



City of Richmond

Report to Committee

To: General Purposes Committee
From: John Irving, P. Eng.
Manager, Building Approvals

Date: August 24, 2005
File: 08-4100-00/Vol 01

Holger Burke, MCIP
Acting Director of Development

Re: **Significant Trees on Private Property Management Program and Bylaw**

Staff Recommendation

1. That Council provide staff with direction on the preferred tree management option; and
2. That Council allocate council contingency funds and commit to additional level funding from general revenue of the amounts that support the selected option.

John Irving, P. Eng.
Manager, Building Approvals

Holger Burke, MCIP
Acting Director of Development

Jl:wc
Att.

FOR ORIGINATING DIVISION USE ONLY					
ROUTED TO:			CONCURRENCE		
Engineering	Y	<input type="checkbox"/>	N	<input type="checkbox"/>	CONCURRENCE OF GENERAL MANAGER
Community Bylaws	Y	<input type="checkbox"/>	N	<input type="checkbox"/>	
Law	Y	<input type="checkbox"/>	N	<input type="checkbox"/>	
Budgets	Y	<input type="checkbox"/>	N	<input type="checkbox"/>	
Parks Design, Construction & Programs..	Y	<input type="checkbox"/>	N	<input type="checkbox"/>	
REVIEWED BY TAG		YES	NO	REVIEWED BY CAO	
		<input checked="" type="checkbox"/>	<input type="checkbox"/>		
				YES	NO
				<input checked="" type="checkbox"/>	<input type="checkbox"/>

Staff Report

Origin

On April 19, 2005, the Planning Committee passed the following referral motion:

“That staff bring forward a report outlining options for the protection of significant trees on private property”.

On May 26, 2005, the Parks, Recreation and Cultural Services Committee passed the following referral motion:

“That staff bring forward a bylaw for the protection of trees on private property that would require a permit for the cutting of significant trees.”

This report responds to the first referral by proposing three options for tree management. Given the inconsistency between referrals, staff seeks Council’s direction to proceed with either one of the tree management bylaws options or the non-bylaw option.

Scope

This report only provides information on the management of significant trees on private property.

Findings Of Fact

Section 9.2.3A of the Official Community Plan (OCP) currently provides guidance on the preservation of trees through the development permit process. Staff currently negotiates the preservation of any significant trees using this guidance on a site by site basis. In addition to this practice, the City maintains a significant tree inventory and has designated some heritage trees.

Significant Tree Inventory

The City has a “Significant Tree Inventory” that was originally prepared in 1989 when property owners volunteered to have their trees evaluated for inclusion on the significant tree inventory. The “Significant Tree Inventory” was updated in 1996, including a re-assessment of the trees based on their ability to satisfy the following criteria:

- Structural Integrity/Condition;
- Size/Age;
- Unique Character;
- Rare Species Type;
- Particular Historical/Cultural Significance:
- Outstanding Group, Landmark or Heritage Area; and
- Visibility to the surrounding community.

There are approximately 110 trees or grouping of trees listed on the “Significant Tree Inventory”, however, there is no special protection allotted to these trees. These trees are identified in the City’s GIS system, a plaque is used to identify tree locations and effort is made to ensure these trees are maintained and preserved. Currently, staff would rely on negotiations during the redevelopment process to preserve these trees.

Heritage Designated Trees

Trees designated as “Heritage Trees” through a Heritage Designation Bylaw are formally protected from being cut down by bylaw and have an identification plaque placed there by the City. There are only two sites in Richmond that have specifically described the existing trees in order to ensure the “Heritage Trees” are protected:

- 6900 River Road (Brighthouse Homestead); and
- 10011 Cambie Road (Redwood Trees).

There are also a number of sites where the surrounding lands or a portion of the lands have been designated through a heritage designation bylaw (i.e. London Farm, Britannia Shipyard, etc.) where trees on these lands are afforded some protection provided they are part of the character defining qualities that are identified and protected through the Heritage Designation Bylaw.

Regional Practice

Staff have undertaken preliminary research to determine what types of tree management models are used in other Greater Vancouver Regional District (GVRD) jurisdictions (Attachment 1). Of the 16 jurisdictions surveyed, approximately 63% (10/16 jurisdictions) use a tree management bylaw, although the intent, scope and complexity vary by jurisdiction.

Table 1. Tree Management in the GVRD

Tree Management Type	No. of Jurisdictions
Management by Policy/OCP	6
Area/Development Specific Bylaw	4
Comprehensive Bylaw	6

Recent tree issues in the City have revolved around the preservation of significant trees. Feedback from other jurisdictions has identified the challenges associated with managing trees on private property. The experience of these jurisdictions has been that preservation of significant trees on private property is very difficult to achieve by any means; those that have an interest in removing a tree will do so regardless of the penalties imposed. Tree management policies and bylaws largely achieve long term success by ensuring replanting and reforestation.

Staff consulted with the Advisory Committee on the Environment (ACE), the Urban Development Institute (UDI) and the Greater Vancouver Home Builders Association (GVHBA) in the past on tree management options. The majority of members from these organizations expressed a general preference for a non-regulatory approach supplemented by public education and awareness. Further consultation with these groups would occur in researching and developing any selected option.

In addition to these challenges, the Community Charter prohibits any reduction of zoned density to accommodate tree retention unless compensation is provided to the landowner.

Analysis

Three (3) tree management options are provided for Council’s consideration. Tree management on private property typically occurs during two activities, property development and property maintenance. Options 1 and 2 are focused on property development while Option 3 encompasses property maintenance. The start up costs, staffing requirements, estimated implications to the City’s operating cost along with the anticipated results are detailed in **Attachment 2**.

Option 1 – OCP Tree Management

Development and Implementation Cost: - Staff time

Annual Direct Cost: - Staff time

- Pros:** - Reduction of the loss of significant trees on development sites
- Replacement of trees lost due to development

- Cons:** - Development related only
- Increased cost to developers

In this option it is proposed to broaden the OCP to include tree management for all development applications. The existing OCP includes provisions on:

- Encouraging developments to be designed to integrate and preserve existing trees where possible;
- Requiring information on existing trees as part of all development permit applications; and
- Encouraging replacement tree planting when existing trees cannot be retained.

A restrictive covenant for tree retention could be registered on Title of the subject site, as a condition of final approval, where tree retention is deemed possible. Should a tree be removed prior to Council’s final consideration of the proposal, the City would have to rely on a negotiated settlement with the applicant. If a tree identified for retention is removed after Council’s final consideration, the City could pursue legal action for violating the terms of the restrictive covenant or negotiate an acceptable resolution with the property owner/applicant. Negotiated resolutions would typically involve, appropriate replacement tree planting and/or monetary contributions to the City’s parks development fund.

This approach is similar to that used in Delta, City of North Vancouver, and Langley Township.

Option 2 – Development Specific Tree Management Bylaw**Development and Implementation Cost: - \$20,000**

Funding Source: Council Contingency

Annual Direct Cost: - \$150,000

Funding Source: GR Additional Levels

- 2 new positions

Pros: - Minimization of the loss of significant trees on development sites

- Replacement of trees lost due to development

Cons: - Development related only

- Increased cost to the City and developers

The primary goals and objectives for adopting a regulatory bylaw for tree management is to:

- provide replacement planting for the removal of significant trees;
- minimize the unnecessary removal of significant trees; and
- reduce the cutting or wilful damaging of significant trees.

Should Council wish to implement a tree management bylaw, there are a number of issues that must be considered (**Attachment 3**). As a result of these considerations, an increased implementation timeframe would be required to tailor a bylaw to the City's requirements.

The administration of a tree management bylaw would also require the establishment of full-time professional staff, which would be administered by the Building Approvals Department. For this option, it is anticipated Council would need to approve two (2) new permanent staff positions and an initial capital expenditure to establish the program. These positions and the supporting operating budget would need to be included in the 2006 budget.

To address development related tree management, a development specific tree management bylaw effecting applications requiring Council approval (e.g. rezoning, subdivision, development permit and development variance permit) and City permitting processes (e.g. building permit and demolition permit) could be pursued. A development specific tree management bylaw would:

- require tree retention potential to be assessed as part of all city development review processes;
- require a tree-cutting permit for any "significant tree" removal as part of a development application;
- legislate that replacement trees are provided as compensation for trees being removed; and
- levy appropriate penalties for unauthorized tree removal.

This approach is similar to that used in Burnaby.

Option 3 – Comprehensive Tree Management Bylaw

Development and Implementation Cost: - \$40,000

Funding Source: Council Contingency

Annual Direct Cost: - \$250,000

Funding Source: GR Additional Levels

- 3 new positions

Pros: - Minimization of the loss of significant trees on all private property

- Replacement of trees lost due to property development and maintenance.

Cons: - Development related only

- Highest cost to the City and increased cost to developers

A comprehensive tree preservation bylaw requiring a City issued tree cutting permit to remove any “significant tree” would address both tree management activities (e.g. property development and property maintenance). This approach is similar to that used in Vancouver, Surrey, and the District of North Vancouver. In addition to those benefits realised under Option 2, a comprehensive tree preservation bylaw would:

- require information on tree health to be provided and/or an inspection by City staff prior to a tree cutting permit being issued;
- legislate that replacement trees are provided as compensation for tree removal; and
- levy penalties for unauthorized tree removal, regardless of when the “significant tree” removal occurs, in accordance with the provisions of the Local Government Act and the Community Charter.

To implement a comprehensive tree preservation bylaw, it is anticipated Council would need to approve three (3) new permanent staff positions and an initial capital expenditure to establish the program. These positions and the supporting operating budget would need to be included in the 2006 budget.

Communication and Education

Public and stakeholder communication and education would be key components of all three options. Stakeholder input and feedback would be sought in the development and implementation stages and educational programs would continue through the operational phase of any selected tree management program.

Tree Management Option Comparative Analysis

The following table summarizes whether each tree management option would deal with tree cutting associated with a specific activity.

Table 2. Option Comparison

Tree Management Situation/Issue	OCP Tree Management	Development Specific Tree Management Bylaw	Comprehensive Tree Management Bylaw
	Option 1	Option 2	Option 3
Development Applications requiring Council Approval	Yes	Yes	Yes
Building Permit & Demolition Permits	No	Yes	Yes
Tree cutting prior to application submission	No	No	Yes
Property Maintenance	No	No	Yes
Est. time to full implementation	4 Months	4 Months	6 Months
Start-up/Research Cost	Staff time	\$20,000*	\$40,000*
Est. Annual Direct Cost	-	\$150,000**	\$250,000**

* Funding Source – Council Contingency
 **Funding Source – GR Additional Levels

Table 3 provides a comparison of how tree management would be provided under each of the options and the status quo.

Table 3. Example Case

Tree Management Option	Status Quo	OCP Tree Management	Development Specific Tree Management Bylaw	Comprehensive Tree Management Bylaw
		Option 1	Option 2	Option 3
Illegal to cut prior to development application	No	No	No	Yes
Negotiated preservation at development application stage.	Yes	Yes	Yes	Yes
Recourse if infraction occurs	Negotiated monetary compensation and replacement planting	Negotiated monetary compensation and replacement planting	Fine of \$10,000 max. on summary conviction	Fine of \$10,000 max. on summary conviction

Financial Impact

Depending on the tree management option selected by Council, the City can anticipate an increase to the annual operating budget either through increased process timeframes or the establishment of fulltime permanent positions required to administer the tree preservation bylaw (**Attachment 2**).

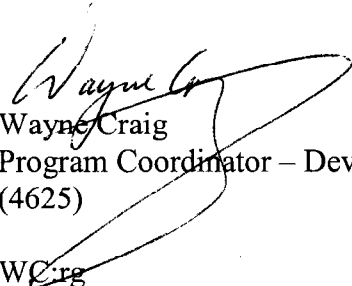
In the most expensive option, (Option 3), this amount could total almost \$300,000 in the first year. While a fee would be levied to recover some of the administration costs, regional experience demonstrates that the revenues do not cover the costs or generate surplus revenues.

Conclusion

Implementing a tree management bylaw will not guarantee significant trees are retained through the redevelopment process as tree retention may not be possible or desirable under certain circumstances. However, adopting a bylaw will provide staff, developers and residents with a clear understanding of what the expectations are for appropriate tree management. In addition, a bylaw can be expected to have a lasting positive impact on tree replacement and reforestation.

This report is intended to provide Council with information on various tree management options and to seek direction on what tree management option is the most suitable for the City. The pros and cons, implications and anticipated result of three (3) distinct tree management models have been summarized for Council consideration (**Attachment 2**).

Upon further direction from Council, staff will bring forward the requested tree management OCP amendment or bylaw for Council consideration.



Wayne Craig
Program Coordinator – Development
(4625)
WCrg

Tree Protection Model Comparison – Several GVRD Municipalities

Policy Approach to Tree Management

MUNICIPALITY	TREE MANAGEMENT DESCRIPTION
City of Langley	<ul style="list-style-type: none"> No Permit or Bylaw Protection for trees on private property. No tree cutting permitted in ESA unless approved through a DP.
City of North Vancouver	<ul style="list-style-type: none"> No Permit or Bylaw protection for trees on private property. City of North Vancouver relies on negotiations during rezoning if there are trees that have retention potential.
Delta	<ul style="list-style-type: none"> No Permit or Bylaw protection outside of Burns Bog. Delta relies on OCP policies and negotiations during rezoning and subdivision in an attempt to preserve trees. Development Permit areas to protect the natural environment, including DP Areas for all properties along watercourses and along steep slope/hazard areas. Guidelines for these areas encourage the retention of as much vegetation as possible. Other tools used are ESA designations (no tree cutting permitted) & restrictive covenants.
District of West Vancouver	<ul style="list-style-type: none"> No Permit or Bylaw Protection for trees on private property. Other tools used are ESA designations (riparian setbacks) & private restrictive covenants.
Township of Langley	<ul style="list-style-type: none"> No Permit or Bylaw Protection for trees on private property. Tree Protection Policy adopted by Council in 2003 requires tree protection plan, Arborist report, tree retention/construction protection drawings and tree replacement.
District of Pitt Meadows	<ul style="list-style-type: none"> No Permit or Bylaw Protection for trees on private property.

Area or Development Specific Tree Management Bylaw

MUNICIPALITY	TREE MANAGEMENT DESCRIPTION
City of Coquitlam	<ul style="list-style-type: none"> Tree Bylaw covers specific areas only (ESA, Slopes, Riparian & Forested Areas). Permit required within defined tree cutting permit areas only. Other tools include restrictive covenants outside the areas designated as requiring a tree cutting permit.
New Westminster	<ul style="list-style-type: none"> Bylaw regulates or prohibits the cutting of trees in "...areas that it considers may be subject to flooding, erosion, land slip or avalanche". Permit required within defined tree cutting permit areas only.
City of White Rock	<ul style="list-style-type: none"> Tree Bylaw covers specific areas only (Ravines and Significant Tree Stands) Established procedures for tree cutting within the defined areas.

June 3, 2005

Development Specific Tree Management Bylaw

MUNICIPALITY	STAFF	IMPLEMENTING DEPARTMENT	MANAGEMENT DIVISION	COST (ANNUAL)	REVENUE (TOTAL)	REVENUE (NET)	PERMIT FEES (CATEGORIES)	PERMIT ORIGINS
Burnaby • Burnaby Tree Bylaw	1	Building Department	Supervisor Bylaws, Ass Chief Insp, Chief Bldg Insp	\$75,000	\$31,000	\$42,000 Net Loss	1 st Tree: \$55.00 All Others: \$27.50 Max Fee: \$250.00	Dev Apps: 100% Bylaw only effects SFR & duplex lots when a demo permit is required

Comprehensive Tree Management Bylaw

MUNICIPALITY	STAFF	IMPLEMENTING DEPARTMENT	MANAGEMENT DIVISION	COST (ANNUAL)	REVENUE (TOTAL)	REVENUE (NET)	PERMIT FEES (CATEGORIES)	PERMIT ORIGINS
District of North Vancouver • Environmental Protection & Preservation Bylaw	1	Environmental Preservation	GM, Environment GM, Planning	Cannot be estimated	Cannot be estimated	Cannot be estimated Net Loss	Variable: 1-3 trees: \$69.75 4+ trees: \$214.25 > 1 ha not SD related: \$1821.00	Property Maintenance: 70% Dev Apps: 30%
District of Maple Ridge • Tree Protection Bylaw	1	Development & Environmental Services	Director, Planning	Cannot be estimated	Cannot be estimated	Cannot be estimated Net Loss	Variable: Based on number of tree removed and site area	Primarily Property Maintenance as Development Exemptions apply
City of Port Moody • Tree Retention Bylaw	1	Planning & Development Services	Director, Planning & Development Services	Cannot be estimated	Cannot be estimated	Cannot be estimated Net Loss	Tree Removal Permit: \$325.00 per permit	Primarily Dev Apps Specified Property Maintenance exemptions
Vancouver • Private Property Tree Bylaw	3.5	Enquiry Centre, Dev Services, Community Services Group Heritage Register	Manager, Enquiry Centre	\$215,005 (2005)	\$195,805 (2004)	\$19,200 Net Loss	1 st Tree: \$47.00 All Others: \$78.00	Property Maintenance: 50% Dev Apps: 50%
Surrey • Tree Preservation Bylaw	4	Landscape Department	Manager, Building Division GM, Planning & Development	\$235,500	\$65,000- \$200,000 annually	Net Loss (Actual loss varies annually)	Variable SFR: zoning district \$/No. of lots Multi: land area \$/acre Comm/Ind: land area \$/acre	Primarily Dev Apps related although information inquiries generate substantial admin workload
City of Port Coquitlam • Tree Bylaw	Under Review	Parks & Recreation Department	GM, Parks & Recreation Department					<ul style="list-style-type: none"> • Tree Bylaw was adopted in March 2005. • Financial statements cannot be determined due to recent adoption. • Majority of recent inquiries are related to property maintenance.

Prepared by: City of Richmond Staff

Options for Managing Significant Trees on Private Property

Option	To Study	Set Up Costs (Est.) One Time Additional Level to Operating Budget	Ongoing Costs Additional Level to Operating Budget	Effectiveness (Pros & Cons)
<p>OCP Tree Management Council adopts a Policy requiring:</p> <ul style="list-style-type: none"> - Tree Survey and/or Arborist Report for development applications (e.g. rezoning, subdivision, development permit & development variance permit). - Replacement trees for "significant" tree removal encouraged & negotiated by staff through rezoning process. - Trees identified for retention are protected through a Restrictive Covenant Registered on Title - Tree protection barriers required during demolition and construction 	<ul style="list-style-type: none"> - Policy preparation & implementation 	<ul style="list-style-type: none"> - Existing staff time with an impact on existing workloads - Increased processing time 	None	<p>Pros:</p> <ul style="list-style-type: none"> - Slight Improvement in tree retention & replacement - Administration handled by existing staff resources with slight increase in processing time <p>Cons:</p> <ul style="list-style-type: none"> - No legislative authority - No control over tree cutting unless development related (e.g. property maintenance or tree cutting prior to application submission) - Increased cost to developers
<p>Tree Management Bylaw – Development Application Specific Tree management bylaw triggered by all development applications and city permitting processes (e.g. rezoning, subdivision, development permit, development variance permit, <u>building permit & demolition permit</u>).</p> <ul style="list-style-type: none"> - Tree Survey and/or Arborist Report for all development applications & city permitting processes - Tree Cutting Permit required for tree removal as part of City review - Tree protection barriers required for existing trees during demolition and/or construction - Replacement trees legislated for: <ul style="list-style-type: none"> ▪ "significant tree" removed ▪ new development/redevelopment 	<ul style="list-style-type: none"> - Best Practices study - "Significant" tree determination - Existing tree inventory study - Legal review - Risk & Liability assessment - Bylaw preparation 	<p>Start up Costs:</p> <ul style="list-style-type: none"> - Staff draft a bylaw by redistributing existing workloads; or Consultant retained to draft bylaw - \$20,000 	<p>Staffing Requirements:</p> <ul style="list-style-type: none"> - Arborist - Plan Checker - City Vehicle <p>Est. Operating Cost:</p> <ul style="list-style-type: none"> - \$150,000 <p>Revenue:</p> <ul style="list-style-type: none"> - tree cutting permit fees & fines <p>Net Loss in Operating Cost</p>	<p>Pros:</p> <ul style="list-style-type: none"> - Increased tree protection & legislated tree replacement - Directly related to development process <p>Cons:</p> <ul style="list-style-type: none"> - No control over tree cutting unless development related (e.g. property maintenance or tree cutting prior to application submission) - Increased application review time - Increased cost to developers - Increased cost to City

Option	To Study	Set Up Costs (Est.) One Time Additional Level to Operating Budget	Ongoing Costs Additional Level to Operating Budget	Effectiveness (Pros & Cons)
<p>3</p> <p>Comprehensive Tree Management Program and Bylaw Tree management bylaw that requires a City issued tree cutting permit prior to cutting any defined "significant tree" - Tree Survey and/or Arborist Report for all development applications & city permitting processes - Tree Cutting Permit required for tree removal, including property maintenance - Tree protection barriers required for existing trees during demolition and/or construction - Replacement trees legislated for: <ul style="list-style-type: none"> ▪ "significant tree" removed ▪ new development/redevelopment </p>	<ul style="list-style-type: none"> - Best Practices study - "Significant" tree determination - Existing tree inventory study - Legal review - Risk & Liability assessment - Bylaw preparation 	<p>Start up Costs:</p> <ul style="list-style-type: none"> - Staff draft a bylaw by redistributing existing workloads; or - Consultant retained to draft bylaw - \$40,000 	<p>Staffing Requirements:</p> <ul style="list-style-type: none"> - Arborist (2x) - Clerk - City Vehicle <p>Est. Operating Cost:</p> <ul style="list-style-type: none"> - \$250,000 <p>Revenue:</p> <ul style="list-style-type: none"> - tree cutting permit fees & fines <p>Net Loss in Operating Cost</p>	<p>Pros:</p> <ul style="list-style-type: none"> - Greatest potential improvement in tree retention & replacement <p>Cons:</p> <ul style="list-style-type: none"> - Highest operating costs - Increased application review time - Increased cost to developers - Increased cost to City

Prepared by City Of Richmond Staff

Consideration for Preparing a Significant Tree Management Bylaw

Based on preliminary bylaw research, developing an effective Significant Trees on Private Property Management Program can be expected to involve the following stages:

1. Tree Management Program and Bylaw Development

To prepare such a Program, the following is involved:

- Research to determine:
 - What constitutes a “significant tree”
 - What will be regulated (e.g., tree cutting, pruning, wilfully damaging a tree, etc.);
 - Any exemptions (e.g., pruning, dead trees, damaged trees, roots which damage underground systems, hazardous trees);
 - Problem trees (e.g., Linden, London Plane, European Ash, Tulip, Lombardi Poplar) which are to be discouraged;
 - Trees in Environmentally Sensitive Areas (ESA’s) which are to be managed differently than non ESA areas;
 - How the requirement will apply when tree removal requests result from development applications, property maintenance, hazardous conditions or interference with public utilities;
 - Application requirements and procedures;
 - Inspection requirements;
 - Staffing requirements;
 - Bonding for trees;
 - Enforcement requirements;
 - Offence penalties;
 - Equipment requirements;
 - Public education (e.g., for property owner, developers, contractors);
 - Administration based on a cost recovery model;
 - Implications to existing City bylaws and policies (e.g., The Public Parks and School Grounds Bylaw, the Boulevard Maintenance Bylaw);
 - Which department will manage the program;
 - Which departments will be involved in the program; and
 - Other, as necessary.

2. Tree Management Program and Bylaw Adoption

To adopt such a Program, the following is involved:

- General Purposes Committee review;
- Public consultation;
- Program revisions;
- General Purposes Committee approval; and
- Council approval.

3. *Tree Management Program and Bylaw Implementation*

To implement such a Program, the following is involved:

- Building an awareness of the program through a public (e.g., for property owner, developers, contractors, public) education program;
- Answering inquiries;
- Providing tree management advice;
- Inspections;
- Approvals;
- Bonding;
- Enforcement; and
- Penalties.

Additional Considerations

Based on current redevelopment trends over the past few years, the City can expect annually to receive approximately:

- 125 rezoning applications;
- 45 Development Permit applications;
- 1,750 Building Permit applications; and
- 275 Demolition Permit applications.

Based on the experience of other jurisdictions that use a regulatory tree management approach on private property, Richmond can expect to:

- Receive daily inquiries from the public, many of which may require research, a site inspection, return calls and documentation;
- Conduct site inspections to ensure tree protection barriers are installed, review hazardous tree claims along with conducting additional site visits during the permit review process to ensure accurate information is provided on tree health, location, quantity and retention potential;
- Process between 150 and 300 Tree Permit applications annually, although the actual number of Tree Permit applications would depend largely on the tree management model employed;
- Deal with a variety of enforcement issues for those who do not comply with the bylaw; and
- Continue to educate the public on the value of trees, the reasons why some existing trees cannot be or should not be preserved, and why a municipality can not use a tree preservation bylaw to prevent a property owner from developing a piece of land to the entitled density.