



Corporate Report

NO: L015

COUNCIL DATE: November 3,

2003

REGULAR COUNCIL – LAND USE

TO: **Mayor & Council** DATE: **October 30,
2003**

FROM: **General Manager, Planning
and Development
Manager of Parks** FILE: **7903-0106-00**

SUBJECT: **Tree Retention related to Proposed Multi-Residential
Development at 2151 - 150A Street adjacent to the
Semiahmoo Trail**

RECOMMENDATION

The Planning and Development Department recommends that Council:

1. Receive this report as information;
2. Authorize staff to implement the tree management approach for the Semiahmoo Trail, as recommended in this report;
3. Authorize staff to implement the recommendations of Heritage Advisory Commission to ensure that the design of the interface between the proposed development and Semiahmoo Trail maintains the existing natural appearance; and
4. Instruct the City Clerk to forward a copy of each of this report and Council's resolution related to this report, to the Friends of Semiahmoo Trail.

INTENT

The purpose of this report is to advise Council of the resolution of issues raised by the Friends of Semiahmoo Trail in a presentation to Council during a Regular Council-Land Use meeting on June 23, 2003, related to the preservation of trees on a proposed development site at 2151 - 150A Street and on the Semiahmoo Trail ("the Trail") adjacent to the subject development site.

BACKGROUND

Development History

In March 2003 the Planning Department received a Development Permit application (7903-0106-00) from Dawson Lakewood Ltd. for the property at 2151 - 150A Street. The applicant proposed to construct 17 townhouses and one four-storey, 34 dwelling unit apartment building (stepping down to two-storey to the north) on the site. The proposed development is consistent with the current zoning on the site.

On June 23, 2003 a group known as The Friends of Semiahmoo Trail appeared before Council at a Regular Council – Land Use meeting to advise Council regarding their concerns about the loss of mature trees, both on the development site and on the adjacent section of Semiahmoo Trail as a result of the proposed development. The delegation suggested four options for consideration by Council:

1. The City exchange land with the developer to protect the trees on the development site and the Trail;
2. The City purchase the development site for park purposes;
3. Modify the development proposal to minimize the impacts of the proposed development on the Trail; or
4. Approve the development application and accept the consequences of development.

After hearing the delegation, Council instructed staff to prepare a full report to Council on the concerns raised by the delegation, after referring the proposed development application to the Environmental Advisory Committee ("EAC") and the Heritage Advisory Commission ("HAC") for input. Council further instructed that such a report was to be forwarded to Council before the development application is forwarded to Council for consideration.

The site is identified as Area 3 (Phase 3) of a multi-phased residential development project, known as "Highgrove" that was approved by Council under Development Application 7995-0049-00/0525-037. This previous approval permitted the construction of a mixture of single-family homes, townhouses and a four-storey apartment building in four phases (Appendix I). A portion of the Trail was relocated to its current alignment as part of Phase 2 of the original development. This relocated portion of the Trail has not received "heritage" designation. Staff is preparing a separate report to Council to address the status of the entire Trail from Crescent Road, south to 20 Avenue.

Phases 1, 2 and 4 of the original development were completed. The approved landscape treatment for the realigned portion of the Trail included the retention of some existing trees on the Trail, removal of hazardous trees, clearing of old forest debris, enhancement of the Trail with new plantings, provision of a zigzag split rail fence along the edges of the Trail abutting the proposed residential developments and special treatment, including a timber gateway, benches and ornamental plantings for the southern trail head at the north end of 151A Street, north of 20 Avenue.

History of this portion of the Semiahmoo Trail

The majority of the forested lands in the City of Surrey were cleared between 1880 and 1930. The subject site is comprised of "second growth" trees that grew after the original clearing. The second clearing of the Trail portion of this particular forest block, occurred approximately four years ago with this portion of the Trail being realigned to its current alignment, at that time, as part of the first phases of the Highgrove development, as has been discussed in the previous section of this report. The Trail is heavily used by a diverse group of recreational users including, among others, dog walkers, joggers, shoppers, commuters and school children.

There are no unique geological, cultural, historic, floral or faunal features of significance on the Trail or the site that is the subject of the current development application. The geology of the development site can be described as shallow soils overlaying compacted glacial till, with a shallow perched water table. This combination of conditions, in addition to the changing hydrology of the site caused by surrounding developments, has discouraged the trees on the site from developing deep roots. In addition, the surrounding trees were removed when development took place on the adjacent sites, causing the trees on this development site to be exposed to wind and making them susceptible to wind throw. Based on tree surveys, a significant number of large trees on this site have blown down in storms since 1995.

DISCUSSION

Issues

The City received a significant number of communications, including telephone inquiries, written submissions and

petitions from neighbouring residents, regarding the proposed townhouse/apartment development proposal. The concerns expressed in these communications relate to the preservation of the large trees in the existing forest-like environment on the subject property and to the interface between the buildings in the proposed development with the existing adjacent developments to the north and to the west across the Trail. The concerns regarding the interfaces with existing developments will be addressed in the land use report to Council and are not discussed in this report.

Tree Assessment Reports

As part of the application submission requirements, the applicant retained a certified arborist, Michael Mills, to review the development site and prepare a tree removal and retention plan. Mr. Mills has had a long association with the development site, as he was also the arborist associated with the original "Highgrove" development proposal described previously in this report. Mr. Mills' report, dated June 20, 2003 (the "Mills Report") (Appendix II) identified a total of 102 protected trees (i.e., having a minimum diameter of 30 cm (12 in.) at chest height) on the site and recommended the removal of 95 of these trees. The report identified that a total of 7 protected trees would be retained as part of the development on the site, along with 3 undersized trees. The project landscape architect, in consultation with the arborist, recommended that 161 new trees be planted on the site to replace the trees being removed at a ratio of approximately 1.7 replacement trees for every tree being removed. The Tree Preservation By-law targets a ratio of 2 replacement trees for each protected tree being removed. However, that ratio was deemed to be impractical in this circumstance given the size of the site, the layout of buildings on the site and the area required for roads and open space within the development site.

As a result of the delegation before Council, regarding the site and adjacent section of the Trail and other communications received from the public, the Parks Recreation and Culture Department retained Mr. Norman Hol, a certified arborist, to review the trees on the Trail adjacent to the proposed development. Mr. Hol completed a tree assessment and submitted a report dated June 25, 2003 (the "Hol Report") (Appendix III). The report documents the condition of each of the existing trees along the Trail and classifies them as either moderate, high or severe hazard trees. Severe hazard trees are in poor health and have poor structure, are highly susceptible to wind-induced failure and have the potential to cause significant property damage or injury if they blow down. High hazard trees may be in poor health or have poor structure, are highly susceptible to wind exposure and may cause severe damage to property or people. Moderate hazard trees may not be in poor health or have poor structure, but are in locations that can potentially cause severe damage to property or people if they blow down as a result of being exposed to wind. Mr. Hol recommended the removal of 15 moderate, 30 high and 7 severe hazard trees (52 in total) and the retention of 16 protected trees and 19 other trees under 30 cm (12 inches) in diameter (not protected under the Tree Preservation By-law, 1996, No. 12880) along the Trail.

The City Landscape Architect normally reviews the tree assessment report that is submitted to the City as part of a development application. In this circumstance, since the issues involve both public and private land and there was significant public concern regarding the retention of trees, the Planning and Development Department retained Susan Murray, an arborist who has undertaken work for the City previously (i.e., the Rock Tree), to provide advice regarding the retention of trees both on the development site and on the Trail adjacent to the site. Ms. Murray completed an independent site assessment and reviewed the other tree assessment reports, as noted above. She submitted a report, dated September 7, 2003 (the "Murray Report") (Appendix IV). In general terms, her report substantially confirms the recommendations of the other two arborist reports as referenced previously in this report and, in fact, recommended the removal of some trees that the other reports had recommended be retained. In summary, the Murray report recommended:

- Removal of 55 trees within the Trail identified to have hazard ratings of severe, high and moderate, as identified in the Hol Report (including 3 moderate trees identified for retention by Mr. Hol).
- Preservation of 18 trees with mostly low hazard ratings listed in the Tree Inventory in the Hol Report (16 protected and 2 additional unprotected small diameter trees).
- Consideration of the preservation of an additional undersized tree tagged by Ms. Murray (tag. No. 447). (Note: This tree is on the Dawson Lakewood Land.)
- Retention of 10 moderate sized trees within the Dawson Lakewood Land as recommended in the Mills Report.
- That the City and the developer adopt tree preservation strategies outlined in the Murray Report and work

cooperatively to ensure the provision of proper protection during construction so that a significant amount of under storey plant material and trees (by-law and non by-law sized) can be retained.

- An increase in the number of replacement trees within the Trail from 90 to 110 to ensure a 2 to 1 replacement ratio, as proposed by the developer at the EAC meeting on September 17, 2003 (discussed below).

Referral to Heritage Advisory Committee and Environmental Advisory Committee

The original Development Application (7995-0049-00/0525-037) was referred to HAC on December 7, 1995. Council, on December 18, 1995, endorsed the HAC's recommendation to support, in principle, the treatment of the Trail, which included:

- A tree augmentation strategy;
- A public gateway interpretive centre at the Trail's entry/terminus on 150A Street;
- That underground parking setback as far back as possible to preserve existing trees;
- That shoring be provided during construction to protect existing trees;
- That lot grading be carefully considered in connection with the impact on existing vegetation; and
- Roadbed mulch be used for the Trail walking surface.

Upon presentation of the current Dawson Lakewood development application (7903 0106-00) to the HAC on July 17, 2003, the HAC suggested that the developer consider reducing the building footprint on the site and increase the setbacks to ensure more land is available for the preservation of the natural vegetation along the Trail. The HAC further recommended that staff work with the developer to find a solution to preserve and retain the undisturbed forestland abutting or adjacent to the Trail.

The development application (7903-0106-00) was also considered by the EAC on three separate occasions: June 19, 2003, July 17, 2003 and September 17, 2003.

At its September 17, 2003 meeting, the EAC resolved to recommend to City Council:

"That Council support the recommendation suggested by the Friends of Semiahmoo Heritage Trail group to formalize a group consisting of Parks Management; Arborists Mr. Hol and Mr. Mills; the EAC Chair, Dr. R. Strang; the Developer, Mr. Dawson; and a member of "Friends" in order to visit the development site at, 2151 151A Street, to identify and select the trees suitable for retention".

Council referred the EAC recommendation to the General Manager, Planning and Development.

Planning and Development Department staff arranged a meeting at the development site for October 15, 2003 involving all the people noted in the EAC recommendation. In addition, the meeting also included:

- the City Landscape Architect;
- Manager of Urban Forest & Environmental Services;
- the Project Landscape Architect;
- Mr. Patrick Harrison, the arborist retained by the Friends of Semiahmoo Trail;
- Mr. Jack Monk, Mr. Lew Atkins and Mr. Chris Hartman, representing the Friends of Semiahmoo Trail;
- Barbara Payton, member of the HAC; and
- City Planning staff.

The purpose of the meeting was to discuss the rationale for the removal of the trees that were recommended for removal and to review retention opportunities for specific trees within the Trail, assessed to be of moderate hazard, but that were identified for removal in the Hol Report.

Parks staff and the Parks consulting arborist explained the criteria for assessing trees to those present. The representatives of the Friends of Semiahmoo Trail requested that consideration be given to retaining additional trees with a moderate hazard rating. Staff advised that several trees at the trailheads, on either end of the Trail designated for removal, were already tagged and being considered for retention, management and monitoring. It was also agreed that additional trees, as identified by the Friends of Semiahmoo Trail, would be reviewed with a view to retaining them. The results of this assessment are described below.

Tree Management Strategies and Recommendations for the Semiahmoo Trail

The Parks Division has the responsibility for public stewardship of parkland urban forests in the City. To this end, it employs arborists and foresters to make critical management decisions relating to risk and public safety. Parks staff has considerable experience with tree retention strategies applied to local second growth forests in the Semiahmoo Peninsula area that are being impacted by development. Park's approach to managing the urban forest in the City for risk and safety is guided by a document titled *Park Natural Areas Management Plan: Tree Hazard Management Strategy* that was developed by City staff in consultation with outside specialists in tree and forest management. The document was adopted by the Parks, Recreation and Culture Commission as the basis for tree and forest management on City property.

Parks Division staff has carefully reviewed the tree assessment reports written by Mr. Hol and Ms. Murray. This review was followed by in-field evaluation of each individual tree on the Trail/park site to determine if there were tree hazard mitigation efforts that could be employed to allow retention of trees recommended for removal by the consultants. Soil testing was also carried out^[1] to determine whether localized differences in soil depth and soil drainage would permit additional trees to be retained.

Two options were considered by Parks staff in formulating the recommendations in this report:

Option 1:

As per the consultant reports, remove 55 trees and retain 18 trees.

This conservative option provides a high level of comfort that there will be no catastrophic tree failures in the remaining stand of trees following the completion of the proposed development. Staff would continue to inspect the remaining stand of trees regularly, in accordance with standard forest inspection guidelines.

Option 2:

1. *Remove 45 trees at the time that the Dawson Lakewood development site to the east is cleared while retaining some of these as high-stumped "Wildlife" trees. Use harvesting practices that will limit damage to the remaining vegetation;*
2. *Retain 18 trees that have a good chance of survival following development, carrying out hazard mitigation treatments on individual trees as necessary;*
3. *Carefully evaluate 10 additional trees after the stand to the east has been removed and, where possible, apply hazard mitigation techniques in an effort to retain as many of these trees as possible; and*
4. *Replant trees on the development site and Trail as documented in the following section of this report.*

While the consultant reports called for 55 trees to be removed and for 18 trees^[2] to be retained, City arborists are of

the view that the consultant recommendations may be somewhat conservative. Additional investigation by Parks staff has led to a conclusion that there may be an opportunity to retain an additional 10 mature trees on the Trail using a combination of hazard mitigation techniques. These 10 trees were included in the 18 trees identified by the Friends as needing further review with a view to retaining them. These 10 trees will be carefully evaluated after the stand to the east has been cleared in conjunction with development of the site, taking into account changes in soil moisture regimes, wind impacts on newly exposed trees within the stand and potential for increases in wind stability made possible through crown thinning and other hazard mitigation treatments.

On the basis of the above evaluation and in the interests of preserving as many mature trees as possible within the realm of reasonable risk management, staff has concluded that Option 2 is a reasonable course of action to follow and is, therefore, recommended to Council.

Changes to the Development Proposal Based on HAC, EAC and Public Input

The applicant has responded to the comments and inputs from the various committees, staff and public by making the following changes to the development proposal (see revised site plan in Appendix VI):

- setbacks of the townhouse clusters from the Trail have been increased by distances varying between .5m (1.5 ft.) to 1.4 m (4.6 ft.);
- the north yard setback (rear yard) of the proposed apartment building has been increased from 7.5 m (25 ft.) to 8.2 m (27 ft.) to maximize the area available for landscaping in an effort to provide additional privacy for the existing townhouse development to the north and visual screening from the four-storey apartment development to the northeast;
- additional trees of moderate hazard rating at the north and south ends of the Trail on the development site are proposed to be retained. (Note: these trees were identified for removal in the Murray Report);
- 110 replacement trees will be planted by the developer on the Trail adjacent to the development site to achieve a 2 to 1 replacement ratio for the trees being removed;
- 161 new trees will be planted on the development site to replace the 95 trees proposed to be removed from the development site;
- an extensive landscape plan will be implemented that includes an augmentation strategy within the setback areas adjacent to the Trail using mostly native and native like species to tie in with the existing "natural" vegetation along the edge of the Trail and to visually extend the perimeter planting along the east side of the Trail.

The Friends of Semiahmoo Trail submitted a letter, dated September 18, 2003, addressed to Mr. Dawson (the developer), which noted that *"the Friends have focused solely on the issues of tree retention on the Trail and have taken no issue with the size and scope of your (Dawson's) proposed development"*.

Response from the Friends of Semiahmoo Trail

The Friends submitted a letter, dated October 21, 2003, (Appendix V) to the City that:

- requested that an additional 9 trees on the Trail be considered for retention;
- advised City staff on the importance of preserving the existing character of the Trail; and
- provided suggestions on tree management strategies that should be considered as part of the process of addressing the trees in the Trail.

These suggestions have been taken into consideration by the Parks staff in its most recent review of the management of trees along this portion of the Trail, as noted in the "Tree Management Strategies and Recommendations for the

Semiahmoo Trail" section in this report. Parks staff has advised that 4 of the 9 trees, identified in the October 21, 2003 letter from the Friends of Semiahmoo Trail, may be potentially retained subject to further evaluation as clearing work takes place related to both the development site and the Trail. Parks staff further advise that steps will be taken to ensure that clearing work in and adjacent to the Trail is undertaken in a manner that minimizes disruption and damage to trees and other vegetation proposed to be retained within the Trail so that the character of the Trail is maintained. In a similar vein, the planting of new trees in the Trail will be undertaken so as to ensure that the forest remains healthy and viable over both the short and the long term.

CONCLUSION

The issues and concerns raised by the Friends of Semiahmoo Trail regarding tree retention on the Trail, adjacent to a proposed development at 2151 – 150A Street, have been carefully reviewed. City staff, representatives of the Friends of Semiahmoo Trail and the developer of the property adjacent to the Trail, have made significant efforts to address the concerns with a view to achieving the common goal of ensuring high quality development in the Semiahmoo Peninsula that respects the heritage value and the natural environment of the area and enhances the liveability of the area for area residents. Every effort is being made to retain additional mature trees on the Trail adjacent to the development site at 2151 – 150A Street through a combination of hazard mitigation techniques and further analysis of site conditions following removal of those trees that need to be removed on the development site. The hazard mitigation techniques will ensure retention of the maximum number of mature trees on the Trail. Further, careful attention will be devoted during construction to protecting the retained trees both on the development site and on the Trail adjacent to the site and other existing vegetation on the Trail. On this basis, it is recommended that Council instruct staff to implement the tree management approach for the Semiahmoo Trail, as recommended in the body of this report, to

implement the recommendations of HAC to ensure that the design of the interface between the proposed development and the Trail maintains the existing natural appearance and to forward a copy of each of this report and Council's resolution related to this report, to the Friends of Semiahmoo Trail.

Original signed by

Owen Croy
Manager of Parks

Original signed by

Murray Dinwoodie
General Manager
Planning and Development

CA/kms/saw

Attachments

- Appendix I Site Plan Related to Development Application No. 7995-0049-00/0525-037
- Appendix II Arborist Report by Michael Mills dated June 20, 2003
- Appendix III Arborist Report by Norman Hol dated June 25, 2003
- Appendix IV Arborist Report by Susan Murray dated September 7, 2003
- Appendix V Letter from the Friends of Semiahmoo Trail dated October 21, 2003
- Appendix VI Revised Site Plan for the Proposed Phase 3 Development

[1] Unfortunately, test holes filled with water before compacted till was reached, leading to the conclusion that the water table is very high in this forest stand, even on the higher topographical micro sites. This in turn can lead to greater rates of tree failure, as predicted in the consultant reports.)

[2] This number of trees to be retained does not include the many small trees growing within the understory of the forest stand that will have a rapid growth response once mature trees are removed.