




CITY OF RICHMOND

REPORT TO COMMITTEE

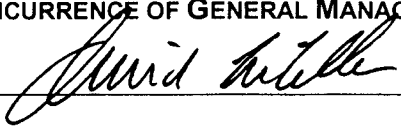
TO: Parks, Recreation & Cultural Services Committee *TO PARKS, REC & CULTURAL SER. - JUNE 26/01*
FROM: Dave Semple **DATE:** June 7, 2001
 Director, Parks **FILE:**
RE: Urban Forest Management Strategy *6550-01*

STAFF RECOMMENDATION

1. That the Urban Forest Management Strategy as attached to the report dated June 7, 2001 from the Director of Parks, be endorsed; and
2. That staff be directed to begin work on the implementation steps of the Urban Forest Management Strategy, and present a progress report to City Council on an annual basis, beginning in September 2002.


 Dave Semple
 Director, Parks

Att. 1

FOR ORIGINATING DIVISION USE ONLY		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Engineering	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Policy Planning	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

STAFF REPORT

ORIGIN

In May 2000, Parks Design staff initiated work on the City of Richmond's **Urban Forest Management Strategy**. The purpose of this project was to develop positive direction for the management of its urban forest resource on city owned lands.

It is generally recognized now, that trees have many life-affirming qualities. Their influence on the environment is conducive to the well-being of all living things. They bring beauty to the environment and are good for our health. They contribute to a community's image and livability. Healthy, carefully-selected, mature trees can add to a property's value. They also provide a natural link between the city and the forest.

This report presents, for Committee's information, the draft "**Urban Forest Management Strategy**" (see attached report).

BACKGROUND

Since May 2000, Parks Department staff have been involved in an extensive review and discussion process to prepare and develop a public urban forest management strategy. Initial focus was placed on the workings of the Parks Operation staff whose duties involved trees on city owned lands almost daily throughout the course of a year. Subsequent discussions expanded the scope of the project to review how the City in general, managed its public tree inventory.

The Urban Forest Management Strategy, as proposed, consists of three basic goals : **Tree Conservation; Urban Forest Enhancement, and Community Stewardship**. They form the essential building blocks for a strategy that may be adopted by City Council.

1) **Tree Conservation** focuses on the importance of tree retention to protect the existing urban forest. The City of Richmond will retain trees where it is feasible and appropriate to do so without compromising public safety.

2) **Urban Forest Enhancement** emphasizes planting and maintenance to expand, replace and maintain the urban forest. The City of Richmond will do so through planting and maintenance programs using established horticultural practices.

3) **Community Stewardship** promotes partnerships, education and greater community responsibility for taking care of the urban forest. The City of Richmond will continue to build partnerships with residents, businesses, developers and crown agencies to increase awareness and provide or facilitate tree retention, planting and maintenance programs for the community.

All three goals are supported by a series of policies and implementation steps that are required to realize the goals of the strategy. The policies form the basis of how the public urban forest is to be managed. They comprise a 'tool kit' that provides direction to fit the majority of situations that will arise as the public urban forest continues to grow. From time to time, the discretion of

administer these policies. Occasionally, issues with respect to the urban forest will also come before Council at which time elected officials will be required to consider tree matters within their unique context and related management policy.

The completed draft document "*Urban Forest Management Strategy*" is attached to this report.

STAFF COMMENTS

The draft strategy document has been reviewed by the following City departments:

Urban Development

There is support from staff for the broad objectives of the strategy. Direction for managing the public urban forest resource was considered to be of great community benefit.

Some distinction is required for the management of trees within Environmentally Sensitive Areas (ESA). Criteria for removal or pruning may differ somewhat from street or park trees since ESA lands contain significant environmental features that require a level of protection to secure their conservation. For example, trees (within an ESA) may be hazardous to people or property but at the same time may provide habitat for wildlife. It is possible to remove the hazardous condition by topping the crown, and leaving the snag trunk standing for insect feeding and cavity nesting. Other trees could be cut down and left to decay on the forest floor.

Regard for the regulations of external agencies is another issue that must be addressed within the strategy. A notable example is the Provincial Wildlife Act, that provides protection for birds, nests and eggs. Eagles have nested for several years in trees growing within Steveston Community Park.

The Significant Tree Program has been managed by the Policy Planning section since its development in 1989. The program has been a success with the local community, and requests for inclusion of trees within the inventory are received on a regular basis. For some time however, staff priorities have been such that the current list of significant trees has not been reviewed/revised since 1996. The proposed strategy embraces significant trees as an important part of the public urban resource, and so a review of the city's commitment to this program is required.

Engineering and Public Works

An urban forest management strategy is seen to be a progressive initiative, but not without implications for maintenance of public buildings, roads and storm drainage systems. Staff support goals such as urban forest enhancement, but have highlighted concerns for costs due to trees affecting public buildings, pavement, sidewalks, and curbs, and from fallen leaves blocking storm drainage catch basins. Hazards that may be created by tree roots heaving sidewalks have also been noted. Street tree interference with street lights is another issue that has been identified.

Tree planting has also become an integral part of new road construction within the city. Many trees have been planted along major city streets in the past several years. Although viewed mainly as a positive contribution towards city livability and identity, staff note that some business

owners have complained about the loss of visibility of their frontage due to the planting of street trees.

Law

Staff advised that in the case of unauthorized removal or pruning of trees on city owned lands, the city may seek damages which at minimum, would be based on the International Society of Arboriculture's method of appraisal.

The City's **Advisory Committee on the Environment** (ACE) has also reviewed the draft document (staff attended the ACE meeting of 31 May 2001). Support for the basic goals of the strategy was expressed by the members of ACE, with special regard to the recommendation that Richmond should have on staff a City Arborist who has overall responsibility for the management of City owned trees. The Parks department at this time has three members with International Society of Arboriculture "Arborist" certification, but the management of trees are only part of their responsibilities.

ANALYSIS

At this time, interest in and responsibility for the urban forest resource lies within many sections of the city, including: park operations, park design and planning, engineering planning, engineering design and construction, public works, inspections, policy planning, development applications, and inspections. Much work is already being done now to promote the urban forest and protect city owned trees. Among these initiatives include:

- The Partners for Beautification Program
- The Tree Donation Program
- Tree Inventory Program
- Proposed City of Richmond/B. C. Hydro Tree Protocol
- City Tree Nursery
- inclusion of a street tree layer within the Corporate G.I.S. network
- The Significant Tree Program
- adoption by the City of Richmond of various tree related by-laws and policies
- recognition of the importance of trees within the Official Community Plan
- research on the cost/benefits of using structural soils for street tree planting projects

The Urban Forest Management Strategy is seen as a prime vehicle for integrating together all these related activities. A key step towards complete establishment of the strategy will be the work required on the program's implementation actions. These actions are the means to achieve a cooperative, coordinated, intra-departmental approach towards safe, efficient, and sustainable management of our publicly owned trees.

Discussion will focus first on general roles and responsibilities for carrying out the broad goals of the strategy. Refinement will follow as various city departments review existing activities, and establish amongst themselves new and/or additional programs, procedures, guidelines, and regulations necessary for the day to day operations that involve city owned trees.

FINANCIAL IMPACT

There are no financial impacts at this time.

CONCLUSION

The draft Urban Forest Management Strategy represents an initiative to provide broad direction for the management of trees on city owned lands. Staff are recommending endorsement of the goals and policies of the overall Strategy so that work to further develop the implementation steps can proceed.

A handwritten signature in black ink, appearing to read "CSihoe". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Clarence Sihoe
Park Planner

CS2:scw

Urban Forest Management Strategy

(for trees on City owned lands)

City of Richmond
Parks, Recreation and Cultural Services Division

March, 2001

E. Lees & Associates, Consultants, Ltd.
Landscape Architecture and Planning

And

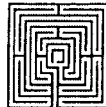
MVHA Consultants

Urban Forest Management Strategy

(for trees on City owned lands)

City of Richmond
Parks, Recreation and Cultural Services Division

March, 2001



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Urban Forest Management Strategy
(for trees on City owned lands)

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ATTACHMENT 1: Illustrative Examples of Significant Trees, Pruning and Construction Issues

ATTACHMENT 2: Summary of Public Lands Tree Policies from 10 BC Communities

1.0 INTRODUCTION

1.1 Overview

The urban forest in Richmond is part of the northwest temperate rainforest that once dominated the region. Richmond's urban forest is a vital part of its natural infrastructure and significantly contributes to what makes Richmond the "Garden City".

Progress

Over the past ten years the community, Richmond Council and Staff have embarked upon an ambitious campaign of further "greening" the community. Tree planting initiatives on public lands have expanded significantly. Medians have been planted, boulevards revitalized and parks have been beautified with trees. The Nations in Bloom program recognized Richmond with their top honour in 1999. Tree planting has been crucial to these initiatives and, as a result, the inventory of trees on public lands has increased considerably.

Value

Richmond's expanding urban forest is an invaluable community asset. From the urban centres of commercial and residential development to the agricultural green belts and shorelines that ring Richmond, trees knit the City together. These trees form a natural framework that filters air, mitigates climatic conditions, retains valuable soils, provides essential habitat for wildlife and forms an essential part of the rainwater recycling process. Beyond these natural attributes, trees soften the edges of the urban core, provide continuity in areas undergoing change and visually connect and define the character of entire neighbourhoods as well as special places in Richmond. The urban forest also reinforces the historical roots of the community. In practical and economic terms, trees decrease the cost of stormwater runoff systems, decrease energy consumption and contribute to increased property values.

Scope

The Richmond urban forest includes all trees growing individually, in groves, forests and woods throughout the City. These trees grow on public lands and farms, adjacent to waterways and roadways, in parks and open spaces and throughout public and private property.

Only those trees on public lands owned or under the jurisdiction of the City of Richmond are included in this urban forest strategy.

1.2 Urban Forest Management Strategy Objectives

- To provide direction for tree management on *public lands*
- To support the City's corporate vision to be the most appealing, liveable, and well managed community in Canada
- To support the long term "Garden City" vision for Richmond embodied in the Official Community Plan, other policies, by-laws and programs
- To articulate roles and responsibilities for tree management on public lands

1.3 Richmond's Urban Forest Vision

The goals and policies that constitute Richmond's Urban Forest Management Strategy are based on the following Vision:

"Richmond's urban forest will be retained, expanded and maintained to enhance the quality of life and ecological integrity of the City."

This urban forest vision is further supported by other City policies and by-laws that are listed in *Appendix A* of this document.

1.4 Format and Visual Guide

For easy reference, the Urban Forest Management Strategy is divided into four sections in the following sequence:

- **Goals:** set out the desired results of the strategy
- **Policies:** guide the decisions that direct action
- **Rationale:** explains the reasons for the policy
- **Implementation:** describes actions required to implement the strategy

The chart on the following page summarizes the goals, policies and implementations that constitute the Urban Forest Management Strategy.

Visual Guide to the City of Richmond Urban Forest Management Strategy

GOALS	POLICIES	IMPLEMENTATION
1. Tree Conservation	1a. Tree Retention Policies <ul style="list-style-type: none"> - General Tree Retention - Significant Tree Criteria - Heritage Trees 	<ul style="list-style-type: none"> - Create tree retention and replacement guidelines - Designate a staff person as the City Arborist - Review the significant tree program - Maintain the designated heritage tree program
	1b. Tree Removal Policies <ul style="list-style-type: none"> - Tree Removal Criteria - Replacement Requirement 	<ul style="list-style-type: none"> - Institute ISA standards for value, maintenance and hazard assessment - Review tree replacement requirements
	1c. Hazardous Tree Policies <ul style="list-style-type: none"> - Tree Removal Criteria 	<ul style="list-style-type: none"> - Develop an Urban Forest Risk Management Policy - Draft a Policies and Procedures Manual
2. Urban Forest Enhancement	2a. Tree Planting Policies <ul style="list-style-type: none"> - Public Planting Initiatives - Private Planting Initiatives 	<ul style="list-style-type: none"> - Enhance the tree planting budget - Coordinate tree planting plans with City infrastructure, private land development, and utility company plans - Coordinate work on City lands by public utilities, external agencies and schools - Plant street trees for new developments - Encourage sponsorships and contributions
	2b. Maintenance Policies <ul style="list-style-type: none"> - Tree Pruning /Maintenance - Public Utilities and Schools 	<ul style="list-style-type: none"> - Assign City Arborist to coordinate program - Develop a Best Practices Manual - Update the Fees and Charges Bylaw - Create a Schedule of Fees
3. Community Stewardship	3a. Community Partnership & Stewardship Policies <ul style="list-style-type: none"> - Education - Stewardship Programs 	<ul style="list-style-type: none"> - Initiate tree planting partnerships - Create tree retention and planting guidelines - Integrate public education initiatives with the Partners for Beautification Program. - Initiate stewardship programs with volunteers, crown agencies, schools and residents

2.0 GOALS

The following goals define the outcomes of the Urban Forest Management Strategy. They answer the basic question – what does the city want to accomplish within this strategy? The goals also set a foundation for the policies and rationales that follow. They represent the three strategic building blocks for the policy:

1. *Tree Conservation* - focuses on the importance of tree retention to protect the existing urban forest;
2. *Urban Forest Enhancement* - emphasizes planting and maintenance to expand, replace and maintain the urban forest; and
3. *Community Stewardship* - promotes partnerships, education and greater community responsibility for taking care of the urban forest.

2.1 Tree Conservation

The City of Richmond will *retain trees* where it is feasible and appropriate to do so without compromising public safety.

2.2 Urban Forest Enhancement

The City of Richmond will *enhance and maintain the urban forest* through planting and maintenance programs and established arboricultural practices.

2.3 Community Stewardship

The City of Richmond will continue to build partnerships with residents, businesses, developers and crown agencies to increase awareness and provide or facilitate tree retention, planting and maintenance programs for the community.

3.0 MANAGEMENT POLICIES

The following management policies expand on the goals set out in the previous section. Each *policy* includes a policy statement and explains the *rationale* or the *reasons why* the policy is necessary and implementation actions required to realize the goals of the strategy.

These policies are part of a tool kit for managing Richmond's urban forest. From tree retention and removal, to tree planting, maintenance and stewardship, this tool kit provides policies to fit the majority of situations that will arise as Richmond's urban forest is planted, nurtured and maintained. From time to time, the discretion of the General Manager, Parks Recreation and Cultural Services Division, or designate, will be required to administer these policies. Occasionally, issues with respect to the urban forest will also come before Council at which time elected officials will be required to consider tree matters within their unique context and the management policies described herein.

These management policies include all trees on *public lands or under the jurisdiction of the City of Richmond*. Included are city lands, roads, highways, parks, natural open space reserves and other areas under Richmond's management. *Preservation and management of trees on private property, with the exception of trees designated as significant, are not covered in this strategy.*

3.1 Tree Retention Policies

3.1.1 General Tree Retention

The City of Richmond will retain and protect individual trees, groups of trees, forest groves, or areas of land suitable for the replanting of trees where feasible and appropriate.

Rationale

This policy follows directly with Goal 1 – Tree Conservation, and the concept of *general tree retention* where feasible and appropriate. Existing trees are a critical part of the current community infrastructure and amenity system. Therefore, a general tree retention and protection policy is fundamental to the urban forest strategy and critical to maintaining a sustainable urban forest. It forms the foundation for all the other urban forest policies that follow.

Implementation

General Tree Retention

1. Review and evaluate existing tree retention, relocation and replacement guidelines and revise where necessary to support established/approved tree management standards;
2. Initiate tree protection requirements; and
3. Encourage tree retention in local neighbourhoods through stewardship and partnerships (see also Community Stewardship Policy 3.6).

3.1.2 Significant Tree Designation Criteria

The City will retain significant trees on City property (and encourage preservation of trees on private property designated as per the Significant Tree Program).

Rationale

This policy reflects the intentions of Goal 1 – Tree Conservation, and focuses on retaining what are considered *Significant Trees* in Richmond. The Significant Tree Program allows the City to track significant trees and encourage property owners to protect and retain them. This is a current program, with established criteria. (See Attachment 3)

Implementation

Review and evaluate the current significant tree program.

3.1.3 Designated Heritage Trees

The City will retain and protect heritage trees designated by Municipal Bylaw.

Rationale

This policy also reinforces Goal 1 – Tree Conservation, and emphasizes Heritage Trees. Heritage Trees differ from Significant Trees in that these trees have specific historical significance, normally judged by age and cultural importance. Damage to, or alteration of Designated Heritage Trees may be subject to compensation or penalties under the local Government Act.

Implementation

Maintain current heritage tree program.

3.2 Tree Removal and Replacement Policies

3.2.1 Tree Removal Criteria

If it is found that a tree cannot be pruned to remedy a specific condition or situation and not maintain its natural form or health, the City, upon approval of the General Manager Parks, Recreation and Cultural Services Division, or designate, may approve removal of the tree under the following specific conditions:

- 1. The tree is hazardous (see Hazardous Tree Policy 3.3 for details);**
- 2. There will be an unavoidable grade change that will significantly affect the health of the tree;**
- 3. The tree's health and general condition are poor; and**
- 4. The tree or part of the tree's trunk, branches or roots are unavoidably affecting public or private utility services, including water, paving, gas,**

telephone, telecommunications, electricity, sanitary and storm drainage and transportation services.

The General Manager Parks, Recreation and Cultural Services, or designate, will use the International Society of Arboriculture (ISA) tree appraisal method to determine the value of the tree, if necessary. That amount will be taken into consideration by the City of Richmond in cases where trees on public land or under the jurisdiction of the City of Richmond are removed without the General Manager Parks, Recreation and Cultural Services, or designate's, consent.

Roots, pests and diseases will not be considered as legitimate criteria for tree removal unless there is imminent danger or the situation is causing the tree significant and terminal decline that can not be rectified by management measures.

Rationale

Following Goal 1 – Tree Conservation and Policy 3.1, Tree Retention, trees should be retained where possible. The General Manager Parks, Recreation and Cultural Services, or designate will consider the criteria outlined in this policy to ensure that each tree is evaluated carefully before tree removal is permitted. In cases where a tree on public property or under Richmond's jurisdiction is removed without the General Manager Parks, Recreation and Cultural Services, or designate's, permission a fine will be levied based on the International Society of Arboriculture appraisal method. This is intended to deter such action in the future.

Where removal of a tree on public property is undertaken by the City, at the request of the applicant, all costs incurred as a result of that work will be borne by the applicant.

Implementation

Tree Removal Criteria

1. Designate a staff person as the City Arborist. This person, working under the aegis of the General Manager Parks, Recreation and Cultural Services, or designate, would evaluate applications and coordinate programs between departments, public utilities, business owners and residents;
2. Adopt International Society of Arboriculture standards to evaluate the value of and danger of trees;
3. Establish an Arborist's report format to confirm the condition of the tree to be removed, removal criteria suggested, and recommended course of action; and
4. Update the Fees and Charges Bylaw.

3.2.2 Tree Replacement Requirements

When trees are considered for removal a tree appraisal, based on the International Society of Arboriculture system, will be completed. A minimum 2:1 tree replacement ratio (2 trees replaced for every tree removed) will be required, at the cost of the applicant, where applicable. The replacement trees should be planted in accordance with planting

programs and, where applicable, established standards. In those instances where the General Manager Parks, Recreation and Cultural Services, or designate, deems it inappropriate to replant in the same location as the tree that was removed, a cash- in- lieu contribution equal to the planted cost of a minimum two trees will be required.

Rationale

This policy promotes Goal 1 – Tree Conservation, as it helps ensure that there is no “net loss” in the urban forest if and/or when trees must be removed. The replacement ratio ensures that, even if one of the trees dies or has reduced growth, that the replacements will eventually replace the biomass (quantity of tree) that existed in the original tree. Tree replacement also mirrors, in some respects, the healthy natural life cycle of a forest where there is constant growth, decline and death and then growth once again. The health, diversity and longevity of the sustainable urban forest depends on this replacement cycle in a similar manner, where dead or dying trees are replaced by healthier trees.

Implementation

Tree Replacement Requirements

1. Coordinate tree replacement requirements through the tree removal process outlined in 3.2.1. under the supervision of the General Manager Parks, Recreation and Cultural Services, or designate;
2. Initiate a tree replacement program for trees that are not expected to live longer than 10 years and are already showing signs of decline; and
3. Develop guidelines to minimize longer term costs of tree removal due to improper planting or plant selection. (This may include specifying structural soils, root barriers and developing construction details.)

3.3 Hazardous Tree Policy

3.3.1 Hazardous Tree Removal Criteria

If, in the opinion of the General Manager Parks, Recreation and Cultural Services, or designate or professional/consultants retained by the City, one or more hazardous conditions exist, or will be created as a result of actions planned in the near future, intervention appropriate to the perceived risk will be determined. The City of Richmond will address these situations as a first priority.

Rationale

This Hazardous Tree Policy bridges Goals 1 and 2, as it provides a means to conserve trees where possible, yet allows for tree removal or appropriate remediation measures for public safety. Given the climate and soils of the City, trees can grow very well and, at times very fast. As a result, some trees grow too large for their locations or, for biological reasons, begin to fail. Adverse weather conditions such as windstorms also add further potential problems. Hazardous trees require first priority attention due to the public safety implications.

Implementation

1. Develop hazardous tree criteria as part of the City's Risk Management Program; and
2. Inspect hazardous trees within the City's Risk Management Program and the Policies and Procedures Manual.

3.4 Tree Planting Policies

3.4.1 Public Initiatives

The City of Richmond will, to the extent possible through budget allocations, enhance the urban forest through planting, rehabilitation and appropriate arboriculture and silviculture practices.

Rationale

Tree planting is a crucial part of achieving Goal 2 – Urban Forest Enhancement. Tree planting includes the tree replacement program outlined in section 3.2.2 and expands the urban forest in areas that offer opportunity for tree planting.

Implementation

Develop tree planting programs for the replacement and enhancement of trees in the urban forest on city owned lands.

3.4.2 Private Initiatives

The City of Richmond will encourage tree planting on private property and City property, and in some cases, require tree planting on public lands related to new development. Any planting on city property must be approved by the General Manager, Parks, Recreation and Cultural Services, or designate.

Rationale

This policy articulates Goal 2 – Urban Forest Enhancement and Goal 3 – Community Stewardship, as it requires the cooperation of private individuals, businesses or developers. Coordination with private initiatives is a necessary part of a comprehensive urban forestry management strategy. As the City grows, tree planting on private property and support for planting on public lands will gain importance as critical components of Richmond's environment.

Implementation

1. Encourage urban forest initiatives on private lands; and
2. Develop programs that encourage tree planting on private property.

3.5 Tree Maintenance Policies

3.5.1 Tree Pruning and Maintenance Responsibilities

Any alteration to trees on City property, or under the City's jurisdiction, requires the approval of the General Manager, Parks, Recreation and Cultural Services, or designate. The General Manager Parks, Recreation and Cultural Services, or designate, will consider applications for pruning and maintenance utilizing the following criteria:

1. *The tree or parts of the tree may be hazardous (See Hazardous Tree Policy 3.3); and*
2. *The tree affects public or private utility services, including water, paving, gas, telephone, telecommunications, electricity, sanitary and storm drainage, and transportation services.*

Except under special circumstances, the following criteria will not be considered as criteria for tree pruning:

1. *The tree's effect on views into and out of the neighbourhood;*
2. *The effect of shade and sunlight penetration through the tree's canopy;*
3. *The creation of leaf, flower or fruit litter; and*
4. *The presence of disease and/or insects.*

Requests to prune trees on City boulevards or on properties under the City's jurisdiction, from private property owners or crown agencies, may be granted but requires the consent of the General Manager Parks, Recreation and Cultural Services, or designate.

Where removal of a tree on public property is undertaken by the City at the request of the applicant, all costs incurred as a result of that work will be borne by the applicant.

Any work on trees growing on public property or under the jurisdiction of Richmond must be completed by:

1. *A trained City worker, or*
2. *A contractor that meets all of the following criteria:*
 - a) *is a registered member in good standing of the International Society of Arboriculture;*
 - b) *has a current City of Richmond business licence;*
 - c) *has insurance naming the Corporation of the City of Richmond as a named insured for a minimum of \$1,000,000.00; and*
 - d) *is a registered employer, in good standing, with the Workers Compensation Board.*

(*Note: see Boulevard Maintenance Requirements By-law 7055 for private property owner obligations for maintenance of trees and shrubs fronting on City boulevards.)

Rationale

This policy responds to Goal 2 - Urban Forest Enhancement. As part of this policy, it is important that the General Manager Parks, Recreation and Cultural Services, or designate, consider the above criteria in evaluating pruning and maintenance requests so that the results are consistent and meet established arboricultural and risk management standards.

Implementation

1. Coordinate tree pruning and maintenance requests through the General Manager Parks, Recreation and Cultural Services, or designate; and
2. Create a Best Practices Manual for use by contractors and city staff.

3.5.2 Public Utilities, External Agencies and Schools

The City will work closely with BC Hydro, BC Gas, other public utilities, external agencies, and the School Board to ensure that the maintenance and pruning procedures are consistent with City standards and respect infrastructure requirements.

Rationale

This policy articulates Goal 2 – Urban Forest Enhancement and Goal 3 – Community Stewardship as it emphasizes urban forest improvements through a cooperative effort. Roads, sewer, stormwater, railways, dykes, electricity, gas, telephone and telecommunications are all integral parts of municipal infrastructure. Their safe and consistent operation is imperative. In addition, Richmond's schools frequently adjoin City parks or other public open spaces and therefore cooperative efforts are required for consistent and desirable urban forest practices.

Implementation

Public Utilities, External Agencies, and Schools

1. Develop a common set of Best Practices that coincide with City of Richmond standards of maintenance;
2. Create a central City staff contact position, under the General Manager Parks, Recreation and Cultural Services, or designate, that coordinates all internal City inquiries and other inquiries from public utilities, external agencies and schools regarding trees on City lands in Richmond; and
3. Develop a protocol with B.C. Hydro that establishes planting and maintenance standards with respect to trees located near overhead/underground utility lines.

3.6 Community Partnerships and Stewardship Policies

3.6.1 Education

The City of Richmond will continue to educate staff and citizens on the urban forest's value and its significant contribution to the City's quality of life.

Rationale

This policy advances Goal 3 – Community Stewardship. Increased awareness of the value of trees and their collective contribution as an urban forest is fundamental to the success of a broadly supported urban forestry strategy. With increased public awareness and tree value recognition, comes active participation and support for associated programs.

Implementation

1. Initiate a public information campaign involving printed materials on best planting practices, the value of trees, as well as appropriate introduced species and native species selection;
2. Provide support materials for developers, businesses and residents illustrating protection of trees during construction, tree contributions to property and amenity values, as well as tree planting guidelines; and
3. Integrate public education initiatives with the Partners for Beautification Program.

3.6.2 Tree Stewardship Programs

The City will develop tree stewardship programs in partnership with crown agencies, residents and businesses that promote the value of trees in the City.

Rationale

This policy reflects Goal 3 – Community Stewardship. Tree stewardship programs are a critical foundation for building partnerships, community awareness and ownership of tree-related policies. Supportive information and active programs invite the public to actively participate in sustaining the urban forest. These results improve the ecological integrity and quality of life in the City.

Implementation

Initiate stewardship programs with volunteer groups, crown agencies, schools and residents.

APPENDIX A
LISTING OF ASSOCIATED POLICIES, BY-LAWS AND REPORTS
(Listed in chronological order)

1. Tree Removal and Hedge Trimming By-Law No. 1308 (1954)
2. Tree Preservation and Removal (1986)
3. Protection of Significant Trees (1989)
4. Tree and Bench Donation (1991)
5. Criteria for the Protection of Environmentally Sensitive Areas (1991)
6. Unauthorized Changes and Damages to City Property Policy 9016 (2001)
7. Boulevards, Ditches and Trees (1994)
8. Ditch Filling and Construction of Ditch Crossings Regulation By-Law No. 6370 (1994)
9. Boulevard and Roadway Protection and Regulation By-Law No. 6366 (1994)
10. Tree Planting (Universal) Policy 5032 (1995)
11. To Regulate the Provision of Works and Services Upon Subdivision of Land By-Law No. 6530 (1996)
12. Parks, Open Space and Beautification Strategy (1997)
13. State of the Environment Report (1998)
14. Richmond Official Community Plan Schedule 1 of By-Law 7100 (1999)
 - a. Section 5.0: Natural and Human Environment
 - i. Sub-Section 5.3: Parks, Open Spaces, Trails and Greenways
 - b. Section 7.0: City Infrastructure
 - i. Sub-Section 7.9: Street Trees
 - c. Section 9.0: Development Permit Guidelines
 - i. Sub-Section 9.6: Environmentally Sensitive Area Guidelines
15. Driveway (Residential) Regulation By-Law No. 7024 (1999)
16. Boulevard Maintenance By-Law No. 7055 (2000)
17. Public Parks and School Grounds Regulation By-Law No. 6959 (2000)

**Attachment 1
Illustrative Examples of Tree Management, Planting and Significance of Trees in
Richmond**



Significant Tree: Horse Chestnut



Significant Tree: Large Douglas Fir



Significant Tree: Large Redwood



Tree Planting: Community spirit and Ceremony



Tree Planting: Enhancing Community and Health



Tree Planting: An Important Part of Urban Forest Management



Inappropriate planting pit, root protection



Root Disturbance Due to Sidewalk Construction



Inappropriate Tree Selection (near wires)



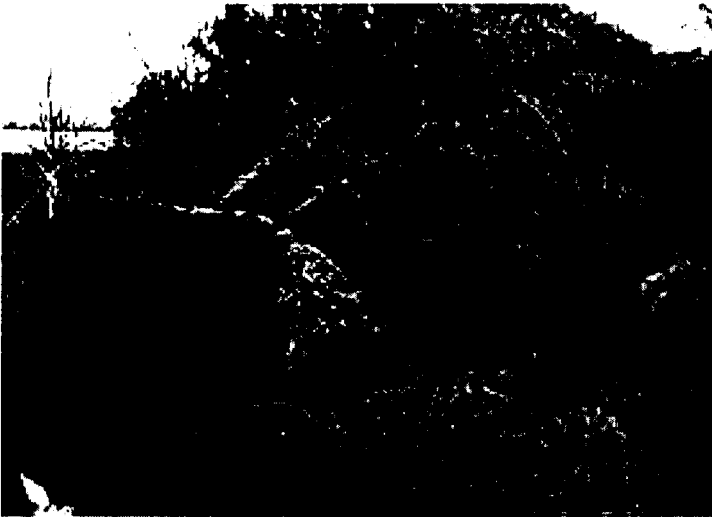
Root Damage due to Construction



Inappropriate Tree Pruning.....Leads to weak growth, prone to failure and disease



A good example of well pruned trees



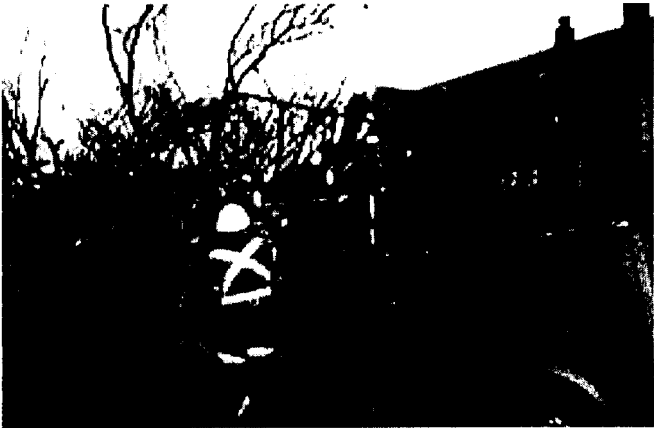
Low soil depth & High Water Table Can Cause Trees to Fall



Dead trees can be good habitat for birds and insects



A Major Limb has Torn Away



When Trees Fall, Serious Damage Can Result



New Construction will Affect this Tree



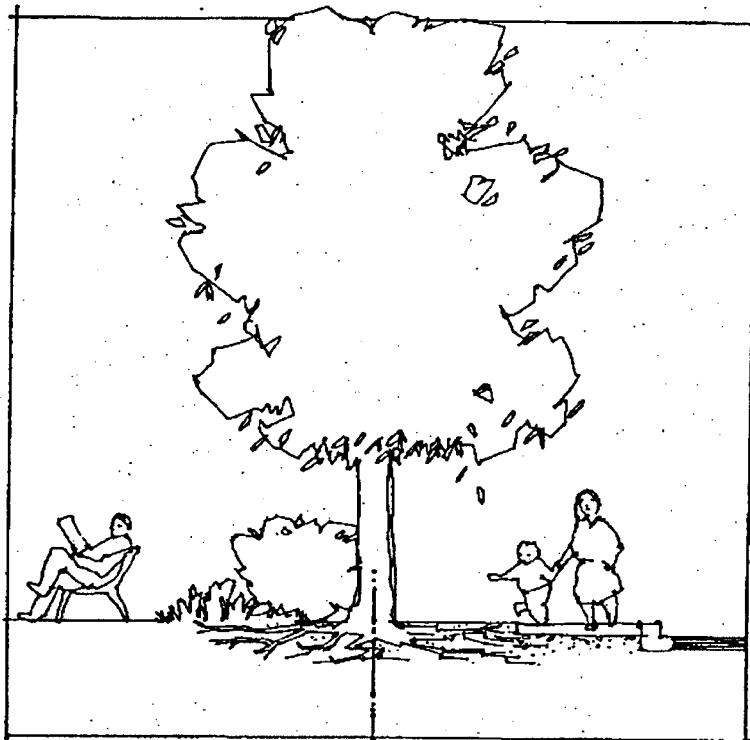
Disturbance of tree roots is a common problem on construction sites



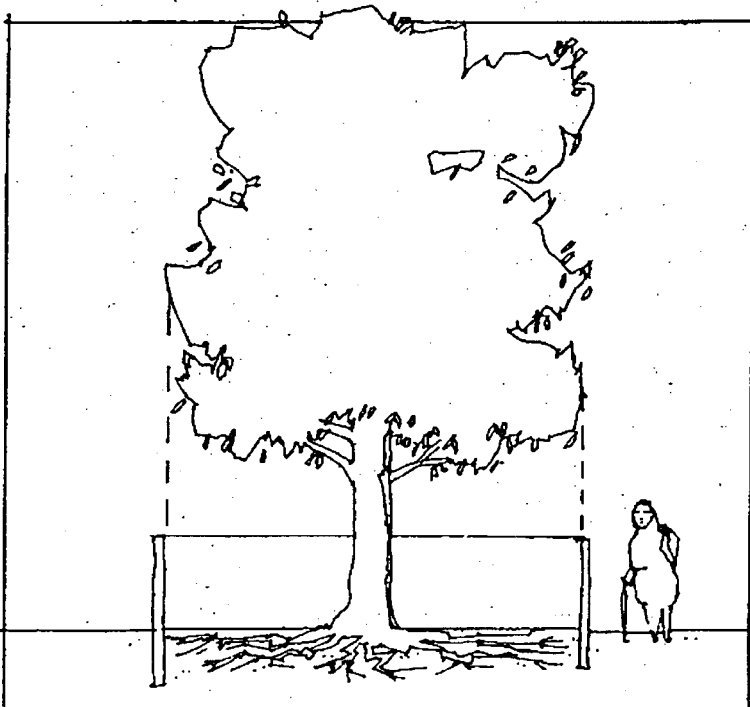
Debris, Compaction and Soil Contamination During Construction



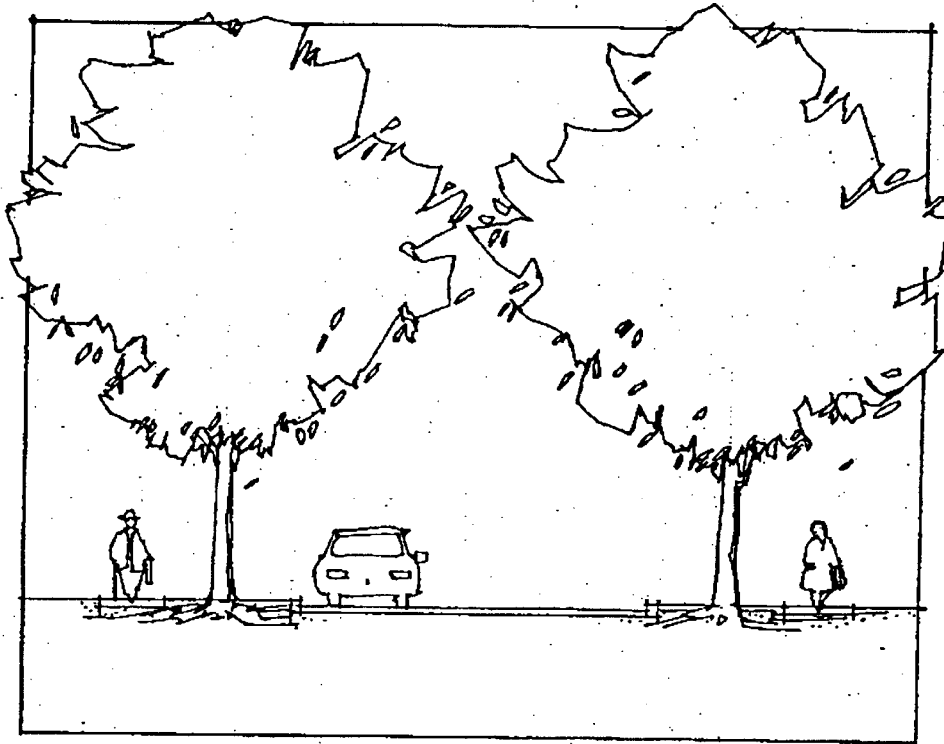
Protective Fencing assists in the Preservation of Trees and Structure of Soil Below the Tree



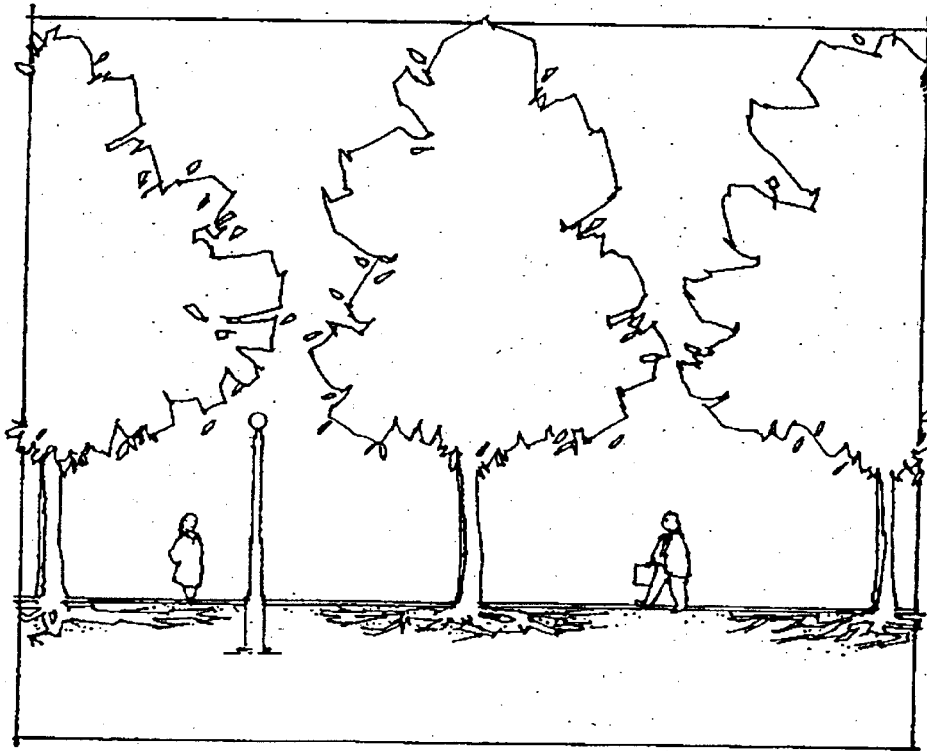
Trees Planted on Property Line can Often Cause Management Problems



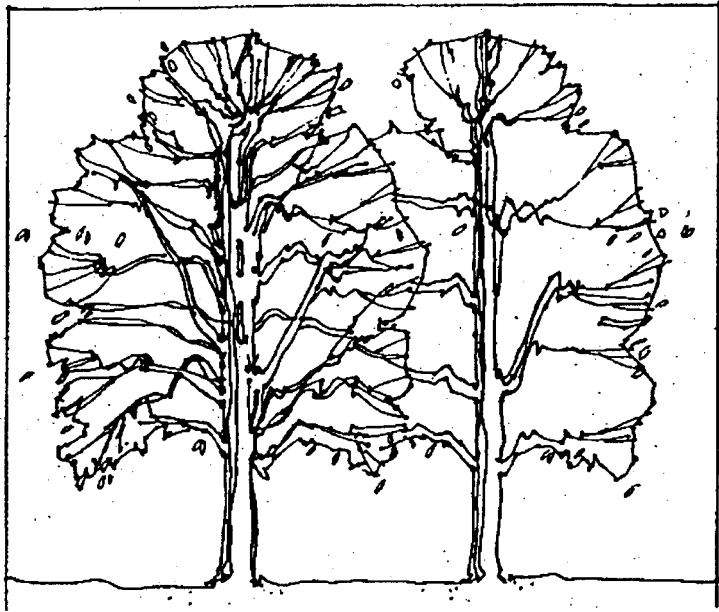
Protective Fencing Should be Installed at the "Drip Line" of Trees for Maximum Effect



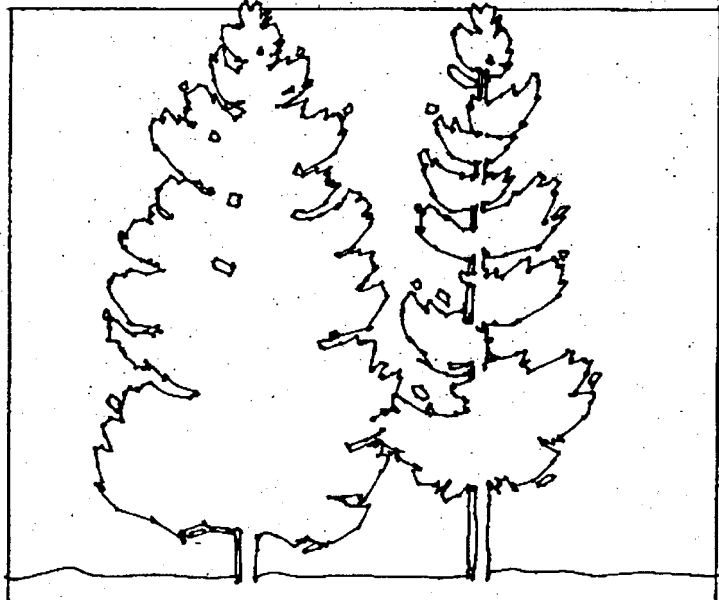
Tree Canopy Over a Street



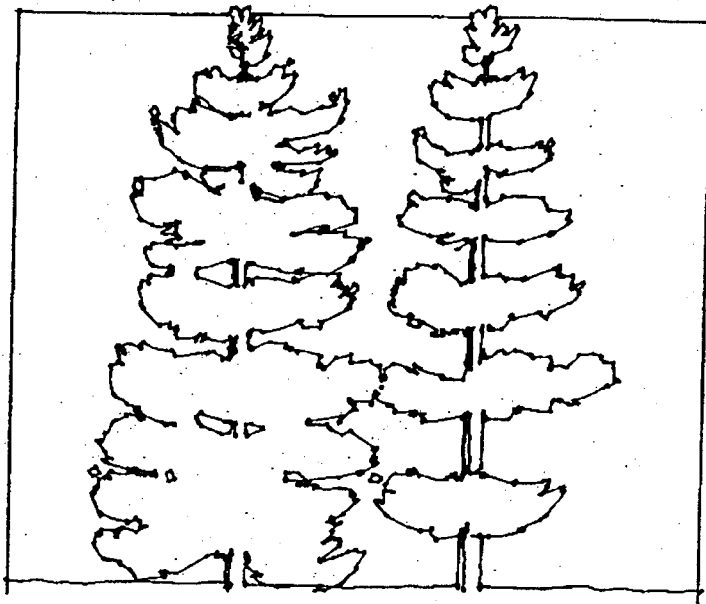
Tree Canopy Along a Street



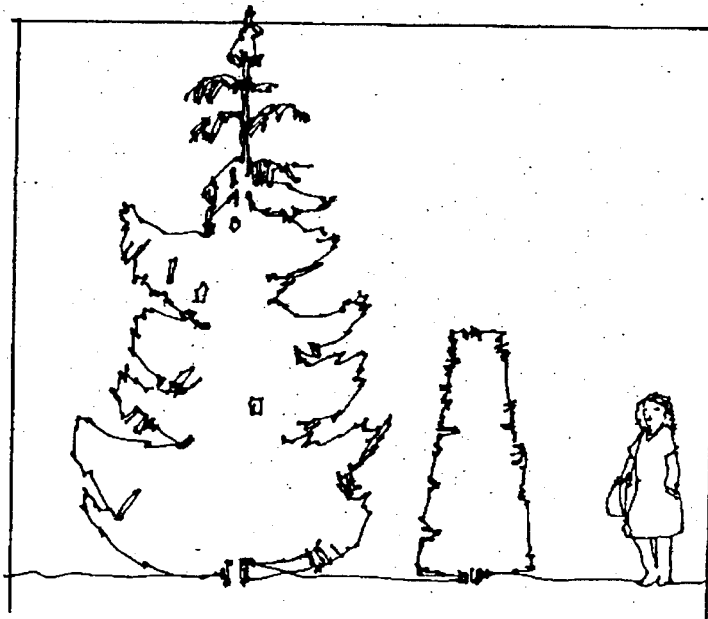
A Deciduous Tree Before and After it Has Been Thinned



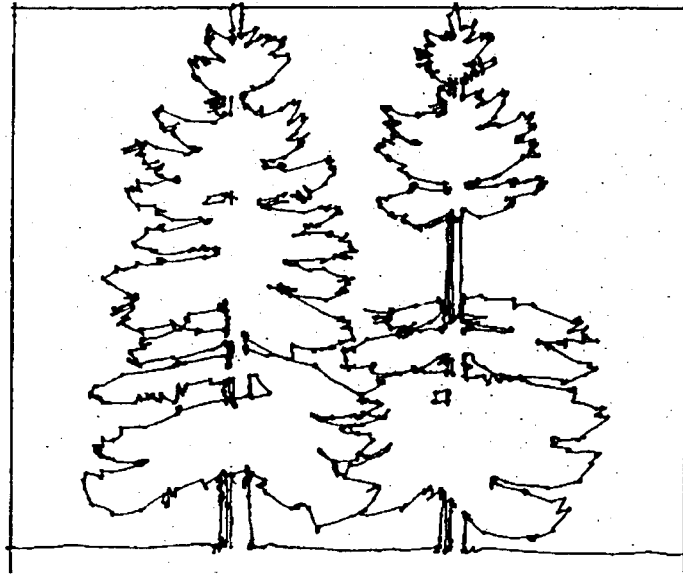
An Evergreen Tree Before and After it Has Been Thinned



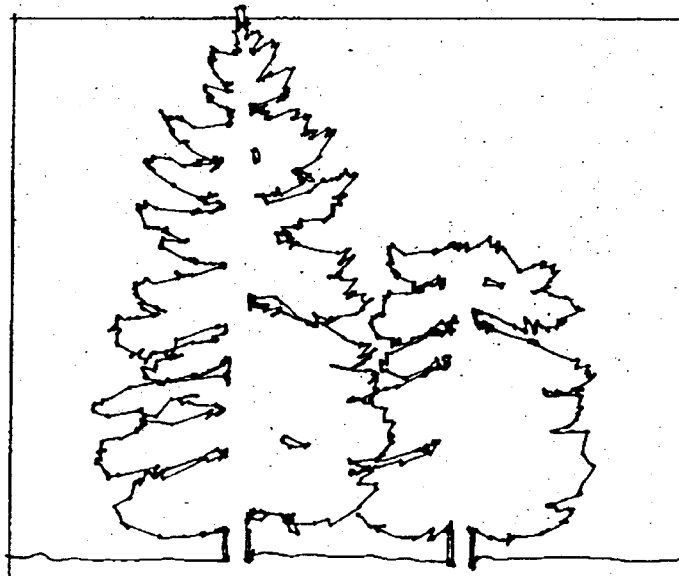
An Evergreen Tree Before and After it Has Been Spiral Pruned



A Natural Form Tree/ A Hedge Form of Same Species



An Evergreen Tree Before and After Window Pruning



An Evergreen Tree Before and After Topping (NOT a Recommended Practice)

Attachment 2: Public Lands Tree Policies in British Columbia

Policy Elements	District of West Vancouver	City of North Vancouver	Maple Ridge	City of Vancouver	Delta
1. Council approved policy for trees on public lands?	YES (in Draft)	YES	YES	YES	YES (in a Draft Urban Forest Management Strategy - UFMS)
2. Council approved policy for trees on private lands?	NO	NO	NO	YES	Currently under consideration
3. Consideration of requests for tree pruning for sunlight, leaf/flower litter or root problems?	YES	Only where required for health or maintenance of the tree(s)	NO, except under rare circumstances	Only where required for health or maintenance of the tree(s)	YES
4. If, yes, to #3, do you have written criteria for evaluating requests for pruning for sunlight, leaf/flower litter or root problems	YES	NO	NO	NO	YES, in the Draft UFMS
5. Training, WCB, Insurance, Business License required for contractors working on trees on Public lands?	YES	Only City Staff may work on public trees except with written permission by Mgr. Parks and Environment	WCB and \$5million liability insurance required	Vancouver Park Board does all work on public trees	Currently under review

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Attachment 2: Public Lands Tree Policies in British Columbia (Continued)

Policy Element	Township of Langley	Burnaby	Saanich	Surrey	Prince George
1. Council approved policy for trees on public lands?	Yes, in boulevard bylaw	Limited to policy for street tree planting during development.	NO	Yes	Yes, in Parks Bylaw & an Urban Forest Plan under development
2. Council approved policy for trees on private lands?	No	Yes	YES	YES, Policies and bylaws	YES
3. Consideration of requests for tree pruning for sunlight, leaf/flower litter or root problems?	NO	No except under extenuating circumstances	No, except under extenuating circumstances	Consider only for views and root problems	YES
4. If, yes to # 3, do you have written criteria for evaluating requests for pruning for sunlight, leaf/flower litter or root problems	NO	No	NO	NO	No written criteria
5. Training, WCB, Insurance, Business License required for contractors working on trees on Public lands?	WCB, Insurance and Business License required	WCB, Insurance and Business License required	YES	Training and certification varies depending on the type of work. WCB and Insurance (\$2 – 5 million) required	\$2,000,000 liability required for contractors working on public property

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