

**COMMITTEE OF THE WHOLE (WORKING SESSION) JANUARY 24, 2006**

**OFFICIAL PLAN AMENDMENT 610  
ZONING BY-LAW AMENDMENT FILE Z.03.005  
REGIONAL ROAD 27 VALLEY CORRIDOR STUDY  
GENERAL PLANNING FILE 6.14  
REPORT #P.2003.18**

**Recommendation**

The Commissioner of Planning recommends:

THAT all future official plan amendments, require that a minimum 10m ecological buffer, outside of the development lot or block, adjoining a valley and stream corridor, be provided as a part of the public open space system.

**Economic Impact**

There is no economic impact associated with this report.

**Purpose**

On February 23, 2004, Council passed the following resolution:

“That staff be directed to provide a report to a future Committee of the Whole (Working Session) meeting, addressing increased set-backs beyond Toronto and Region Conservation Authority top-of-bank requirements to better protect natural areas.”

In order to address the direction provided by Council, the following report is provided which details the Toronto and Region Conservation Authority's (TRCAs) setback requirements and the corresponding City Official Plan policies with regard to valley and stream corridor protection.

**Background**

**Buffers and Setbacks**

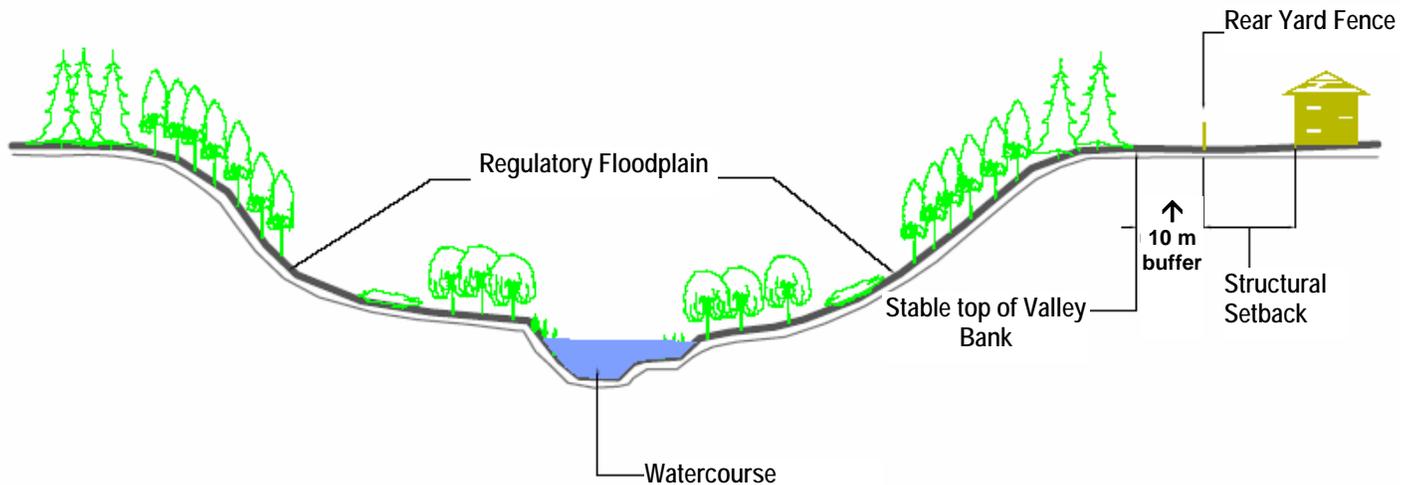
Buffers, in this case, meaning ecological buffers, refers to the area of land occurring on the tableland in between a natural feature and development, where development does not occur. They are areas which are permanently vegetated, or re-vegetated post development, that protect natural features from impacts of adjacent development or site alteration. The goal of a buffer is to maximize the long term health of the adjacent natural areas.

The buffer area is typically used during development, if necessary, for meeting the grade requirements of the development block, and after development, is maintained in a natural state, consistent with the adjacent natural area, in order to mitigate the impacts associated with the ongoing use of a developed site.

Buffers also assist in the long-term protection and management of natural areas by providing a variety of ecological functions. By separating ecologically sensitive natural areas and development, they lessen the impact of human activities on wildlife and ecological systems. In urban settings, buffers reduce the impact of human encroachment and the resulting impacts of garbage dumping, vegetation trampling, noise, and the visual impact of development. Buffers along valley and stream corridors slow surface water runoff, reduce erosion, stabilize valley slopes, and protect water quality by filtering nutrients and pollutants and trapping sediment.

A buffer differs from a building setback, as defined in the zoning by-law. The terms setbacks and buffers, in the context of natural heritage protection, are often confused as the terms have been mistakenly used interchangeably. Setbacks refers specifically to a term used in zoning which refers to the distance between a structure and another regulated point such as a lot line or a zone boundary. Setbacks are within a development lot or block, whereas typically, to be a true ecological buffer, buffers usually remain within the open space block containing a natural feature.

Both buffers and setbacks are utilized in the development process, and are illustrated below:



### Provincial Policy Statement

The Provincial Policy Statement (PPS) provides natural heritage protection to features which meet the Provincial definition of significance. The PPS provides that development and site alteration shall not be permitted in “significant valleylands” south and east of the Canadian Shield unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions. Significant valleylands are defined as ecologically important in terms of functions, representation or amount, and contributing to the general quality and diversity of an identifiable geographic area or natural heritage system.

Although the PPS doesn’t exclusively dictate buffers and setbacks from significant valleylands, it does not preclude the local municipalities from adopting approaches which meet natural heritage protection objectives.

As the TRCAs mandate, through the *Conservation Authorities Act*, includes natural heritage protection and the TRCA specifically regulates development and construction within valleylands, their policy requirements and technical expertise on valleyland protection is utilized through the planning process.

### TRCAs Valley and Stream Corridor Management Program

In 1994, the TRCA adopted their “Valley and Stream Corridor Management Program” (VSCMP) which summarizes their policies on the protection and rehabilitation of valley and stream corridors within their jurisdiction.

VSCMP defines the boundaries of a valley and/or stream corridor as follows:

- If the valley slope is stable, a minimum of 10m inland from the physical top of the valley bank; or
- If the valley slope is not stable, a minimum of 10m inland from the predicted long term stable slope line, based on an approved geotechnical report; or
- Where applicable, a minimum of 10m inland from the regulatory floodplain or the predicted meander belt of the watercourse, where there is no floodplain; and
- Where significant vegetation is within or immediately adjacent to a valley or stream corridor, the corridor boundary is extended to include the vegetation, and a minimum of 10m inland.

The above requires a 10m buffer to be provided from the greater extent of the stable top of bank; regulatory floodplain; or vegetation contiguous to a valley. These define the limits of a valley or stream corridor and include the ecological buffer as a part of the valleylands.

#### City Official Plan Policies

In the various Official Plans throughout the communities of Vaughan, the limits of Valley and Stream Corridors are treated differently, based on the policy context in place at the time of Official Plan approval.

OPAs 210 (Thornhill Community Plan), 240 (Woodbridge Community Plan), 332 (Maple North), and 350 (Maple Community Plan) all contain general policies with regard to valleyland protection, with no mention of development buffers. The following policy is included in these Official Plans:

*The valley lands shall include the slopes, valley and floodplain lands of the East Don River\* and its tributaries as determined by the Toronto and Region Conservation Authority and the Ministry of Natural Resources. The precise limits of these lands will be determined in conjunction with the Authority in considering development proposals. Where detailed engineering has not been prepared, the proponent may be required to carry out studies to determine the extent and severity of the hazard. The dedication of valleylands to the Toronto and Region Conservation Authority shall be encouraged as a condition of subdivision approval.*

(\*or other relevant watershed as indicated in the various Official Plans.)

OPAs 400 (since superseded by OPA 600), 450 (Employment Area Plan), 500 (Corporate Centre Plan), and 600 were written with more specific policies with regard to delineation of valley and stream corridors. OPAs 400, 450, 500, and 600 were written and approved post-1994, and therefore reflect the policies and intent of the TRCAs Valley and Stream Corridor Management Program.

OPA 600, Section 5.9 provides an example of the policy wording relating to valley and stream corridors. Section 5.9 requires that valley and stream corridors be established to the satisfaction of the City and the TRCA through the application of the policies contained in the Official Plan which are reflective of the TRCAs Valley and Stream Corridor Management Program, effectively providing for a 10m buffer from the top of bank to be included within the valley limits as follows:

*“If a valley slope is stable, generally 10 metres inland from the top of the valley bank. If the valley slope is not stable, generally 10 metres inland from the predicted long term stable slope projected from the existing stable/stabilized base of slope, or from the predicted location of the base of the slope shifted as a result of stream erosion over a 100 year period. The extent and treatment of the land beyond the stable slope shall be determined, based on technical studies, to ensure the long term maintenance of the valley functions.”*

When OPA 600 was approved with the above noted policy, the landowners in Blocks 11, 12, 18 and 33W appealed this policy. The appeals were settled through a tiered approach to buffers which requires an assessment of the adjacent feature to determine ecological sensitivity of the feature. Buffers ranging from 2.5m, 5m, and 10m, have been assigned to low, moderate, and high ecologically sensitive features respectively.

Further, OPA 600 states that:

*“To ensure the long term protection of the valley and stream functions, any buffer requirements inland from the stable top of bank or the regulatory floodplain are encouraged to be included within the open space blocks set aside for protection. However where feasible on the basis of technical studies, a buffer may be accommodated through an increased setback requirement. At a minimum, building and structures, including underground structures and paved surfaces shall be 10 metres from the stable top of bank or the regulatory floodplain. The lands increased setback shall be zoned to prohibit principal buildings and structures.”*

This policy allows for the flexibility of the application of a 10 metre buffer to be included within the building lot as an increased setback, rather than a true ecological buffer within the valley corridor limits. It is this policy which permits the variability for the application of a range of buffers within the valley as a buffer, or within the private lot, as a structural setback. As a structural setback, the ecological benefits of a buffer are not realized, and the negative impacts associated with development directly abutting a valley corridor, which have been described above, are exacerbated.

OPA 601 (Kleinburg-Nashville Community Plan) contains stronger policies with regard to valley and stream corridors as follows:

*“If the valley slope is stable, a minimum buffer of 10 metres shall be established from the top of the valley bank where development is not permitted. If the valley slope is not stable, a minimum buffer shall be established at a point 10 metres inland from the predicted long term stable slope projected from the existing stable/stabilized base of the slope, or from the predicted location of the base of the slope shifted as a result of stream erosion over a 100 year period. Detailed technical studies (i.e. geotechnical) shall be prepared by the proponent to the satisfaction of the City and TRCA.”*

OPA 601 also permits that the 10m buffer may be included within the development area, however, as the densities are lower in Kleinburg/Nashville, and the lots are much larger, the Official Plan requires that if the buffer is to be included within the development area, it must be zoned as private open space, or that other appropriate control mechanisms are implemented prohibiting principal buildings or structures.

#### Oak Ridges Moraine Conservation Plan

OPA 604, the City's Oak Ridges Moraine Conformity Official Plan Amendment established a more stringent requirement for valleyland protection and buffers, which are called "Minimum Vegetative Protection Zones". Within the Natural Core Area and the Natural Linkage Area of the Oak Ridges Moraine, the minimum vegetative protection zones are 30m from significant valleylands.

#### Greenbelt Plan

Similar to the Oak Ridges Moraine Conservation Plan, the Greenbelt Plan requires, within the Natural Heritage System of the Protected Countryside, that a 30m buffer (referred to as Minimum Vegetative Protection Zones) apply to all wetlands, seepage areas and springs, fish habitat, permanent and intermittent streams, lakes and significant woodlands. The Greenbelt Plan

policies apply to the designated Protected Countryside which predominantly occurs within the City's rural/agricultural areas.

### **Analysis and Options**

Ecological buffers are important components of watershed management and natural feature protection. They allow for the negative impacts associated with development directly abutting a natural feature to be mitigated by focusing negative impacts within the buffer area, rather than within the natural feature.

As detailed above, the various Official Plans within the City contain a variety of policies which provide for the protection of valley and stream corridor. In practice, the official plan policies protecting valley and stream corridor, although are similar, are not being implemented consistently across the City, or even throughout approved official plans. In implementation, achieving a standard of a 10m ecological buffer in all developments is difficult. As indicated above, the Official Plan policies are flexible to allow for the 10m buffer to be included as a structural setback within a development block rather than as an ecological buffer within the valley limits. Ecological goals are often at odds with development pressures, where achieving maximum densities and net developable areas is a key priority in the development industry. This creates a situation where pressure for more developable area is pitted against the long term ecological goal of natural heritage protection. Confining valley and stream corridors to tighter corridors is less than ideal and ultimately confines the land within which natural systems exists, exacerbating negative impacts of development in close proximity to natural areas.

The flexibility within the Official Plan policies means that the policy requirements within the TRCAs Valley and Stream Corridor are not being implemented consistently. These policies exist currently within approved official plans, and the lands designated by the official plans will be subject to these policies until the next official plan updates. The Vaughan Development Planning Department and the TRCA work to maintain a consistent and fair application of the Official Plan policies, while attempting to achieve maximum ecological protection. Often, the buffers applied to a particular development are a result of a combination of technical studies (geotechnical reports, flood studies and Environmental Impact Studies), and a negotiated agreement. Stronger Official Plan policies would result in a more consistent level of protection.

Policy trends in natural heritage protection are evolving, as indicated within the *Greenbelt Plan*, and the *Oak Ridges Moraine Conservation Plan*, and ecological buffers are widening to greater than 10 metres. Should Council wish to adopt a more prescriptive and consistent position on valleyland protection, than is currently within the City's approved Official Plans, it is recommended that the resolution contained in this report be adopted to ensure that all future Official Plans are approved with a minimum 10m ecological buffer outside of the development area.

### **Woodbridge Expansion Area**

Within the Woodbridge Expansion Area, the lands backing onto the Humber River valley were approved with a 10m structural setback, established from the top of bank, and not an ecological buffer, with the exception of one site, where geotechnical concerns resulted in additional lands being provided as a buffer outside of the residential lots (see Attachment #1).

With the application of the policy suggested in this report, a 10m ecological buffer would have been provided in addition to the structural setback required in the zoning by-law (typically 7.5m). This would have resulted in a total distance of 17.5m from the top-of-bank to the residential structure, which would have assisted in both mitigating the visual impact of the structures along the top of the valley, and in the long term ecological management of the valley corridor.

There is currently a planning process being undertaken by the Parks Development Department to address the landscape treatment and long term plans for the adjacent City-owned lands. These plans will include additional plantings which would assist in mitigating the visual impacts of the residences along the top of the valley.

### **Relationship to Vaughan Vision 2007**

This report is consistent with Vaughan Vision 2007 'A3' with respect to safeguarding our environment by preserving, protecting and enhancing environmental stewardship through responsible leadership and innovative policies, and practices.

### **Conclusion**

Further to the Council resolution requesting a report addressing increased setbacks beyond Toronto and Region Conservation Authority top of bank requirements to better protect natural areas, this report is provided which details the TRCAs requirements, and the corresponding City Official Plan policies regarding delineating and protecting valley and stream corridors. Although reflective of the TRCAs Valley and Stream Corridor Management Program, the City's various Official Plan policies have flexibility in implementation, and in practice are being implemented through a combination of ecological buffers and structural setbacks, which does not provide maximum long term ecological protection to valley and stream corridors. In effect, the official plan policies, do not strictly implement the TRCAs Valley and Stream Corridor Management Program's requirement for a 10m ecological buffer.

Should Council wish to adopt a more aggressive and consistent position on valleyland protection, than is currently within the City's approved Official Plans, the recommendation contained in this report shall be adopted to ensure that all future Official Plans are approved with a minimum 10m ecological buffer outside of the development area.

### **Attachments**

1. Woodbridge Expansion Area Valley Edge

### **Report prepared by:**

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Respectfully submitted,

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/CM



MAJOR MACKENZIE DRIVE

REGIONAL ROAD 27

Valley

ADDITIONAL LANDS PROVIDED FOR GEOTECHNICAL REQUIREMENTS

10m STRUCTURAL SETBACK PROVIDED FROM TOP OF BANK TO STRUCTURE (NO BUFFER)

Valley

RUTHERFORD ROAD

NP 2.53ha  
PES 2.02ha  
SES 2.02ha

SES 2.02ha  
NP 2.50ha

# Woodbridge Expansion Area Valley Edge



# Attachment

Part of Lots 16 - 20,  
Concession 8

Development Planning  
Department

FILE No.:  
6.14

Not to Scale

January 19, 2006

# 1