Tree Protection Policy

Council Workshop – Nov 22, 2021

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Tree Protection Policy

Workshop Agenda

• Opening remarks
• Presentation by staff
  – Tree Protection Bylaw Quick Review
  – Proposed Bylaw Changes
  – Urban Tree Canopy Program and Other Initiatives
  – Street Tree(s)
• Discussion
• Closing and Direction from Council
Authority to Regulate Trees

• The *Community Charter* confers authority to regulate trees.
• Not without limitations
• Cannot prevent permitted uses or impact permitted density
• Unless
  – a) Council agrees to compensation for reduction in market value
  – b) Council grants by variance or otherwise a means of achieving the permitted use and density.
Tree Protection Bylaw 7671

- Current version adopted by Council July 23, 2012 after a 5 year review process.
- A foundational policy tool that supports specific objectives of numerous Council adopted strategic plans;
  - Official Community Plan
  - Climate Change Adaptation Strategy
  - Community Energy and Emissions Plan

“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.”
Tree Protection Bylaw 7671

Protected Trees

- Trees on sloping terrain, stream corridors and wetland/waterfront
- District Owned Trees
- Trees in Covenant Areas
- Large diameter, privately owned trees
- Replacement trees
- Listed tree species
- Wildlife trees
- Heritage trees
Tree Protection Bylaw 7671

Permits Required - Protected Tree(s)

- Greater than 10cm in diameter as measured at 1.3m above grade.
- On private and public property
- Application form online
- Arborist report for removal, pruning and hazard trees
- Replacement trees (staff directed no for hazard tree)
- Security 125% replanting cost
Tree Protection Bylaw 7671

Large Diameter Tree(s)
- At least 0.75m as measured at 1.3m above grade.
- Solely on private property and NOT a protected tree
- Arborist report only for hazard trees and pruning
- 20% canopy target for RS lands
- Replacement tree(s) (none, 3:1 or 1:1)
- Environmental Compensation fee ($595 per/tree) in lieu of replacement tree(s)
Large Diameter Trees

Area of trees removed 171 sq m
Area of tree remaining 0 sq m
Area of Lot 771 sq m

Area of Trees removed 342 sq m
Area of tree remaining 215 sq m
Area of Lot 963 sq m

Property area > 420 m²
3:1 replacement

Property area < 420 m²
1:1 replacement

Tree to be removed
Trees remaining < 20%
Tree replacement required

Tree to be removed
Trees remaining > 20%
Tree replacement not required
Tree Protection Bylaw 7671

Permit fees

• Prune or remove a protected tree $82 / tree
• Prune or remove a large dia. Tree $82 / tree
• Prune or remove up to 4 protected trees $82 / tree
• Prune or remove 5 or more protected trees $389
• Prune or remove 5 or more large dia. trees $389
• Environmental Compensation fee $595 / large dia. Tree (no replacement trees)
Proposed Bylaw Changes

1. Create a new permit category and fee for large diameter tree removal
   - Consider a permit fee increase for the new category that applies to each large dia. tree removed
   - Do not cap the fee for removal of X or more large dia. trees removed
   - Higher permit fee, with no cap, may discourage removal of healthy large diameter tree(s)
Proposed Bylaw Changes

2. Consider increasing the environmental compensation fee paid when no replanting takes place after large dia. tree removal
   - Higher compensation fee may discourage removal of healthy large diameter tree(s)
   - Continues to fund other urban tree canopy programs that replace trees on private property
Proposed Bylaw Changes

3. Consider adding an additional form/type of environmental compensation for large dia. tree removal to replace lost ecosystem services
   – Rainwater interception and storage designed professionally (rain garden, infiltration, storage cistern etc.)
   – Native shrub landscape features to replace lost biodiversity
   – Constructed habitat features (nest boxes, wildlife trees etc)
Proposed Bylaw Changes

4. Consider changing the security deposit formula for large dia. replacement trees
   - Currently security fee is set as $595 per large dia. Tree removed
   - This fee structure results in default of security after tree removal takes place
Urban Tree Canopy Program

A program that provides up to two free trees to DNV residents that choose to participate

- Launched in 2021
- 239 native trees delivered
- 146 different properties participated
- Included cedar, fir, dogwood, alder, pine, maple and willow species
Urban Tree Canopy Program

“Thank you so much for your work on this! It’s such a valuable project for our community.”

“We are very excited about this initiative!”

“This is such a terrific project that the district is undertaking. I am happy to be a part of it.”

Urban Tree Canopy Project | District of North Vancouver (dnv.org)
Hazard Tree Replacement Program

- Climate and pests have impacted our forest health
- Dead or dying trees pose a significant future risk to the DNV
  - Increase in higher risk fuel type (+/- 2 years)*
  - Increase in tree failure incidents (+/- 3 to 5 years)*
  - Increased risk of landslide and debris flow events as root stability deteriorates (+/- 7 to 10 years)*
- Private property owners face similar issues
- Ecosystem services are lost when these trees are removed
- Considerable staff resources are expended on permits for hazard tree removal with no fees or replanting required

Hazard Tree Replacement Program

PROPOSAL

• Consider a hazard tree(s) grant to a private homeowner on a one-time basis.
• Grant could help offset expenses associated with hazard tree removal.
• Native replacement tree(s) can be required in exchange for accepting a grant.
• Native replacement tree(s) supplied by the DNV.
• Eligibility should be based on where private property is contiguous to DNV controlled parkland with similar interface forest management goals.
Hazard Tree Replacement Program

BENEFITS

• Firesmart and climate resilient species are planted on private property
• Assists with higher risk fuel removal on private property adjacent to DNV natural parklands
• Replacement tree(s) can be added to the Urban Tree Canopy Program inventory for monitoring
• Replacement trees can be identified as protected under the Tree Protection Bylaw
• Staff no longer providing service delivery (hazard tree permits) at a loss
Street Tree(s)

Request to plant trees on boulevards and ROW’s

– Request is screened by Parks, Engineering and Development Services to ensure no conflicts exist or would be created
– New DNV standards (traffic visibility, transportation infrastructure etc.) make siting boulevard trees difficult
– New boulevard trees need to be inventoried and added to Park’s maintenance list.
– Parks has discretion as to whether they want to accept new street or boulevard trees into their inventory
– Boulevard trees are added through larger development projects where all department have reviewed and approved the species and locations
Discussion
Questions?
Additional Reference Slides
Tree Protection Bylaw 7671

Protected Species

- Arbutus (Arbutus menziesii)
- Garry Oak (Quercus garryana)
- Oregon Ash (Fraxinus latifolia)
- Pacific Yew (Taxus brevifolia)
- Western White Pine (Pinus monticola)
- Yellow Cedar (Chamaecyparis nootkatensis)
Tree Protection Bylaw 7671

Wildlife Tree General Characteristics

- > 15m in height
- Broken tops
- Large branches and diverse branching
- Loose bark in behind intact bark
- Nesting cavities or feeding excavations
- Some decay or disease (i.e. fungal conks, witches’ broom or open cavities)
Tree Protection Bylaw 7671

Purple Beech

Damson

Schedule A - Designated Heritage Trees
Tree Protection Bylaw 7671

Permits Required - Protected Tree(s)

• International Society of Arboriculture Certified Arborist (ISA Cert) - Reports
• Hazard trees require Certified Arborist with Tree Risk Assessment Qualification (TRAQ)
• Owner(s) consent
• Description of proposed work
• Site plan showing location of tree(s)
• Description of cutting and/or removal methods
• Details for tree protection – retained tree(s)
Tree Protection Bylaw 7671

Additional Reports that *may* be required

- Registered professional report
  - P.Eng./P.Geo. - *sloping terrain stability*
  - *RPF/RFT* – Interface Fire/FireSmart Assessments
  - R.P.Bio. – Streamside, Nesting Survey, Protection of the Natural Environment DPA

- Replanting plan

- DNV discretion on above requirements
  - Obviously dead tree(s) – No Arborist report required
  - Emergency tree work
Proposed Bylaw Changes

- Currently the Tree Protection Bylaw S. 32(b) allows for a maximum fine of $10,000 per offence.
- The Community Charter was recently amended to allow local governments to increase the maximum allowable fine under a tree related bylaw to $50,000.
- Increasing the maximum penalty would provide more deterrent for egregious unlawful tree removal.
Proposed Bylaw Changes

- Metro Vancouver total tree canopy area by land use type
- Importance of RS zoned lands specifically single family zoned detached lots

Source: Regional Tree Canopy Cover and Impervious Surfaces, Metro Vancouver, 2019
Proposed Bylaw Changes

- Increase in impervious surface after RS redevelopment
- Evaluated by comparing imagery of 2003 and 2009

Increase in:
- Roof surface: 68%
- Asphalt surface: 63%
- Total impervious surface: 66%

71% of the houses in Hoskins Creek were built before 1975. It is expected that houses older than 45 years will be renovated or rebuilt within the next 20 years.
Urban Tree Canopy Rainfall Interception

• A network of 60 Tree Canopy Climate Stations was established across the North Shore
• To investigate the effects of tree density, tree structure and tree species on rainfall interception
Example: 4 March 2007

39% Interception
66% Interception

Gross Precipitation
Throughfall Douglas Fir
Throughfall Western Cedar

Rainfall / Throughfall (mm)
Time (h)

0 10 20 30 40 50 60 70

0
5
10
15
20
25
30
35
40
45
Landscape based, performance criteria for watershed benefits.
Green Infrastructure & Natural Assets

Watersheds are Green Infrastructure Assets

- They provide potable water
- They retain, detain and slowly release rainfall to streams (flood protection)
- They provide air quality benefits (pollutant removal, carbon sink)
- They provide habitat for Ecology that is important to humans (food, shelter, nature)
- They are transportation routes

To function properly they need to be in balance with input (rainfall) equal to the output (Stream flow) **UNDER NATURAL CONDITIONS**
Green Infrastructure & Natural Assets

TREES

- Purest form of green infrastructure
- Provide multiple different services
- Generally low risk assets
- Incredible cost – benefit ratio
- Appreciating lifecycle asset (i.e. more service and value with age)
Zoning Bylaw

- Required setbacks
- Allowable site coverage
- Access (driveways)
- Below grade structures

Tree protection on private non significant lands only in these areas

Zoning footprint

Difficult to protect trees within allowable footprint
Street Tree(s)

- In January 2008 the inventory was over 3100 trees
- Does not include native or naturally occurring trees on boulevards and other DNV controlled lands
- The scale of ongoing inventory updates and maintenance is challenging
- Parks has asked for resources for this program