



COMMITTEE OF THE WHOLE MEETING

May 5, 2014
SRCAO.14.08

Office of the Chief Administrative Officer

SUBJECT: Ice Storm 2013 – Update and Lessons Learned

PURPOSE:

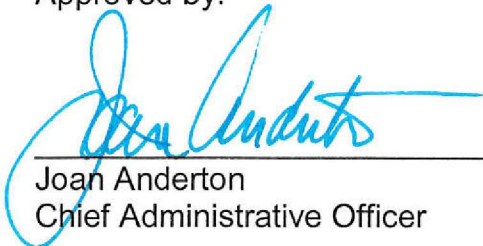
The purpose of this report is to provide an update on activities related to the response and ongoing recovery to the December 2013 Ice Storm and identify lessons learned from the event. It speaks to the potential Provincial funding that may be available to assist with incremental ice storm costs. The report also responds to the motions approved by Council at the January 13, 2014 Special Council Meeting.

RECOMMENDATION(S):

- a) That staff report SRCAO.14.08 be received;
- b) That staff be directed to submit an expression of interest for funding from the Provincial Ice Storm Assistance Program;
- c) That the Director, Financial Services / Treasurer of the Town of Richmond Hill be delegated authority to submit claims on behalf of the Town under the Provincial Ice Storm Assistance Program; and
- d) That PowerStream be requested to present to Council the findings of PowerStream's review of the December 2013 ice storm event.

Contact: Tricia Myatt, Manager, Policy and Intergovernmental Affairs, ext. 5463

Approved by:


Joan Anderton
Chief Administrative Officer

BACKGROUND:

Starting on late December 21 through December 22, 2013, the Town of Richmond Hill along with many municipalities throughout the Greater Toronto Area experienced a severe ice storm. At its peak, 36,000 of Richmond Hill's 60,000 PowerStream customers were without power. Most had power back by December 26, 2013, with full power restored by December 30, 2013. It is estimated that 200,000 trees were damaged on private and public property throughout the municipality. This included downed trees, toppling and broken branches which created dangerous conditions for all.

A concerted and coordinated effort was made to deal with the immediate response to the storm. Staff report SRCAO.14.03, presented at a Special Council meeting on January 13, 2014, (attached as Appendix A to this report) provides an overview of this initial response, anticipated recovery activities and estimated costs at that time.

Actions Since January 13, 2014

As estimated in staff report SRCAO.14.03, cleanup of priority areas and hazards was completed by February 28, 2014.

All Richmond Hill parks and trails have been inspected. It was initially reported that a number of these parks and trails would need to remain closed until April 2014. However, the initial cleanup was expedited due to favourable conditions which resulted in all Town parks and trails being re-opened by the end of February 2014. Further cleanup efforts are underway and are expected to continue into the fall.

Two yard waste collections were completed on January 6 and 22, 2014 with approximately 114.6 tonnes of debris collected. This compares to a yearly average of approximately 51.7 tonnes during this time over the previous four years. Regular yard waste collection resumed on April 7, 2014 and will continue on scheduled Mondays until November 24, 2014. The first yard waste collection dates in April (April 7 and 14 and not including April 28) resulted in 630 tonnes being collected. This compares to a yearly average of 537.6 tonnes being collected during the entire month of April over the past four years.

Starting on January 27, 2014 further road side collection for ice storm related debris was completed throughout the Town. A second round of ice storm related debris collection began during the week of April 20, 2014, lasting for approximately two weeks. This work has been conducted by a separate contractor overseen by Town staff.

As originally reported, approximately 5000 municipal trees, including street trees and parks trees, were impacted by the ice storm. To date, 700 street trees and 700 parks trees have been removed. Following the Town's Procurement By-law, staff are currently developing and advertising various arboricultural and planting tenders. Town resources continue to deal with resident and Council requests regarding the ice storm damage and

Emerald Ash Borer inquiries. Replanting of trees will begin in the fall and may take up to two years to complete.

Operations staff continue to work with the Town's Communications Services Division to develop and maintain a communications plan related to the ice storm. This plan includes the following:

- Information updates on the Town's website;
- Weekly information on the Bulletin Board pages of the Liberal;
- Updates on Town facility digital information boards; and
- A series of door hangers dealing with the various arboriculture operations.

The door hangers are provided to property owners adjacent to damaged trees 24 to 48 hours in advance of the work and provide information on the nature of the maintenance to be completed (e.g. pruning, removal, stumping or replacement). A sample is attached as Appendix B to staff report SRCAO.14.08.

Councillor's will also be notified by email when entire street or neighbourhood arboricultural operations are being scheduled in their wards.

Staffed information booths have been or will be present at a number of community events including the Winter Carnival, Public Works Week and various scheduled community centre's and retail mall displays. Parks, Urban Forestry staff are present to answer questions on both public and private tree concerns.

All wood debris is being treated in keeping with the requirements of the Emerald Ash Borer protocols. It should be noted that cleanup of downed or damaged trees on the boulevard of Regional roads is the responsibility of the Region of York.

Request for Financial Assistance

As directed by Council, staff submitted an application for Ontario Disaster Relief Assistance Program (ODRAP) funding on January 14, 2014. The initial request was for \$6.4 million. However, discussions with staff at the Ministry of Municipal Affairs and Housing (MMAH) identified potential additional incremental costs which may be considered, resulting in an updated request for \$7 million.

On February 26, 2014 MMAH indicated that up to \$190 million in funding will be made available through a one-time Ice Storm Assistance Program to fund 100% of eligible recovery costs. On April 10, 2014 MMAH provided additional information on the Program. MMAH indicated that:

- Detailed program guidelines for applying for assistance will be released in May 2014.

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- Municipalities are to submit expressions of interest for funding by June 16, 2014. This will need to include evidence of ice damage and initial cost estimates along with a Council resolution seeking provincial assistance. Richmond Hill Council's January 13, 2014 resolution seeking ODRAP assistance meets this requirement.
- The expression of interest must include proof that the Treasurer of the municipality has been delegated authority to submit claims under this program.
- The Province will review expressions of interest to determine whether a municipality is eligible to submit a claim for assistance under the program.
- If a municipality is eligible to submit claims for assistance it must submit them by August 31, 2014. The claims may include eligible costs incurred up to June 22, 2014.

The Ministry has provided the following list of examples of eligible and ineligible costs under this Program but notes it is not an exhaustive list:

Eligible Costs	Ineligible Costs
<ul style="list-style-type: none"> • Incremental costs of immediate emergency response, such as setting up warming centres. 	<ul style="list-style-type: none"> • Regular public sector salaries.
<ul style="list-style-type: none"> • Clean-up of debris including fallen trees and broken branches on roads, sidewalks and frequently travelled routes to protect public health and safety. 	<ul style="list-style-type: none"> • Normal operating expenses, including maintenance budgets of those involved in the response.
<ul style="list-style-type: none"> • Incremental costs incurred to provide the essential services, equipment, material and labour required to sustain the operability of public infrastructure. 	<ul style="list-style-type: none"> • Emergency service costs related to routine incident management functions, as opposed to incremental costs of responding to broader disaster consequences.
<ul style="list-style-type: none"> • Incremental costs of staff for overtime work and for temporary contract staff to manage ice storm response and clean-up. 	<ul style="list-style-type: none"> • Tree replacement or tree canopy restoration.
<ul style="list-style-type: none"> • Repairs or replacement to pre-disaster condition of municipal and conservation authority infrastructure and related equipment damaged as a result of the ice storm. 	<ul style="list-style-type: none"> • Costs of restoring or replacing items that were insured or insurable. Under the program, "insurable" means that insurance coverage for a specific hazard for the municipality or conservation authority was available in the area at a reasonable cost.
<ul style="list-style-type: none"> • Incremental costs of appraising and estimating damage. 	<ul style="list-style-type: none"> • Loss of income, wages, profits and/or revenue, loss of opportunity or inconvenience.
	<ul style="list-style-type: none"> • Costs incurred by local electricity distribution companies.

Staff continue to track and monitor incremental costs related to the ice storm and are in a position to submit an expression of interest for Ice Storm Assistance Program funding along with any required claims within the timelines identified by MMAH.

The latest estimated financial impact of the ice storm is \$7.0 million which includes the immediate and long-term cleanup costs, as well as the repair and replacement of the tree canopy. The initial Provincial criteria are not clear on whether tree removal and clearing costs, outside of safety and hazard situations are eligible. Potentially, these costs, incurred up to the June 22, 2014 cut-off date, could be eligible for Provincial

funding. Until the formal guidelines are provided, staff estimate a range of eligible costs between \$1.6 million and \$3.0 million.

The Province has also indicated that it is undertaking two separate reviews in response to the ice storm. The first is called an "After-Action Report" which deals with the coordination among all parties involved during emergencies including first responders, hydro distributors, senior municipal officials and provincial ministries. The second is called the "Supply Chain Review" which is to examine how critical supplies are procured and distributed during large-scale emergencies. No further information is available regarding these reviews at this time.

As part of its 2014 budget, the federal government announced provisions for a National Disaster Mitigation Program (NDMP) starting in 2015-16 with \$200 million available over 5 years. The program will support investments in structural mitigation measures, such as infrastructure to control floods, that can reduce the impact of severe natural disasters. Costs of these projects are expected to be shared by the provinces and territories. Details regarding this program will be released in the coming months. It is the staff's understanding that the Federation of Canadian Municipalities (FCM) has formed a Technical Working Group to develop a submission to Public Safety Canada to identify common concerns, needs, best practices and practical recommendations for consideration in the development of the NDMP.

Ongoing and Planned Recovery Activities

As noted above, the pruning and removal of damaged trees is well underway. The replanting of trees is expected to begin this fall and take up to 2 years to complete. This work will be completed by both Town and contracted resources. Two Urban Forestry Technicians have been hired to provide supervision of this work to ensure effective customer service.

Lessons Learned

The Town is well prepared for any emergency situation. It has an Emergency Plan which is tested on an annual basis through mock exercises and a Crisis Communications Plan to guide our actions.

The December 2013 ice storm was a real life example for the Town, where systems and processes were put to the test. This has provided us with an opportunity to learn from that experience. As a result, staff undertook a review of what worked well during the event and what challenges were faced and have identified several best practices that are grouped into three general areas:

- Clearly defined roles and responsibilities are critical;
- Effective communications is extremely important;

- Creating, strengthening and maintaining relationships with community partners needs to be an ongoing activity.

An action plan to address lessons learned and identify best practices is being prepared and will be implemented over the coming months to help put Richmond Hill in an even stronger position when responding to future significant events.

Clearly Defined Roles and Responsibilities

Council and staff made every effort to respond to the ice storm in a timely and effective way. Everyone stepped up, identified actions that needed to be taken and moved forward. Decisions around the use of resources and facilities and changes to programs were made immediately and further adjustments were made as required throughout the duration of the event.

This was facilitated in part through monitoring and anticipating the ice storm event, and having key staff pulled together on December 22nd to determine immediate response needs. Operating through a "virtual Emergency Operations Centre" (EOC) meant that the coordination of activities could take place by key players without everyone needing to be in one location. This ensured that front line resources were ready and able to respond to the storm.

While staff reviewed the Town's Emergency Plan and Crisis Communications Plan, more rigorous and consistent use of the documents is necessary during any significant large scale event, even if an emergency is not declared. These documents provide clear definitions of roles and responsibilities and can assist in ensuring all issues are considered when responding to any situation.

Specific actions being considered to address this lesson learned is the potential consolidation of the Emergency Plan and Crisis Communications Plan; ensuring all members of the Community Control Group have remote access to these documents at all times; and regular training for Council and staff on roles and responsibilities during emergencies or other significant events.

Helping the public better understand what their roles and responsibilities are during an emergency or significant event as well as what they can expect from their municipality is another lesson learned.

Fire and Emergency Services staff regularly remind and educate people about the importance of having a 72 hour emergency kit and what to do in various situations. Specific actions being considered to address this lesson learned is to continue to educate the public on what they need to do to be prepared for an emergency. In addition, developing information to help the public understand the roles and responsibilities of the Town and other organizations should be considered.

Importance of Effective Communications

One of the biggest challenges during the ice storm was the extended period of power outages and the ability to provide the public with information given the lack of connectivity to electronic forms of communication (email, website). Staff made a concerted effort to keep the public informed through news releases, posts to twitter and Facebook, updates to the Town's website, LED signs at community centres, radio and print interviews and the use of automated telephone calls. However, for those people without computers or cell phones, or who were unable to recharge these appliances, accessing information was a challenge.

A lesson learned is that alternative communication tools need to be developed and used during events where there are prolonged power outages. In addition, leveraging the resources available through Access Richmond Hill (ARH) to provide information to the public should be considered during emergencies and other significant events.

Specific actions being considered to address this lesson learned includes: the development of pamphlets that could be distributed door-to-door in impacted neighbourhoods by Town staff; development of signage which could be posted at Town facilities as well as other locations (e.g. grocery stores, service centres, faith based facilities etc.) to provide updates; as part of the review of ARH consider how best to leverage this group during emergencies and other significant events; and strengthening links with community partners to better share information.

Creating, Strengthening and Maintaining Partnerships

The ability to coordinate activities, obtain needed resources and get information out through a range of sources is critical during any emergency or significant event. Staff worked closely with PowerStream and neighbouring municipalities throughout the event. Efforts to hire contractors, and seek assistance from other municipalities were also successful. In addition, staff were in contact with the Province (Ministry of Municipal Affairs and Housing, Emergency Management Ontario) during the event.

A lesson learned from this event is that further strengthening of our relationships with PowerStream and other utilities such as Enbridge, other levels of government, municipalities and other agencies should take place. In addition, further development and strengthening of our relationship with the Red Cross and other community based groups are an important part of being prepared for any emergency or significant event. These groups can be of assistance through the provision of needed resources as well as be a tool for disseminating information throughout the community. In particular, community groups and faith based groups could become a key resource in reaching out to vulnerable people in the community.

Specific actions being considered to address this lesson learned are: identifying specific contacts and holding more regular meetings with senior officials at PowerStream and the Province; developing a full list of contacts at municipalities throughout Ontario that

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could provide assistance during emergencies and significant events; reaching out to the Red Cross and other organizations to determine resources available and actions to be taken to access resources; updating and maintaining information on Richmond Hill community groups and determining ways we can work with them during emergencies and significant events, in particular to provide outreach to vulnerable people within the community.

Motions from January 13, 2014 Special Council Meeting

At the January 13, 2014 Special Council meeting, Council passed and directed staff to respond to the following motions at a future date:

“Staff investigate a by-law that would obligate motels and hotels in Richmond Hill to accept people with pets during a declared emergency. Any such by-law change be circulated to other York Region local municipalities;

Staff report on best practices to assist people with life support devices during a power failure. Determine or create responsibility on the part of local utility to provide database and quick response to most vulnerable;

Staff investigate claims that residents of Vaughan and Markham may have received preferential treatment as a result of their municipality being a major shareholder in PowerStream. Such report to consider what if any changes Richmond Hill can request of the Ontario Energy Board or the Minister of Energy regarding decisions related to return of service during a major event or declared emergency; and

That staff report on ways and means by which Richmond Hill can inventory damage done to our urban forest, and assess what remedial action can be taken to prevent threats to legacy trees and the tree canopy.”

Pets in Motels/Hotels

During the December 2013 ice storm, the Town operated two pet-friendly warming centres which were available to residents 24 hours a day between December 22 and December 31, 2013. Staff have not received any complaints from residents having issues in trying to take their pets to a hotel or motel during the ice storm. A review of 7 hotels and motels located in Richmond Hill identified that 3 have a pet policy which allow pets with certain conditions. Four do not allow pets. It should be noted that hotels and motels are required to accept service animals.

Municipalities have the authority to license businesses including hotels and motels. A review of municipalities that license in this area has shown that none have provisions regarding the acceptance of pets during an emergency and staff are not aware of any municipality that has a by-law requiring the acceptance of pets by hotels or motels during an emergency. The Town of Richmond Hill does not currently require a license for the operation of a hotel or motel.

There are a number of challenges in imposing such a requirement including:

- How would emergency be defined – is it only when a municipality declares an emergency under their Emergency Plan?
- While a municipality may have authority to require a business license to operate a hotel or motel, it is unclear whether requiring license holders to allow pets during an emergency would be an acceptable limitation. This could only be tested once such a licensing regime was put in place and challenged in the courts.
- How would such a requirement be enforced? If a motel or hotel refused to accept a pet during an emergency, the municipality would need to be made aware of it, charge the owner and then take the matter to court. This matter may not be seen to be a priority by the Regional prosecutor.

The requirement to house pets during an emergency is something that happens infrequently. As a result developing a by-law to address this issue may not be the most effective approach. As part of emergency preparedness activities, staff propose to undertake the following actions to address the issue of pets during such events:

- increase public education on the responsibility of pet owners as to what they need to consider during an emergency to ensure the safety of their pets;
- review what facilities are required in municipal warming centres to address the needs of pets during an emergency, e.g. suitable outdoor space, ability to separate different types of pets etc.;
- enter into discussions with Richmond Hill hotels and motels to educate them about the needs of pet owners during an emergency and to request they consider allowing pets during these limited circumstances.

Assistance for People on Life Support

Discussions with staff at hospitals, long term care homes, and the Community Care Access Centre (CCAC) have indicated that people on life support are considered those that require specialized equipment to remain alive. These individuals are typically located in specific institutions that have systems in place to ensure continued operation of these devices during power outages. People on life support are rarely in a private home environment due to the equipment and support needs of the individual. These staff have also indicated that life support does not include people who may need oxygen tanks to allow them to function on a day to day basis.

Hospital staff have indicated that residents on life support are located in areas where this equipment is plugged into outlets that are specifically linked to a generator in case of emergency. If there are any issues with equipment hospitals prioritize the moving of patients as required to ensure their safety and the continued provision of life support systems.

Long term care home staff have indicated that they have a similar set up to hospitals where residents on life support are located in areas where this equipment is plugged into outlets that are specifically linked to a generator in case of emergency. In any facilities that do not have a generator on site, contracts with companies that provide generators within a specified time are in place.

It is the responsibility of the hospital, long term care home or other facility providing life support services to ensure the continued provision of this service during any type of emergency.

The CCAC coordinates the provision of a range of services from community providers to people who no longer require services from an institutional setting and therefore do not deal with people on life support. The CCAC has the health records of individuals currently receiving their services.

Utilities such as PowerStream are in the business of safe provision of hydro to their customers. During a power outage, their focus is on the restoration of this power. PowerStream has indicated that their first priority is safety for the public and its employees. It indicates that its first efforts are to restore power to community critical locations such as hospitals, police, fire and ambulance facilities, and other locations such as senior's homes, water pumping stations, sewage plants and communications centres.

As a result, individuals receiving life support are supported by the medical community responsible for the provision of these services as well as are seen as a priority by the hydro utility working to ensure continuous power supplies.

PowerStream

PowerStream provides power to residential and business customers in Alliston, Barrie, Beeton, Bradford West Gwillimbury, Penetanguishene, Markham, Richmond Hill, Thornton, Tottenham and Vaughan. It is owned by the municipalities of Barrie, Markham and Vaughan. It is operated by a board of directors selected by the three shareholders of the company (Barrie, Markham and Vaughan). At present, the Chair of the Board of Directors is the Mayor of Vaughan. During the December 2013 ice storm, the Mayor of Markham was the Chair.

At its peak, on December 22, 2013, at 11:00 a.m., 36,000 of Richmond Hill's approximately 60,000 PowerStream customers were without power. As presented to Council by PowerStream on January 13, 2014, 78% of Richmond Hill customers had their power restored sometime during December 23. On December 24, approximately 93% had their power restored, however, this was reduced to 86% due to additional snow and winds which caused new damage to the system. By December 26, 99% of customers had their power restored with a few customers still without power as of December 30, 2013 due to connection work related to the private side of their properties that needed to be addressed before PowerStream could restore their power.

PowerStream has indicated that progress in restoring power in Richmond Hill matched or exceeded that of the entire PowerStream service area. Over the entire PowerStream area 77% had their power restored sometime on December 23; 85% restored by December 24; 93% by December 25 and 97% by December 26, 2013. Further details regarding power restoration for Richmond Hill, Markham and Vaughan may be found in Appendix C to staff report SRCAO.14.08.

In Markham, at its peak on December 22, 2013 at 11:00 a.m. approximately 17,200 customers were without power. It appears approximately 54% had their power restored sometime during December 23, 77% had their power restored sometime during December 24, and 88% had their power restored sometime on December 25. By December 26, 91% of customers had their power restored with virtually all power restored by December 30, 2013.

In Vaughan, at its peak on December 22, 2013 at 11:00 a.m. approximately 37,700 customers were without power. It appears approximately 95% had their power restored sometime during December 23, 94% restored sometime during December 24 with the slight reduction due to snow and winds on December 24th and 97% had their power restored sometime on December 25. By December 26, 98.8% had their power restored with virtually all power restored by December 30, 2013.

As Chair of PowerStream, it is likely that the Mayor of Markham would have been in close contact with the President and other staff of the corporation in the oversight of restoration of power to all customers impacted by the storm. As a result, the Mayor of Markham may have received status updates in a more detailed and timely manner than other PowerStream customers. In keeping with his role as Chair, the Mayor of Markham participated in the presentation by PowerStream to Richmond Hill Council on January 13, 2014 which outlined their response to the storm and initial lessons learned.

As noted by Council at this meeting and in response to the presentation by PowerStream, communications by that organization were seen to be lacking throughout the event. Councillors indicated that residents were having significant difficulty in receiving up to date information and felt there was poor customer service in receiving this information. It was noted that the front line staff working to restore power were seen to have done an outstanding job under very difficult circumstances.

In March, PowerStream hosted a meeting with the Communications staff of the municipalities it serves (including Richmond Hill) with a view to improving communications linkages in general and in particular to discuss best practices during an emergency.

The President of PowerStream has indicated that a full review of the ice storm event is underway. He has indicated that PowerStream expects to be in a position to present the findings of this review to interested parties this fall and staff suggests Council request such a presentation.

Mitigation Activities to Protect our Urban Forest

Staff and contractors have developed an inventory of Town trees that were damaged by the ice storm. This inventory has been linked with existing Town inventories and will continue to be updated as work progresses.

Staff recommend the following activities be considered to mitigate future damage to the Town's tree canopy.

A strengthened block pruning program should be developed and implemented. Best practices indicate that block pruning should take place on a 5 to 7 year cycle. Staff will further review and make recommendations on this issue as part of the 2015 budget process for Council's consideration.

A strengthened relationship with PowerStream as it relates to block pruning and the type and location of tree plantings should also be investigated. Both parties would benefit from increased pruning activities as it would lead to healthier trees that may better withstand inclement weather. In addition, determining the most appropriate type and location of trees near hydro infrastructure would also result in less damage to utility equipment in the event of inclement weather. These discussions could involve the development of appropriate tree protocols to address these issues as well as the potential for cost sharing of these activities due to the mutual benefits. This review will include developing and strengthening public education programs related to caring for trees growing on private property.

A review of the type and location of trees the Town plants and their relationship to overhead power lines needs to take place. A review of the Town's tree protocols and landscaping plan requirements will take place to address this issue.

In order to promote greater diversity and avoid mono cultures staff will be reviewing the tree planting list and planting details provided to developers.

FINANCIAL/STAFFING/OTHER IMPLICATIONS:

There are no financial, staffing or other implications with respect to this report. Once the Provincial Government has provided the specific guidelines and forms for the Ice Storm Assistance Program, staff will prepare and submit an expression of interest as well as appropriate claim submissions to obtain provincial funding to assist in offsetting the costs of the ice storm. All ice storm costs are being tracked in dedicated general ledger accounts and all invoices are maintained for eventual claim submission requirements. The updated total cost estimate for the ice storm is about \$7 million, broken down as follows:

Safety and hazard clean-up and debris removal (Dec./13 to Mar./14)	\$1.8 million
Long-term clean-up and tree removal (balance of 2014)	\$1.7 million

Tree canopy repair and replacement (2014 and 2015)

\$3.5 million

The funding approach for these costs is dependent on the level of Provincial funding available and will be reported at a future Budget Committee meeting.

The costs of any future mitigation activities will be brought forward for Council consideration during future budget processes.

RELATIONSHIP TO THE STRATEGIC PLAN:

Continued monitoring of activities related to the December 2013 ice storm and reporting to Council and the public on these activities relates to Strategic Plan goal number one, stronger connections in Richmond Hill. Strong lines of communication and keeping and renewing relationships among various partners involved in the provision of services to the people of Richmond Hill is critical in being a place where people come together to build their community.

In addition, developing a clear understanding of lessons learned from the ice storm will help us be prepared for future activities and allow us to wisely plan for and use our resources, Strategic Plan goal number four.

CONCLUSION:

The December 2013 ice storm was a significant event for Richmond Hill. Council and staff worked hard to maintain the health and safety of our community through our initial response to the storm. Efforts to complete the initial clean-up are well in hand and on-going recovery activities are expected to take place over the next two years. Staff will continue to work with MMAH to access any funding available to assist with the costs of the ice storm. In addition, the lessons learned from this event will be actioned to ensure Richmond Hill continues to be in a strong position to respond to any emergency or significant event in the future.



Appendix A to Staff Report SRCAO.14.08 – Staff Report SRCAO.14.03 – December 2013 Ice Storm



SPECIAL COUNCIL MEETING

January 13, 2014
SRCAO.14.03

Office of the Chief Administrative Officer

SUBJECT: December 2013 Ice Storm

PURPOSE:

The purpose of this report is to provide preliminary information regarding the December 2013 ice storm, Richmond Hill's initial response, planned recovery from the storm, as well as the estimated cost impacts to date, and in the future. The report also provides information on the Ontario Disaster Relief Assistance Program.

RECOMMENDATION(S):

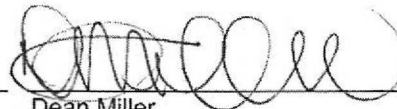
- a) That staff report SRCAO.14.03 be received.

Contact: Tricia Myatt, Manager, Policy and Intergovernmental Affairs, ext. 5463

Submitted by:


Shane Baker
Commissioner of Community Services

Submitted by:


Dean Miller
Commissioner of Corporate and
Financial Services

Approved by:


Joan Anderton
Chief Administrative Officer

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BACKGROUND:

Starting on late December 21 through December 22, 2013, the Town of Richmond Hill along with many municipalities throughout Greater Toronto Area experienced a severe ice storm. The storm resulted in significant and prolonged power outages, as well as severe damage to trees, including toppling and broken branches which created dangerous conditions.

At its peak, on December 22 at 11:00 a.m., 36,000 Richmond Hill PowerStream customers were without power. In total, Richmond Hill has approximately 60,000 metered customers. Data from PowerStream indicates that 78% of customers impacted had their power restored sometime during December 23. On December 24, approximately 93% had had their power restored, however, this was reduced to 86% due to additional snow and winds which caused new damage to the system. By December 26, 99% of customers had their power restored with approximately 3 customers still without power as of December 30, 2013 due to connection work related to the private side of their homes that needed to be addressed before PowerStream could restore their power.

It should be noted that Town facilities were also impacted by the power outage as a result of the ice storm. Fire Stations 8-1 (Major Mackenzie) and 8-2 (Oak Ridges) were without power and operating on back up systems for approximately 3 days.

The Joyes Point and Humber Flats wastewater pumping stations lost power during the ice storm, however backup generators supplied the necessary power to maintain the station pumps. These generators were monitored for the three days they were in operation.

A number of Town arenas were impacted by the power outage between December 21 and December 23, 2013, including Bond Lake, Elgin Barrow, Ed Sackfield and Elvis Stojko.

Centennial Pool also experienced a power outage between December 22 and December 23 and the McConaghy Centre, the Elgin West Community Centre and the Richmond Hill Centre for the Performing Arts experienced power outages on December 22, 2013. The Oak Ridges Community Centre was also without power from December 22 to 24, 2013 however it operated using a generator.

In addition, downed trees and tree limbs blocked many roads and sidewalks throughout Richmond Hill. Appendix A to staff report SRCAO.14.03 includes a map that sets out preliminary information regarding primary and secondary areas impacted by the ice storm in Richmond Hill.

Early estimates indicate that approximately 8% of the Town's urban forest has been impacted by the ice storm, affecting roughly 200,000 trees overall (on public and private property). Approximately 5,000 municipal trees, including street and park trees, have been damaged by the storm. This estimate does not include trees in woodlots, valley

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lands or on private property. Of these estimated 5,000 trees, approximately 1,500 are ash trees that were identified as part of the Emerald Ash Borer program.

Richmond Hill Response – Immediate

In anticipation of the holiday period, a test of the notifications process of the Community Control Group (part of the Town's Emergency Management Program) took place on December 17, 2013. This ensured that the availability of staff, including any alternates, who would be required during an emergency or other major event, was known.

Staff monitored the potential storm system in the days leading up to the ice storm. As the severity of the storm became apparent, Deputy Fire Chief – Support Services, the Town's Community Emergency Management Coordinator (CEMC), became the liaison and point of contact with PowerStream and other organizations including the Ministry of Community Safety and Correctional Services through Emergency Management Ontario, the Region of York's Emergency Management Branch, as well as the Emergency Management Coordinators for the Cities of Markham and Vaughan. The Town operated in a "virtual Emergency Operations Centre" (EOC) from December 22 until December 30, 2013.

Twenty-nine communication updates were provided to members of Council and senior management throughout this time period.

Richmond Hill Response – Clean Up

A concerted, coordinated effort during the ice storm, and on a continuing basis is being made to clean up and re-establish the health and safety of all Richmond Hill residents. Staff from all departments are involved in these efforts. The following sections speak to activities to support clean up efforts.

Operations

On December 21, Operations staff were dealing with the winter storm through winter maintenance activities. As the severity of the storm became apparent, staff met and set out priority activities to protect the health and safety of our residents. The priority was to address immediate hazards to people and property as well as access to private property and transit routes (includes primary, secondary and local roads as well as sidewalks and walking trails). Specifically:

- limited removal of fallen limbs to allow accessibility so residents could safely return to their homes;
- curb to curb accessibility to ensure emergency services, waste management and winter maintenance vehicles could safely and effectively use the roads;
- clearing sidewalks, trails and pedestrian walkways to schools and transit; and
- review and clearing of parks and other Richmond Hill properties.

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Existing Town crews were and continue to be supplemented by contractors from across the Province. As well, additional equipment has been secured, where available, on an as needed basis. At the initial stage of work, the Town had 18 chipper trucks and 10 bucket trucks supporting arboriculture activities. As of the writing of this report, there are 13 chipper trucks and 9 bucket trucks with chippers at work. The number of crews and equipment available varies on a daily basis due to contractor availability. It should be noted that the City of Ottawa responded to a mass email requesting arboriculture support. Five experienced forestry staff were dispatched and provided inspection services throughout Richmond Hill for a period of one week.

As of the writing of this report, the first three areas of priority are largely complete. It is anticipated that clean up activities will continue until the end of February 2014, with further clean up taking place in the spring after the snow melts.

All Richmond Hill parks and trails have been inspected. The following parks and trails are posted as closed to the public to ensure the health and safety of anyone using our parks and trail system:

- Pine Needle Park – from Country Court to Rose Garden Crescent;
- Cardinal Woods Park – from Humberland Drive to Red Cardinal Trail;
- Elgin Mills Greenway – from Kirkland Court to Canyon Hill Avenue;
- Pleasantville Park – from Mill Street to Neighbourly Lane;
- Rumble Pond South – from Mill Street to Carrington Drive;
- Newberry Trail – from Yorkland to Summitcrest Drive;
- Mill Pond Trail – from Regent Street to Oxford Street;
- Beaver Greenway – from Boake Trail to Major Mackenzie Drive; and
- Richvale Greenway – from Castle Rock Drive to Carrville Road; from Carville Road to Birch Avenue; and from McCallum Drive to Major Mackenzie Drive.

It is anticipated that these parks will remain closed until approximately April with sections potentially needing to remain secured beyond this time.

It should be noted that there were a number of challenges that impacted and will continue to impact the clean up process:

- timing of the ice storm during a holiday period when many services and resources were limited or unavailable;
- availability of contracted services – arborist/tree services are typically at reduced levels during the winter with reduced staff levels and equipment sent for repair and maintenance. In addition, due to the magnitude of the event, many municipalities were seeking the services of a limited number of providers;
- continued weather events – during the course of the clean up, additional severe weather, snow events and extreme cold impacts the ability of crews to continue to work.

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Fire & Emergency Services

Fire & Emergency Services provided regular services during the ice storm. Call volumes increased substantially during the initial three days of the storm. For example, typically, 20 to 30 calls are received per day. Over the initial three day period (December 21 through 23), Fire & Emergency Services responded to 279 calls including 20 for carbon monoxide incidents, 82 for power lines down/arching, 29 medical incidents, and 39 public hazards as examples. These represent the Richmond Hill calls only. Richmond Hill also dispatches for Stouffville, Newmarket, Aurora, Georgina and East Gwillimbury. Collectively, there were approximately 400 calls during these three days.

As a result of the call volumes, Fire & Emergency Services adjusted response priorities and occasionally had slightly increased response times; however, no significant issues were experienced.

In addition, Fire & Emergency Services dispatch provide after hours phone service on behalf of the Town. Typically, they receive approximately 80 calls a month. Between December 22 through December 30, 2013, the after hours line received approximately 1992 calls.

Fire crews also assisted Operations staff with the clean up activities during the initial stages of the ice storm. Fire & Emergency Services staff were made available to transport residents to warming centres and delivered food to the centres, when required.

Warming Centres

Richmond Hill had two, pet-friendly warming centres available to residents 24 hours a day throughout the ice storm. The Richvale Community Centre was opened from December 22 to 4:00 p.m. on December 24, 2013. The warming centre then moved to the Rouge Woods Community Centre on December 24 which then closed on December 27, 2013. The Oak Ridges Community Centre was opened on December 23 and closed on December 30, 2013.

Over the time the centres were open, 183 people used the centres to warm up, 188 people used the facilities to shower and 40 people charged their electronic devices. In total 61 people used the facilities for overnight accommodations.

Recreation & Culture staff operated these centres. Sleeping mats and food were provided at these centres as needed. Although staff contacted the GTA Region of the Red Cross on December 24 for support with the warming centres (cots, food, supplies), the Red Cross informed the Town that Richmond Hill was not deemed a priority area. Contact with the Provincial Coordinator of the Red Cross resulted in an offer of a limited number of cots however, these were not delivered.

All other community centres were available during their regular operating hours for residents to warm up, use the showers or use and charge their electronic devices.

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Richmond Hill Public Library

Three branches of the Richmond Hill Public Library (Oak Ridges, Richmond Green, and Richvale) experienced unscheduled closures (approximately 35 hours) due to storm impacts as well.

All Library branches were affected by the loss of its internet/website/WAN connectivity due to Rogers service disruptions which impacted all digital services. During this time many residents used the Central Library to keep warm and to charge their electronic devices.

Communications and Access Richmond Hill

Every effort was and continues to be made to ensure residents, Council and EMT received information about Town's efforts to respond to the ice storm and the subsequent cleanup efforts.

On Friday, December 20, Communications forwarded a news release from PowerStream to Council and EMT to notify them about the possibility of a severe ice storm and possible power outages.

In addition to the following communication products/tools that were used through the period, communication secured 2 on-air interviews for the Mayor with 680News on December 25 and December 27th. Segments of both interviews were aired through each day. The new radio station, 105.9 The Region, also interviewed the Mayor on December 24.

Richmond Hill's recovery effort was also covered on Global News, CityTV, Rogers, CHUM FM, AM 640, Newstalk 1010, Boom 97.3, 105.9 The Region, CP24 and ON Richmond Hill.

The Liberal interviewed the Mayor on December 27th and printed significant portions of the website information in its January 2 edition.

Communication Product / Tool	Frequency
Communication updates to Council/EMT	29
News Releases	5 news releases issued beginning December 22
Twitter	<ul style="list-style-type: none"> • 444 New Followers (1350 to 1794 – up 33%) • Tweets by myRH – 189 • Retweets by Followers – 402 • Favourites by Followers – 66 • Responses by myRH – 157 • Retweets by myRH - 141
Facebook	<ul style="list-style-type: none"> • 40 new Likes (491 to 531 – up 8%) • Posts – 126

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Communication Product / Tool	Frequency
	<ul style="list-style-type: none"> ○ Shares – 73 ○ Likes – 284 ○ Public Comments/Questions/Comms staff responses – 103 ○ People who saw this post – 26,747 ○ Direct messages/Comms staff responses - 15
Website	<ul style="list-style-type: none"> ● Overall: <ul style="list-style-type: none"> ○ 84,286 visits ○ 61,310 unique visits ○ 197,215 page views ○ 44.3% returning visitors; 55.7%new visitors ● Ice Storm Update page – 7,397 visits (peak Dec. 23 – 1,806 visits)
Access Richmond Hill scripts	3

Access Richmond Hill (ARH) was operational on December 23 and December 30 from 8:30 a.m. to 4:30 p.m.; on December 24 from 8:30 a.m. to 2:00 p.m.; and on December 31 from 8:30 a.m. to 3:00 p.m. ARH advisors were on staff during these times and logged over 300 hours.

Approximately 629 calls were received in ARH during the hours noted above. Of these approximately 399 were forestry related. As a result of these tree related calls, approximately 326 service cases were initiated. As of the writing of this report, approximately 2,500 additional forestry related service cases are in the process of being included in our tracking system as a result of the work of various contractors and staff supporting the clean up of tree debris during this time.

As noted earlier, after hours calls were routed to Fire & Emergency Services dispatch as is the Town's normal practice.

Waste Management

The provision of waste management collection services was impacted during the ice storm due to tree debris and low hanging hydro wires preventing equipment from accessing streets for pick up. In addition, due to the power outage, many residents had increased amounts of spoiled food that required disposal. All garbage was picked up at the next possible opportunity and the waste collection limits were waived until January 10, 2014 to accommodate this increased demand.

The community has been advised that small tree debris from private property may be placed curbside and will be picked up as part of the regular yard waste collection process on January 6 and 20, 2014. Residents are being advised that larger branches may be brought to the curb and the Town will take them away and/or chip the material

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after all priority areas are cleared. Residents are also being allowed to take this debris to the Miller Waste Compost Site at Bloomington Road during regular business hours. Residents may drop this off for free until the end of January. Businesses are subject to a fee of \$65/tonne. The Region has indicated it is changing its hours of operations to accommodate resident's needs (Monday to Friday 8:00 a.m. to 6 p.m. and Saturday 9:00 a.m. to 4:00 p.m.).

Initial estimates from Miller Waste regarding yard waste pick up on January 6, 2014 show an increase from 55 tonnes in 2013 versus 61 tonnes in 2014. Preliminary data regarding blue box and green bin amounts is being collected and will be analyzed once available to determine the impact from the ice storm.

Damage to Private Trees – Richmond Hill's Tree Preservation By-law

Residents have been informed that damage to trees on private property is the responsibility of the property owner. Residents who have a damaged tree are encouraged to contact a professional arborist to inspect the tree and to complete any arboricultural work as necessary.

The Town's Tree Preservation By-law requires a permit to be obtained to cut down trees on private property with a diameter of 20 cm or more. However, the By-law exempts "emergency work" from permit requirements. Emergency work is defined as "work required to be done immediately in order to prevent imminent danger including tree maintenance work necessary due to natural events (i.e. ice storm, high winds, lightning), as well as tree maintenance work associated with emergency drain, utility and building repairs." The By-law also includes a more limited exemption associated with the removal of "dead, diseased and hazardous trees" whereby a property owner may submit an arborists certificate confirming that the tree is dead, diseased or hazardous in order to facilitate removal of the tree (no permit fee is applicable). As it is recognized that arborist services will be in high demand at the present time, residents who believe their tree may be a hazard as a result of the ice storm are asked to photograph the damaged parts of the tree and submit it with a tree permit application for review. Staff will respond to these requests in priority sequence based on the level of damage to the tree and confirm for residents whether the tree (or part of it) is eligible for removal without a permit.

Staff are receiving higher than normal inquiries related to private property tree damage and this is expected to continue over the next several weeks and well into the summer. In addition, it is expected that there will be an increase in the number of tree permit applications as a result of the ice storm.

By-law and Parking Enforcement

By-law and Parking Enforcement staff continued regular operations during the ice storm. Parking enforcement was relaxed during the initial height of the storm. Staff did continue enforcement of safety related issues such as the protection of fire routes and hydrants.

Enforcement of requirements related to parking on public streets recommenced as of January 3, 2014. Similarly, requirements to allow residents to park overnight at Town facilities were waived temporarily until January 10, 2014. Both activities helped ensure roads could be kept clear for winter maintenance and ice storm clean up activities.

In addition, some Parking Enforcement staff provided assistance at the warming centres while they were open.

Anticipated Recovery Activities

Clean up of priority areas and hazards are expected to continue until the end of February 2014. Further clean up, including the removal of trees and stumps is expected to continue throughout the rest of 2014.

Damage to the Town's tree canopy is extensive. Recovery activities including the replanting of trees and the long term repair of damaged trees is anticipated to take approximately 2 years, beginning in the spring of 2014. Recovery activities in natural areas (woodlots, valley lands, greenway connections) including both debris and removal in and around watercourses and environmental restoration is a longer term priority that will be completed after the recovery activities are concluded. Further, over the coming year, the Ash tree inventory that supports the Town's existing Emerald Ash Borer Management Strategy must be updated to re-establish the location of hazard trees. The updated inventory will identify new priority removal areas created by the recent ice storm.

Insurance Issues

As with any winter event, there is the possibility that there may be third party claims against the Town related to the ice storm. As of the writing of this report five third party claims have been received.

Private property owners have two years from the date of loss or damage to make a property damage liability claim against the Town. Bodily injury claims are subject to a ten day Notice Period for municipalities, although judges have waived this condition in certain circumstances. As such, the majority of bodily injury claims arising from the ice storm should be known by the Town shortly after the ice issues have been remedied. (An injury claim arising from continuing storm related ice conditions – e.g. build-up of ice on sidewalks – would have a ten day limitation period starting from the date of the slip and fall incident, and still be related to the storm. As such, the ten day period may not yet have lapsed on all potential third party bodily injury claims).

Estimated Costs – Clean Up

The estimated costs for clean up activities from the outset of the ice storm until the end of February 2014 are approximately \$1.4 million as set out in Appendix B to staff report SRCAO.14.03.

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Estimated Costs - Recovery

The estimated costs for recovery, over the next two years are approximately \$5 million as set out in Appendix B to staff report SRCAO.14.03. Costs related to the removal of ash trees as part of the Emerald Ash Borer Management Strategy will be reassessed in 2014. Long-term recovery costs for natural areas will be assessed over the coming years.

Ontario Disaster Relief Program (ODRAP)

The Province of Ontario has the Ontario Disaster Relief Assistance Program (ODRAP) to assist those whose essential property has been extensively damaged as a result of a sudden, unexpected natural disaster.

There are two components to the Program:

- public component – financial assistance to affected municipalities for disaster response and recovery
- private component – funds raised by the community may be matched up to 2:1 by the Province to assist individuals, homeowners, farmers, small business enterprises and non-profit organizations with losses from a natural disaster.

In both instances, ODRAP funding is not a substitute for adequate insurance coverage and does not provide full cost recovery.

In order for a municipality to be eligible for ODRAP funding, Council must pass a resolution asking the Minister of Municipal Affairs and Housing to declare all or part of the municipality a disaster area. This must be done within 14 working days after the event. The deadline for passing a resolution for the December 2013 ice storm is January 14, 2014.

The Minister of Municipal Affairs and Housing reviews each request and considers both the cause and severity of the event and the extent of the damage relative to the financial resources of the affected municipality and the community at large. When a disaster area is declared, a legal agreement is established between the Minister and the municipality for accountability purposes.

Examples of costs eligible to be covered where ODRAP funding is granted include:

- food/water for volunteers and disaster relief workers;
- municipal owned equipment costs (at 50% of MTO rate) or equipment rental costs (prorated);
- clearing and removal of debris and wreckage including the removal of buildings and the removal of trees and limbs, if public safety is endangered;
- overtime for employees and those hired for disaster response/relief efforts, or to backfill for regular employees deployed for disaster response/relief efforts;

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- repair and restoration to pre-disaster condition of uninsured public facilities (e.g. buildings, libraries, recreational facilities including parks, roads and drains, infrastructure; and
- evacuation and shelter of people and animals, including incremental operating expenses.

To be considered for ODRAP funding, it must be demonstrated that the disaster is beyond the financial capacity of the municipality to manage the damage. The following two examples demonstrate recent decisions regarding public ODRAP funding requests:

- In 2011, a tornado hit the Town of Goderich, resulting in about \$2.5 million in emergency response costs and damage to municipal property. Goderich's own-purpose taxation revenue was \$6.52 million, so the cost of the tornado represented 38% of Goderich's annual taxation revenue. The Minister agreed to provide ODRAP funding because the impact of the tornado was beyond Goderich's financial capacity to manage without provincial assistance.
- In 2009, the City of Hamilton experienced a rainstorm that resulted in damage to public and private property. The damaged municipal infrastructure included roads, bridges, water, wastewater and sewer infrastructure, culverts and the Red Hill Parkway with a cost of repair estimated at \$12.4 million. Hamilton's own-purpose taxation revenue was approximately \$504 million, so the cost of the storm represented less than 2.5% of Hamilton's annual taxation revenue. This request was denied by the Minister.

Other areas where disasters were declared and funding provided include the 1998 ice storm in Ottawa and Quebec, the floods in Peterborough in 2004. Examples where ODRAP funding requests were denied include the Vaughan tornado in 2009 and the flooding in Markham in 2005.

The private component of ODRAP is intended to provide the necessities of life to help those impacted by a natural disaster get back on their feet, when it is beyond the capacity of the municipality or community to assist.

If private ODRAP funding is to be provided, the municipal Council must establish a local disaster relief committee to administer the program. The committee members cannot be members of Council and should have no conflict of interest in the collection or disbursement of funds. In other words, individuals who may be submitting a claim likely should not be part of the committee.

It should be noted that the Mayor, Acting CAO and Deputy Fire Chief – Support Services held a conference call with staff from the Ministry of Municipal Affairs and Housing on December 30, 2013 to review this program.

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Actions of Other Impacted Municipalities

A review of the actions of other municipalities impacted by the ice storm is as set out in the following chart:

Municipality	Estimated Damage Reported to Date	Resolution requesting ODRAP funding
Brampton	\$51 million	yes+
Caledon	\$0.5 million	yes*
Markham	\$9.6 to \$13.2 million	Special Council Meeting scheduled for January 14, 2014
Mississauga	\$25 million	yes+
Toronto	\$106 million**	yes
Vaughan	Unknown at time of writing of report	Special Council Meeting scheduled for January 14, 2014

+ Council passed a resolution requesting the Minister to declare the municipality a disaster area for ODRAP purposes and that financial assistance from the Provincial and Federal Governments be provided and coordinated with Peel Region

* Council resolution to apply for financial assistance from the Province coordinated through the Region of Peel.

** City of Toronto report indicates they have experienced a total of \$171 million in storm related costs in 2013 between the July 8, 2013 storm and the December 21/22, 2013 ice storm.

It should be noted that the Region of York held an emergency Special Council meeting on January 9, 2014 where a resolution was passed which contained the following provision:

"AND WHEREAS, in the event the Minister of Municipal Affairs and Housing declares a disaster area in the GTA for the purposes of the Ontario Disaster Relief Assistance Program (the "Program"), that Council of the Regional Municipality of York hereby requests that the Regional Municipality of York and its constituent local municipalities similarly be declared a disaster area for the purposes of the Program."

FINANCIAL/STAFFING/OTHER IMPLICATIONS:

The financial implications of the ice storm are preliminary estimated amounts. The costs have been separated to clarify costs of the immediate response and initial clean up activities, and to identify estimated longer term recovery efforts.

The immediate response and clean up costs involved contracted assistance for dealing with priority hazards, debris collection, costs related to provide shelter services at the three community centres, staff overtime provision and lost revenue.

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These costs are broken out as follows:

Estimated Costs – December 22 to 31, 2013	\$369,900
Estimated Costs – January and February 2014	<u>\$1,002,000</u>
Total	\$1,371,900

The estimated recovery costs will be incurred during the balance of 2014 and 2015. They will involve tree removal and stumping, replanting of approximately 5,000 trees, and the long-term repair of damaged trees. It is expected that \$3.25 million of these costs will be incurred in 2014 and 1.75 million in 2015. Appendix B to staff report SRCAO.14.03 provides a breakdown of these estimates.

A portion of the estimated clean up costs (i.e. \$369,900) took place during the days of the storm and immediately following and will be factored into the 2013 Operating Results. The most recent Operating Forecast for 2013 estimated a \$210,000 surplus. The costs incurred due to the storm may leave the Town with an overall operating deficit in 2013. Council has adopted a surplus allocation/deficit funding by-law that identifies the use of the Tax Rate Stabilization Reserve in circumstances of deficit.

The preliminary estimated costs that are expected to take place in 2014 are as follows:

Continued clean up	\$1,002,000
Recovery	<u>\$3,250,000</u>
Total	\$4,252,000

These estimated costs will pose a significant budget pressure as at present there is no identified funding source. Some of these costs may be funded through the already approved Emerald Ash Borer program, as some trees impacted are part of this program. However, there needs to be greater analysis of the lost trees to determine this figure. Further analysis reporting regarding the 2014 costs will take place as part of the 2014 Budget process.

Similarly, a funding strategy also needs to be identified for the preliminary estimated 2015 recovery costs of approximately \$1.75 million.

Appendix B to staff report SRCAO.14.03 provides a list of these estimated costs with an overall total of approximately \$6.4 million.

RELATIONSHIP TO THE STRATEGIC PLAN:

The ability of Richmond Hill Council and staff to respond to the December 2013 ice storm in a coordinated and effective manner to protect the health and safety of our residents is a key reason why Richmond Hill is a connected and vibrant community.

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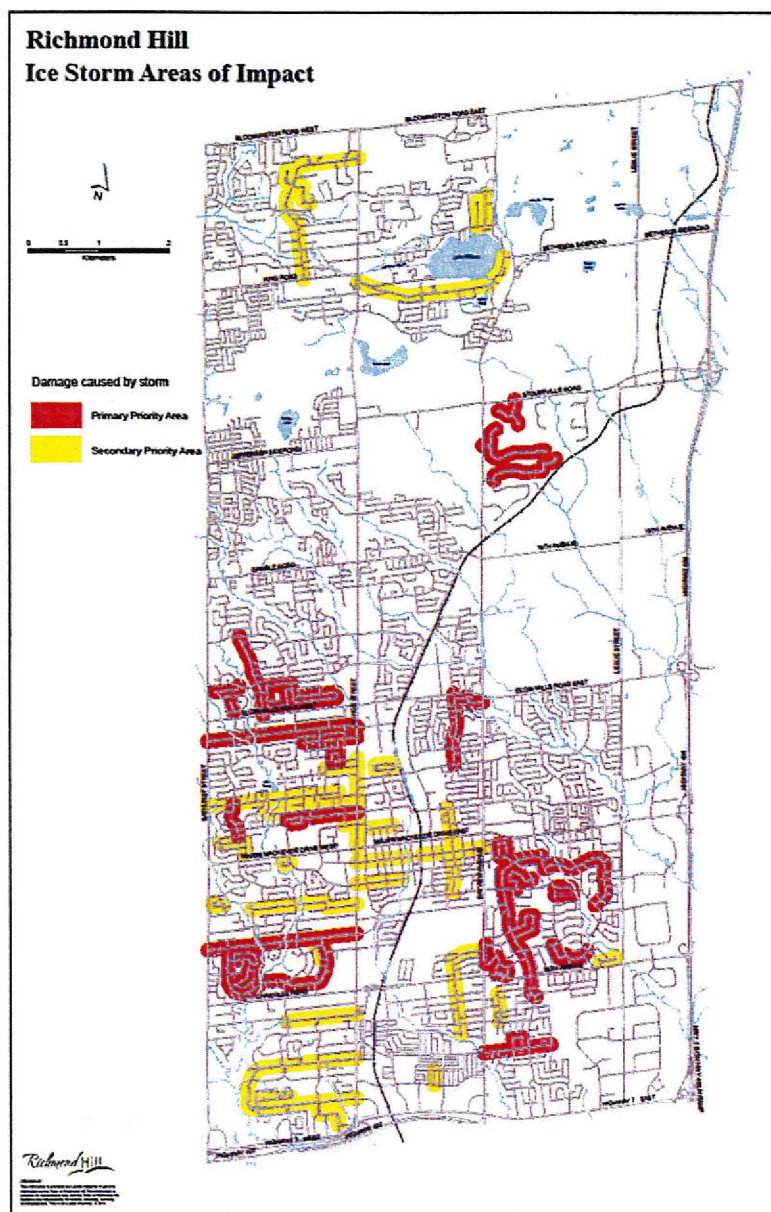
CONCLUSION:

The December 2013 ice storm significantly affected the Town of Richmond Hill. The efforts of Council and staff as well as the patience of our residents have allowed the initial clean up activities to take place as effectively as possible.

The recovery from this ice storm is expected to take at least two years. In particular the impact on the Town's tree canopy is extensive and the replacement of many trees will take years. Staff are working hard to undertake and plan for all necessary actions to achieve a full recovery.

The financial impacts of this event are also significant and will need to be considered in both the 2014 and 2015 budgets.

Appendix A to SRCAO.14.03 – Preliminary Areas of Impact



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Appendix B to SRCAO.14.03 – 2013 Ice Storm Preliminary Estimated Financial Implications

**2013 Ice Storm
 Estimated Financial Implications**

	<u>"Clean-up" Cost Estimate</u>		<u>"Recovery" Cost Estimate</u>	
	<u>Dec 22-31</u>	<u>Jan/Feb</u>	<u>Mar-Dec</u>	
	<u>2013</u>	<u>2014</u>	<u>2014</u>	<u>2015</u>
<u>Operations</u>				
Contracted Assistance to Clean-up Priority Hazards (est. \$25,000 per day for eight weeks)	\$ 250,000	\$ 750,000		
Debris Collection estimate		\$ 252,000		
Pumping Station - back-up generator monitoring	\$ 3,600			
Tree Removal & Stumping			\$ 1,500,000	
Replantings - approximately 5000 trees			\$ 1,000,000	\$ 1,000,000
Long Term Repair of Damaged Trees			\$ 750,000	\$ 750,000
<u>Shelters</u>				
Staffing & Supplies	\$ 8,600			
<u>Fire & Emergency Services</u>				
Overtime for Firefighters & Dispatchers	\$ 8,900			
<u>Other Costs</u>				
Overtime Provision - Admin staff involved (est. 600 hrs)	\$ 67,500			
Automated calling and staff phone data charges	\$ 4,300			
<u>Lost Revenue Estimates</u>				
Arena rentals	\$ 12,000			
Parking Fines	\$ 15,000			
Total Estimated Costs	\$ 369,900	\$ 1,002,000	\$ 3,250,000	\$ 1,750,000
Total Clean-up Cost Estimate		\$ 1,371,900		
Total Recover Cost Estimate			\$ 5,000,000	
Overall Estimated Cost for the Ice Storm			\$ 6,371,900	

2013 Estimated Costs	\$ 369,900
2014 Estimated Costs	\$ 4,252,000
2015 Estimated Costs	<u>\$ 1,750,000</u>
Total	\$ 6,371,900

Appendix B to Staff Report SRCAO.14.08 – Sample Door Hanger



PUBLIC NOTICE: TREE & STUMP REMOVAL

The Town tree adjacent to your property is scheduled to be removed due to:

- ☐ Ice Storm Damage
- ☐ Emerald Ash Borer (EAB) damage (see reverse for info about EAB)

Please be advised that staff will return to remove the stump.


- ☐ Tree replacement is being recommended
- ☐ Tree replacement is not being recommended

Due to the volume of trees being replaced, a delay may occur.

If you have any questions or concerns, please call 905-771-8800.




RichmondHill.ca



RICHMOND HILL VALUES ITS NATURAL TREE COVER AND IS COMMITTED TO PROTECTING IT

What is the Emerald Ash Borer (EAB)?
EAB is a non-native invasive wood boring beetle that kills all types of ash trees. It has already killed millions of ash trees in North America and is confirmed to be in Richmond Hill and throughout York Region.

 Actual size

Adult EAB beetles lay their eggs on ash trees in the summer. When the eggs hatch into larvae they tunnel under the bark to feed. These tunnels in the trunk and limbs cut off the flow of water and nutrients, causing the tree to die.

How is EAB impacting Richmond Hill?
Ash trees are widespread on public and private properties throughout Richmond Hill. The third most common tree in the town, ash trees make up approximately 12% of the tree cover. EAB will likely kill all of the ash trees in Richmond Hill over the next eight to 10 years.

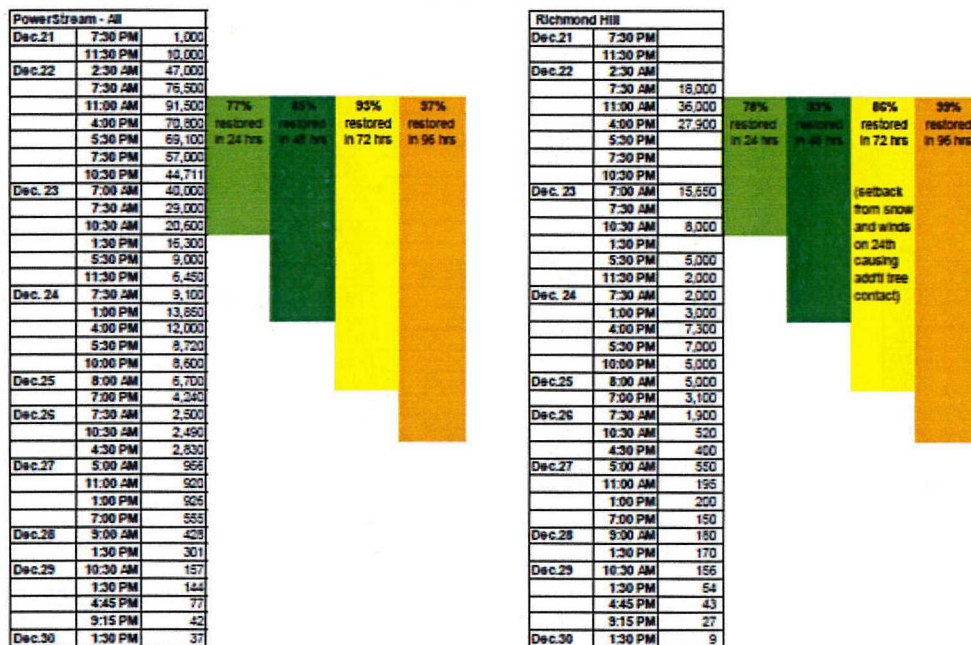
What is Richmond Hill doing to manage the effects of EAB on public property?
Richmond Hill is implementing its EAB Management Strategy which aims to reduce the significant aesthetic, environmental and financial impacts associated with EAB through a combination of monitoring, pesticide treatment, ash tree removal and replacement, and public education and awareness.

For more information about EAB, visit the Town's website or call 905-771-8800.

RichmondHill.ca/EAB

Appendix C to Staff Report SRCAO.14.08 – Power Stream Restoration Information

Restoration Progress Richmond Hill

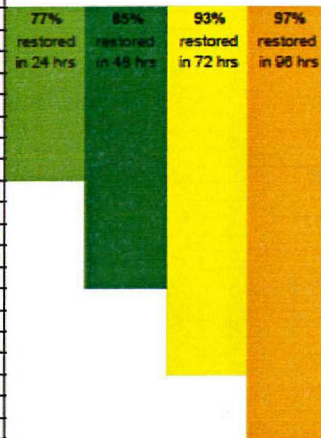


Richmond Hill restoration progress matched or exceeded that of the entire PowerStream service area (minor setback Dec. 24 due to snow and wind causing more tree limbs to fail).

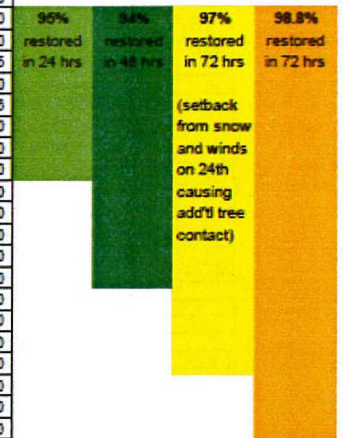


Restoration Progress Vaughan

PowerStream - All		
Dec.21	7:30 PM	1,000
	11:30 PM	10,000
Dec.22	2:30 AM	47,000
	7:30 AM	76,500
	11:00 AM	91,500
	4:00 PM	70,800
	5:30 PM	69,100
	7:30 PM	57,000
	10:30 PM	44,711
Dec. 23	7:00 AM	40,000
	7:30 AM	29,000
	10:30 AM	20,600
	1:30 PM	18,300
	5:30 PM	9,000
	11:30 PM	8,450
Dec. 24	7:30 AM	9,100
	1:00 PM	13,850
	4:00 PM	12,000
	5:30 PM	8,720
	10:00 PM	8,800
Dec.25	8:00 AM	8,700
	7:00 PM	4,240
Dec.26	7:30 AM	2,500
	10:30 AM	2,490
	4:30 PM	2,830
Dec.27	5:00 AM	958
	11:00 AM	920
	1:00 PM	928
	7:00 PM	555
Dec.28	9:00 AM	428
	1:30 PM	301
Dec.29	10:30 AM	157
	1:30 PM	144
	4:45 PM	77
	9:15 PM	42
Dec.30	1:30 PM	37



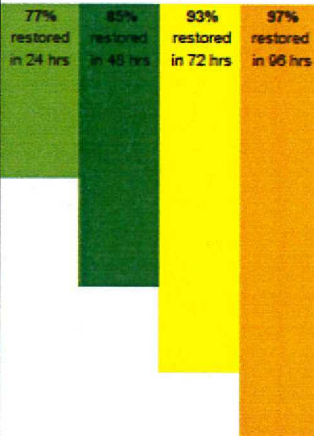
Vaughan		
Dec.21	7:30 PM	1,000
	11:30 PM	5,800
Dec.22	2:30 AM	21,000
	7:30 AM	25,000
	11:00 AM	37,700
	4:00 PM	32,500
	5:30 PM	25,555
	7:30 PM	18,000
	10:30 PM	8,685
Dec. 23	7:00 AM	3,500
	7:30 AM	2,000
	10:30 AM	2,000
	1:30 PM	2,300
	5:30 PM	1,800
	11:30 PM	1,800
Dec. 24	7:30 AM	2,500
	1:00 PM	2,200
	4:00 PM	1,400
	5:30 PM	1,400
	10:00 PM	1,100
Dec.25	8:00 AM	1,100
	7:00 PM	570
Dec.26	7:30 AM	480
	10:30 AM	440
	4:30 PM	580
Dec.27	5:00 AM	239
	11:00 AM	250
	1:00 PM	250
	7:00 PM	215
Dec.28	9:00 AM	175
	1:30 PM	115
Dec.29	10:30 AM	75
	1:30 PM	90
	4:45 PM	49
	9:15 PM	28
Dec.30	1:30 PM	16



Restoration Progress Markham



PowerStream - All		
Dec.21	7:30 PM	1,000
	11:30 PM	10,000
Dec.22	2:30 AM	47,000
	7:30 AM	78,500
	11:00 AM	91,500
	4:00 PM	70,800
	5:30 PM	69,100
	7:30 PM	57,000
	10:30 PM	44,711
Dec. 23	7:00 AM	40,000
	7:30 AM	29,000
	10:30 AM	20,800
	1:30 PM	16,300
	5:30 PM	9,000
	11:30 PM	6,450
Dec. 24	7:30 AM	9,100
	1:00 PM	13,850
	4:00 PM	12,000
	5:30 PM	8,720
	10:00 PM	8,600
Dec.25	8:00 AM	6,700
	7:00 PM	4,240
Dec.26	7:30 AM	2,500
	10:30 AM	2,480
	4:30 PM	2,830
Dec.27	5:00 AM	956
	11:00 AM	920
	1:00 PM	928
	7:00 PM	556
Dec.28	9:00 AM	428
	1:30 PM	301
Dec.29	10:30 AM	157
	1:30 PM	144
	4:45 PM	77
	9:15 PM	42
Dec.30	1:30 PM	37



Markham		
Dec.21	7:30 PM	
	11:30 PM	
Dec.22	2:30 AM	6,000
	7:30 AM	13,000
	11:00 AM	17,200
	4:00 PM	16,000
	5:30 PM	15,000
	7:30 PM	15,000
	10:30 PM	14,630
Dec. 23	7:00 AM	11,500
	7:30 AM	11,000
	10:30 AM	8,000
	1:30 PM	6,800
	5:30 PM	4,900
	11:30 PM	2,600
Dec. 24	7:30 AM	3,000
	1:00 PM	4,300
	4:00 PM	3,600
	5:30 PM	2,300
	10:00 PM	2,500
Dec.25	8:00 AM	2,500
	7:00 PM	1,750
Dec.26	7:30 AM	1,500
	10:30 AM	1,650
	4:30 PM	1,700
Dec.27	5:00 AM	467
	11:00 AM	470
	1:00 PM	470
	7:00 PM	160
Dec.28	9:00 AM	83
	1:30 PM	30
Dec.29	10:30 AM	11
	1:30 PM	11
	4:45 PM	1
	9:15 PM	5
Dec.30	1:30 PM	11

