



City of Richmond

Report to Committee

To: General Purposes Committee  
From: John Irving, P. Eng.  
Manager, Building Approvals  
Re: Permanent Tree Protection Bylaw – Six-Month Status Report

To General Purposes Nov 6, 2006

Date: October 23, 2006

File: 12-8060-20-8057

Staff Recommendation

- 1. That the Richmond Tree Protection Bylaw 8057, Amendment Bylaw 8157 be introduced and given first, second and third readings.

FOR John Irving, P. Eng.  
Manager, Building Approvals  
(4140)

FOR ORIGINATING DIVISION USE ONLY			
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>	
Law .....	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
Parks .....	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
Development Applications .....	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
Bylaws .....	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
<b>REVIEWED BY TAG</b>	YES <input checked="" type="checkbox"/> GJ	NO <input type="checkbox"/>	<b>REVIEWED BY CAO</b>
			YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>

**Staff Report**

**Origin**

At the April 10, 2006 Regular Council meeting, Council passed the following referral motions in relation to the adoption of the Tree Protection Bylaw 8057:

*“That staff report to Council through Committee six months after implementation on the status of the bylaw.”*

*“That staff report to Committee on incentives for appropriate tree plantings for residents and developers.”*

This report is provided in response to these referrals.

**Findings Of Fact**

Current Activity Update

The current Tree Protection Bylaw 8057 has been in effect since May 9, 2006. The following highlights key permit numbers for the nine months from the interim bylaw adoption on December 19, 2005 through to September 21, 2006:

	<b># of Tree Permit Applications</b>	<b># of Trees Applied for Removal</b>	<b># of Trees Approved for Removal</b>	<b># of Replacement Trees</b>
<b>Single-tree Permits</b> (no replanting required)	268	268	250	169*
<b>Multi-tree Permits</b>	188	1297	1159	1329
<b>Total</b>	<b>456</b>	<b>1565</b>	<b>1409</b>	<b>1498</b>

\*Voluntary replanting indicated by applicant

Further detail is provided in **Attachment 2**.

The majority of permit applications have been for a single tree, for which no replanting is required, however these applications represent only 17% of the total number of trees included in all applications. In spite of replanting not being required for the single tree applications, bylaw ordered replanting has exceeded removals so there has been a net tree gain to-date. In addition, there have been over **150 trees saved** through the whole or partial rejection of permits.

### Customer Service Evaluations

Customer service and the timely response to requests for information, scheduling of visits, contacts for permit pickup etc. are a priority. A customer service evaluation form on tree bylaw processes was mailed to 473 tree permit applicants (all listed owners and any tree service contractors with business licences in Richmond) on July 27, 2006. Thirty-five evaluations have been returned, yielding a response rate of 8%.

Applicant's responses indicate that the permit process experience was very good, with over 80% of the responses being positive. Details of the survey results can be found in **Attachment 3**. Development of the permitting process is ongoing and future customer service evaluations will be conducted to monitor performance.

### Enforcement

Tree bylaw staff respond to complaints of non-permitted tree removal on a regular basis. To enhance enforcement, an out-of-hours call out process has been implemented to ensure prompt response to weekend and evening tree cutting complaints. The majority of complaints are related to a permitted removal or other permitted development related activity.

To-date Staff have identified approximately 16 significant bylaw infraction cases: nine of these cases have been resolved cooperatively, two have been referred to legal counsel for court action, and five are being pursued but remain unresolved.

### Program Development

The Bylaw approval process is being further refined. As of August 2006, with the filling of the new Tree Preservation Official and Tree Bylaw Clerk positions, all Tree Removal Permit applications have had a site visit, and the permit processing targeted at three business days. Three information Bulletins have been developed and additional materials are under development which clarify and emphasize tree protection issues. With the filling of the Tree Preservation Coordinator position on September 5, 2006, the Tree Protection Bylaw program is now fully staffed.

Development of information materials regarding tree care has been initiated. Three information Bulletins have been issued to-date and additional materials are under development which will further clarify and emphasize tree protection issues. Tree care workshops are being developed and conducted to educate City residents about proper tree care, as well as to further educate them about the Tree Protection Bylaw. Local newspapers have been approached regarding the establishment of a periodic article about trees and tree care in Richmond.

Staff are continuing to build tree bylaw information on the City's website and there is now the equivalent of five pages of tree bylaw information available on the website in addition to the bylaw itself. Communication and information efforts to-date have been highly effective and the vast majority of homeowners, contractors, and developers encountered by staff are aware of the tree bylaw requirements.

### Incentives for Tree Planting

The retention and increase in green space and tree cover are an important element in the City's goals, as identified in the *Official Community Plan* and reiterated most recently in the *2005 - 2015 Parks, Recreation and Cultural Services Master Plan*. Richmond has a number of programs and groups already established which promote community action on the environment, from the Advisory Committee on the Environment to the Partners for Beautification (which includes the Adopt-a-Tree Program). There is also a memorial tree planting program administered by Parks. On private property, there are two key audience groups defined for the purposes of providing tree planting incentives: residents and developers.

#### *Incentives for Developers*

Through the development permitting process, developers are required to provide landscaping and replanting in accordance with the City's zoning bylaw, The Official Community Plan and Development Permits Guidelines. An appropriate level of incentive exists to ensure the City's replanting objectives are being met when development occurs, however, the success of tree plantings in past developments has been inconsistent due to landscape plans not always observing the best practices for long-term tree installations.

The tree bylaw program has become integrated into existing City development processes; starting in mid-September, site visits for tree assessment are now carried out for all demolition permits and development and rezoning applications. Further refinement of the development related procedures and effectiveness is on-going. In this way, the tree bylaw staff's professional arboricultural expertise is being applied to ensure development related tree plantings are appropriate and sustainable for the long term.

#### *Incentives for Residents/Owners*

Experience with implementation of the tree bylaw to-date has revealed that there exists considerable misinformation and poor practice with regard to tree care and planting. Many property owners appear motivated to plant and maintain trees, but they lack that quality advice and information that would allow them to make successful decisions. Current tree topping practices (discussed in the analysis section) are a key example of this.

Some incentive programs for tree planting that exist in other jurisdictions are outlined in **Attachment 4**. Staff believes some of these programs may be effective solutions for Richmond in the future, but communication and education would be the most effective methods to use in the next few years. Addressing the information gap will ensure that residents, owners and the contractors they use can make quality decisions on tree care and planting. This will be accomplished through the ongoing program development discussed on page 3.

Staff will continue to monitor and assess tree planting incentive programs for future consideration and implementation in Richmond.

## Analysis

Experience with the bylaw to-date has allowed staff to identify two areas for improvement, related to hedges and topping. Reflecting the following recommended changes, Amendment Bylaw 8157 is presented in **Attachment 1**.

### Hedges

The majority of hedges in Richmond fall within the description discussed prior to the revision of the Tree Protection Bylaw, in that hedges will not meet the 20 cm dbh requirement, even when the multiple stem rule is used. However, there have been occasional cases where an overgrown hedge actually meets the 20 cm requirement. While each tree in a hedge could be a significant tree on its own, the close spacing of similarly-sized trees means that they are not individually significant since they are unable to contribute any real value to the environment singly (poor form, history of topping etc.).

In the Tree Protection Bylaw 8057, language regarding replacement trees requires one-for-one replacement on parcels with single family homes, and one-for-one or greater replacement on all other parcels. Per tree replacement for over-grown hedge trees (generally planted at less than 1 m between trees) is generally not feasible and places an onerous burden on the homeowner. If the hedge cannot be pruned to return it to its original usage, the recommended amendment will give staff the ability to order an appropriate level of replanting. Accordingly, the following sentence is recommended for addition to section 4.3.1 of the bylaw:

If the tree(s) form part of a hedge, then the replanting requirement for those tree(s) may be less than one per tree removed or cut, as determined by the Manager.

### Tree Topping

Administration of the bylaw has exposed incorrect pruning and tree topping as one of the most significant issues affecting tree health and retention in Richmond. Topping is a very common practice in Richmond and is usually undertaken to meet aesthetic objectives or improve signage sight lines on commercial properties. These objectives could otherwise be met using acceptable pruning practices. A topped tree becomes exposed to stress, disease, and rot and will likely deteriorate into an unsafe condition or die prematurely. The on-going education of property owners and contractors is being undertaken by staff and is necessary to halt this destructive practice.

In support of this effort, the definition of topping needs to be more clearly stated so that there is no confusion about what constitutes topping. Staff recommends inserting the following new definition for "Topping" in Part 2: Interpretation under 2.1 of the bylaw:

(Topping) means the removal of major portions of a **tree** crown by **cutting** branches to stubs and/or to the trunk or **cutting** of the main leader or branches in a manner which will significantly alter the existing natural shape or height of the **tree**, and includes re-topping of previously topped **trees**.

**Financial Impact**

None.

**Conclusion**

The first six months of implementing and administering the permanent Tree Protection Bylaw 8057 have been successful and the bylaw has had a positive impact on tree retention and replanting. The overall workload generated by the bylaw matches previous expectations and consumes the full capacity of the three new tree bylaw positions.

The ongoing development and implementation of communication and information tools will be the most effective approach to enhancing residential tree planting incentives. In addition, adoption of the recommended bylaw amendments will allow staff to more effectively administer the Tree Protection Bylaw.



Nancy Stairs  
Tree Preservation Coordinator  
(4910)

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attachs.(4)

October 23, 2006

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**Attachment 1**

Proposed Amendment Bylaw 8157 to the Richmond Tree Protection Bylaw 8057 – next page



**Richmond Tree Protection Bylaw 8057  
Amendment Bylaw 8157**

The Council of the City of Richmond, in open meeting assembled, enacts as follows:

1. Part Two of Richmond Tree Protection Bylaw 8057 is amended by adding the following definition, in alphabetical order:

**“TOPPING** means the removal of major portions of a **tree** crown by **cutting** branches to stubs or to the trunk or **cutting** of the main leader or branches, and includes re-topping of previously topped **trees.**”

2. Subsection 4.3.1 of Bylaw No. 8057 is amended by inserting the following sentence between the second and third paragraphs:

“If a **tree** or trees located on any parcel form part of a **hedge**, the **Manager** may require that less than one **replacement tree** be planted and maintained for each **tree** that is **cut.**”

3. This bylaw is cited as “**Richmond Tree Protection Bylaw 8057, Amendment Bylaw No. 8157**”.

FIRST READING

PUBLIC HEARING

SECOND READING

THIRD READING

ADOPTED

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CITY OF RICHMOND
APPROVED by <i>gl</i>
APPROVED by Director or Solicitor

\_\_\_\_\_  
MAYOR

\_\_\_\_\_  
CORPORATE OFFICER

**Table 1. Tree Permitting Statistics to 21 September 2006**

<b>Property Type (existing use)</b>	<b>Number of Tree Permit Applications</b>	<b>Number of Trees Applied for Removal</b>	<b>Number of Trees Approved for Removal</b>	<b>Number of Replacement Trees</b>
Single-Family Dwelling	396	1262	1132	1235
Multi-Family Dwellings	38	164	137	66
Industrial/Commercial Vacant	22 1	160 3	144 2	100 0
Institutional	4	35	33	37
Agricultural/Farming	12	103	97	60
<b>Total</b>	<b>473</b>	<b>1727</b>	<b>1545</b>	<b>1498*</b>
Less open files	-4	-26	N/A	N/A
Less permits controlled by Development Apps	-13	-136	-136	N/A
<b>Sub-Total</b>	<b>456</b>	<b>1565</b>	<b>1409</b>	<b>1498</b>
Less Single-tree permits (no replanting required)	-268	-268	-250	-169
<b>Sub-Total Multi-tree permits</b>	<b>188</b>	<b>1297</b>	<b>1159</b>	<b>1329</b>

\*\$40,100 was provided to the replanting account for 80 of these replacement trees.

**Table 2. Single-Tree Permit Statistics**

<b>Property Type (existing use)</b>	<b>Number of Single-Tree Applications</b>	<b>Voluntary Replanting indicated Applications</b>	<b>Development Related Applications</b>
Single-Family Dwelling	233	146	107
Multi-Family Dwellings	21	5	6
Industrial/Commercial	7	12	5
Vacant	0	0	1
Institutional	0	0	0
Agricultural/Farming	6	6	3
<b>Total</b>	<b>268</b>	<b>169</b>	<b>122</b>

Customer Service Evaluations

473 forms were mailed on July 27, 2006 to tree permit applicants of record.

Response results for individual questions from the 35 returned evaluation forms are as follows.

Questionnaire 1- Strongly Disagree TO 5 - Strongly Agree	Q1. I was treated with respect and consideration by City Staff.		Q2. My questions were answered fully.		Q3. All of my issues and/or concerns were effectively resolved.		Q4 Overall, I rate my experience with the Tree Cutting Permit process as positive.	
	Score	Response	%	Response	%	Response	%	Response
1	1	3	1	3	2	6	2	6
2	0	0	1	3	0	0	1	3
3	2	6	0	0	1	3	2	6
4	10	29	16	46	14	40	15	43
5	21	60	15	43	16	46	13	37
Blank	1	3	2	6	2	6	2	6

Total responses for all questions:

Questionnaire 1- Strongly Disagree TO 5 - Strongly Agree	Total responses for all questions		
	Score	Response	%
1	6	4	
2	2	1	
3	5	4	
4	55	39	
5	65	46	
Blank	7	5	

Incentives for Tree Retention

Density bonuses for setting aside more treed green space is one of the most common methods used for tree retention. This works best in communities which are developing previously undeveloped land. In Charlotte, NC, where development occurs on forested land, at the subdivision, not individual level, single-family subdivisions are required to preserve 10% of the tree canopy. If more than 10% is saved and put it in common open space where no one can touch it, they get to add dwelling units. The average is about 17% overall with some at 10% and others at the maximum 25%. This type of incentive may have limited use with the present zoning standards and the lack of green field development in Richmond.

But a minimum tree-planting requirement which would be reduced through tree retention is possible for trees of all sizes. There could be different numbers for homeowners vs. developers vs. commercial sites.

For example, utilizing a localized standard like Vancouver, which correlates lot area with tree numbers, retention of trees could be used to meet minimum tree planting requirements for that property as is done in Pierce County, WA (where they also give increased credit for planting larger trees, which is a tree-planting incentive).

The Vancouver standards are:

Site Area m <sup>2</sup>	Maximum Number Of Trees*	Site Area m <sup>2</sup>	Maximum Number Of Trees*
less than 365	2	from 1601 - 1850	9
from 365 - 450	3	from 1851 - 2200	12
from 451 - 565	4	from 2201 - 2550	16
from 566 - 750	5	from 2551 - 2900	20
from 751 - 1000	6	from 2901 - 3250	25
from 1001 - 1250	7	over 3250	30
from 1251 - 1600	8		

Pierce County, WA, provides a tree credit for each tree retained during development with increasing credits given for increasing size and mature size. This allows developers to reduce their tree-planting requirements by proper tree protection. There are specific standards assessing trees for retention which would need to be clarified either in policy or in the Bylaw with a Bulletin to explain the process.

Tree Category	Tree Unit Credits per Tree Retained
Existing tree 1"- 6" dbh	1.0
Existing tree 6"- 12" dbh	1.5
Existing tree 12"- 18" dbh	2.0
Existing tree 18"- 24" dbh	2.5
Existing tree >24" dbh	3.0
Significant tree <24" dbh	2.5

Significant tree >24" dbh	3.0
Replacement tree, small canopy species (mature canopy area <450 square feet)	0.5
Replacement tree, medium canopy species (mature canopy area 450 - 1,250 square feet)	1.0
Replacement tree, small canopy species (mature canopy area >1,250 square feet)	1.5

There are other volunteer programs which have been used successfully such as the "NeighborWoods" program in the US which supports and encourages volunteer tree planting on private property. The program is well organized and accessible to volunteer groups of any size, and program initiation should be eligible for grant funding from the City of Richmond. This might be a useful addition to the programs already in existence in Richmond, after volunteer identification, development and training.

Other incentives include partnering with local nurseries on a discount program, where tree purchases from a list of recommended species would get a reduction in purchase price. The program has been most successful in US communities when the nursery and the community match a dollar amount (e.g. \$10.00 each). Tying the discount with attendance at a tree planting or tree care workshop is recommended.