

CALGARY TREE DISASTER 2014 - RESPONSE AND RECOVERY UPDATE

EXECUTIVE SUMMARY

The 2014 September snow event damaged over 50 per cent of Calgary's urban forest. The *Calgary Tree Disaster 2014 Recovery Framework* presented to Council on 2014 November 17, provides a recovery plan with principles and key result areas that will guide the recovery of the city's urban forest.

On 2014 November 24, Council approved this comprehensive recovery plan that acknowledged the value and benefits of a safe and resilient urban forest. Council approved \$35.5 million for the Recovery phase over the next three years. This funding will see that all impacted trees are correctively pruned or replaced if needed, and support community-based educational programs. It also supports improving asset management systems, as well as equipment and training programs for Parks' staff to increase resiliency for future events. Calgarians will see a comprehensive recovery and restoration program ensuring a healthy urban forest that can be enjoyed by future generations. The recovery plan is to be implemented and led through the Parks Tactical Operations Centre (TOC).

The recovery program is underway and plans are in place to achieve the outcomes as defined by the Recovery framework. This report provides a final update on the Response phase (summarized in Attachment 1) and an update on the recovery and restoration work that is underway (summarized in Attachment 2). Administration will return to Council with another Tree Disaster 2014 Recovery and Restoration Update by the end of 2016 Quarter 1.

ADMINISTRATION RECOMMENDATION(S)

That the SPC on Community and Protective Services recommend that Council:

1. Receive this report for information; and
2. Direct Administration to report back to Council, through the SPC on Community and Protective Services, no later than 2016 Quarter 1 on the Recovery phase.

RECOMMENDATION OF THE SPC ON COMMUNITY AND PROTECTIVE SERVICES, DATED 2015 MAY 06:

That the Administration Recommendations contained in Report CPS2015-0418 be approved.

PREVIOUS COUNCIL DIRECTION / POLICY

On 2014 October 6 with respect to Verbal Report VR2014-0069, the following was adopted by Council:

1. Receive this verbal update for information;
2. Direct Administration to continue with the Response plan, at an estimated incremental cost of up to \$12 million in 2014;
3. Direct Administration to advance discussions with the Province regarding assistance through the Disaster Recovery Program or other eligible funds; and
4. Direct Administration to report back to Council 2014 November 17 with a progress update on response actions, recovery plan and budget recommendations for consideration at 2015-2018 Action Plan.

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On 2014 November 17, the Administration Recommendations contained in Report C2014-0888 were adopted by Council, after amendment, as follows:

1. File Administration Recommendation 1 and receive the powerpoint presentation and Report C2014-0888 for information; and
2. Refer Report C2014-0888 and the distributed powerpoint presentation to the November Council budget deliberations of the 2015-2018 Action Plan.

At the 2014 November 17 Council meeting, Motion Arising, moved by Councillor Colley-Urquhart that with respect to Report C2014-0888, the following was adopted by Council: Direct Administration to report back no later than 2015 Q2 on the Recovery, Resilience and Restoration framework.

On 2014 November 24 with respect to Recommendation 1 contained in Report C2014-0863, the Community Services & Protective Services Department: Parks Business Unit 2015-2018 Operating Budget Program 445, Net Amounts, contained on Page 346 of Attachment 1, be adopted as amended by Council as follows:

In Program 445, Calgary Tree Disaster 2014, by the addition of one-time funding of \$35.5 million over 3 years, \$11.9 million in 2015, \$11.8 million in 2016 and \$11.8 million in 2017, from the Fiscal Stability Reserve;

And further, that Report C2014-0888 and Attachment 3J be received for information.

BACKGROUND

The unprecedented 2014 September snow event required a coordinated emergency response to manage public safety risks and city-wide damage to trees in all communities. This phase is commonly referred to as the Response phase. The City transitioned from the Emergency Operating Centre (EOC) after nine days to a Tactical Operations Centre (TOC). The Parks TOC was established to complete the Response phase and to resource and facilitate the Recovery phase. The next three to four years of Recovery phase will focus on recovering, restoring and building resilience into the urban forest.

Response phase update

During the 2014 September snowstorm we came together as a City and a Province to coordinate our resources. The 311 call system received over 10,000 tree emergency service requests from citizens from the start of the storm on 2014 September 8 up to the end of the Response phase on 2015 January 31. This far exceeds the 2,000 emergency requests 311 receives in a typical year. Due to the joint efforts of numerous City business units as well as many partners including: Canada Taskforce 2, crews from The City of Edmonton, private contractors, and wildfire crews from Alberta Environment and Sustainable Resources Development we successfully responded to the event. Administration completed the Response phase on time on 2015 January 31, having completed an initial debris removal process from all communities and addressing over 14,000 high risk trees. See the *Calgary Tree Disaster 2014, Response Phase Final Update* (Attachment 1) for metrics on this phase.

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INVESTIGATION: ALTERNATIVE AND ANALYSIS

Calgarians care about their urban forest as evident by the overwhelming response to help and assist in the debris clean up and efforts to care for their trees. Recovery within the Framework includes the following four focus areas:

- Urban Forest Health and Resiliency;
- Citizens and Their Communities;
- Parks Services and Processes; and
- Funding.

Currently the program is well funded and resourced to achieve these outcomes. Detailed plans were created to address the various parts of the program, are described in more detail below:

Ensure public safety through effective asset management

Administration has developed both long and short term inventory strategies by reviewing and documenting the current processes and systems.

Recovery update – Addressing remaining storm impacts

A request for proposal (RFP) was sent out to market and in early 2015 April; five companies were awarded the contract to help with restorative pruning. The City's pruning work plan is aggressive, with plans to prune trees in 80 communities this year compared to 25 in 2014. The pruning schedule includes 43 communities during the summer and 37 communities in the winter. Since 2015 January, The City and its contractors have pruned nearly 2,000 elm street trees in 17 communities. This is more than four times the amount of communities we would do in an average elm pruning season (four communities).

Restoration and Resiliency – Restore and enhance canopy cover

Administration has developed a strong plan to restore and enhance our canopy cover over the next three years. This year, Administration will plant approximately 46 per cent more trees through a variety of programs compared to last year.

The number of communities included in the NeighbourWoods program has increased from 10 to 30 communities. This program facilitates the planting of street trees in communities with citizens participating in the planting and follow-up care of the planted trees. As it will take many years to see the complete impact of the 2014 September snowstorm, 2016 will see even more aggressive planting plans.

Develop a public urban forestry stewardship

Administration is developing several educational programs and initiatives towards the education and support of individuals and communities as part of the recovery and learning experience from the tree disaster event.

As part of this plan, Administration met with industry partners in 2015 March to identify how we can all work together to ensure citizens can access the information and resources they require. From this session, a plan was developed to host four tree resource days where the public can find tree care information and participate in free educational sessions.

Improve parks internal processes

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Administration is analyzing the impacts from the flood and snow event on Calgary's urban forestry canopy and setting a baseline for recovery. This will provide a baseline from which an urban canopy cover project can determine the appropriate percentage of canopy cover for the city of Calgary and from there, develop a plan to reach canopy cover goals.

In parallel, as part of internal process improvement, the Parks Urban Forestry section has undergone some realignment of its operational structure and is on track to update the *Parks Urban Forestry Strategic Plan and Management Plan* by 2016 Q2. The realignment will improve citizen orientated services by decentralizing service delivery and aligning resources to service requests.

Build organizational capacity

Administration has engaged a consultant to develop an Urban Forestry specific emergency response plan that will be included in the Business Continuity Plan currently being finalized for Parks. This project along with the Industry Partner Strategy and Government Partnership strategy are on track to be completed by the end of the year. This will ensure The City is better prepared for future tree related disaster events.

Program management

This project follows The City's project management standards to ensure good governance, accountability and transparency.

See the *Calgary Tree Disaster 2014, Recovery and Restoration Phase Update* (Attachment 2) for initial metrics for 2015 and planned actions.

Stakeholder Engagement, Research and Communication

Administration continues to engage and communicate with Calgarians and City employees to inform them of the progress to date and planned work. The City has created detailed communications and engagement plans and continues to share recovery, restoration and resiliency information through traditional and social media. In addition, a full proactive communications program will help educate citizens on tree care. Some of the planned activities include Report to Calgarians, Your Calgary Garden segments, blog posts and a spring media campaign. The www.calgary.ca/trees webpage has been updated and a new www.calgary.ca/treerecovery webpage created.

Administration is developing a comprehensive educational plan to support individuals and communities as they recover from the tree disaster event. Administration has also met with a wide-range of industry partners to determine how The City can partner to provide comprehensive support to citizens in their own restoration efforts. One outcome from this is The City's plan to host tree resources days, where the public can find free educational resources. Attachment 2 includes more details on this and other communication plans.

Strategic Alignment

The *Calgary Tree Disaster 2014 Framework* supports existing objectives and policies related to the many benefits that the urban forest provides within The City's long-range planning and policy documents. The Framework aligns with the following documents:

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- *imagineCalgary: Plan for Long Range Urban Sustainability (2007);*
- *Municipal Development Plan (2009);*
- *The 2020 Sustainability Direction;*
- *Municipal Emergency Plan;*
- *Biodiversity Strategic Plan (2015);*
- *Parks Urban Forest Strategic Plan (2007): and*
- *Action Plan 2015-2018.*

Social, Environmental, Economic (External)

Social

Trees create spaces for people to gather as well as define the character and history of the community. Trees help us feel peaceful and secure and are vital to community health. Communities with trees have lower levels of crime, and foster safer, more sociable neighbourhood environments. Trees along major roadways have a traffic calming effect and also provide improved walkability. Employees with a view of trees and nature report higher overall job satisfaction.

Environmental

Trees are major indicators of urban ecological health and are a measure of a city's sustainability. Trees provide us with air to breathe in addition to many environmental benefits such as removing particulates and pollutants from the air and water. Tree leaves intercept rain and slow storm water runoff and reduce flooding. Their roots improve soil conditions and help conserve water. Trees serve as a windbreak and have an impact on reducing soil erosion. Trees also provide habitat for birds, butterflies and small animals.

Economic (External)

Trees and their impacts increase in value as they grow. Tree canopies intercept storm water runoff reducing water management costs. Further, appropriately planted and placed trees can reduce overall home energy costs. In residential neighbourhoods, mature, healthy trees add to a property's value. In treed commercial areas, people tend to shop longer and are willing to pay more for products. Internationally, many cities are recognizing that their urban forests will play an important role in their competitiveness to attract business and industry. New research says that the closer people live to trees the better off they are in regards to impact on human health.

Financial Capacity

Current and Future Operating Budget:

Council approved one-time operating budget from Program 445 of \$35.5 million over 3 years (2015 - \$11.9 million, 2016 - \$11.8 million, 2017 - \$11.8 million), from the Fiscal Stability Reserve (FSR) during the 2014 November budget deliberations (*Action Plan 2015-2018*).

Current and Future Capital Budget:

A one-time capital budget of \$700,000 was set aside from Parks infrastructure capital to fund additional vehicles and equipment for recovery and to better respond in the future.

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Risk Assessment

The *Calgary Tree Disaster 2014 Framework* provides the direction for recovery, restoration and building resiliency into The City's urban forest and programs. Without this comprehensive approach The City and the urban forest may not be as prepared for future storm events and may not meet long term policies and goals.

REASON(S) FOR RECOMMENDATION(S):

The Calgary Tree Disaster 2014 Recovery Program will ensure that The City of Calgary's urban forest is restored and resilient. Calgarians will be educated about the importance of the urban forest and provided the tools and resources to manage their trees. With a collaborative and community based approach, long term policy and community goals can be met.

ATTACHMENT(S)

1. Calgary Tree Disaster 2014, Response Phase Final Update
2. Calgary Tree Disaster 2014, Recovery Phase Update