



**STAFF REPORT  
ACTION REQUIRED  
with Confidential Attachment**

**Tree Hazard Abatement in Parks and Ravines**

<b>Date:</b>	October 19, 2007
<b>To:</b>	Parks and Environment Committee
<b>From:</b>	General Manager, Parks, Forestry and Recreation
<b>Wards:</b>	All
<b>Reason for Confidential Information:</b>	This report contains advice or communications that are subject to solicitor-client privilege.
<b>Reference Number:</b>	

**SUMMARY**

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The purpose of this report is to recommend a tree hazard abatement policy for parks and ravines. The recommended policy is consistent with the Toronto and Region Conservation Authority’s (TRCA) policy for inspection and maintenance of hazardous trees on TRCA-owned lands and the Hamilton Royal Botanical Garden (RBG) inquest recommendations relating to tree assessment and care. A legal opinion on this matter is included as a confidential attachment.

The proposed policy will assist in the identification of hazardous trees in our parks and ravines, especially in high traffic areas including pathways, picnic areas, and exit and entrance ways, and in scheduling the required maintenance of these trees. Creating and installing appropriate signage at access points to parks and ravines is also recommended as part of the policy.

**RECOMMENDATIONS**

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The General Manager, Parks, Forestry and Recreation recommends that:

City Council adopt the key components of the preventative hazard tree management plan, as described in this report, as the City of Toronto’s policy for tree hazard abatement in parks and ravines.

## Financial Impact

Approval of the recommendation in this report has the following additional Operating and Capital budget implications to be considered within the overall 2008 Parks, Forestry and Recreation budget submission.

<b>Expenditures</b>	<b>2008</b>	<b>2009 Annualization</b>	<b>Total</b>
Capital Budget	\$147,000		\$147,000
Operating Budget	\$1,049,596	\$333,615	\$1,383,211
Permanent Staff Positions	Three Forestry Foreperson 1's		

If approved in 2008, the incremental operating budget impact to Parks, Forestry and Recreation would be \$1,049,596 and \$333,615 in 2008 and 2009 respectively. The impact to the capital budget is \$147,000 funded through debt in 2008.

The capital funding requested is for the purchase of three (3) hybrid trucks with ramps and three (3) all terrain vehicles. In 2008, \$750,000 of the requested \$1,049,596 operating funds will be allocated to contracted services for undertaking the required tree work that is anticipated. The requested staff positions will require \$150,000 in operating funds in 2008 and \$50,000 in 2009.

In addition to the funding requested in the 2008 and 2009 Operating and Capital budget request, a further report requesting additional funding will be submitted in 2008, in relation to trail identification, mapping and signage. Urban Forestry will coordinate with the Parks branch of Parks, Forestry and Recreation in preparing this report and determining the funding that will be required for the mapping of existing maintained and non-maintained trails, the installation of trail markers for the purpose of identification and record keeping, and signage identifying the nature of the trails and any caution that needs to be exercised.

The Deputy City Manager and Chief Financial Officer have reviewed this report and agree with the financial impact information.

## ISSUE BACKGROUND

On November 5, 2004, a ten year old boy was killed by a falling tree while on a class field trip at Hamilton's Royal Botanical Gardens (RBG), resulting in an inquest and report from the office of the Chief Coroner with specific recommendations relating to tree assessment and care. The recommendations of the Coroner's jury are specific to the RBG, but the purpose of the recommendations is relevant to the City of Toronto with respect to the management of hazardous trees in the City's parks and ravines. As a result

of the report from the Chief Coroner, the TRCA adopted a policy for inspection and maintenance of hazard trees on TRCA-owned lands. The City of Toronto has an agreement to manage TRCA lands within our boundaries and must do so in a manner consistent with TRCA policy. The City should also adopt a similar policy for tree hazard abatement in City parks and ravines.

The key points that the City can take from the recommendations of the Coroner's jury include:

- Hiring staff or contracting a certified arborist/forester who is qualified in the area of tree risk assessment to identify trees that pose imminent risk in the City's parks and ravines.
- Mapping all trails.
- Installing signage along trails identifying the trail, marking distance and direction to orient the users and pinpoint locations for service.
- The creation of a comprehensive tree risk management program including detailed record keeping and a policy related to weather and the use of trails based on the weather.
- Conducting pre-tour inspections for each trail to be used for educational purposes.
- Developing educational material promoting awareness of the risks associated with trees.

## **COMMENTS**

Trees perform important functions that protect and enhance city dwellers' health and property. Trees make our streets and parks more beautiful and contribute to the emotional well-being of residents. They also clean the air by absorbing air pollutants and releasing oxygen, reduce storm water runoff and erosion, moderate climate, help reduce energy consumption, create wildlife habitat and strengthen community. They provide significant benefits to our community's economy and way of life.

The benefits of trees are well understood however trees may also develop defects that can create hazards. Extreme weather events may cause healthy trees to fail, resulting in some risk to individuals using parks, trails and pathways within striking distance of tree branches or stems. The proposed policy is intended to reduce the risks associated with trees.

## **Current Situation**

The Urban Forestry Branch of Parks, Forestry and Recreation is responsible for the inspection and maintenance of all City trees including an estimated 2.5 million trees in parks and ravines and over 500,000 trees on the City road allowance.

There are risks associated with trees that must be managed to allow for the continuing use and enjoyment of parks. The current emphasis of tree care activities undertaken by Urban Forestry is on public streets where trees overhang walkways and streets. The inspection and maintenance of trees along pathways in parks and natural areas is undertaken primarily in response to complaints received from the public or staff working in these areas.

The mapping of trails, coupled with appropriate signage, as proposed in the policy will enable staff to more readily identify the location of trees in need of maintenance and alert users to any potentially hazardous situations. Trails are well used by the public for recreation, transit and interpretive tours. Daily school programs are operating in parks such as High Park, Rouge Park and at the Hearthstone Valley Greenbelt, where the Forest Valley Conservation Area operates an outdoor education program for the Toronto District School Board.

Residents in the City of Toronto are encouraged to use the City's network of trails and parks as a means of exercising and improving their overall health with outdoor activity. Groups of 25 or greater are required to obtain a permit prior to using City parks or trails. The majority of parks and trail users are not groups of 25 or greater and we, therefore, have no method of determining who is using our parks and when. The Parks, Forestry and Recreation Division made a presentation to the Community Development and Recreation Committee in June 2007, titled Strengthening Community through Sports and Recreation. Some of the points stated in the presentation highlight the benefits of outdoor recreation in parks and ravines:

- Outdoor recreation is one of the best approaches to environmental education – a key to long-term sustainability.
- Trail and pathway systems save energy and protect air quality by encouraging non-motorized transportation.
- They demonstrate the value of lifelong activity and use of parks, trails and community centres.

It is essential that we implement a program of tree hazard abatement in parks and ravines if we are encouraging Toronto residents to utilize these resources.

## **Legal Opinion**

Urban Forestry requested a legal opinion with respect to hazard tree management in our parks and ravines. A copy of this opinion has been included with this report as a confidential attachment. (Attachment 1)

## **Toronto and Region Conservation Authority**

The TRCA recently created a policy for managing hazard trees. It states: "It is the policy of the Toronto and Region Conservation Authority to maintain the safety of its lands for staff and the public from trees that pose imminent risk." The TRCA owns property in the City of Toronto that is used for park and recreational purposes. Fifty-two percent of the

City's 7,364 hectares of parkland is owned by the TRCA, and is managed by the City of Toronto through a Memorandum of Agreement between the TRCA and the City of Toronto. The City should develop a policy related to the management of hazard trees that is consistent with the TRCA's policy and the RBG inquest recommendations.

## **Funding**

Given the current street tree service backlog, response to public reports of hazards and risks cannot be improved using currently available operating and capital funding. In addition, increased funding is necessary in order to improve current levels of tree service in parks and ravines and to include more regular inspection and maintenance. In order to address this situation, a business case to initiate a tree hazard abatement program in parks and ravines was developed by Urban Forestry as part of the 2008 Parks, Forestry and Recreation budget submission. If the request for funding is approved, three (3) Forestry Foreperson 1's will be hired to inspect ravines, parks and natural areas and to arrange for City arborist crews or contract crews to remove hazards. The financial impact of the three (3) staff members will be \$150,000 in operating funds for 2008 and \$50,000 in operating funds for 2009. The initial focus will be on high traffic areas including pathways, picnic areas and exit and entrance ways. The Forestry Foreperson's will have the ability to address pathway obstructions at the time of inspection.

In 2008, \$750,000 of the requested operating funds will be spent on contracted services for tree maintenance in parks and ravine areas that have been identified as the highest priority. The Capital funding requested will be used to purchase hybrid trucks and all terrain vehicles (ATV's) for the three (3) staff positions requested. The ATV's can be loaded onto the back of the trucks and used in trails that are inaccessible to the trucks.

In 2008, Urban Forestry will coordinate with the Parks branch of Parks, Forestry and Recreation and report on additional funding required for trail identification, mapping and marking. A section providing information on trail identification, mapping and marking is located on page 6 of this report.

## **Key components of a preventative hazard tree management plan**

The City of Toronto's proposed policy for tree hazard abatement in parks and ravines states:

**It is the policy of the City of Toronto to maintain the safety of its parks and ravines, for staff and the public, by conducting periodic inspections and undertaking required tree maintenance identified through the periodic inspections.**

A tree hazard management plan must include systematic tree inspections for the purpose of identifying hazardous and potential risk situations. A management plan is proposed and the key components are as follows:

- Periodic inspections and follow-up work of the parks and ravine trails to identify tree hazards that require maintenance.
- Operational services to undertake the required tree maintenance identified through the periodic inspections in a timely manner.
- Standardized forms for recording inspections and maintenance carried out with data entry into a computerized system such as the Toronto Maintenance Management System (TMMS) system currently used in Urban Forestry.
- Updating existing mapping and creating new mapping for ravines, natural area trails and parks. Identifying maintained trails vs. natural surface dirt paths that are not maintained.
- Installing markers along the trails and in the parks to be used as reference points for inspections and maintenance work.
- Adding trail signage to identify maintained natural area trails, and to warn of trails that are not maintained.
- The development of educational material, to be provided to the public, via the City's website, Fun Guide and in brochures prepared by Parks, Forestry and Recreation, providing information on the risks associated with trees if they are not monitored and maintained on a regular basis.
- Standardized training for forestry ravine and park inspectors.

## **Trail Identification, Mapping and Marking**

There are many different types of paths and trails in the City's parks and ravines including those that are maintained and those that are not. It is recommended that an inventory be completed, in cooperation with the Parks branch of the Parks, Forestry and Recreation Division, whereby the uses being made of the existing maintained and non-maintained trails will be documented. In addition to knowing the frequency and type of use of the existing trails, maps need to be created identifying the location of the paths and trails in our parks and ravines. There is some mapping currently available which needs to be built upon to provide a more comprehensive mapping inventory.

With a complete inventory and map system of the paths and trails in our parks and ravines, position markers should be installed along the paths and trails. The markers are necessary for record keeping and documenting tree maintenance that occurs along the paths and trails. Additional funding over and above what is requested in this report would be required to inventory, map and install signage in the City's parks and ravines. A report will need to be prepared in cooperation with the Parks branch outlining the requirements necessary to complete these tasks and how this initiative can be coordinated with other park and trail signage programs and priorities.

The ravines, parks and natural areas are some of Toronto's greatest assets and we encourage people to use them. We therefore need to manage them with a goal of providing the public with enjoyable, educational and safe recreation opportunities.

## **CONTACT**

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## **SIGNATURE**

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Brenda Librecz,  
General Manager, Parks, Forestry and Recreation

## **ATTACHMENTS**

Attachment No. 1 (**Confidential**) - Tree Hazard Abatement in Parks and Ravines, Legal  
Opinion