
TO: GENERAL COMMITTEE

SUBJECT: CLIMATE CHANGE ADAPTATION STRATEGY –
IMPLEMENTATION PLAN

WARD: ALL

**PREPARED BY AND
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**CHIEF ADMINISTRATIVE
OFFICER APPROVAL:** M. PROWSE,
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RECOMMENDED MOTION

1. That the Climate Change Adaptation Strategy - Implementation Plan as identified in Staff Report ENG007-18 be approved to guide staff in the implementation of adaptive actions to improve the City of Barrie's resilience to the impacts of climate change.

PURPOSE & BACKGROUND

2. The impacts of climate change are being felt in communities across the country. The City has recognized that climate change will impact both the community and city operations. In response, the City completed the development of a Climate Change Adaptation Strategy in early 2017.
3. The Climate Change Adaptation Strategy was developed following ICLEI-Canada's (Local Governments for Sustainability) Building Adaptive and Resilient Communities (BARC) five Milestone framework. This methodology moves participating local governments through a series of progressive steps where each milestone builds off the findings of the one before. The City used the BARC methodology as it is an established and validated national program focused on resilience and adaptation. It offers a comprehensive way to respond to the impacts of climate change, develop and implement an adaptation plan, and protect the people, property, and prosperity of the community.
4. City Council endorsed the Adaptation Strategy on May 8, 2017 and the City was awarded milestones 1-Initiate, 2-Research and 3-Plan of the BARC five milestone framework.
5. In 2017, following the completion of the Adaptation Strategy, the City began the development of an Implementation Plan to complement the strategy.
6. Like the Adaptation Strategy, the Implementation Plan was developed following ICLEI-Canada's BARC Five Milestone Framework. The goal of the Implementation Plan is to guide the City through Milestones 4-Implement and 5-Monitor and Report.

7. The Climate Change Adaptation Strategy and Implementation Plan can be viewed at (<https://www.barrie.ca/Living/Environment/Conservation/Pages/Climate-Change.aspx>). In addition, the presentation to Council will be posted for reference at the same location.

ANALYSIS

8. In 2017, the City retained ICLEI Canada to develop an Implementation Plan to complement the Climate Change Adaptation Strategy and guide the City through Milestones 4 and 5 of the BARC framework.
9. The approach for the Implementation Plan focused on the development of Action Specific Action Plans (ASAPs) for the high priority adaptation actions identified in the Adaptation Strategy. The ASAPs are intended to show the key implementation information for each action in an easy to use format. They outline responsibilities, current practices, supporting tasks, timelines, financials, and indicators for each action, and will act as key guidance documents for the implementation process.
10. The ASAPs were developed with extensive feedback from the City departments and branches that will be responsible for implementing them. The ASAPs are intended to be living documents, which will allow the City to accommodate unexpected challenges, or capitalize on new opportunities.
11. The Implementation Plan also includes a framework for reporting annually on the progress of implementation for each action, including an update to Council.
12. The ASAPs in the Implementation Plan are sorted into the seven overarching goals developed as part of the Adaptation Strategy as well as an 8th category for “cross-cutting actions” that provide benefits across multiple goals. The goals include the following:
- a) Maintain Public Health and Safety;
 - b) Minimize Risks to Buildings and Properties;
 - c) Strengthen Infrastructure Resilience;
 - d) Help Local Businesses and the Tourism Industry Adapt to Changing Conditions;
 - e) Protect Biodiversity and Enhance Ecosystem Functions;
 - f) Minimize Disruption to Community Services; and
 - g) Build Community Resilience.
13. As with the development of the previously completed Climate Change Adaptation Strategy, the planning process for the Implementation Plan included extensive cross-departmental and community engagement. This ensured that the City’s climate adaptation actions reflect the priorities of City staff as well as our community partners.
14. The previously formed Stakeholder Advisory Group was engaged to provide advice, feedback, and guidance to staff at key points during the planning process. In addition, broader community feedback was solicited during a Climate and Environment Fair that was hosted at the Downtown Public Library on February 3, 2018. The fair was designed to cover a variety of environmental topics and featured exhibits on climate change, energy management, drinking water source protection, active transportation, emergency preparedness, urban agriculture and food security. In addition to City staff, several member organizations from the Stakeholder Advisory Group participated in the fair including The Canadian Red Cross, Fruit Share Barrie, the Active

Transportation Working Group and the Simcoe Muskoka District School Board. Approximately 130 members of the community attended the fair and had an opportunity to provide feedback on their priorities for climate adaptation. Community members were also able to provide feedback through an online survey.

15. With Council's approval, staff will begin to implement the adaptation actions according to the tasks and timing identified in the ASAP for each action.
16. It is intended that the Climate Change Adaptation Strategy and Implementation Plan will be updated on a 5-year cycle to ensure that they are up-to-date and reflect most current and accurate climate projections as well as the current needs of the City.

ENVIRONMENTAL MATTERS

17. Although climate change is a global problem, many of the anticipated impacts of climate change will occur locally and may adversely affect Barrie's physical, social, economic and ecological environments.
18. Some of the most critical local impacts that are expected as a result of climate change include increased flooding and erosion, the spread of invasive species, water quality deterioration, infrastructure damage, tree damage, stress on native flora and fauna and public health risks.
19. The actions identified in the Climate Change Adaptation Strategy and Implementation Plan were specifically selected and prioritized to increase the City's resilience to the most critical of the anticipated impacts.

ALTERNATIVES

20. The following Alternative is available for consideration by General Committee.

Alternative #1

General Committee could choose to not adopt the Climate Change Adaptation Strategy Implementation Plan.

This Alternative is not recommended as there is a need to formally prepare for the vulnerability and risks associated with climate change from both a community and municipal perspective.

FINANCIAL

21. Being proactive and integrating climate change considerations into the City's decision making framework to address the expected impacts can save money and protect the well-being of the Barrie community. In general, anticipatory adaptation to climate change will incur lower long-term costs and be more effective than reactive responses. Taking practical steps to adapt now using the best information available will enable the reduction of future risk while realizing some near term benefits. Pro-active adaptation is critical to minimizing risks, understanding infrastructure lifecycle requirements, off-setting costly emergency repairs and response, and to build resiliency.
22. The costs associated with the development of the Climate Change Adaptation Strategy Implementation Plan were included in the 2017 Business Plan. \$100,000 was included in the 2017 Capital Plan. Staff were successful in securing grant funding through the Federation of Canadian Municipalities' Municipalities for Climate Innovation Program to support the development of the Implementation Plan. The total amount awarded was \$72,080.
23. Staff will continue to apply for grant funding to support implementation as it becomes available.

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24. Operating expenditures in 2018 are associated with staff time to begin the implementation of adaptation actions. No additional staff resources will be immediately required to implement the recommendation. The Implementation Plan was designed to be flexible so that the specific tasks in the plan can be adapted in response to new information, budget constraints or other considerations. Some departments may need to propose new operating expenses in future years in order to ensure that the City has adequate adaptive capacity. These expenses will be quantified and refined as implementation progresses.
25. There are no immediate capital expenditures identified in the implementation plan. However, capital expenditures may be identified and proposed by implementing departments as implementation of climate adaptation actions progresses.

LINKAGE TO 2014-2018 STRATEGIC PLAN

26. The recommendation(s) included in this Staff Report support the following goals identified in the 2014-2018 Strategic Plan:
- ☒ **Vibrant Business Environment**
 - ☒ **Responsible Spending**
 - ☒ **Inclusive Community**
 - ☒ **Well Planned Transportation**
27. Adopting the Implementation Strategy for the Climate Change Adaptation Strategy supports Council's Strategic Plan for the City. As our climate continues to change it becomes increasingly apparent that there is a need to proactively adapt and integrate climate change considerations into the City's decision making processes. There is a risk to City of Barrie services and the community given the projected increases in the frequency of extreme weather that has caused flooding and erosion issues within the City. The vision, goals and actions outlined in the Climate Change Adaptation Strategy identify the opportunities the City needs to act on to remain a vibrant, healthy and sustainable waterfront community; and the Implementation Plan provides City staff with a road map to achieve those goals and actions.