



Report to Council

Department: Development Services
Division: Planning
Date: April 20, 2020
Prepared by: Niharika Bandaru, Climate Change Analyst
Report Number: Planning-2020-06
Subject: Climate Change Adaptation Plan – Progress Report 1
Number of Pages: 3

Recommendation(s)

That Planning 2020-06 Report, entitled “Climate Change Adaptation Plan – Progress Report 1” prepared by “Niharika Bandaru, Climate Change Analyst” dated “April 20, 2020” be received.

Purpose

To provide Council with updates regarding the progress on the climate change adaptation planning process.

Background and Discussion

At its regular meeting of November 18, 2019, Council gave direction to Administration to implement the process leading to the creation of a proposed Climate Change Adaptation Plan. The process includes 4 phases:

- Phase 1: Assessing Climate Impacts

- Phase 2: Adaptation Planning
- Phase 3: Approval and Funding; and,
- Phase 4: Implementation

Phase 1 is currently in progress and includes engaging internal and external community stakeholders through the internal and external climate adaptation teams (ICAT and ECAT) to draw on expertise to advise on solutions to various risks posed by climate impacts to the Town of Essex. At the regular meeting of November 18, 2019, Council requested regular updates on the progress of the Climate Change Adaptation Planning process. The following report is with reference to this request.

Internal Climate Adaptation Team (ICAT)

An Internal Climate Adaptation Team (ICAT) was created consisting of representatives from the following departments of the Town of Essex:

- Infrastructure Services:
 - Operations/Drainage
 - Capital Works & Asset Management
 - Environmental Services
- Community Services:
 - Recreation & Culture
 - Parks & Facilities
 - Fire
- Development Services:
 - Planning Services
 - Building Services
 - Economic Development
- Corporate Services
 - Finance & Business Services

- Human Resources
- Information Technology
- Strategic Communications
- Legal and Legislative Services

The Kick-Off meeting was conducted on February 28, 2020. During this meeting, members were introduced to the purpose of the ICAT, Climate Projections, and the Adaptation Planning Timeline. Members also engaged in a group exercise where they were asked to discuss how the operations, services, and assets of their individual divisions would be affected by the climate projections for the region.

For example:

- Extreme flooding, rain/storm events, and high lake levels can increase the number of hazard zones and increase costs associated with moving essential infrastructure out of hazard zones (Affected divisions: Environmental Services, Operations/Drainage)
- More days above 30° C will result in reduced attendance of outdoor recreational programs and an increased cancellation of outdoor programming (Affected divisions: Parks & Facilities, Recreation & Culture, Strategic Communications, Human Resources, Finance)
- Higher heat waves will lead to more fires resulting in exhaustion and decreased mental health in firefighters (Affected divisions: Fire, Human Resources, Finance)
- Increased average temperatures will lead to greater number of power outages and increased cost of battery backups for traffic signals (Affected divisions: Public Works, Finance)
- Increased rain events may lead to increased costs by investment in back-up generators/power sources for vulnerable areas (Affected divisions: Parks & Facilities)

Essex Climate Adaptation Team (ECAT)

The fourteen (14) ECAT members, including Councillor Kim Verbeek, met on March 5, 2020 at the Essex Sports Complex to formally kick off discussions. ECAT Members were introduced to the Committee's purpose, Climate Projections, and the Adaptation Planning Timeline. An intensive Impact Identification workshop was conducted whereby members highlighted the various ways their individual sectors, as well as the community as a whole, would be impacted by climate change in the region.

For example:

- More frequent/severe extreme weather events (ex: windstorms, thunderstorms, tornadoes etc.) will cause increased damage to communication infrastructure which will result in a break in telecommunication and emergency services. (Affected sectors: Emergency Management, Health, Infrastructure)
- Increase in lake level fluctuation will increase damage to septic systems creating greater issues for private land owners along the shoreline. (Drainage, Land Management, Health)
- Increased annual precipitation will increase sediment loads in drainage system leading to bank failures and damage to bridges and culverts. (Infrastructure, Transportation, Land Management)
- Increased precipitation will lead to an increase in mold growth leading to crop failures. (Agriculture, Economy, Health)
- Hotter days will result in increased need for cooling for agricultural livestock leading to an increased energy demand (Agriculture, Economy, Energy)

Data Analysis and Future Meetings

The data collected from the ICAT and the ECAT is currently being compiled to produce impact statements for the Town of Essex. Impact statements identify the effects of existing or forecasted changes in climate on built, natural, and community systems. By examining these statements, the effect on Town operations, services, and capital assets will be better understood. The impact statements will inform the Vulnerability and Risk Assessment process that will be conducted with the members of both the ICAT and ECAT in upcoming meetings (currently subject to COVID-19 related procedural changes).

A Vulnerability Assessment (VA) is conducted to understand the susceptibility of a certain Town division or a service area to climate change impacts. A Risk Assessment follows a VA, and is conducted to understand the likelihood of a projected impact as well as the severity of its damage to Town divisions and service areas. This process will result in determining the high and medium priority impacts to various operations at the Town of Essex, as well as community stakeholders.

In order to accommodate changes to operations due to the COVID-19 pandemic, the follow-up ICAT and ECAT meetings have been postponed to May from their intended scheduled dates in early April. Currently, plans to organize these meetings electronically and virtually are underway. Despite meeting date changes, COVID-19 has not impacted overall project timelines or budgets. Efforts are being taken to ensure that the planned milestones are met in a timely manner, with minimal impacts from the ongoing pandemic.

Financial Impact

None.

Consultations

Rita Jabbour, Manager, Planning Services

Link to Strategic Priorities

- ☒ Manage, invest and plan for sustainable municipal infrastructure which meets current and future needs of the municipality and its citizens.
- ☐ Create a safe, friendly and inclusive community which encourages healthy, active living for people of all ages and abilities.
- ☐ Provide a fiscal stewardship and value for tax dollars to ensure long-term financial health to the municipality.
- ☐ Manage responsible and viable growth while preserving and enhancing the unique rural and small town character of the community.
- ☒ Improve the experiences of individuals, as both citizens and customers, in their interactions with the Town of Essex.

Report Approval Details

Document Title:	Climate Change Adaptation Plan - Progress Report 1 - Planning-2020-05.docx
Attachments:	
Final Approval Date:	Apr 15, 2020

This report and all of its attachments were approved and signed as outlined below:

Rita Jabbour, Manager, Planning Services - Apr 15, 2020 - 3:18 PM

A handwritten signature in black ink, appearing to read "Lori Chadwick".

Lori Chadwick, Director, Development Services - Apr 15, 2020 - 3:19 PM

A handwritten signature in black ink, appearing to read "Chris Nepszy".

Chris Nepszy, Chief Administrative Officer - Apr 15, 2020 - 3:33 PM