



Corporate Report

NO: R270

COUNCIL DATE: November 1,

2004

REGULAR COUNCIL

TO: Mayor & Council **DATE: October 28,
2004**

**FROM: General Manager,
Planning and Development** **FILE: 3900-20-12880**

SUBJECT: Tree Preservation in the City of Surrey

RECOMMENDATION

It is recommended that Council:

1. Receive this report as information; and
2. Authorize staff to proceed with a public consultation program, as documented in this report, to allow the public an opportunity to provide input regarding changes to the City's Tree Preservation By-law and other by-laws and policies related to trees and the preservation of trees in the City.

INTENT

The purpose of this report is to provide information to Council, regarding trees and tree preservation in the City and to obtain Council authorization to proceed with a public consultation program with a view to receiving input from the public regarding changes to the City's Tree Preservation By-law and other by-laws and policies related to protecting trees in the City.

BACKGROUND

Over the course of the last several months, there has been an increasing level of public concern with the cutting and removal of mature trees throughout the City, particularly as a result of sites being cleared for new land development projects. This increasing public concern is due, in part, to the significant increase in land development activity that has taken place over the last two years, in comparison to prior years. This development activity has resulted in a higher level of tree removal activity than has been the experienced in the City since the City's current Tree Preservation By-law was adopted in 1996.

At its meeting on September 27, 2004, Council requested that staff provide a report to Council on the City's Tree Preservation By-law and related practices. This report responds to that direction from Council.

Current Approach to Tree Preservation

There are two primary components in the City's current approach to tree preservation. These are:

- the preservation and planting of trees on streets and public lands in the City; and
- the preservation and planting of trees on private properties.

This report will address both of these components.

TREES ON PUBLIC PROPERTY

The City of Surrey uses several means that act to protect trees on public property. These include:

- The acquisition and on-going maintenance by the City of significant areas of parkland and other City-owned properties that are entirely forested or contain trees;
- The planting and on-going maintenance of trees during new park development and during refurbishment of parks;
- The planting and on-going maintenance of trees along street boulevards and medians throughout the City; and
- The protection of trees on slopes and in creeks and riparian areas by way of acquisition of the land by the City during the development process or by way of Restrictive Covenant registered in favour of the City on the title of private lands, which prohibits the disturbance of natural vegetation, including trees.

Each of these areas will be described in more detail in the following paragraphs.

Trees Preserved on Parkland and City-owned Properties

The City's Official Community Plan ("OCP") contains a series of policies on protecting the natural environment and on providing park space for the City's residents. These policies form the basis for the City's Parks, Recreation and Culture Master Plan that includes, as an objective, the provision of 4.2 hectares (10.5 acres) of parkland for every 1,000 residents of the City. The following table provides a summary of the parkland located in the City of Surrey and the acreage of parkland that is forested.

Statistics for Surrey

Type of Parkland	Area	Percentage Covered with Forest (est.)	Forested Area
City Parkland (includes dedicated Urban Forests)	2,431 ha (6,004 acres)	42%	1,021 ha (2,522 acres)
GVRD Parkland (includes Surrey Bend and Tynehead)	476 ha (1,176 acres)	76%	362 ha (893 acres)
Provincial Parkland (includes Serpentine Fen and Peace Arch Park)	103 ha (254 acres)	10%	10 ha (25 acres)
Total Parkland	3,010 ha (7,434 acres)		1,393 ha (3,440 acres)

Agricultural Land Reserve (not counted in the above)	9,300 ha (22,972 acres)	10%	930 ha (2,297 acres)
Creeks, Streams and Riparian Areas (est.) covered by Restrictive Covenant	500 ha (1,235 acres)	80%	400 ha (990 acres)
Total Protected Forest Area (Not including Existing Forests on non-ALR Private Property)			2,723 ha (6,726 acres)
ALR-protected land	9,300 ha (22,972 acres)		
Area of City	31,849 ha (78,668 acres)		

It is noted that the City of Surrey standard of 10.5 acres of parkland for each 1,000 residents is a relatively high standard in the context of Canadian cities. Based on the fact that the City already has 6,004 acres of parkland in its inventory, this amount of parkland is sufficient for a population of 570,000 residents, which is almost the build-out population of the City's current OCP. Despite this, the City will continue to buy additional parkland, including some areas of forested land on a regular annual basis. It is also noted that the current area of parkland covered with forest is 2,522 acres. If it were assumed that half of the City's parkland should remain in a forested condition or 5.25 acres of forest land for each 1,000 residents, the current amount of parkland covered with forest would be sufficient for a population of 480,000. The City's population is currently about 390,000. It is clear that the City is in a very strong position, relative to providing parkland and forested parkland for its citizens.

The Brundtland Report alluded to a healthy City having 12% of its area protected from development. If the area of parkland and the area covered by Agricultural Land Reserve ("ALR") protection are recognized as areas protected from development, 30,406 acres are protected from development in Surrey. This is 38.7% of the area of the City, which is well above the above-noted healthy City standard. The Brundtland Report is a well recognized document, which is the result of work during the 1980s by the World Commission on Environment and Development, that developed guiding principles for sustainable development.

The following table provides a summary of parkland that is provided in a sampling of other larger lower mainland municipalities.

Statistics for Other Large Lower Mainland Municipalities

City	Type of Parkland	Area	Estimated Percentage Covered by Forest	Forested Area
Vancouver (pop. = 560,000)	City Parkland	1,295 ha (3,199 acres)	29%	375 ha (925 acres)
	GVRD Parkland	818 ha (2,020 acres)	100%	736 ha (1,818 acres)

	Provincial Parkland	0		0
	Total	2,113 ha (5,219 acres)		1,111 ha (2,743 acres)
Richmond (pop. = 170,000)	City Parkland	714 ha (1764 acres)	14%	100 ha (247 acres)
	GVRD Parkland	109 ha (270 acres)	0%	0
	Provincial Parkland	0		0
	Total	823 ha (2034 acres)		100 ha (247 acres)
Langley Township (pop. = 98,000)	City Parkland	277 ha (683 acres)	47%	131 ha (324 acres)
	GVRD Parkland	1102 ha (2723 acres)	60%	662 ha (1635 acres)
	Provincial Parkland	0 acres		0 acres
	Total	1379 ha (3406 acres)		793 ha (1958 acres)

As can be observed from the above table, the City of Surrey compares very favourably with these other municipalities, with respect to forested land that is protected within the City.

Trees Protected and Planted on Street Boulevards and Medians

The City currently has an estimated 43,000 trees on boulevards and medians throughout the City. Parks Division staff maintains these trees. The City also has an annual boulevard tree-planting program that has two components. These two components are:

1. A requirement for land developers to plant trees at approximately 15 metres (50 foot) spacing on street boulevards and medians fronting all new development projects in the City;
2. A street tree planting program that is part of the annual capital program of the Parks, Recreation and Culture Department. This program focuses on planting trees along residential streets in established neighbourhoods within the City.

During 2004, it is estimated that 3,100 trees were planted on medians and boulevards throughout the City under these two programs. In addition, the City planted an estimated **5,500 trees, seedlings and saplings** in natural park areas throughout the City.

Trees Protected in Creeks, Riparian Areas and on Slopes

As part of the approval of new developments, the developer normally dedicates to the City the riparian areas, creeks and slopes as public open space or, alternatively, the City protects these areas by way of "no disturbance" Restrictive Covenants. These areas are typically forested areas and contain many protected trees. The Covenants allow for the continued protection of these trees in perpetuity. It is estimated that there are approximately 500 hectares (1,235 acres) of creeks and streams and related riparian areas that are covered by these "no disturbance" Restrictive Covenants. It is further estimated that approximately 80% of this area (400 hectares (990 acres)) is covered with forest. This acreage is increasing on a monthly basis as development applications are processed through to approval.

TREES ON PRIVATE PROPERTY

In July 1996, City Council adopted Surrey Tree Preservation By-law, 1996, No. 12880. This by-law was adopted with a view to ensuring that tree preservation on private property was given proper attention as the City continued to grow and develop, while furthering the objective of Surrey being the City of Parks.

The City's authority to manage trees on private property by way of a by-law was contained in the *Local Government Act* and is now contained in the *Community Charter*. The *Community Charter* provides broad powers to municipalities in regulating, prohibiting and/or imposing requirements with respect to trees. However, it is noted that a tree by-law cannot prevent a permitted land use or development to a density, as permitted under the applicable zoning by-law for any particular lot, unless the City compensates the owner for losses.

The City's Tree Preservation By-law was prepared with the intention of balancing the preservation of mature trees on private property within the City with the efficient and reasonable use of land throughout the City. As such, it does not preclude the removal of trees on private property, but rather stipulates conditions under which the removal of trees will be allowed. These conditions can be categorized into several broad categories as follows:

1. To allow for the construction of buildings and/or improvements on private property as permitted by the Zoning By-law;
2. To allow for the efficient subdivision and/or development of land in accordance with the City's OCP, Secondary Plans and the Zoning By-law;
3. To eliminate a hazardous condition related to unhealthy trees; and
4. To allow for land to be used for agricultural purposes.

The current Tree Preservation By-law also stipulates that replacement trees must be planted when trees are removed, particularly in relation to 1 and 2 above.

In general, for the purposes of the Tree Preservation By-law, a tree is protected by the By-law if it has reached a trunk diameter of 30 centimetres (12 inches) at 1.4 metres (4.5 feet) above the ground. Trees that meet this dimensional criterion are classified as "protected trees" in the By-law.

Under the Tree Preservation By-law, if an owner of a property within the City wishes to remove a protected tree from that property, the owner must make application to the City for a tree cutting permit and pay the appropriate application fee.

Removal of Trees to Allow Construction of Buildings/Improvements on an Existing Lot

As noted earlier in this report, legislation stipulates that a tree by-law cannot prevent a permitted land use or development to a density, as permitted under the applicable zoning by-law, for any particular lot. The City's current approach is as follows: If a tree-cutting permit application is received and identified as having the purpose of

making way for the construction of buildings or improvements on an existing lot, as permitted by the lot's current zoning, the owner must:

- submit a building permit application complete with drawings illustrating the buildings or improvements to be constructed on the property and confirm that such buildings or improvements comply with the requirements of the Zoning By-law;
- retain a surveyor or engineer and an I.S.A.-certified arborist to survey the protected trees on the property and provide a plan and documentation to the City, which accurately documents the size, species and location of all protected trees on the property and notes those trees within the footprint of the proposed building or improvement and within 3 metres (10 feet) of such footprint, which will need to be removed; and
- submit a tree replacement plan illustrating and documenting the number, species and size of replacement trees that are to be planted on the property.

A City arborist will attend the site with a view to confirming the documentation submitted to the City if there are concerns with the arborist's report. The Tree Preservation By-law stipulates that for every protected tree that is removed, the owner is to plant two replacement trees. The By-law, however, also provides that if the lot is not sufficiently large to accommodate a 2 to 1 ratio, the number of replacement trees to be planted can be reduced to that number which the lot can reasonably accommodate. Where the ratio of replacement trees to trees removed drops below 1:1, City staff normally requires that the replacement trees be up-sized over the minimum sizes stipulated by the Tree Preservation By-law. The By-law requires deciduous replacement trees to have a minimum trunk diameter of 5 centimetres and coniferous replacement trees to have a minimum height of 3 metres. Up-sized trees will typically have a trunk diameter of 7 or 8 centimetres for deciduous trees and a height of 4 or 4.5 metres for coniferous trees. The tree-cutting permit is issued in conjunction with the building permit.

The applicant is required to pay an application fee for the tree removal permit in accordance with a fee schedule that forms part of the Tree Preservation By-law. The applicant must also post a security (cash or a letter of credit) with the City for 100% of the cost of providing and planting the replacement trees. The City holds this security until the replacement trees are planted at which time 90% of the security is released. The remaining 10% of the security is held for an additional year (i.e., the maintenance period) for use in replacing those trees that do not remain healthy during the one-year maintenance period.

Removal of Trees to Allow the Efficient Subdivision and/or Development of Land

When a development application is received by the Planning and Development Department for rezoning and/or subdivision of land, the review process requires that the applicant retain the services of a surveyor or engineer and an ISA-certified arborist to undertake a detailed tree survey of the site and to submit a report and plan to the City that documents the size, species, condition and location of each protected tree on the site. The report must also document each protected tree that is proposed to be removed through the development process and the reasons for such removal (i.e., within the building envelope, hazardous, too close to building foundations, etc.). The applicant must also retain the services of a landscape designer or architect to submit a tree replacement plan illustrating the location, size and species of replacement trees to be planted in the proposed subdivision or development. The Tree Preservation By-law stipulates that for every protected tree that is removed, the owner is to plant two replacement trees. The By-law, however, also provides that if the lot is not sufficiently large to accommodate a 2 to 1 ratio, the number of replacement trees to be planted can be reduced to that number which the lot can reasonably accommodate. Where the ratio of one replacement tree for each removed tree is not met, City staff normally requires that the replacement trees be up sized over the minimum required by the Tree Preservation By-law.

The street trees that the developer is typically required to plant at 15 metre(50 foot) spacing in the boulevards of the streets fronting the development, are not counted as replacement trees.

The applicant is required to pay an application fee for the tree removal permit in accordance with a fee schedule that forms part of the Tree Preservation By-law. The applicant must also post a security (cash or a letter of credit) with the City for 100% of the cost of providing and planting the replacement trees. The City holds this security until the replacement trees are planted at which time 90% of the security is released. The remaining 10% of the security is held for an additional year (i.e., the maintenance period) for use in replacing those trees that do not remain healthy during the one-year maintenance period. In the case of single-family subdivisions, where there is only a tree replacement plan, only 50% of the security is released at the completion of planting of the trees and the remaining

50% is release after one year, subject to the replacement trees being in satisfactory condition. The tree removal permit is only issued after final adoption of the rezoning by-law or approval of the subdivision plan by the Approving Officer.

Removal of Hazardous Trees

A hazardous tree is defined as a tree that has structural defects or is in decline or dead due to natural causes. If the tree-cutting permit is issued for the purpose of removing a hazardous tree, no fee is charged for the tree-cutting permit, but the owner must:

- submit a photograph that clearly illustrates that the tree is hazardous; or
- retain an I.S.A.-certified arborist (i.e., I.S.A. = International Society of Arboriculture) to assess the condition of the tree proposed for removal and to submit a report to the City, which declares the tree to be hazardous and documents the reasons for such a declaration; and
- submit a plan that accurately illustrates the size, species and location of the tree proposed for removal.

A City arborist will normally attend the site with a view to confirming, at a general level, the findings of the report, as submitted by the arborist, if there are concerns with the arborist's report. No application fee is payable for a permit to remove a hazardous tree nor are replacement trees required under the Tree Preservation By-law.

Removal of Trees for Agricultural Purposes

The Tree Preservation By-law allows for a property owner to obtain a tree-cutting permit to remove trees from a lot for agricultural purposes. As part of the application, the applicant must retain an ISA-certified arborist to conduct a general tree survey of the area proposed for clearing to determine the number of protected trees that will be removed and to ascertain whether there are any special environmental features or considerations that should be taken into account in relation to where and how the tree clearing on the site takes place. When an applicant applies for such a tree cutting permit, they must submit a sworn affidavit that states that they intend to use the site for agricultural purposes, that the agricultural purpose cannot take place without the requested tree removal and that they will not apply to redevelop the subject lot for a minimum of five years. The applicant must pay an application fee in accordance with the fee schedule that forms part of the Tree Preservation By-law. No replacement trees are required for this type of tree cutting permit.

Statistics with Respect to Tree Removal in the City

The following table provides a summary of the number of trees removed and the number of replacement trees planted on private property in each of the last four years:

Year	Trees Removed	Replacement Trees	Ratio of Replacement Trees To Removed Trees
2001	7,508	9,328	1.24 to 1
2002	7,171	7,958	1.11 to 1
2003	12,635	16,872	1.34 to 1
2004 (to Oct. 25)	9,018*	12,710*	1.41 to 1*

*Tree cutting permits have been issued, as of September 14, 2004, to allow for the removal on private property of 9,018 trees in 2004. This does not include one tree removal permit that allowed for the cutting of 14,284 trees for the Phase I lands in the Campbell Heights Industrial area which covers an area of 250 +/- acres. The Campbell Heights development area will be developed out over the course of the next several years. Tree clearing on a large area of the site had to take place early in the project to allow for extensive site regrading and servicing work that was necessary prior to the development of individual lots within this large development project. Campbell Heights Phase I lands will also include many thousands of replacement trees that will be secured as part of the Development Permit approval process for the development of each new lot in the area as and when that development is approved. Since engineering services for the Phase I lands are still being constructed, Development Permits have not yet been issued for any sites in the area.

Some Practical Considerations With Respect to the Preservation of Trees

In developing an effective approach to the preservation of trees, there are many factors that need to be taken into account. Some of these include:

- Forest grown trees are difficult to preserve if they are not preserved as a group. This relates to the structural capabilities of individual trees to withstand weather conditions if they are exposed to the sun and wind;
- Potentially hazardous trees left standing through a development approval and construction process, can lead to liability issues for the City and the developer and safety issues for the occupants in the vicinity of the trees;
- If preserved trees, by virtue of their location, density or maintenance requirements, are viewed as being a nuisance by the occupants of completed developments, it is unlikely that such trees will be given proper care and attention. This would have the effect of decreasing the life of these trees and have a detrimental effect on the urban forest condition over the longer term as these trees decline and eventually die;
- Trees such as cottonwoods and alders, even though they may be large, are not necessarily desirable to preserve, due to their relatively short life span;
- It is difficult to save trees on small lots, due to the limited outdoor area available on these lots. Small lots are popular in the City, due to their relative affordability.

The following is a list of some commonly asked questions with respect to the protection of existing mature trees in the City, with a brief answer to each question:

1. **Why has the City been falling short of the 2 for 1 tree replacement policy?**

There are a number of reasons for not fully achieving a 2 for 1 replacement for trees that are removed in the City as follows:

- The City's Tree Preservation By-law includes the following clause:

"Where an Owner, who is required by the terms of this By-law or a permit issued pursuant to the By-law to plant Replacement Trees, provides the General Manager, a report by a Qualified Expert stating that one or more of the Replacement Trees cannot be planted in accordance with sound arboricultural practice such that its survival of adjacent existing trees is unlikely, or where it is not possible due to other considerations such as required setbacks, lot size or topography, the Owner will not be required to plant the required 2 for 1 replacement ratio".

There are many subdivisions and developments that are undertaken each year in the City where, due to site constraints, two trees cannot be planted for each tree that is removed from the site to accommodate the subdivision or development. This primarily relates to the fact that each replacement tree that is planted must be located such that it will have sufficient space to grow and mature without compromising adjacent existing or replacement trees. If trees are planted too close to one another or in too small a space, they will be unhealthy and ultimately be short-lived.

- The City's Tree Preservation By-law does not require that replacement trees be planted where an existing tree is being removed after being assessed by an arborist as being hazardous, due to natural causes. The City issues permits to allow the removal of many hazardous trees annually.
- The City's Tree Preservation By-law does not require that replacement trees be planted where existing trees are being removed for agricultural purposes. Some of these types of permits are issued every year.

- Tree clearing permits for industrial developments are often issued after the rezoning of a site for industrial use, but before Development Permits are issued for individual lots within the industrial development. Replacement trees are then included in the Development Permit drawings that are approved, prior to new industrial development taking place on individual lots within the development. There is sometimes a delay between when a tree-cutting permit is issued to allow removal of trees and when the Development Permit is issued that provides for the planting of the replacement trees. A good example of this is the Campbell Heights Business Park that is currently being developed. A tree-cutting permit was issued earlier this year that allowed for the removal of approximately 14,000 trees from that 250-acre industrial area. The trees that were cleared were predominantly alder and cottonwood trees in a forest condition with some firs and cedars growing among the alder and cottonwood trees. There will be many thousands of replacement trees required to be included on the Development Permit drawings for the individual lots in this industrial area as and when development of the individual lots occurs in the future. Therefore, the tree removal statistics for 2004, to date, are weighted heavily on the tree removal side because of the tree-cutting permit that was issued for Campbell Heights. The replacement trees in the area have not yet been approved as part of the Development Permit process for each of the individual lots since the development of the individual lots will take place on an on-going basis over the next few years. However, as the lots in the area develop there will be thousands of replacement trees planted in the area.
- Small lots preclude the preservation of trees and allow for the planting of only 1 or 2 replacement trees per lot, due to lack of outdoor area on the lot outside of the building envelope. Small lots are becoming increasingly popular in the City for affordability reasons.

2. **Are there other cities that have been successful in retaining significant trees? Best practices?**

The City's Landscape Architect continues to dialogue with other lower mainland cities, with respect to tree preservation and tree replacement. There are a variety of approaches that are being taken by various municipalities in the lower mainland in an effort to preserve more existing mature trees. Some municipalities place more emphasis on saving trees and place less emphasis on density efficiencies, while other municipalities place more emphasis on density efficiencies and less emphasis on saving trees. There are still a number of lower mainland municipalities that do not have a tree preservation by-law.

3. **Can we look at design guidelines further with the objective to build around significant trees?**

The Planning staff, the City Architect and the City Landscape Architect work closely with individual developers to protect as many existing mature trees on development sites as practical. Developers object to saving trees, from time to time, particularly where the saving of trees compromises the potential density of a development site. Similarly, many "greenfield sites" in the City are forested and the individual trees within the forest have been protected from wind and other natural forces by the other surrounding trees in the forest. When development occurs and some of the forest trees must be removed to accommodate buildings or roads, the remaining trees are often not structurally capable of withstanding the new wind forces to which they are exposed. To leave these remaining trees within the development, is potentially hazardous to the occupants of the development.

Even when trees are saved through the residential development process, staff is approached on a fairly regular basis, by the occupants of the new residential development, for permission to remove the saved trees soon after the completion of the development because of safety concerns with the trees or tree limbs being blown down onto the new homes in the development.

Despite the above, staff are careful to encourage the saving of as many trees as possible through the development process.

The Development Advisory Committee ("DAC") has discussed the matter of tree retention at a recent meeting and suggested that more flexibility in the Zoning By-law, related to the shape of lots and setbacks to buildings, may assist in saving more existing trees in new residential developments. This matter will be discussed at more length at a future DAC meeting, with a view to determining if amendments to the Zoning By-law should be made in support of tree retention.

The City's current tree by-law and related development policies, focus on ensuring that new developments contribute reasonably to maintaining an urban forest condition throughout the City. This is accomplished through the retention of existing mature trees where possible and through the planting of replacement trees on development sites and on boulevards in a way that ensures their long term health and survival. The existing trees that are saved and the replacement trees that are planted on development sites, must comply with sound arboricultural practice to ensure that the trees will not only survive, but will thrive over the long term so that the City's urban forest is replaced and maintained.

There are concerns that some protected trees that could be preserved are lost due to poor construction techniques.

4. **What are the typical species of replacement trees?**

The Surrey Tree Preservation By-law lists about 200 different species as being suitable for use as replacement trees. The City's Landscape Architect reviews and approves all tree replacement plans, in relation to single-family residential development and landscape plans that include trees related to Development Permits covering multi-family, commercial and industrial development. On average, about 40% of the trees planted in the City, on new single-family lots under approved replacement tree plans, are either firs or cedars. Maple trees are another prevalent species of replacement tree, accounting for approximately 25% of all replacement trees that are planted. Magnolia and cherry trees are also commonly planted in the City. The City's Landscape Architect, in reviewing plans, attempts to ensure that the type of replacement tree being proposed is suited to the location at which it is being planted. In some circumstances, smaller ornamental trees are more suitable to a space than a larger tree. If trees are not planted with due regard to the usability of the area around the tree, the owner of the lot on which the tree is located will view the tree as a nuisance and will not be prone to giving the tree the needed care to ensure its longevity.

Infractions Related to the Tree Preservation By-law

The landscape inspection staff responds, on a regular basis, to complaints regarding the unauthorized removal of trees in the City and monitor sites for which tree cutting permits are issued, to ensure that the tree removal is undertaken in compliance with the requirements of the Tree Preservation By-law.

Between January 1, 2004 and October 28, 2004, 55 infraction notices have been issued for the removal of protected trees without a permit. Based on the best available information, it is estimated that a total 239 protected trees were removed without the prior issuance of a tree-cutting permit. In most circumstances, when more than a few trees have been removed without a permit, Landscaping staff reviews the matter with Legal Services to determine the potential to lay charges against the owner. If the owner is cooperative, typically charges are not pursued, but rather the owner is required to:

- pay a fee to the City equivalent to the permit fee that would have been payable had a tree cutting permit been issued;
- prepare a replacement tree plan that provides for at least two replacement trees for every tree that was removed without authorization, with the replacement trees being up-sized from the minimum replacement size specified in the in the Tree Preservation By-law; and

- if the site on which the trees were removed cannot accommodate the number of required replacement trees, provide a cash payment to the City for the value of those replacement trees that cannot be accommodated on the site and the money is used to fund the planting of trees on parks and street boulevards in the City.

Landscape Inspection staff has also addressed the following types of incidents during the last year:

- incidents where trees were damaged during excavation/construction;
- incidents where tree protection barriers around protected trees were not constructed or not constructed or maintained to the standards specified in the Tree Preservation By law; and
- miscellaneous incidents involving trees on City property or trees on neighbouring property to a development site.

In these circumstances, staff typically notifies the property owner or his representative, to correct the deficiency. In instances where cooperation is not forthcoming, City building, plumbing and electrical inspections and/or approvals are withheld until the matter has been addressed to the satisfaction of City staff.

Tree By-laws of Other Lower Mainland Municipalities

Twelve of the 22 municipalities/electoral areas in the GVRD have a tree protection by law of some form. These municipalities are Belcarra, Burnaby, Coquitlam, Delta, Maple Ridge, New Westminster, North Vancouver District, Port Coquitlam, Port Moody, Surrey, Vancouver and White Rock. The remainder of the GVRD municipalities do not have such a by-law, including Anmore, Bowen Island, Electoral Area A, Langley City, Langley Township, North Vancouver City, Lions Bay, Pitt Meadows, Richmond and West Vancouver.

The City of Abbotsford (not in the GVRD) has a tree protection by-law.

Summary of Variations of Tree Protection By-laws Across Other Municipalities

The following provides a general overview of the range of by-law provisions found in the existing tree protection by-laws throughout the region:

- **Variations with respect to the Definition of a Protected Tree**
 - Minimum tree diameter: from a low 10 centimetres (4 inches) to a high of 75 centimetres (30 inches);
 - Minimum tree height: from not being specified to a minimum height of 3.6 metres (12 feet).
- **Variations in the Species/Types of Trees Protected**
 - All trees meeting the minimum dimensional requirements;
 - All trees in certain geographic areas;
 - Only trees of certain species;
 - Only trees on sloped land.
- **Variations as to the Purposes for Which a Protected Trees can be Removed**
 - To allow for building or improvements construction on a lot;
 - To allow land development/subdivision;
 - To remove a hazardous tree from a lot;
 - To remove some percentage of the trees from a lot in any one year without other justification;
 - For agricultural purposes.
- **Variations as to when replacement trees are to be planted and the ratio of replacement trees planted in comparison to the number of trees that are removed**

Other Considerations

In most by-laws an arborist's report is required as part of an application for a tree cutting permit and a fee is payable which varies depending on the number of trees and/or area of land from which trees are being removed.

In general, Surrey's current Tree Preservation By-law appears to be in the "same range" as other existing tree preservation by-laws in the lower mainland. Some of the provisions in Surrey's by-law are more onerous than others in the region, while others are more toward the less onerous end of the range. It should be noted that some GVRD municipalities do not have any tree preservation by-law at this time as noted previously in this report.

Possible Tree Preservation and other By-law Amendments

Although public concern with the removal of mature trees throughout the City has been more vocal over the course of the last few weeks, there has been a level of on-going concern by the community over the last few years with tree removal in the City. Staff has spent time reviewing the Tree Preservation By-law and other City By-laws, such as the Zoning By-law, with a view to drafting amendments that would act to protect more mature trees in the City, while still allowing for the reasonable use and development of land in the City. Possible areas for consideration of by-law amendments are listed below:

1. Encourage property owners and developers to save more protected trees by including incentives within the by-law toward this end. For example, a clause could possibly be included in the by-law that would allow for a reduction in the number of replacement trees that a developer is required to plant on a development site, based on the size of the protected trees that are preserved (i.e., the larger protected trees are given more credit than smaller protected trees);
2. Provide alternative approaches for Council's consideration that will more fully achieve the objective of having 2 replacement trees planted for every tree that is removed in the City. One option is to require that, where a development site cannot accommodate a 2 to 1 ratio of replacement trees to trees removed, that the developer be required to provide a cash payment to the City for the difference and the City use these funds to plant trees in City parks and boulevards;
3. Include a broader range of species of trees that can be used as replacement trees in the City (this is intended to encourage the planting of more replacement trees and to ensure that trees that are planted are suitable to their location through to maturity);
4. Specify that an arborist who assesses a tree and submits a report to the City, declaring the tree to be hazardous, cannot also be retained by the owner to remove the tree. This will remove the potential for conflict of interest in the assessment of trees in the City;
5. Increase the penalties for illegal cutting/damaging/removal of trees. This may include a revision to the Municipal Ticket Information By-law to allow City staff to issue tickets for infractions of the Tree Preservation By-law and set a list of fine amounts that would relate to the various common infractions, as noted previously in this report;
6. Provide flexibility for the City to issue tree removal permits for trees that are not hazardous, but are not suitable for their location and also require the planting of replacement trees when such trees are removed. This addresses the frustration of some property owners where a tree becomes a nuisance as a result of its growth, but there is no provision in the current By-law that would allow for its removal;
7. Increase the securities that applicants are required to post at the time of tree cutting permit issuance for tree removal and replacement to encourage compliance with the Tree Preservation By-law;
8. Add a provision that will allow the City to collect a relatively high security for especially valuable specimen trees or trees that are significant in their context (e.g., trees along Semiahmoo Trail) to ensure that they are not damaged during clearing/construction activities;
9. Add other important trees to the List of Significant Trees appended to the By-law, in response to community suggestions;
10. Add a provision that allows the City or its contractors and/or agents to enter private property to plant replacement trees, at the owner's expense, if an owner, after being given due notice, does not complete the planting of such trees and, further, to give the City the right to collect the costs of such action as taxes if the owner refuses to pay the costs that the City has incurred in planting the trees;

11. Make the by-law more clear and simple to understand and administer (i.e., remove the vagueness and inconsistencies in some of the definitions and clauses that are making effective administration of the by-law more difficult);
12. Consider amending the City's Municipal Ticket Information By-law to allow municipal tickets to be issued for infractions of the provisions of the Tree Preservation By-law;
13. Encourage the use of cluster zoning through the approval of Neighbourhood Concept Plans and other secondary plans and in the design of amenities, to preserve significant stands of trees; and
14. Consider modifications to the Zoning By-law that will allow for lot configuration, building setback and building envelope flexibility, where such flexibility could be exercised in relation to preserving protected trees.

Public Consultation Program

Based on the level of public concern with the removal of mature trees throughout the City, which prompted Council to request this report, it is considered appropriate to undertake a public consultation program related to tree preservation in the City and possible amendments to the City's Tree Preservation By-law and other by-laws and policies. This program should be directed toward better understanding the concerns and expectations of the public and to receiving suggestions and input, with respect to amendments to the City's by-laws and practices related to tree preservation.

It is proposed that the public consultation program include a public open house hosted by City staff, at which information would be displayed regarding:

- the City's current approaches to tree preservation;
- areas where the City has experienced difficulties in by-law compliance and/or administration; and
- possible by-law and policy amendments that would assist in establishing a higher level of tree preservation in the City.

Comment sheets would be available for those attending to formally submit comments and suggestions to the City for consideration. Such an open house would be advertised in the local newspapers and an invitation to the open house would be sent by mail to community associations and other interested organizations.

It is also proposed that a series of meetings be held with individual community groups and associations that have expressed concerns with tree preservation in their community.

In addition, it would also be appropriate to allow the Development Advisory Committee to provide input and suggestions, on behalf of the development industry. Similarly, the Greater Vancouver Homebuilders Association would be approached to provide input, on behalf of the residential home building industry.

This public consultation program could be undertaken over the next two to three months.

CONCLUSION

Based on the above, it is recommended that Council authorize staff to proceed with a public consultation program, as documented in this report, to allow the public an opportunity to provide input regarding changes to the City's Tree Preservation By-law and other by-laws and policies related to trees and the preservation of trees in the City. Subject to Council approval, once the public consultation program is completed, staff will prepare a further Corporate Report to Council documenting the information received from the public and making recommendations regarding additional actions focused on enhancing tree preservation in the City.

Original signed by

Murray Dinwoodie
General Manager
Planning and Development

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