox"/> Communications	_____	
<input type="checkbox"/> Finance	_____	
<input type="checkbox"/> Fire Services	_____	
<input type="checkbox"/> ITS	_____	
<input type="checkbox"/> Solicitor	_____	
<input type="checkbox"/> GIS	_____	
<input type="checkbox"/> Real Estate	_____	
External Agencies:		
<input type="checkbox"/> Library Board	_____	
<input type="checkbox"/> NS Health	_____	
<input type="checkbox"/> RCMP	_____	
<input type="checkbox"/> NVRC	_____	
<input type="checkbox"/> Museum & Arch.	_____	
<input type="checkbox"/> Other:	_____	



Section:	Planning and Development	13
Sub Section:	Environmental Planning and Development	5280
Title:	TREE WORK IN THE DISTRICT	1

POLICY

It is the policy of the District of North Vancouver to preserve and enhance the District's attractive *forested character*, ecological systems and *natural parklands*, while recognizing the responsibility to minimize risk to the public and property.

REASON FOR POLICY

To clarify the responsibilities and procedures for work on trees in the District.

AUTHORITY TO ACT

Delegated to staff

Tree protection in the District of North Vancouver is outlined in the Tree Bylaw 7671. This policy prescribes the procedures to conduct work on trees within the District.

PROCEDURE

1.0 HAZARDOUS TREES ON DISTRICT PROPERTY

This section applies to all trees located wholly or in part on District property, dedicated roads and parks. On request, the *District Arborist* or *appropriate staff* will inspect trees on District property and will mitigate hazards to the public or property according to the procedures in 1.1 and Appendix 1, *Tree Rating Procedure for Trees on District Property*. If additional work not related to safety is requested, the District will consider the request subject to the conditions outlined in Sections 2.0 and 3.0.

- 1.1 Tree hazards will be mitigated in accordance with the procedure set out in Appendix 1, *Tree Rating Procedure for Trees on District Property* which is attached and forms part of this policy. The tree(s) identified with the highest rating for a hazard will be corrected first and as soon as practical within the work schedule limits as prescribed in Appendix 1. The Parks Department is issued a permit annually under the Tree Bylaw 7671 granting authorisation to mitigate hazardous trees.
- 1.2 Should the requester disagree with the tree assessment by the *District Arborist*, the requester may obtain a secondary opinion from a *qualified arborist* (at the requester's expense). This assessment will be reviewed and considered before a final decision is made. The *District Arborist* or *appropriate staff* reserves the right to make the final decision.

2.0 NON HAZARDOUS TREES ON DISTRICT PROPERTY

The *Manager of Environment* will consider a permit application to allow work not related to safety as defined in Section 1.0, and the Appendix 1, subject to the following:

- 2.1 The resident must make a permit application pursuant to the Tree Bylaw 7671
- 2.2 The permit fees and associated cost of the work and the cost of restitution will be the responsibility of the applicant.

- 2.3 All potential permit work will consider the tree's safety and long-term health and must not adversely affect the aesthetic appearance, viability of the tree and its ecological values.
- (a) If removal is requested, the *District Arborist* or other *appropriate staff* will assess the tree in terms of its contribution to the streetscape and *forested character* of the neighbourhood; its contribution to wildlife habitat and the ecosystem; and the uniqueness of the specimen. Replacement with trees and/or appropriate vegetation will be required as compensation.
 - (b) If removal of a number of trees or significant pruning work is permitted, the work may be required to be staged over a period of time at the discretion of the *District Arborist* or *appropriate staff* to lessen the impacts. Replacement with trees and/or appropriate vegetation will be required as compensation.
 - (c) Requests for removal of trees to improve view and sunlight and abate twig, leaf and needle drop, are not acceptable reasons to remove healthy trees, however, some pruning may be permitted with consideration for the health, integrity, appearance and survival of the trees. Replacement with trees and/or appropriate vegetation will be required as compensation.
 - (d) Requests for removal of otherwise healthy but heavily phototropic trees which create a moderate aerial encroachment onto private property will be considered, where pruning would remove an excessive portion of the live crown and compromise long-term health and viability. Replacement with trees and/or appropriate vegetation will be required as compensation.
 - (e) The following trees will not be considered for pruning or removal:
 - Yew (*Taxus brevifolia*)
 - Arbutus (*Arbutus menziesii*)
 - Yellow Cedar (*Chamaecyparis nootkatensis*)
 - Western White Pine (*Pinus monticola*)
 - Garry Oak (*Quercus garryana*); or
 - *Unique specimen trees*;
unless there are compelling circumstances to warrant removal, such as a tree within a building or development envelope where all design options to save the tree have been exhausted or where pruning will save the tree or reduce a hazard.
 - (f) *Topping* of trees.
Topping of trees is not an acceptable pruning method and will not be permitted, with the exception of previously topped trees.
 - (g) *Previously topped trees*.
Previously topped trees may be re-topped if at the discretion of the District Arborist or appropriate staff, topping would be a suitable technique to sustain the tree, reduce or eliminate a future hazard (or existing hazard) or be appropriate for the specific circumstances as assessed on a case-by-case basis. It is recognized that a topped tree still has wildlife and aesthetic value as well as having an important function with respect to maintaining slope stability, groundwater, and reducing precipitation impacts to the soil. If the tree is allowed to be re-topped, then other appropriate tree species and/or vegetation will be required as replacement for the possible future removal of the re-topped tree(s).

2.4 The District reserves the right to refuse any permit requests

3.0 Issuing of Permit: Trees on District Property

If the requirements of 2.0 are met, a permit may be issued for the requested work subject to the following:

- 3.1 The applicant will be required to submit a signed *neighbourhood consent form* distributed as per section 6.0, the form shall be distributed by the applicant to the affected owners in the area wherein the affected owners state that they are aware of the request and have no objection to the work requested. Information to accompany the *neighbourhood consent form* includes a photo of the tree(s), the species of the tree(s), the corresponding tree numbers slated for the work with a sketch or plan locating the trees proposed for work.

- 3.2 In the event that one or more of the affected owners object to the proposed work, the *District Arborist* or *appropriate staff* will attempt to facilitate a solution acceptable to the applicant, affected owners and the *appropriate staff* from the District. Every effort must be made by the applicant to obtain unanimous consent, however, where unanimous consent is not achieved, the District reserves the right to issue the permit under the following circumstances:
- 3.2.1 the proposed work will contribute to the *sustainable management* of its forested land;
 - 3.2.2 the proposed work is required to satisfy other District bylaws, regulations or conditions of development (e.g. Street and Traffic bylaw)
- 3.3 Where consensus has been reached, the applicant will be required to include a replanting plan to compensate for any trees removed.
- 3.5 After clarifying the proposed work with the *District Arborist*, or *appropriate staff*, the applicant will provide a written quote for the work plus the cost of any restitution required as quoted by a *Prime Contractor* that meets the requirements to conduct tree work on District Property. The District reserves the right to refuse any quote if it is deemed unsatisfactory to accomplish the required work including cleanup and replanting.
- 3.6 The permit may be issued when the District has received the following:
- a) the completed signed *neighbourhood consent form*, as prescribed in Section 6.0
 - b) the completed permit application form
 - c) a property map or sketch to scale indicating the location of the proposed tree work, the species of the tree(s) with a corresponding number tag attached to each tree
 - d) Corresponding photo(s) of the tree(s) before and after the work is done, from the same orientation, may be required to complete the file
 - e) a payment to cover the cost of permit fee(s)
 - f) a payment equal to the estimate (including applicable taxes) for the requested pruning or removal work
 - g) a refundable deposit (as per tree permit application) to ensure restitution requirements are met. If after 60 days the requirements for restitution have not been met, the District will cash the deposit and complete the restitution requirements.

4.0 Tree Work and Inspections on District Owned Land

- 4.1 **Alpine Areas:** Trees adjacent to developed trails in the alpine areas will be visually inspected upon request. Hazards will be mitigated as per section 1.0 and trail blockages removed. User frequency of these parklands will be considered when assessing the trees. Habitat enhancement through the creation of *Wildlife Trees* will be done wherever possible.
- 4.2 **Natural Parkland and Urban Parkland:** Trees adjacent to *mulch trails, engineered full serviced trails, gravel connector trails* and District sanctioned areas of congregation (e.g. Barbeque pits, picnic sites and viewpoints) will be visually inspected upon request. Hazards will be mitigated as per Section 1.0 and trail blockages removed. User frequency of these parklands will be considered when assessing the trees. Habitat enhancement through the creation of *wildlife trees* will be done wherever possible. Perimeters of parkland adjacent to other property will be inspected for tree concerns upon request and hazards mitigated as per Section 1.0.
- 4.3 **Unopened Lane Allowances, Road Allowances and Other District Owned Land:** Trees in and adjacent to unopened lane allowances, road allowances and other District owned land will be inspected for tree concerns on request and hazards mitigated as per Section 1.0.
- 4.4 **Tree Clearing on District Property:** In order to ensure that clearing of District Lands is done in accordance with District Standards, all clearing and site preparation of approved development of District lands shall be conducted under the supervision of the *District Arborist* or *other appropriate staff*. A security deposit may be taken from the applicant to ensure that the protection measures are adhered to.

5.0 Public Notification: Tree Work on District Property

- 5.1 Work to be conducted on trees rated as "Priority 1", pursuant to the rating procedure described in Appendix 1, will not invoke the requirement for Public Notification.
- 5.2 In residential areas the District Arborist or appropriate staff and Parks Arboriculture crew or Prime Contractor assigned the work shall give three (3) working days notice to the area residents regarding the work to be conducted on trees rated as "Priority 2 through Priority 5." The notification shall describe

the work to be done using standardized Door Hangers or other appropriate methods. The number of residents to receive notification shall be determined as described in Section 6.0, Public Consent.

- 5.3 On District parkland outside of residential areas for "Priority 2 through Priority 5" work, signs will be erected at least 48 hrs prior to work being performed to notify park users of trail closures and scheduled hazard tree mitigation work.

6.0 Public Consent: Tree Work on District Property

Upon a permit application for work on non-hazardous trees on District owned land, the *District Arborist or appropriate staff* will assess the level of impact to the neighborhood due to the requested work. If the permit application is of moderate or high impact, or involves trees on Park property, then the *District Arborist* will first review the permit application with the *Manager of Environment* to determine if the application should proceed. If the permit application is allowed to proceed, then the level of public consent will be determined as follows:

- 6.1 **Low impact pruning or removal.** This includes as a minimum, the distribution of the neighbourhood consent form by the applicant to the properties directly adjacent to the proposed work, this requirement may be exempted at the District Arborist's or appropriate staff discretion where the work is in a location which will not affect adjacent properties [e.g. a tree in adjacent greenbelt or hedge on the boulevard not affecting other properties]
- 6.2 **Moderate impact pruning or removal.** This includes as a minimum, the distribution of the neighbourhood consent form by the applicant to six (6) properties adjacent to proposed work. The number of signatures required may be reduced at the discretion of the District Arborist or appropriate staff, where it is deemed that the proposed work is unlikely to affect six (6) adjacent properties.
- 6.3 **High impact pruning or removal.** The *District Arborist or appropriate staff* may contact the local neighbourhood association and the general neighbourhood as per 6.2 above. The Parks Department shall also install signage in the vicinity of the site, indicating the work to be completed. Based on the response from the signage and the neighbourhood association, a public consultation meeting may be arranged by the appropriate staff. This process shall occur a minimum of twenty (20) working days in advance of the proposed commencement of work.
- 6.4 The District Arborist may exempt the need for unanimous consent, and/or require an amendment to the proposed work to achieve agreement by the affected property owners and unanimous consent.

7.0 TREE WORK ON PRIVATE PROPERTY

- 7.1 Tree work on private property is regulated under the Tree Bylaw 7671 as defined in Section 22.
- 7.2 Property owners must determine whether the trees on their property are governed by the Tree Bylaw 7671

SECTION C: DEFINITIONS

Affected owners	Means the registered owners of land or parcel abutting the applicant's land or parcel, or the location of the tree(s), and includes all other owners the <i>District Arborist</i> or <i>appropriate staff</i> deems to be affected. Rental property tenants must be canvassed for their support and their signature will be considered additional to the required minimum; however written authorization from the registered owner of land or parcel is required for all applications, unless the tenant or managing agent can provide documented legal power of attorney.
Arboriculture crew	Parks staff who have the necessary qualifications and safety certification to complete hazard tree mitigation work on District land.
Appropriate staff	Means the <i>Manager Environment</i> , and <i>Manager of Parks</i> , <i>District Arborist</i> , any District staff that are <i>Qualified Arborists</i> and any District staff as assigned by the District Arborist.
DBH	Means the diameter of the tree measured at breast height standardized at 1.3 meters from the ground. On sloping ground, diameter at breast height is measured on the uphill side of the tree. If the DBH point falls on a swelling in the trunk or the trunk is forked, co-dominant or 1.3m coincides with a lateral branch, measure diameter below the swelling at a point where the diameter is smallest. Where the trunk splits into several trunks at ground level or below 1.3m measure the diameter of each stem individually.
District Arborist	Means the Corporation of the District of North Vancouver, District Arborist, Community Forester or their designate.
Door hanger	A standardized form that can be hung on the doorknob or left in the mailbox stating a contact name and number for the District as well as a brief description of the work to be completed.
Engineered full service trails	Trails that have an engineered sub-base and are approximately 2.5m in width. Lighting may be provided for night use. These trails are hard surfaced with asphalt or concrete pavers. These trails provide major linkages between neighbourhoods and have a high use level.
Externally visible stem cracks	A separation of the wood fibres along the long axis and visible to the inspector, including hazard beam, banana, stove failure or shell buckling cracking of the stem.
Forested Character	The District of North Vancouver has, as an attribute, a well-developed planted and natural forest. It is the general intent to manage existing trees and forest areas in order to preserve and enhance this attribute as well as the habitat and other ecological values it provides.
Frequency of target:	
Low frequency target	Where the likelihood of a falling tree or limbs striking a target or people is low including <i>mulched trails</i> .
Moderate frequency target	Where the likelihood of a falling tree or limbs striking a target or people is moderate, including a residential road, <i>engineered full service trails</i> or <i>gravel connector trails</i> .
High frequency target	Where the likelihood of a falling tree or limbs striking a target or people is high, including buildings, arterial or collector roads.
Gravel connector trails	Trails that provide linkages to the Engineered Full Service Trails or well-used trails in parks and green belts. These trails are usually 2.5m wide and have a maintained surface of compacted aggregate. These trails may be moderate to high use.
Impacts:	
Low impact pruning	Means minor tree work that includes <i>standard pruning practices</i> that only affects the

adjacent neighbours to the work and will have little or no detrimental impact on the appearance and/or ecology of the wooded area. This work includes regular hedge maintenance where a hedge has been planted on District land or Boulevard.

Low impact removal	Means the removal of small trees and shrubs up to five (5) meters in height and less than twenty (20) centimetres <i>dbh</i> that only affects the adjacent neighbours and will have little or no detrimental impact on the appearance and/or ecology of the wooded area. This work includes the removal of hedges less than 5 metres tall which are located on the District land or boulevard.
Moderate impact pruning	Means tree work that includes standard pruning practices that affect the general neighbourhood and includes significant pruning work and recognizes that the proposed work may affect the appearance and/or ecology of the wooded area.
Moderate impact removal	Means the removal of a single or multiple trees greater than five (5) meters in height and greater than or equal to twenty (20) centimetres <i>dbh</i> and recognizes that the proposed work may affect the appearance and/or ecology of the wooded area.
High impact pruning	Means significant <i>standard pruning practices</i> that would impact the general neighbourhood and includes park and trail users and recognizes that the proposed work may affect the appearance and/or ecology of the wooded area. This could include significant pruning along major travel routes, pruning in recreation areas, pruning of large numbers of trees, and pruning of <i>large trees</i> or <i>unique specimen trees</i> .
High impact removal	Means the removal of a single or multiple trees that would impact the general neighbourhood and includes park and trail users and recognizes that the proposed work may affect the appearance and ecology of the wooded area. This could include removals along major travel routes, removals in recreation areas, removals of large numbers of trees, and removals of <i>large trees</i> or <i>unique specimen trees</i> .
Manager Environment	Means the Corporation of the District of North Vancouver, Manager Environment, appropriate staff or their authorized designates.
Manager of Parks	Means the Corporation of the District of North Vancouver, Manager of Parks, or authorized designates.
Minor encroachment	Minor encroachment may exist where a tree overhangs a property line, or where roots extend over the property line these encroachments are considered incidental in nature.
Moderate encroachment	Moderate encroachment may exist where a tree overhangs a property line, or where roots may be incurring some form of damage to boulevards or private property.
Mulched trails	Trails that do not have a maintained base. These trails are usually in natural areas and green belts. No specific width standards are noted but sometimes boardwalks and steps are incorporated. These trails usually have a moderate to low use rate.
Natural parklands	Means District owned land that remains in a natural state that has passive uses such as nature viewing and hiking as the primary attraction or is inaccessible or undeveloped. These lands are often associated with watercourses or create part of the sea to sky linkages involving wooded corridors.
Neighbourhood consent form	Means the prescribed form, used to seek consent for the proposed tree work. The form is to be distributed by the applicant to the affected owners as determined by District Arborist or appropriate staff as per Section 6.0.
Permit plan	Means the District computer program to generate the data base for the requests for service system.
Phototropic trees	A condition where competition between trees or trees and structures, causes them to grow with a lean towards available sunlight.

Prime Contractor	A contractor that meets the requirements to conduct tree work on District property, as defined in the Contractor Coordination Program, a copy of the program documents are available at the District's website or can be obtained from the Purchasing Department located at Municipal Hall, 355 West Queens Road, North Vancouver.
Qualified arborists	Certified by the International Society of Arboriculture (ISA) or equivalent professional association, qualified arborists must in addition be certified tree risk assessors, (CTRA) all certification must be current and in good standing with ISA.
Standard Pruning Practices (ANSI A300)	Means the pruning practices as defined by the American National Standards Institute for Arboriculture Operations ANSI A300.
Severe damage	Where the bole of a tree has suffered damage which is so severe that the structural integrity of the tree has become compromised, this can include but will not be limited to the following: Fire, extreme weather, wildlife or mechanical damage has affected greater than 30% cross sectional area of the stem or greater than 40% of the critical root zone.
Sustainable forest management	The stewardship and use of District of North Vancouver forests and forest lands in a way, that maintains biodiversity, productivity, regeneration capacity, vitality and their potential to fulfil, for present and future generations, relevant ecological, economic, social and cultural functions.
Large trees	Means trees having a diameter greater than 0.75m measured 1.3 metre above the natural ground level.
Topping	Means the cutting of the stem of a tree resulting in the complete removal of the upper stem and branches of a tree resulting in an abrupt truncated stem.
Unique specimen tree	Means a tree that has historical significance, or is of unusual character, or is a prominent feature of the landscape, or in the opinion of the District Arborist or appropriate staff, has other unique qualities.
Urban parklands	Parklands that have developed attractions such as play grounds, sports fields, beaches, and flower/shrub beds as the primary attraction. These parklands also often have natural features associated with them such as greenbelts, water features, and trails.
Volunteer tree	Means a tree that was seeded naturally and not planted by humans.
Wildlife tree	Means the remainder of a tree that has been cut and modified to stimulate natural decay and simulate cavities for the benefit of wildlife.

**Appendix I
Tree Rating Procedure
for Trees on District Property**

INSPECTION REQUESTS

"Requests for Service" (inspections) will be processed as follows:

- 1) All requests originating from the public, outside agencies or internal sources will be received and processed by the District call centre
- 2) The request will be logged onto Permit Plan.
- 3) The District Arborist or appropriate staff will carry out an initial inspection and will complete a "Tree Inspection" form substantially in the form of the attachment to this policy, or complete the electronic version which forms the data collection basis for the GIS based tree risk management system (FMS).
- 4) Trees will be assessed and rated as per the procedures below.
- 5) The Parks Department will administer the work orders and contracts for tree work.
- 6) Requests for contractor bids are sent to the prime contractors on an as needs basis.

INSPECTION PROCEDURE

Visual Inspection

- **If the ownership of the tree is in doubt, a survey may be conducted to determine ownership**, only trees on District lands will be inspected by the District Arborist or appropriate staff.
- 360 degree, walk around, visual inspection of the tree from ground level. This visual tree assessment (VTA) inspection does not include any practice that is intrusive to the tree.
- VTA are performed to manage risks associated with tree defects under normal weather conditions.

Physical Inspection

If, after the visual inspection, there is a question about the structural integrity of the tree, then the following options are available for further inspection.

- The inspector may have the tree climbed to inspect potential areas of concern.
- The tree may be bored to determine soundness of the bole, by use of an increment borer or IML Resistograph
- The root crown may be excavated to inspect the roots

After inspection, the tree will be rated according to the criteria outlined below.

TREE RATING PROCEDURE

The following table summarizes the Tree Ratings and corresponding Work Schedule.

<u>Tree Rating</u>	<u>Work Schedule</u>
Priority 1	Sent immediately to arboriculture crew or prime contractor for mitigation
Priority 2	Sent to the arboriculture crew or prime contractor to be mitigated through the next monthly tree work contract.
Priority 3	Sent to the arboriculture crew or prime contractor to be mitigated through the next or subsequent monthly tree work contract as the workload allows.
Priority 4	Sent to the Parks Department for consideration. Work may be deferred due to work load and /or budget considerations.
Priority 5	Sent to Parks Department for consideration. Work may be deferred due to work load and /or budget considerations.

Priority 1

This is a tree that has one or more of the following visible characteristics:

- Signs of ground movement, soil or slope failure or root system heaving
- Recent cracking or *severe damage* on the bole of the tree,
- Partially failed (Hung-up) tree over a *moderate to high frequency target*
- Broken limbs or broken top hanging over a *moderate to high frequency target*
- Failed tree lying on District property or public road or touching energized conductors**
- Dead tree with extensive decay visible to the inspector and a *moderate to high frequency target*.

Trees with this rating have the first priority for removal or pruning. The inspector will immediately send the required work to the district arboriculture crew or a prime contractor for mitigation. These trees shall be dealt with as soon as practical within work schedule limits. "Priority 1" trees will not invoke the requirement for Public Notification as prescribed in Section 5.0.

** **NOTE:** To be referred to BC Hydro

Priority 2

This is a tree that has one or more of the following characteristics:

- Visible fruiting bodies, signs or symptoms of known heart rot, and or root rot fungi.
- Unusual lean, (uncorrected, non-phototropic) with *externally visible stem cracks*
- Visible defect that could result in catastrophic failure of tree
- The tree is determined to be unsound after physical inspection
- Structural integrity of root system determined to be compromised after physical inspection
- Dead with minor decay visible to the inspector and a *high frequency target*.
- Obstruction of traffic signs *
- Interference with distribution or transmission lines **

Trees with this rating have second priority for removal or pruning. The inspector will include this work in the next work package for the arboriculture crew or prime contractor bid package.

* **NOTE:** To be referred to the Traffic Department.

** **NOTE:** To be referred to BC Hydro.

Trees referred to the Traffic Dept or BC Hydro will be recorded and updated on *Permit Plan*.

Priority 3

Trees in this category have one or more of the following characteristics:

- Dead tree with a target of moderate to low frequency and minimal visible decay.
- Moderate encroachment where roots may be causing some form of damage to boulevards or hardscape infrastructure such as driveways, underground utilities or foundations (excluding lawns and landscaping) on private property.
- Limbs obstructing driver visibility*
- Visible defect that could result in partial failure of tree with a *moderate to low frequency target*.

Trees with this rating have third priority for removal or pruning, but may be dealt with as the workload allows. Trees assessed as "Priority 3" will be documented for mitigation by District arboriculture crew, or for inclusion in the next or subsequent prime contractor bid package.

* **NOTE:** To be referred to the Transportation Department.

Priority 4

Trees in this category have one or more of the following characteristics:

- Moderate limb encroachment onto house or structure
- Minor root encroachment to private property or structures
- Limbs interfering with residential overhead utility services
- Trees that are growing near or beginning to encroach into private property causing no visible damage

Trees with this rating have fourth priority for removal or pruning. The annual budget allotted by Council for tree work and the work load will be the limiting factors in the determining when this work is completed. Work in this category may be administered through the tree permit process (Section 3.0)

Priority 5

Trees in this category have the lowest priority and can be attended to as the annual budget allotted by Council for tree work and as the work load allows.

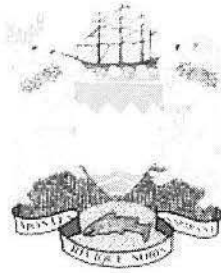
Examples of Priority 5 are:

- Thinning of immature trees for stand management, including sustainable forest management objectives
- Inappropriate *volunteer trees* on boulevards, in road ends or right of ways
- Trees with none of the characteristics in the assessments for "Priority 1, 2, 3 or 4"

The annual budget allotted by Council for tree work and the work load will be the limiting factors in the determining when this work is completed.

Work in this category may be administered through the permit process (Section 3.0)

Approval Date:	March 24, 1997	Approved by:	Regular Council
1. Amendment Date:	April 14, 1998	Approved by:	Regular Council
2. Amendment Date:	August 28, 2000	Approved by:	Regular Council
3. Amendment Date:	July 9, 2012	Approved by:	Regular Council



THE DISTRICT OF NORTH VANCOUVER

Tree Protection Bylaw Bylaw 7671

Effective Date – July 23, 2012

CONSOLIDATED FOR CONVENIENCE ONLY

This is a consolidation of the bylaws below. The amending bylaws have been combined with the original bylaw for convenience only. This consolidation is not a legal document. Certified copies of the original bylaws should be consulted for all interpretations and applications of the bylaw on this subject.

Original Bylaw

Bylaw 7671

Date of Adoption

July 23, 2012

Amending Bylaw

Bylaw 7960

Date of Adoption

December 12, 2012

The bylaw numbers in the margin of this consolidation refer to the bylaws that amended the principal bylaw (Tree Protection Bylaw – Bylaw 7671). The number of any amending bylaw that has been repealed is not referred to in this consolidation.

The Corporation of the District of North Vancouver

Bylaw 7671

The Council for The Corporation of the District of North Vancouver enacts as follows:

A bylaw to protect, preserve and conserve trees and their physical, societal, economic and environmental characteristics as associated with the forested character of the District of North Vancouver.

WHEREAS the Council for the Corporation of the District of North Vancouver wishes to protect and preserve certain trees within the *District*, including those trees defined in this bylaw as "protected trees" and "large-diameter trees" and to implement a permit system in connection with such trees,

The Council for The Corporation of the District of North Vancouver enacts as follows:

PART 1 INTRODUCTION

1. Citation

This Bylaw may be cited as the "Tree Protection Bylaw 7671, 2012".

2. Administration of Bylaw

The *Environmental Protection Officer* and others designated by the General Manager, Planning, Properties & Permits are authorized to administer this Bylaw.

3. Definitions

In this Bylaw,

ancillary structures means man-made structures such as sheds, platforms, decks, stairs, steps, retaining walls, driveways, paths, sidewalks, fences, play houses, tree houses, gazebos, hot tubs and swimming pools, but excludes *permanent structures*.

arborist means a practitioner of arboriculture, which is the management and maintenance of ornamental or shade *trees*.

certified arborist means an arborist who is certified and in good standing with the International Society of Arboriculture.

canopy means the extent of the outer layers of leaves or needles of an individual or group of *trees*

20% canopy cover means the area of *canopy* within a subject property boundary such that the area of *canopy*, when viewed from above in plan view, is equal to 20% of the subject property area as determined by the Environmental Protection Officer, Community Forester or Manager or the designates of each.

certified tree risk assessor means a *certified arborist* who has also completed the "Tree Risk Assessment Course" and passed the Tree Risk Assessment exam under the authority of the International Society of Arboriculture.

Community Forester means the person appointed to that position by the *District Council* or its designate, and his or her designates.

critical root zone means the minimum portion or minimum spatial extent of a *tree(s)* root system that is required to maintain the health and stability of the *tree(s)*.

crown means the entire system of branches, leaves and reproductive structures of a *tree* extending away from the trunk or main stem(s).

cut means to limb, trim, top, prune any parts of a *tree*, or by any mechanical means remove any branch, foliage, root, stem, or other part of a *tree*, and "cutting" shall have a corresponding meaning.

damage means to take any action that may cause a *tree* to die or decline, including but not limited to girdling, ringing, poisoning, burning, excessive *crown* lifting, soil compaction, *depositing* or removing soil, *depositing* toxins on any part of a *tree* or into groundwater taken up by a *tree*, placing concrete or any other hard surface within the *drip line* of a *tree*, blasting within 5 metres of the *drip line*, excessive pruning of the *crown*, branches, limbs and or roots, and pruning in a manner not in accordance with "American National Standards Institute Publication A300-1995" and the companion publication "Best Management Practices – Tree Pruning, 2002".

DBH means diameter of the stem of a *tree* at breast height, except where the *tree* has multiple stems at such a point, in which case the DBH of such *tree* shall be the sum of 100% of the diameter of the largest stem and 60% of the diameter of each additional stem, all measured at breast height, and breast height for the purposes of such measurements shall be deemed to be 1.3 metres above the natural grade on the uphill side of the *tree*.

deposit means place, move, discharge, spray, spill, leak, seep, pour, emit, store, stockpile, or release directly or indirectly into or onto the land, air, soil and groundwater such that damage to a *tree* results, and *depositing* has a corresponding meaning.

development means the act, process or result of *landscaping* or the placement and/or construction of *permanent structures*, *ancillary structures* or utility services on land.

District or **DNV** means The Corporation of the District of North Vancouver.

District Council means the municipal council of the *District*.

drip line is the area located directly under the outer circumference of the unaltered *tree* canopy, and where *tree(s)* have been *cut* or pruned the *drip line* shall be located at the outside edge of the *tree(s)* natural *crown* spread, given the species and age of the *tree* and taking into account pre-existing site conditions.

Environmental Protection Officer means the person appointed to that position by the *District Council* or its designate, and his or her designates.

Fees and Charges Bylaw means the *District's* Fees and Charges Bylaw, Bylaw 6481, as amended or replaced from time to time.

hazardous means assessed to be in a condition dangerous to people or property as reported by a *certified tree risk assessor* adhering to the "Tree Risk Assessment in Urban Areas and the Urban/Rural Interface Manual" or an industry-recognized equivalent acceptable to the *District*.

heritage tree means a designated *tree* that has been determined to be of significant value to the community because of special characteristics such as size, age, uniqueness of species, uniqueness of ecosystem, or heritage or landmark value.

in-stream work means any *work* that is capable of altering or controlling the flow of water in a stream, or damaging, weakening or reducing the ability of the bank, bed or channel of a *stream* to carry storm or flood waters, or interfering with or eliminating vegetation from the riparian area, and includes, without limitation, a wall, crib, weir, dam, rip-rap and other forms of erosion protection.

landscaping means the disturbance, alteration or modification of land.

large-diameter tree means any *tree* having a *DBH* of 75 centimetres or more that is not also a *protected tree*.

Manager means the *District's* General Manager, Planning, Properties & Permits or the Manager of Development Services and the designates of each.

natural boundary means the visible high water mark of any *stream*, or of the ocean where the presence and action of the water are so common and usual, and so long continued in all ordinary years, as to mark the soil of the bed of the body of water with a character distinct from that of its banks, in vegetation or in the nature of the soil itself.

permanent structure means any long lasting foundation, building or structure placed or erected on a secure pad or footing that was lawfully constructed, placed or erected in accordance with any DNV bylaw or approval condition in effect at the time of construction, placement or erection.

potential streamside vegetation is considered to exist if there is a reasonable ability for regeneration or growth of *vegetation* either with assistance through enhancement or naturally, but an area covered by a *permanent structure* or *ancillary structure* is considered incapable of supporting *potential streamside vegetation*.

protected area means an area adjacent to a *stream* that links aquatic to terrestrial ecosystems and includes both existing streamside *vegetation* and *potential streamside vegetation*, and both existing and potential upland *vegetation* that exerts an influence on the *stream*, and the width of the *protected area* shall be measured as follows:

- a) subject to subsections (b) and (c) of this definition, from the centreline of the *stream* to a point 15 metres distant from the *top of bank* of the *stream*, measured horizontally from the *top of bank* of the *stream*;
- b) if the stream is located in a *ravine* that is greater than 60 metres in width, from the centreline of the *stream* to a point 10 metres distant from the *top of bank* of the *ravine*, measured horizontally from the *top of bank* of the *ravine*; and
- c) for parcels greater than 0.5 hectares in size located on or adjacent to the Capilano River, Lynn Creek or Seymour River, or located on or adjacent to Mackay Creek at any point

south of Marine Drive, the area from the centreline of the *stream* to a point 30 metres distant from the *top of bank* of the *stream* measured horizontally from the *top of bank* of the *stream*.

protected tree means:

- a) any *tree* on land owned by or in the possession of the *District*, including, without limitation, a *tree* in a park or on a boulevard, road or lane allowance;
- b) any *tree* within a *protected area*;
- c) any *tree* on *sloping terrain*;
- d) any *replacement tree*;
- e) any *retained tree*;
- f) any *heritage tree*;
- g) any *wildlife tree*;
- h) any tree located on *wetland* or *waterfront*;
- i) any *tree* of the following species:
 - i. *Arbutus (Arbutus menziesii)*;
 - ii. *Garry Oak (Quercus garryana)*;
 - iii. *Oregon Ash (Fraxinus spp)*;
 - iv. *Pacific Yew (Taxus brevifolia)*;
 - v. *Western White Pine (Pinus monticola)*; or
 - vi. *Yellow-cedar (Chamaecyparis nootkatensis)*.

ravine means a narrow, steep-sided valley that is commonly eroded by running water and has a slope grade greater than 3:1.

replacement tree means a *tree* required in accordance with this Bylaw to be planted, either on the subject site or at another location, to replace a *tree* that has been cut, removed or damaged, or a *tree* planted as a condition of subdivision or other municipal approval.

retained tree means a *tree* that must be permanently protected pursuant to a registered covenant or otherwise.

remove means to entirely sever the main stem of or fell a *tree*, and "removed", "removal" and "removing" shall have corresponding meanings.

slope angle means the percent gradient of a slope over a horizontal distance of six metres, calculated as follows:

$$\text{slope angle (\%)} = 100 \text{ tangent}(\text{angle})$$

where "angle" is the angle, measured in degrees, between the sloping land and the horizontal axis, and where the angle is in degrees.

sloping terrain means land with a *slope angle* greater than 30% over a vertical distance of 3 metres or more.

stream includes any of the following:

- a) A pond, lake, river creek or brook whether it usually contains water or not; and
- b) A ditch, spring or wetland that is connected by surface flow to something referred to in paragraph (a);

top means to entirely sever the stem of a *tree* such that the upper stem and branches of the *tree* are completely removed, resulting in an abruptly truncated stem, and *topping* and *topped* shall have corresponding meanings.

top of bank means the first significant break in a slope where the break occurs such that the grade beyond the break is flatter than 3:1 for a minimum distance of 15 metres measured horizontally from the break, and the break does not include a bench within a *ravine* that could be developed.

tree means a woody perennial plant having one or more stems, with at least one stem having a diameter of 10 centimetres or more, measured at 1.3 metres above the natural grade on the uphill side of the tree.

tree permit means a permit issued pursuant to this Bylaw by the *Environmental Protection Officer* or the *District's* General Manager, Planning, Properties & Permits or the designate of either, authorizing the pruning, *cutting* or *removal* of one or more *protected trees* or *large-diameter trees*.

tree protection barrier means a sturdy temporary or permanent fence or barrier at least 1.2 metres in height, with wood-framed top and side rails or equivalent.

vegetation means, collectively, native and/or naturalized plant life occupying terrestrial or aquatic habitat.

waterfront means the land lying between a line measured horizontally 30 metres inland from the *natural boundary*.

wetland means land that is inundated or saturated by surface or groundwater with such frequency and for such duration as is sufficient to support, and under normal conditions does support, obligate hydrophytes or other vegetation typically adapted for life in saturated soil conditions, and includes, without limitation, swamps, marshes, bogs and similar sites, and all land above and within 30 metres measured horizontally from the boundaries of such sites, and without limiting the generality of the foregoing, includes those areas designated and delineated on attachments A.2 - Mackay Creek Marsh, A.3 - Hogan's Pools, and A.4 - Park Street Marsh of Bylaw 6515.

wildlife tree means any standing dead or live tree having special characteristics that provide valuable habitat for the conservation or enhancement of wildlife, as determined and classified in accordance with criteria contained in the "Wildlife/Danger Tree Assessor's Course Workbook – Parks and Recreation Sites" or such amended, successor or replacement criteria or guidelines that may from time to time be commonly applied by certified tree assessors in identifying wildlife trees

work means any activities connected with *landscaping*, the pruning or *removal* of a *tree*, the pruning or *removal* of *vegetation*, the removal of soil, the *deposit* of soil or other material, the construction of *permanent structures* or *ancillary structures*, *in-stream work* and the installation of drainage works, but does not include the regular maintenance of planted gardens and/or lawns.

Zoning Bylaw means the *District's* Zoning Bylaw, Bylaw 1965, as amended from time to time.

PART 2 PROHIBITIONS

Failure to Comply with Tree Permit

4. No person shall fail to comply with the terms and conditions of a *tree permit* issued pursuant to this Bylaw.

Cutting, Damaging and Removal Prohibited

5. No person shall *cut*, *damage* or *remove*, or permit or cause to be *cut*, *damaged* or *removed*, a *protected tree*:

- a) without a *tree permit* issued pursuant to Part 5 of this Bylaw; or
- b) contrary to a *tree permit* issued pursuant to Part 5 of this Bylaw.

Notwithstanding this section 5, if a *tree* is a *protected tree* only because it is owned by the *District*, then if the branches of such *tree* encroach upon a person's land, that person may prune such *tree* back to his or her property line without a permit, provided that such pruning does not result in *damage* to a *protected tree*.

6. No person shall *cut*, *damage* or *remove*, or permit or cause to be *cut*, *damaged* or *removed*, a *large-diameter tree*:

- a) without a *tree permit* issued pursuant to Part 5 of this Bylaw; or
- b) contrary to a *tree permit* issued pursuant to Part 5 of this Bylaw.

PART 3 TREE PROTECTION DURING DEVELOPMENT

Application

7. This part applies to *retained trees* during *development* of the lands on which they are located.

Requirement for Tree Protection Barrier

8. A person performing *work* on lands containing one or more *retained trees* shall:

- a) install a *tree protection barrier* around any *retained tree* or group of *retained trees* at the *drip line* of the outermost *tree*, the outside boundary of the *critical root zone* of the outermost *tree*, or 5 metres from the stem of the outermost *tree*, whichever is greatest;
 - b) ensure that such *tree protection barrier* is constructed of chain link or plywood fastened to solid wood or equivalent framing with railings along the tops, sides and bottom, or is constructed of materials otherwise satisfactory to the *Environmental Protection Officer*;
 - c) display signage indicating that the area within the *tree protection barrier* is a "protection zone," and stating that no encroachment, storage of materials or *damage to trees* is permitted within the "protection zone;"
 - d) arrange for inspection by the *Environmental Protection Officer* before any *work* commences, and refrain from commencing *work* until the *Environmental Protection Officer* has approved the *tree protection barrier*, and
 - e) ensure that the *tree protection barrier* remains in place until written approval of its removal is received from the *Environmental Protection Officer*.
9. No *work* is permitted within the "protection zone" referred to in section 11(c) except in accordance with plans and procedures authorized by a *tree permit*.

PART 4 HERITAGE TREES

Currently Designated Heritage Trees.

10. The *trees* identified in Schedule A are hereby designated as *heritage trees* for the purpose of this Bylaw.

Procedure to Nominate Additional Heritage Trees

11. A person may nominate a *tree* not identified in Schedule A as a *heritage tree* if such *tree* meets the *District's* criteria for a *heritage tree*, and the *District Council* shall determine, in its sole discretion, whether such *tree* shall be designated as a *heritage tree*.

PART 5 APPLICATION FOR TREE PERMIT

Information Required to Accompany a Tree Permit Application

12. An application for a *tree permit* in connection with any of the following shall be accompanied by the information described in this section:
- a) for *work* involving a *tree* on *District* property, the application must include a statement of purpose and rationale for the proposed *tree work* on *District* property, including the number and locations of *trees* involved and the *work* to be performed, and must describe the *cutting and/or removal* methods to be used;

- b) for *work* involving a *protected tree* on private property, the application must include a report from a *certified arborist* and/or a *certified tree risk assessor*, if applicable, stating the purpose and rationale for the proposed *tree work*; the report should include the following:
 - i. consent from the owner of the *tree*, in writing;
 - ii. where the stem of the *tree* straddles one or more property lines, written consent from the owners of each property on which any part of the stem of the *tree* is located
 - iii. a description of the proposed *work*;
 - iv. a site plan indicating the location of *tree* or *trees* to be *cut* or *removed*;
 - v. an inventory of all *protected trees* and *large-diameter trees* and a description of all topographic and hydrographic features, *ancillary structures*, *permanent structures*, roads and other pertinent features on the subject property;
 - vi. a description of the *cutting* and/or *removal* methods to be used and the *tree* protection measures that shall be used to protect any *retained trees*;
 - vii. where *tree(s)* are on *sloping terrain*, a report signed by a registered professional engineer, geoscientist or forester that any proposed pruning or *removal* shall not result in an increased risk or danger of flooding, erosion or slope instability;
 - viii. a proposed replanting plan indicating the location, species, size, and class of *tree(s)* or *vegetation* to be planted; and
 - ix. a copy of any applicable federal or provincial approval if required;
- c) for *work* involving a *large-diameter tree* on private property, the application must include:
 - i. a report from a *certified tree risk assessor*, if the *tree* is to be declared hazardous;
 - ii. a description of the proposed *work*;
 - iii. a site plan indicating the location of *tree* or *trees* to be *cut* or *removed*;
 - iv. an inventory of all *protected trees* and *large-diameter trees* and a description of all topographic and hydrographic features, *ancillary structures*, *permanent structures*, roads and other pertinent features on the subject property;
 - v. a description of the *cutting* and/or *removal* methods to be used and the *tree* protection measures that shall be used to protect any *retained trees*;
 - vi. a proposed replanting plan indicating the location, species, size, and class of *tree(s)* or *vegetation* to be planted; and
 - vii. a copy of any applicable federal or provincial approval if required; and
- d) a proposed replanting plan indicating the location, species, size, and class of *tree(s)* or *vegetation* to be planted;
- e) notwithstanding the above if a *tree* exhibits obvious signs of significant damage or disease or is obviously dead the Environmental Protection Officer upon notification from the *tree(s)* owner shall determine which, if any, of the above requirements apply

Refusal to Issue Tree Permit

13. The *Environmental Protection Officer*, *Community Forester* or *Manager* may refuse to issue a *tree permit* if:
- a) the *tree* or *trees* do not meet any of the criteria set forth in subsections 14 (a) and (b) of this Bylaw;
 - b) the *tree* is on land owned or in the control of the District of North Vancouver;

- c) the subject tree is a *protected tree* and the proposed *work* would adversely affect the health and survival of the *tree*, materially alter the character of the *tree*, affect slope stability or the ecology of the area, is not required to maintain the health or stability of the *tree*, or is contrary to a permit issued pursuant to this Bylaw;
- d) the proposed *work* would involve *topping* the *tree*, and such *tree* has not previously been *topped* in accordance with a valid *tree permit*;
- e) the subject tree is a *heritage tree* and the proposed *work* would *damage* such *heritage tree* or result in its *removal*; or
- f) the subject *tree* is a *heritage tree* and the proposed *pruning* of such *heritage tree*:
 - i. would alter the character of the *tree*;
 - ii. is not required to maintain the health or stability of the *heritage tree*; or
 - iii. is contrary to any other permit issued pursuant to Part 5.

However, a permit for minor *work* on a *tree* for the purpose of wind fimming, improving the aesthetics or shape of a tree, access to natural light, reasonable view access or similar purpose shall not be unreasonably withheld.

Tree Permits Required to be Issued

14. Notwithstanding section 13 of this Bylaw, unless 13(b) and 13(c) apply, if:

- a) a *certified arborist* provides a report to the satisfaction of the *Environmental Protection Officer, Community Forester or Manager* that a *tree* is an unreasonable hazard to the safety of persons or property, or where the applicant has otherwise demonstrated to the satisfaction of the *Environmental Protection Officer, Community Forester or Manager* that the *tree* is *hazardous*, dead, damaged, diseased or in decline beyond expectation of recovery as per the "Tree Risk Assessment in Urban Areas and the Urban/Rural Interface Manual;" or
- b) the *Environmental Protection Officer, Community Forester or Manager* or other duly authorized *District* representative, or an engineer, geoscientist or forester employed by any public utility, or a *certified arborist*, provides clear evidence satisfactory to the relevant *District* representative that a *tree* is impairing, interfering or damaging the normal operation of sewers, drains, water lines, septic fields, electrical lines, *permanent structures*, poles or other similar equipment and appurtenances and that the impairment, interference or risk cannot be reduced or removed in any way other than the removal of the *tree*; or

then the *Environmental Protection Officer, Community Forester or Manager* shall issue a *tree permit* for the *removal* of such *tree*.

Permit for large-diameter tree

15. Subject to receipt of an application in the proper form and payment of the application fee, the *Environmental Protection Officer, Community Forester or Manager* shall issue to an owner or the owner's agent a *tree permit* for the *removal* of or *damage* to a *large-diameter tree* on the following conditions:

- a) If the subject lot will have less than 20% canopy cover remaining after the removal of or damage to the relevant large-diameter tree or trees, then:
 - i. if the subject lot is less than 420 square metres in area, the applicant must plant one replacement tree for every large-diameter tree removed or damaged;
 - ii. if the subject lot is 420 square metres or more in area, the applicant must plant three replacement trees for every large-diameter tree removed or damaged;
 - b) If one or more replacement trees are required under this section as a condition of permit issuance, the applicant may, instead of providing such replacement tree or replacement trees, pay the additional environmental compensation permit fee specified in Schedule B to the Fees and Charges Bylaw, which environmental compensation permit fee shall be used by the District for planting trees and upgrading, improving or maintaining forested areas elsewhere within the District; and
- (7960)**
- c) If the subject lot will have more than 20% canopy cover after the removal of or damage to the relevant large-diameter tree or trees, no replacement trees or additional environmental compensation fee will be required.

Revocation of Tree Permit

16. The Environmental Protection Officer, Community Forester or Manager may revoke a tree permit if the terms and conditions of the tree permit have been breached or the information supplied by the applicant in support of the tree permit is determined by the Environmental Protection Officer, Community Forester or Manager to have been inaccurate, incomplete, misleading or erroneous.

Conditions

17. In connection with the issuance of a tree permit, the Environmental Protection Officer, Community Forester or Manager may impose conditions, including, without limitation, any or all of the following:
- a) that the cutting and/or removal of a tree or trees be carried out under the direct supervision of a certified arborist;
 - b) that a specific tree or trees be cut or removed;
 - c) that replacement trees and/or other vegetation be planted, and specifying the required species, size, location and other characteristics of such replacement trees and/or vegetation and the length of time for which such replacement trees and/or vegetation must be maintained;
 - d) that a certified arborist be employed to supervise, monitor or report on any work;
 - e) that a report by a qualified professional be provided, confirming that the tree permit and the work is consistent with provincial or federal laws; and
 - f) that specific forms of tree protection be used or provided.

Replacement Trees

18. Except where a *tree permit* is issued as a remediation measure for the unlawful pruning or removal of a *tree*, if a person cuts a *protected tree* without, or contrary to, a *tree permit*, the *Environmental Protection Officer, Community Forester or Manager* may require the planting and maintenance of *replacement trees*, specify the required number, species, size and other characteristics of such *replacement trees*, specify the required period for which such *replacement trees* shall be maintained, and specify the time by which such *replacement trees* shall be provided.

PART 6 PERMIT FEES and SECURITIES

Prior to the issuance of a tree permit

19. The *Environmental Protection Officer, Community Forester or Manager* may require an applicant for a *tree permit* to provide security in the form of cash, certified cheque, or an unconditional, irrevocable letter of credit drawn on a Canadian chartered bank in a form acceptable to the Director of Financial Services in an amount equal to 125% of either the estimated cost of the *work* to be performed under the *tree permit*, including the cost of obtaining and planting any *replacement tree(s)*, with such costs to be estimated by the *District*, or the appraised value of the *tree(s)* according to methods as established by the International Society of Arboriculture and amended from time to time, to a maximum of \$10,000, in order to ensure compliance with provisions of this Bylaw and the terms and conditions of the *tree permit*.

Liability and Security Deposit

20. Prior to issuance of a *tree permit* for *work* on land owned by the *District*, an applicant or his/her designated contractor, as applicable, is required be in good standing with WorkSafe B.C. and to obtain and maintain at all times during the period of validity of the *tree permit* public liability insurance in the amount of \$5,000,000 in connection with the obligations under this Bylaw, which insurance policies shall include deductibles and terms satisfactory to the *District*, shall name the *District* as an "Additional Named Insured", and shall provide that the insurer shall notify the *District* in writing at least 30 days prior to cancellation of the policy. The applicant shall deliver a certified copy of such policy to the *Environmental Protection Officer, Community Forester or Manager* or other authorized person upon demand and evidence of coverage shall be provided in the form of an insurance certificate prior to the commencement of any *work*.

Drawing on Security Deposit

21. If the applicant has not complied with the terms and conditions of a *tree permit* or the provisions of this Bylaw one month prior to the expiry date of the letter of credit, the *District* may use all or a portion of the security deposit or call for and receive the funds secured by the letter of credit and use the funds to ensure that the *work* under the *tree permit* is completed and the inspection fees prescribed in Schedule B of the *Fees and Charges Bylaw* are paid. The *District's* authorized representative may also call for and receive the funds secured by the letter of credit and retain the funds until the applicant delivers a replacement letter of credit to the *District* in the same form and amount; and at the discretion of the *District*, all or part of this security may be held for up to three years of issuance of the *tree permit* to ensure the survival of *replacement tree(s)*.

(7960)

Fees

22. The *Environmental Protection Officer, Community Forester or Manager* shall charge the fees set out in Schedule B to the *Fees and Charges Bylaw* in connection with:

- a) tree permits; and
- b) inspections and re-inspections that the *Environmental Protection Officer* or others are required or permitted to perform pursuant to this Bylaw.

(7960)

Inspection Procedure

23. The *Environmental Protection Officer, Community Forester or Manager* shall:

- a) record all inspection records on an Environmental Inspection Report or Order to Comply, a copy of which shall be left at the site and another copy of which shall be filed with the Building Department; and
- b) determine if an inspection fee is to be charged in accordance with Schedule B of the *Fees and Charges Bylaw*.

(7960)

Any request for a third or subsequent additional inspection shall be made through the Building Department. Fees for the third and subsequent inspections shall be invoiced by the Building Department and paid in full prior to inspection taking place.

Works Conducted Without a Permit

24. If a person commences any *work or development* for which a *tree permit* is required pursuant to this Bylaw is commenced without a *tree permit*, such person shall pay double the fee prescribed in Schedule B of the *Fees and Charges Bylaw*.

(7960)

Maintaining Validity of a Permit

25. All *tree permits* shall be valid:

- a) for no more than one year following issuance; and
- b) only if and for so long as:
 - i. *work or development* done under the *tree permit* conforms with the provisions of this Bylaw, including the terms and conditions of the *tree permit*;
 - ii. all federal and provincial approvals remain in effect;
 - iii. all information provided in support of the application for the *tree permit* is correct; and
 - iv. any person providing services required under this Bylaw has adequately met the requirements of this Bylaw.

26. A *tree permit* shall automatically expire one year after issuance, at which time a new *tree permit* application shall be required and the applicant shall again be required to pay any applicable fees.

Document: 1905170

**PART 7
AUTHORITY**

27. The *Environmental Protection Officer, Community Forester or Manager* may:
- a) issue, revoke, place conditions upon, and refuse to issue *tree permits* in accordance with this Bylaw;
 - b) retain the services of an independent *certified arborist* to review the report of another *certified arborist* that has submitted a report pursuant to this Bylaw in connection with an application for a *tree permit*, in order to verify or reassess any information contained in the original report, and the *Environmental Protection Officer, Community Forester or Manager* may, in his or her sole discretion, rely on either report in determining whether to issue, revoke or place conditions on a *tree permit*;
 - c) require security under Part 6 of this Bylaw prior to issuing a *tree permit*;
 - d) exempt an application for a *tree permit* from the requirements of Part 5 if the information to be submitted has been otherwise provided to the *District*;
 - e) establish which of the terms and conditions set out in Part 5 necessarily apply to the issuance and use of a *tree permit* to achieve the purposes of that Part;
 - f) without limiting any of the *Environmental Protection Officer, Community Forester or Manager's* other enforcement powers, require a person to provide and maintain a *replacement tree* or *trees* in the event that a *protected tree* is *damaged, cut* or *removed* without a *tree permit* or contrary to an issued *tree permit*;
 - g) require the provision of *replacement trees* as set forth in section 18 of this Bylaw;
 - h) charge and collect those fees prescribed in Schedule B of the *Fees and Charges Bylaw* or this Bylaw;
 - i) serve on any person who has not complied with a *tree permit* or a provision of this Bylaw an order to comply; and (7960)
 - j) enforce this Bylaw and issue tickets in accordance with Part 8 of this Bylaw.

**PART 8
ENFORCEMENT**

Inspection and Orders to Comply

28. The *Environmental Protection Officer, Community Forester* or an *Environmental Control Technician, Bylaw Enforcement Officer, Building Inspector, Engineering Design Coordinator, Engineering Administration Technician, Construction Inspector or Field Arborist* may at any reasonable time or times enter upon any property for the purposes of inspection to determine compliance with the provisions of this Bylaw or a *tree permit* issued pursuant to this Bylaw, and may serve on a person who has not complied with the provisions of this Bylaw or a *tree permit* an Order to Comply with such provisions, requiring the person to remedy the non-compliance within 14 days or by such other date as is deemed reasonable

in the circumstances by the General Manager, Planning, Properties & Permits or his or her delegate, and may charge the fees set forth in Schedule B of the *Fees and Charges Bylaw* in connection with such inspection(s).

(7960)

Service of an Order to Comply

29. An Order to Comply given pursuant to section 28 of this Bylaw may be served by leaving the Order to Comply and a copy of any related inspection report at any dwelling on the subject site, or by personal service on the holder of or applicant for the *tree permit* or on the owner of the subject site, or by return registered mail to the address of the holder of or applicant for the *tree permit* as it appears on the application for such *tree permit*. An Order to Comply served by registered mail shall be deemed to have been delivered on the third day after mailing. An Order to Comply served personally or by leaving a copy at the site shall be deemed to have been delivered on the day on which it was personally served or left at the site.

Application for Reconsideration

30. An application for reconsideration by Council shall be made in writing to *District Council*, care of the Municipal Clerk, and shall include:
- a) all information provided along with the original *tree permit* application;
 - b) the Order to Comply, if applicable;
 - c) all correspondence between the applicant and the *Environmental Protection Officer*; and
 - d) the reasons for the application for reconsideration.

Obstruction

31. A person shall not interfere with, delay, obstruct or impede the *Environmental Protection Officer*, the *Community Forester*, a Bylaw Enforcement Officer, a designate of either or any other person lawfully authorized to enforce this Bylaw in the performance of his or her duties or exercise of his or her powers under this Bylaw.

Offence and Penalties

32. Every person:
- a) who violates or causes or allows to be violated any of the provisions of this Bylaw is guilty of an offence, and of a separate offence on each day on which the violation is caused or allowed to continue; and
 - b) who commits an offence contrary to the provisions of this Bylaw is liable on summary conviction to a penalty of not more than \$10,000 in addition to the costs of prosecution.

Designation of Bylaw

33. This Bylaw is designated pursuant to section 264 of the *Community Charter* as a Bylaw that may be enforced by means of a ticket in the form prescribed.

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Enforcement Authority

34. The *Environmental Protection Officer*, the *Community Forester* and the *District's Environmental Control Technician*, *Field Arborist*, *Bylaw Enforcement Officers* and *Building Inspectors* are designated to enforce this Bylaw by means of a ticket pursuant to sections 264 of the *Community Charter*.

Ticketing

35. The words or expressions listed below in the designated expression column are authorized to be used on a ticket issued under section 264 of the *Community Charter* to designate an offence against the respective section of this Bylaw appearing opposite in the section column. The amounts appearing in the fine column are the fines set pursuant to section 264 of the *Community Charter* for contravention of the respective section of the Bylaw appearing opposite in the section column:

Designated Expression	Section	Fine
cut tree without permit	5a, 6a	\$500.00
cut tree contrary to permit	5b, 6b	\$500.00
remove tree without permit	5a, 6a	\$1,000.00
remove tree contrary to permit	5b, 6b	\$1,000.00
damage tree without permit	5a, 6a	\$500.00
damage tree contrary to permit	5b, 6b	\$500.00
damage or remove heritage tree	5a	\$1,000.00
failure to install/maintain tree protection barrier	8a or e	\$250.00
damage retained tree	5a or b	\$500
failure to provide replacement tree	15a, 17c or 18	\$500.00

Severability

36. If any section, subsection or clause of this Bylaw is for any reason held to be invalid by the decision of a court of competent jurisdiction, such decision will not affect the validity of the remaining portions of this Bylaw

Effective Date

37. The effective date of this Bylaw is the 23rd day of July, 2012.

SCHEDULE A

DESIGNATED HERITAGE TREES

<u>NAME</u>	<u>LOCATION</u>
1. Copper Beach (<i>Fabus sylvatica</i> 'Cuprea')	355 W Queens Rd
Comments: This mature specimen, approximately 70 feet high, remains from the landscaping of the boy's school which was formerly on this site. The tree is in very good condition, and is typical of English style landscaping.	
2. Damson Plum (<i>Prunus inipitia</i> 'Damson')	355 W Queens Rd
Comments: Also remaining from the landscaping of the boy's school, its ornamental fruit tree is in very good condition. The billowy shape results from the weight of the fruit, and provides good shade.	
3. Horse Chestnut (<i>Aesculus hippocastum</i>) trees	100 – 300 Block E Kings Rd
Comments: These street trees were planted by the North Lonsdale Ratepayers Association as a local area improvement. They are unusual for having been planted on the south side of the street only.	
4. Black Locust (<i>Robina pseudoacacia</i>) tree	299 E Kings Rd
Comments: This very large and old specimen exists in conjunction with a primary heritage building, the Davidson House. It provides dappled shade, and the leaves turn bright yellow in the fall.	
5. Tulip (<i>Liriodendron tulipifera</i>) tree	461 E Kings Rd
Comments: Planted in conjunction with a primary heritage building, the Jacobs House, the flowers of this ornamental tree are small and yellow, and resemble tulips, hence its name.	
6. Spanish Chestnut (<i>Castanea sativa</i>) tree	382 E St James Rd
Comments: An unusual specimen, also known as a Sweet Chestnut, this ornamental tree is part of the landscaping of a secondary building, the Brown House.	
7. Black Walnut (<i>Juglans nigra</i>) tree	390 E Kings Rd
Comments: This large, mature and healthy specimen is part of the landscaping of the Ward House, a secondary heritage building.	
8. Giant Sequoia (<i>Sequoiadendron giganteum</i>)	Carisbrooke Park
Coast Redwood (<i>Sequoia sempervirens</i>) Native Larch (<i>Larix occidentalis</i>) Blue Cedar (<i>Cedrus atlantica</i> Glauca)	

Document: 1905170

<u>NAME</u>	<u>LOCATION</u>
9. Sitka Spruce (<i>Picea sitchensis</i>)	1458 E 29 th St
Comments: The historic Allen House, built circa 1905, boasts many features of its early landscaping, including this large specimen Sitka Spruce.	
10. Walnut (<i>Juglans Regia</i>)	1045 Cortell St
Comments: The tree straddles the property line between 1045 Cortell St and the Cortell Street road allowance on the north western area of the 1045 Cortell St property.	

February 23, 2016

File: 13.6780/Tree Complaints

Mr. C. Metcalfe
1970 Pemberton Ave
North Vancouver BC V7P 2S8

Dear Mr. Metcalfe:

Re: Douglas fir tree located in District laneway - Independent Assessment and Tree Report by John P Martyn - Consulting Arborist

Thank you for forwarding the tree report by the Consulting Arborist John P Martyn dated January 16, 2016 and received February 11, 2016. The Parks Department and I have reviewed the report content and pursuant to section 1.2 of the "Tree Work in the District" corporate policy have come to an agreed consensus and a final decision made not to remove the tree for the following reason:

- The independent report has not identified any major structural defects or decay or health or wind exposure issues that require whole tree removal or major pruning to mitigate an imminent probability of failure. This is reflected in the report *Conclusions* section where only minor pruning is prescribed which "could" improve the overall health and appearance.

The final section of the report gives three recommendations which have also been considered as follows:

1. The bolts are already solidly embedded into the trunk and removal is not considered appropriate due to the unavoidable damage to the tree from the extraction process.
2. Additional minor pruning that removes branches is not considered appropriate and is likely to destabilize the natural biomechanics of the tree where branches act as "shock absorbers" during wind events.
3. Parks have added the subject tree to their scheduled inspections this fall 2016.

The application to remove the subject District tree is now complete and a decision has been made to retain the tree.

If you have any queries regarding the above please do not hesitate to contact me.

Yours sincerely,

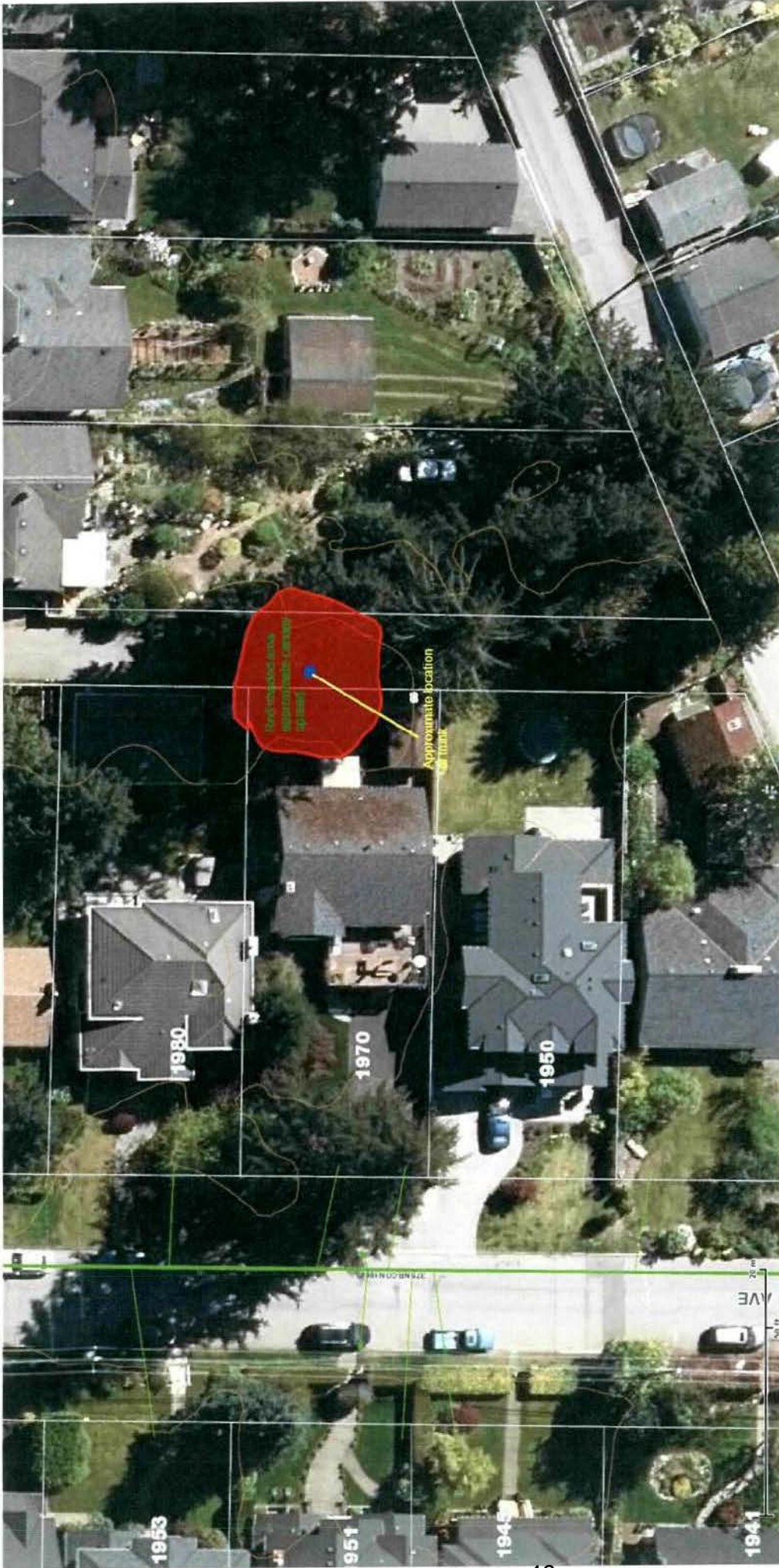


Guy Exley – Community Forester
Direct line: 604-990-2350
Email: exleyg@dnv.org

Cc:
Susan Rogers – Manager - Parks
Fiona Dercole – Section Manager – Public Safety
Wayne Maskall – Section Manger – Natural Parkland
Rob Hutchinson - Field Arborist - Parks







- 1M CONTOUR INTERVAL**
- 1M**
- CREEKS**
- CREEKS
- STORM BASINS**
- CATCH BASIN
- LAWN BASIN
- STORM CULVERTS**
- CULVERT
- STORM DRAINS**
- DRAIN
- STORM FACILITIES**
- LIFT STATION
- INSPECTION CHAMBER
- STORM LEADS**
- LEAD
- STORM MAINS**
- MAIN
- STORM MANHOLES**
- MANHOLE
- SERVICE CONNECTION
- STORM SERVICE CONNECTIONS**
- STORM SURFACE CHANNELS
- CREEK, DITCH, FLUME, OR SWALE
- WATERBODIES**
- WATERBODY
- LAKES**
- LAKES
- RIVERS**
- RIVERS

1970 Pemberton

Douglas Fir tree location and approximate crown spread



An Assessment of a Large Douglas-fir on District Land

for

Colin Metcalfe
1970 Pemberton Avenue
District of North Vancouver, BC

Prepared by

John P. Martyn
Consulting Arborist

January 12, 2016



TABLE OF CONTENTS

INTRODUCTION	3
Background	3
Assignment	3
Limitations of the Assignment	3
Purpose and Use of Report	3
OBSERVATIONS	3
TESTING AND ANALYSIS	4
DISCUSSION	4
RECOMMENDATIONS	5
CONCLUSIONS	8
GLOSSARY	8
APPENDICES	
APPENDIX A - INFORMATION	9
APPENDIX B -PHOTOS	14
APPENDIX C - ASSUMPTIONS AND LIMITING CONDITIONS	16
APPENDIX D - CERTIFICATION OF PERFORMANCE	17

INTRODUCTION

Background

I was contacted by Colin Metcalfe, Homeowner, 1970 Pemberton Avenue, District of North Vancouver, British Columbia, V7P 2S8, Telephone 604.980.9025, Email cejm@shaw.ca. Mr. Metcalfe requested an assessment of a large Douglas-fir (*Pseudotsuga menziesii*) located on District land adjacent to his backyard, near his neighbour's development site (see **Appendix 1 - Figure 1**). The tree had shed branches recently during an August 29th windstorm (see **Appendix 2 - Photo 1**). The tree had also been affected in the past by severe weather events on Friday, December 15, 2006 and January 9, 2007 (see **Appendix 1 - Figure 2**).

Assignment

Using **visual tree assessment**, I will provide an independent and unbiased assessment to determine the health and condition of the tree, and to make recommendations.

Limits of the Assignment

My observations were limited to one site visit on December 18, 2015. I did not climb the tree and no tissue samples were sent to a lab for identification or analysis.

Purpose and Use of Report

The purpose of this report is to assist the homeowner in understanding the health and condition of this particular tree and to provide an assessment for review by the District of North Vancouver for their decision on the matter.

OBSERVATIONS

<u>DBH</u>	<u>HT</u>	<u>CS</u>	<u>LCR</u>
------------	-----------	-----------	------------

34	110	35	80
-----------	------------	-----------	-----------

DBH = **Diameter at Breast Height**

HT = **Height**

CS = **Crown Spread**

LCR = **Live crown ratio**

Additional Comments on “Zones”*

A - There appears to be a point of topping where the trunk takes a small S-curve, in order to start a new trunk. Approximately 20 branches are in this zone.

B - Branches have been trimmed up to this point on one side of the tree.

C - An area that has numerous storm-damaged branch stubs.

D - A forked stem at the top of the tree.

E - The upper **crown** with approximately 60 branches.

* see **Appendix B - Photo 2**

TESTING AND ANALYSIS

I used visual tree assessment and mallet sounding to test the tree’s health and condition. Binoculars were used to more closely examine the tree’s structure.

DISCUSSION

Typical Douglas-fir versus this One

A typical Douglas-fir out in the open would have a pattern of mainly horizontal branches. Near the top of the crown, some of the newly emerging branches would compete for **apical dominance** and tend to be more upward sweeping; this tree has that feature. *What it does not have is a complete, symmetrical compliment of mid and lower trunk branches.* True, some branches have been cut back from the trunk, most if not all with proper **branch collar cuts**. This work has left the mid to lower trunk area i.e. Zone A to be somewhat lopsided. Zone C has storm-broken branches which may have been caused from a **lion-tailing** effect. This is a result of the one-sided cutting i.e. without lower branches, the upper crown gets whipped back and forth more. It’s hard to say for sure if these broken branches were caused by the effect of the pruning. One thing could be said is that the cutting did not benefit the tree’s health. Alternatively, these broken branch stubs could be from heavy wet snow or just plain high winds. In my experience, I would say that these stubs have occurred within the last 10 years. Recutting these stubs with proper branch collar cuts would help the tree’s health. The tree is notably a little lopsided in the upper crown as well. On the one hand, it means that the absent branches allow for the wind to flow through, and places less stress on the **windsail**.

This makes the tree a little more **windfirm**. On the other hand, the absent branches change the biomechanical structural of the tree. This tree is battered and tattered from both human cutting and natural wind shedding. Pruning could correct the condition somewhat (I say somewhat because the ideal form described above will never be achieved in my lifetime). This tree could be, at best, modified by corrective pruning but is never, in the short-term, going to look like the “typical Douglas-fir” out in the open.

Further Comment on Past Pruning History

Clearly, then, this tree has had some lower trunk pruning done to it. Given its present appearance, I would assume that the pruned branches were similar to the ones on the *other side* of the tree i.e. long and downward sloping. These branches, in my experience, are quite susceptible to breakage from heavy, wet snow loads. Recent winters have not had a lot of snow at lower elevations such as at this site. It is unfortunate that both sides of the tree were not pruned at the same time, as this would have made the tree more symmetrical. I would envision that to remove some of the particularly long, and downward sweeping branches would help to rebalance the tree’s overall silhouette.

Recent Wind Storms

Recent wind storm data - one could say **severe weather event** - shows major ‘hits’ in 1997, 2006/07, 2011 and 2015 (see **Appendix A - Figure 2**). This data is obtained from the nearby wind station at the Vancouver International Airport. The station probably reflects reasonably well the wind conditions that have likely affected this tree in the past. A general rule of thumb in my experience is that wind gusts over 100 km / hr tend to bring about some branch and whole tree failures. The recent failures on August 29th, where wind gusts reached 80 km /hr, saw winds atypically coming from the south and south-east (winds are more frequent from the south and south-west, where they bring high winds and heavy rain, and are commonly referred to as the “pineapple express.” In addition, these summer winds affected primarily cottonwoods. I could not see any clear signs of recent branches breakages on this Douglas-fir. Furthermore, note that the stubs in Zone C did not contain any recent breakages. So, all in all, in my view, this tree weathered the most recent summer storm fairly well.

Cutting of Development Site Trees

The recent cutting of trees next door can be viewed in **Appendix B - Photo 3**. A December 2nd letter from Guy Exley, District Community Forester, notes the removal of “4 subdominant trees” (see **Appendix A - Figure 3**). These trees were not, according to the letter, providing significant wind blockage to the extent that their removal has adversely affected the condition of the said Douglas-fir. I would say that since trees tend to be found in groups, more often than on their own, that the removal of the 4 trees did not *enhance* the health of the tree. Yet at the same time, their absence cannot be considered a huge factor. The reason for this is simply

that they did not block the large vertical wind space. If another large conifer was beside the Douglas-fir and it had been taken out, then that would have been a whole new ball game.

Forked Top

This tree has a forked top or **co-dominant stems**. With binoculars I could see the two stems being roughly the same diameter. One is a little smaller and a little shorter than the other. To qualify as a proper arboricultural cut, a stem or branch on most tree species has to be a maximum diameter of 30 per cent of its adjoining stem. If cut larger, then decay often sets in to the wound site. Here I would estimate the adjoining stem at about 40 to 45 per cent; a little too large to make a cut. Normally a cut would be done to encourage single stem, apical dominance. As a solution, however, this secondary trunk (or co-dominant stem) could be **drop-crotched** pruned by a competent individual. The stem could then be gradually eliminate over a 7 to 15 year period i.e. 2023 to 2031.

CONCLUSIONS

This tree is presently asymmetrical and is fairly exposed out in the open. The top of the tree is a little more balanced than the rest. A proper pruning to remove deadwood, cross limbs and weak / inferior branches could improve its overall health and appearance in the neighborhood.

RECOMMENDATIONS

1. **Bolts** - bolts from a former tree house fort embedded in the trunk should be extracted so that they are not encapsulated by the tree
2. **Pruning** - a competent individual could do a thorough pruning on this tree
3. **Monitoring** - an annual review by a competent professional preferably before the winter storm season - generally mid-October to mid-February - would help to spot any deficiencies in the tree such as broken branches

GLOSSARY

-Apical Dominance - the main stem of a plant grows more strongly than the side stems, and the main stem is further dominant over its own side branches

-Branch Collar - often seen as a swelling between the branch and the parent stem. This swelling provides mechanical support and naturally occurring chemicals to repel wood decay fungi

-Branch Collar Cut - a surgical cut that preserves the **branch collar** to encourage quick and efficient closure of a wound made to a tree as a result of removing a branch. Proper cuts will mimic natural branch shedding and avoid unnecessary damage to the plant's defensive anatomy.

-Co-dominant Stem - a forked join of two stems of near equal diameter. Joins that are U-shaped are generally considered stronger than those V-shaped.

-Competent Individual - a person whose knowledge, experience, and training allows them to perform a particular task or project. Specifically, this background would include following the **ISA Best Management Practices**, and implementing the **TCIA, A-300 Standards**.

-Crown - the branches, leaves, and reproductive structures that extend from the trunk or main stems

-Crown Spread [CS] - the widest part of the tree's crown

-Diameter at Breast Height [DBH] - diameter of the tree measured 1.3 metres (4.5 feet) above ground

-Drop-crotch Pruning - cutting back branches, lateral limbs or co-dominant stems to control growth on mature trees

-Height [HT] - the vertical distance between the ground and the top of the stem

-ISA, Best Management Practices - The International Society of Arboriculture guidelines for tree care

-Lion-tailing - heavy end weight on a cantilever resulting in added stress to its base, often resulting in branch breakages away from the **branch collar**

-Live Crown Ratio [LCR] - live branches as a ratio of Height.

-**TCIA, A-300 Standards** - procedural standards by the Tree Care Industry Association that sets forth how tree care operations are to be performed by a **competent individual**

-**Severe Weather Event** - when maximum wind gusts exceed 80 km / hr and / or heavy precipitation including rain, snow, hail, or fog

-**Visual Tree Assessment [VTA]** - identifying symptoms of a tree that help to determine its health and condition

-**Windfirm** - the ability of a tree to dissipate wind energy

-**Windsail** - the branches of the tree that absorb wind energy and also translocate it down the trunk and into the root system

APPENDICES

APPENDIX A - INFORMATION

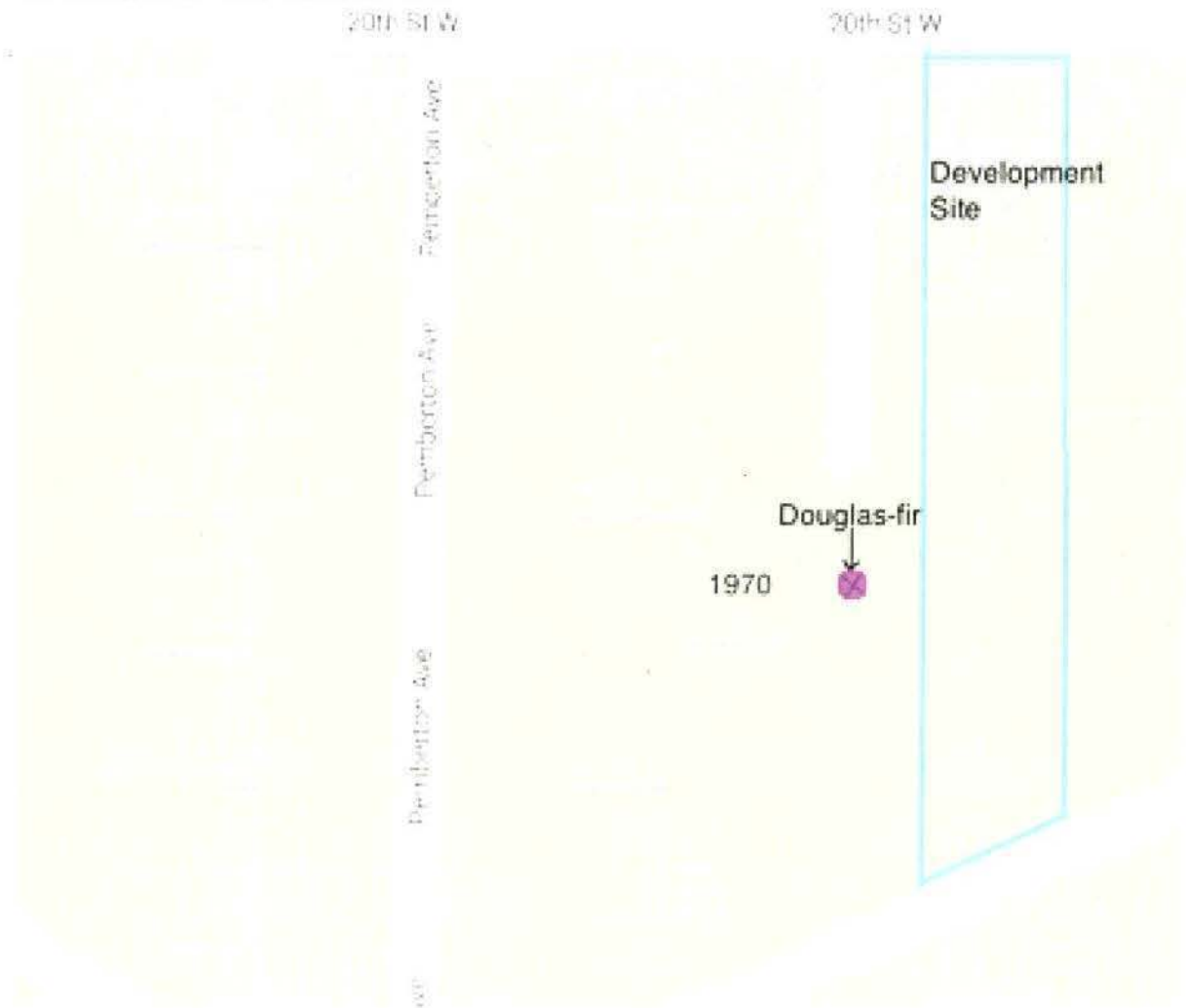


Figure 1 - Site Map showing District, Douglas-fir and neighbouring development site.



Embed the chart in your web page: `<IFRAME SRC="http://vancouver.weatherstats.ca/charts/wind_gust_25-years.htm?width=500,height=300,FRAMEBORDER=10,VSPACE=10,HSPACE=10,MARGINWIDTH=10,MARGINHEIGHT=10,SCROLLING=no,NORESIZING=1,WIDTH=500,HEIGHT=300"></IFRAME>`

The historical weather data, forecast and current conditions graphics are courtesy of Environment Canada. The information presented is compiled from multiple Environment Canada data sources and all effort is made to be accurate. However, if you find something missing or incorrect please send feedback. Don't make life or death decisions based on information you find here. Please see the "about" page for links to the official Environment Canada data.

Figure 2 - Wind Gusts (red), and wind speed (blue) [misabeled by Environment Canada].

355 West Queens Road
North Vancouver BC
V7N 4N5

www.dtrv.org



Sustainable Community
Development Department

December 2, 2015

File: 13.6780/Tree Complaints

Mr. C. Metcalfe
1970 Pemberton Ave
North Vancouver BC V7P 2S8

Dear Mr. Metcalfe:

Re: Inspection of District Douglas fir tree located in rear laneway after recent limb failure during windstorm of August 29, 2015

Further to the telecom Monday November 30, 2015 to discuss the safety of the above District Douglas fir tree in the laneway, I have undertaken my review and have discussed the findings with the Parks Department. Within this review I also include a response to your request for consideration to issue a non-hazardous tree removal permit. My findings are as follows:

Douglas fir: There are no typical visual indicators of significant structural defects or decay. The tree appears to be in a fair health condition given the species, age, rooting location and the environmental conditions i.e. recent construction disturbances, summer drought, tree fort attached to trunk (now removed).

The tree is a dominant anchor tree that has developed normal trunk taper being exposed to the prevailing winds and storms for many years. Recent removal of the subdominant trees (circa 4x trees) for a new single family house development on the east side has exposed the mid to lower canopy area where the branch appears to have failed from during the recent wind storm. In my opinion the stem failed due to the combination of the unusual direction and strength of the August 29, 2015 storm (southerly) on newly exposed mid-canopy branches. In this respect there is a period of settling down when a tree is exposed to new wind pressures.

In light of the recent environmental changes and as cautionary measure, an inspection of the tree health and structure by the Parks Field Arborist has been scheduled for the autumn period 2016.

In respect to our findings and pursuant to the District Tree Policy, and the Tree Bylaw 7671, the present condition of the subject tree does not justify whole tree removal or pruning to mitigate an imminent risk of failure.

Options available: As discussed on Monday, there are two options available as follows:

Option 1 If you are dissatisfied with the District's decision you can, in accordance with the District Tree Work Policy, have the right to pursue your own independent professional opinion. As per section 1.2 of the Policy: "Should the requester disagree with the tree assessment by the District Arborist, the requester may obtain a secondary opinion from a qualified arborist (at the requester's expense). This assessment will be reviewed and considered before a final decision is made. The District Arborist or appropriate staff reserves the right to make the final decision."

Document: 2777907

Re: Inspection of District Douglas fir tree located in rear laneway after recent limb failure during windstorm of August 29, 2015
December 2, 2015

Page 2

Option 2. For non-hazardous tree works Section 2.0 of the policy states "The Manager of Environment will consider a permit application to allow work not related to safety as defined in Section 1.0, and the Appendix 1, subject to the following."

District Corporate Policy "Tree Work in the District" clarifies the responsibilities and procedures for works on trees in the District. The District Tree Rating Procedure for trees forms Appendix 1 of the document. The policy can be viewed here <http://app.dnv.org/CouncilPolicies/Default.aspx>

As requested the District has considered "Option 2". I can confirm that given the present condition of the tree, its significance within the local landscape and the ecosystem services provided by a large mature tree such as this, that a tree permit for removal is not supported.

If you wish to pursue "Option 1" please provide an independent report by a suitably qualified consultant for review by staff. You can visit the District webpage for a copy of the Tree Bylaw 7671 here <https://www.dnv.org/property-and-development/tree-permit> and the District Master Document ENV118 which gives guidance for Arborist Reports can be viewed here <http://www.dnv.org/sites/default/files/edocs/tree-permit.pdf>

If you have any queries regarding the above please do not hesitate to contact me.

Yours sincerely,



Guy Exley – Community Forester
Direct line: 604-990-2350
Email: exleyg@dnv.org

Cc
Susan Rogers – Section Manager - Parks Planning
Fiona Dercote – Section Manager – Public Safety
Rob Hutchinson - Field Arborist, Parks Department

Document 2777907

Figure 3 - Letter from Guy Exley to Colin Metcalfe, December 2, 2015.

Pruning Objectives

- * removal of most of the **6 D's**: dead, dying, *defective*, doubling, diseased, distracting and destructive branches (note: defective branches have poor branch attachments; destructive cross one another)
- * no excessive tree '**skirting**' or branch '**lion-tailing**'
- * no topping, though in some cases, **re-topping** or "drop-crotch reduction"
- * no spurs for climbing; only non-invasive tree entry **techniques**
- * proper **branch collar cuts** encourage quick 'sealing' of wound sites, and to reduce window of opportunity for fungi decay
- * re-cutting of existing **improper cuts**
- * no "**wound paint**" applied to cuts
- * pruning by a Certified Arborist with over 20 years experience
- * all pruning in accordance to The Tree Care Industry Association [TCIA] **A - 300 Pruning Standards**
- * all pruning in compliance with the International Society of Arboriculture [ISA], **Best Management Practices**
- * provide wood chip mulch to base of large trees to enhance soil properties like moisture retention, mineral translocation to roots, and mycorrhizal activity (tree-friendly, soil fungus naturally occurring in forest ecosystems)

Pruning Results

- * better trunk and branch **structure**
- * improved **silhouette**
- * branch **clearances**
 - parking stalls 25 feet
 - roads 15 feet
 - pedestrian 10 feet
 - building 5 to 10 feet
 - walkways 3 to 5 feet
- * often increased **storm resistance**
- * enhanced long-term, **real estate value for some trees**

Figure 4 - Pruning Objectives and Results

APPENDIX B - PHOTOS



Photo 1 - Windstorm branches

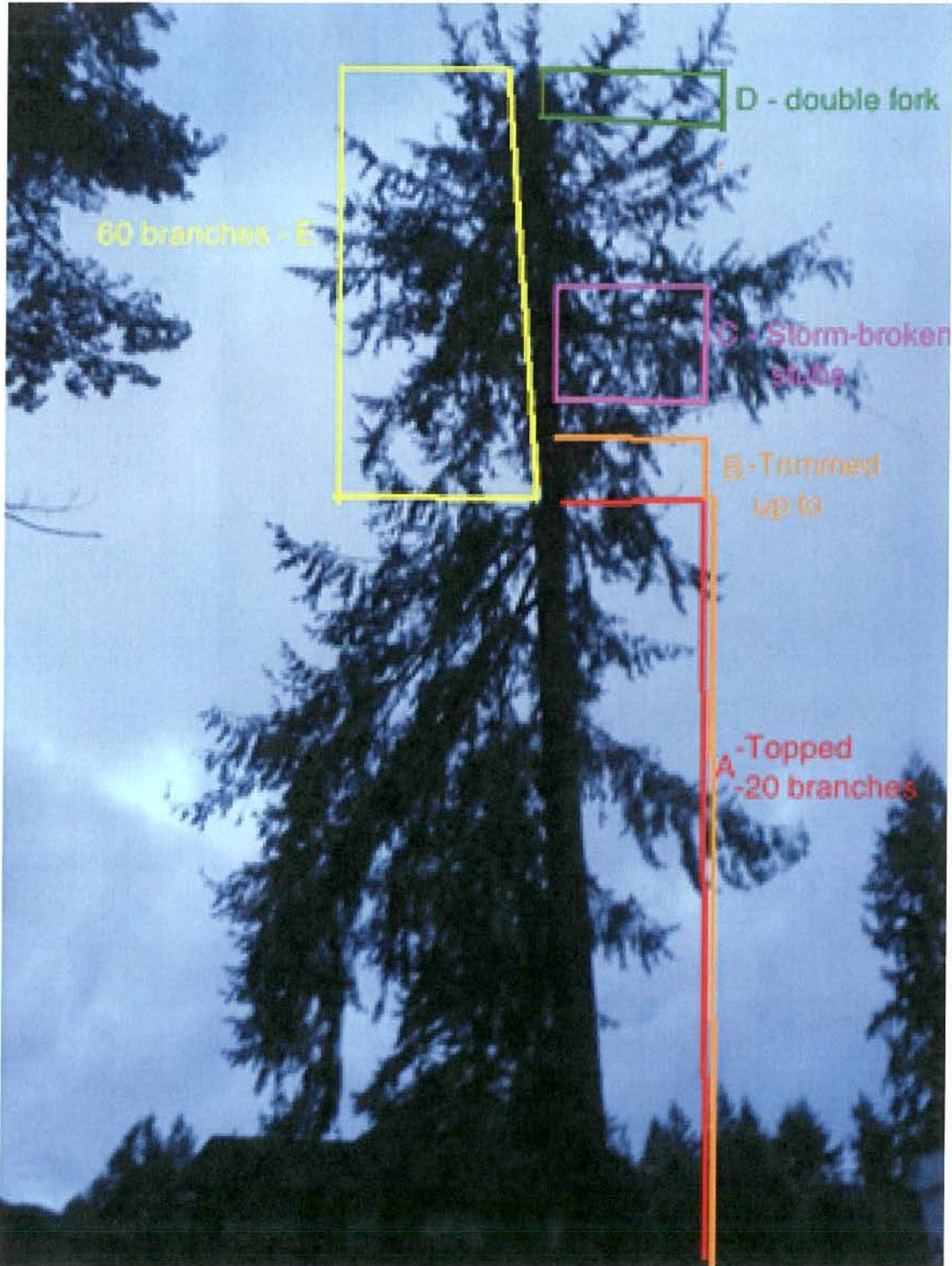


Photo 2 - Observational data for tree.

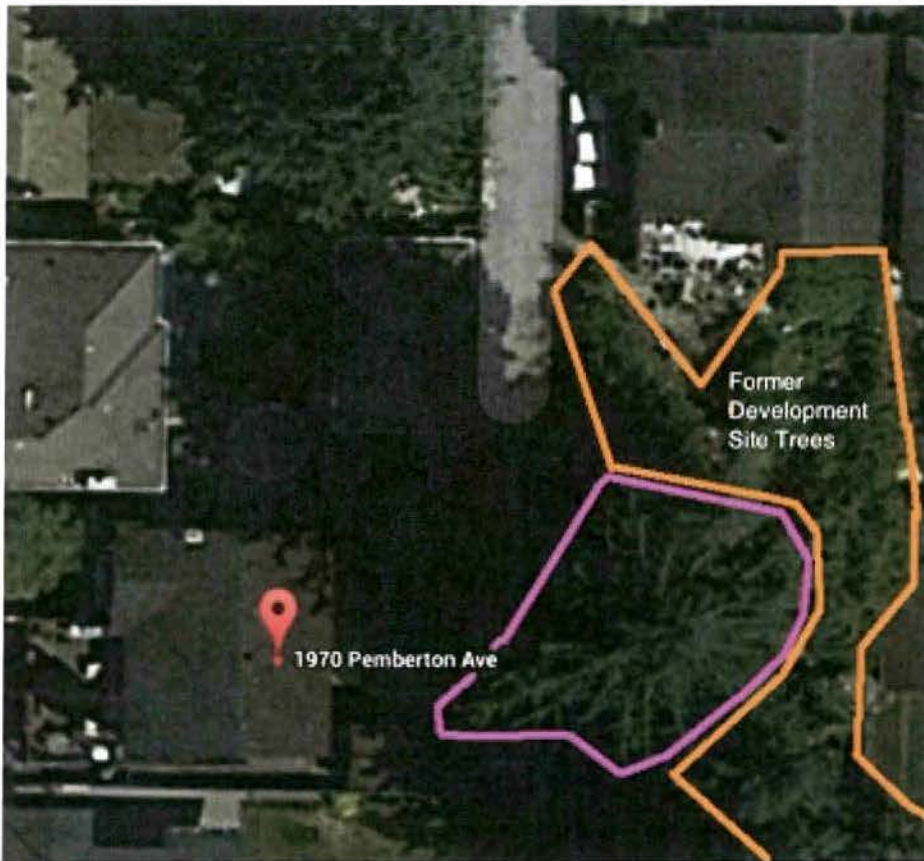


Photo 3 - Aerial view of Douglas-fir, and adjacent trees (4 removed).

APPENDIX D - ASSUMPTIONS AND LIMITING CONDITIONS

This arboricultural field review report is based only on ground level site observations. No aerial tree assessments were done on any of the trees. Effort has been made to ensure that the opinions expressed are a reasonable and accurate representation of the general condition of all trees reviewed. The assessment was completed based on VTA (Visual Tree Assessment) only. **Aerial assessments may have gathered additional information that could have been important to the conclusions of the report.** The subject trees were not dissected, although some may have been cored and / or probed. All trees or groups of trees have the potential to fail. No guarantees are offered or implied by JPM Tree Service that the trees reviewed and referenced in this report will remain safe given all conditions. Trees can be managed, but they cannot be controlled. To reside, work or play anywhere near trees is to accept some degree of risk. The only way to eliminate *all risk* associated with trees is to eliminate the trees themselves. Prior to agreeing to provide this service to **Colin Metcalfe**, the client was advised and agreed that **JPM Tree Service** would not be held liable for any damages resulting from the behaviour of the subject trees. Assessments are valid on the day of the report, and it is understood that adverse weather conditions can change the structural integrity of the trees, which can lead to subsequent failure.

The opinions expressed in this report have been provided without bias based on site observations and the supporting information provided by others. Any trees retained should be reviewed on a regular basis to ensure acceptable risk levels. It is recommended that trees always be re-inspected after atypical weather events. The trees surrounding this site on adjacent property were not reviewed, and it is believed that all fences and hedges separating private and public property lines are valid. The information provided in this report is for the exclusive use of **Colin Metcalfe** and may not be reproduced or distributed without permission of **JPM Tree Service**. This report is to be used in its entirety and/or its stated purpose only. The cost of this report as paid to JPM Tree Service does not depend upon its outcome, or any decisions stemming from it.

APPENDIX E - CERTIFICATION OF PERFORMANCE

I, John P. Martyn, certify that:

1. I have personally inspected the trees and property referred to in this report and have stated my findings accurately.
2. I have no current or prospective interest in the trees or the property that is the subject of this report and have no personal interest or bias with respect to the parties involved.
3. The analyses, opinions and conclusions stated herein are my own and are based on current scientific procedures and facts.
4. My analyses, opinions and conclusions were developed and this report has been prepared according to commonly accepted arboricultural practices.
5. No one provided significant professional assistance to me, except as indicated within the report.
6. My compensation is not contingent upon the reporting of a predetermined conclusion that favours the cause of the client or any other party nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any subsequent events.

I further certify that I am a member in good standing of the American Society of Consulting Arborists, the International Society of Arboriculture, and the Tree Care Industry Association. I have been involved in the field of Arboriculture in a full-time capacity for a period of 21 years.

On behalf of JPM Tree Service,

A handwritten signature in black ink, appearing to read 'John P. Martyn', with a long horizontal line extending from the bottom left of the signature.

John Martyn, BA, (Dip) RLT, (C) OHS
Consulting Arborist / ISA Certified Arborist (PNW-0610) / ASCA Consulting Academy Graduate

DRAFT

To the District of North Vancouver:

Our family took possession of 1970 Pemberton Ave. on October 1 2001. Since that time we have had several concerns with the large (+100') Douglas fir tree in our back yard. While the tree is in our back yard, it is in fact on District North Vancouver (DNV) property - the previous owners of the property had approval from DNV to use half the unused lane. The tree currently sits within and along the fenced backyard in the center of the lot.

During the December 15, 2006 windstorm a massive limb fell from the tree in question and fell on the roof of our home. The impact smashed our living room window and destroyed several pieces of furniture on our deck. The damage exceeded \$7000. This damaged was covered by our home insurance. A large tree limb also smashed through the tiled roof of 1980 Pemberton Ave. The limb not only penetrated the roof, it pierced all the way through 2nd floor interior ceiling! Had it come down in one of the bedrooms, it could have seriously harmed or killed someone.

Given the unusual intensity of the 2006 storm, we did not pursue removal of the tree at that time, as we felt it was a one-off event. I believe the same was the case for the previous owners of 1980 Pemberton Ave. However, since that time, during lesser storms we have seen equally large limbs fall into our back yard or into neighbouring properties.

Both of my young daughters have expressed fear during storms and have sought shelter downstairs during evenings where the tree ominously swayed in the wind. They fear that the tree will eventually fall onto our house and into their bedrooms while they sleep. In fact in the last storm, they were so fearful of the tree falling onto our house, they sought shelter downstairs as far away from that side of the house as possible. You can agree that this is no way for a family to have to live.

The property behind our home was recently sold and the new owners (Laurie and Lane Oseen) are redeveloping the property. During the demolition phase of their development several large trees that were on both DNV property and their own property were removed. These trees (six to eight trees in total) were within 3-5 meters of the tree in my back yard and made up a significant stand of trees that provided support and cover for the cluster of trees within that area. Now that those trees have been removed, the lone tree in my back yard is horribly exposed and now has no cover from any trees in its proximity. As a result the tree is now isolated and we believe, presents a significant hazard to property and life. While I understand that this particular type of tree is not prone to falling, it is prone to continually dropping limbs. Some of these limbs are many hundreds of pounds and I cannot afford to continually replace damaged fences, sheds, windows and other property as limbs continue to fall into our yard and onto our home.

I raised concerns with DNV staff soon after the stand of trees were removed (about a year ago). I asked if this tree could also be removed. I raised the concerns that I have raised in this letter but the District Arborist refused to permit me to remove the tree. He did have a contractor remove several limbs on the tree and advised that this was all that the DNV were willing to do.

On August 29th 2015 a windstorm blew through the Lower Mainland. The tree again dropped over a dozen limbs that night and we awoke to find our 50' cedar fence smashed by a massive tree limb, several other limbs dropped into our yard and also fell behind our property into the Oseen's yard. To the

Via: REGISTERED MAIL

north of us (at 1980 Pemberton Ave) several limbs fell into their property and caused significant damage. I am told that the owners of 1980 Pemberton Ave are pursuing action against the DNV to recover damages associated with the tree limbs that fell onto their property.

Over the years I have noticed that the tree has begun to 'heave' around the base of its root structure. The ground around the tree had been relatively flat. The ground around the tree now 'hills' up to the base of the tree. I fear that the root structure continues to deteriorate. I mentioned this to the DNV Arborist, but he continues to claim that while the health of the tree is 'fair', the tree is 'safe'. 'Fair' does not inspire much confidence among my family members and neighbours.

I recently resubmitted an online/written request via the DNV website to remove the tree. I did not hear from anyone the DNV until I contacted their office to ask if my latest request had been considered. I was advised that no further action will be taken and the DNV Arborist would not permit the tree to be removed.

In early December I was contacted by Guy Exley, the DNV Community Forester. There were several inaccuracies in his letter:

- He claims only four trees were removed from the stand of trees earlier this year. In fact, four large trees were removed along with multiple smaller trees. The removal of this entire stand of trees has led to multiple limbs falling off the tree over the past year.
- Limbs have been falling off this tree for many years. Since the removal of the stand of trees, the rate of limbs falling off the tree has increased several times over. Due to on-going damage from limbs falling, our house insurance deductible has been increased from \$500 to \$5000.
- The root system for the tree has 'heaved' over the years. I suspect that this is due to the roots becoming weaker over time. I fear that the tree will eventually fall in a strong wind and significantly destroy property or injure or kill someone.

Given the history I have provided and knowing that the tree will either continue to drop limbs onto our respective properties or fall onto one of our homes, we the undersigned put the District of North Vancouver on notice that they will be held legally liable for any and all future damages and/or injuries or loss of life associated with the tree on DNV property. Legal action will be taken when this eventually happens.

I am asking the DNV to reconsider their position on this matter and provide me a permit to remove the tree. Given the damage it has caused to date and the damage likely to occur in the future, this matter should not require Council involvement, but here we are.

Sincerely,

Colin Metcalfe (1970 Pemberton Ave)

Bryson Milley (1980 Pemberton Ave)

Jeremy XXX (1950 Pemberton Ave)

Lane Oseen (1175 W 20th St.)

