



The Corporation of the Town of Tecumseh

Fire & Rescue Services

To: Mayor and Members of Council

From: Wade Bondy, Director Fire Services & Fire Chief

Date to Council: April 16, 2020

Report Number: FIRE-2020-05

Subject: Emergency Flood Mitigation Measures & Amendments to the Town of Tecumseh Flood Response Plan

Recommendations

It is recommended:

That the Fire Chief's report FIRE-2020-05 regarding the Amendments to the Town of Tecumseh Flood Response Plan **be received**;

And that By-law No. 2020-35 being a by-law to adopt the revised Emergency Response Plan, inclusive of the appended Flood Response Plan, Version 2 (April 2020) **be adopted**;

And further that the expenditures of \$500,000 from the Infrastructure Reserve for the implementation of flood mitigation defenses on those identified private properties that pose a significant risk for further in-land flooding **be authorized**.

Executive Summary

The purpose of this report is to consider amendments to the Town's Flood Response Plan that will permit emergency works on private properties to install permanent berms in low-lying areas with the objective of preventing inland flooding or at least mitigating the extent of flooding. Moreover, as these works were not contemplated in the 2020 budget, Council's favourable consideration is requested for a funding envelope of \$500,000 to complete these works. Additionally, a new Emergency Order is proposed for the Mayor to enable these works as a flood prevention measure under the *Emergency Management and Civil Protection Act*.

Background

At the July 9, 2019 Regular Meeting of Council, Council received and adopted the Town of Tecumseh Flood Response Plan (Motion: RCM-204/19) as part of the Town of Tecumseh Emergency Response Plan, previously adopted as per the recommendations within the Fire Services Report FIRE-2019-05 titled “Town of Tecumseh Flood Response Plan.”

Council is reminded of the flood potential mapping¹ which indicates the extent of the Town expected to be affected by inland flooding due to rising lake waters. The affected area includes approximately 5,500 households in Tecumseh. Currently Lake St. Clair is 33 cm above the April 2019 levels; it is expected to peak in June/July.

At this time, Administration has considered the collision of two major threats to our community – flooding and COVID-19. The current restrictions on people gathering during the COVID-19 outbreak have ruled out the prospect of trying to manage a flooding emergency with any form of reception centre or temporary housing. Self-evacuation to another location (family, friend, hotel) would be challenging for residents with the current outbreak and demand on these resources would be great.

Under these circumstances, Administration is proposing emergency flood prevention measures. This will involve the emplacement of earthen berms and additional sandbags on low-lying private waterfront properties that act as conduits for inland flooding to residential neighbourhoods south of Riverside Drive. With these works, we are attempting to install permanent or temporary flood barriers to an elevation exceeding the previous flood level of Lake St. Clair in order to protect against or mitigate the extent of flooding this year.

Additionally, Administration will also undertake much-needed pump repair at St. Marks pump station to ensure it remains functional during the spring flooding season (note that the replacement of this pump station is the subject of one of the projects outstanding under an application to the federal Disaster Mitigation & Adaptation Fund (DMAF2)). Approval of this work was previously granted by Council on February 11, 2020, Report No. PWES-2020-06, “Amendment to the 2020-2024 PWES Five Year Capital Works Plan St. Mark’s Pumping Station – Pump Repair” with a budget of \$36,433 excluding HST.

Comments

At its meeting held March 24, 2020, Council received Report FIRE-2020-04 titled “Lake Flooding Preparedness Update” that outlined actions taken by Administration to protect the Town’s residents and infrastructure during a flood emergency.

¹ https://www.tecumseh.ca/en/living-here/resources/Images/Coastal-Flooding---Overview-Map_REV-3.jpg

As noted in the report, two of the actions taken by Administration were the establishment of an agreement with the Windsor-Essex Catholic District School Board for the use of the former St. Anne's high school as a temporary reception centre / shelter; and the completion of topographical and shoreline surveying to determine areas of concern along the Lake St. Clair shoreline.

Reception Centre / Shelter

Due to the COVID-19 pandemic, the traditional model of service with the Red Cross opening and staffing an emergency shelter to assist residents who are impacted by flooding cannot be implemented. The Red Cross is not in a position to staff a reception / shelter centre. Emergency Social Services (ESS) such as Reception and Information, Family Reunification / Registration and Inquiry, Clothing, Food, Lodging, and Personal Services would be supported by the Red Cross by virtual means only.

Strategies that are in place as promoted by Public Health Canada to combat the spread of COVID-19 and supported by the Windsor Essex County Health Unit require practices which generally exceed traditional methods of emergency response, especially the establishment of a reception centre or emergency shelter.

Without the Red Cross assistance, it would be extremely challenging to set up and maintain a traditional shelter in accordance with their guidelines, while adhering to heightened practices such as maintaining physical/social distancing between evacuees, no gatherings over 5 people in one location, provision of food, regular handwashing, and continuous disinfecting of washrooms and common surfaces to ensure a safe environment for staff, volunteers and evacuees.

Although the Red Cross is reviewing their operations and working on options for support to communities considering COVID-19 complications, they have advised that they are not in a position to assist in person.

Under the current situation, Windsor-Essex Community Development and Health Services advises that opening a reception or shelter centre for evacuees during a pandemic is a last resort option and should be avoided. Amassing people in a shelter setting would accelerate the transmission of the coronavirus and significantly increase stress on the local health care system.

As a result of not being able to open an emergency reception / shelter centre under the current conditions, Administration has developed a communications plan reaching out to all individual property owners to self-evacuate in the event of a flood. Options include family, friends or hotel, none of which are ideal during the COVID-19 outbreak. Attachment 3 to this report contains a brochure that will be mailed to residents in the affected area of the Town this week.

Additionally, many people who have mobility or health issues have registered with the Town for assistance to evacuate. Staff are following up directly with these residents confirming they have an evacuation plan in place that includes a family member or friend who is providing them a temporary evacuation location, until they can safely return to their homes. This would involve establishing a transfer point – usually a reception centre, which as per the advice of Community Development and Health Services is not recommended at this time.

Flood Mitigation Measures

In light of the foregoing, Administration has turned to considering better measures to prevent or mitigate inland flooding to forestall or minimize the need for or extent of evacuation.

Members of the Engineering Services Division have met with the owners of identified low-lying properties to work on protective measures on private property to help prevent or mitigate inland flooding, starting in May 2019. These protective measures included providing sandbags to the residents for placement on their properties, acting as a temporary barrier to help prevent flooding of their properties and the adjacent areas. As these measures provide only temporary protection against flooding, Public Works and Environmental Services (PWES) has identified more permanent works that are recommended for key locations within the area identified on Schedule A of Attachment 1.

These improvements not only protect the properties identified, but also protect a large portion of the Town, its residents and infrastructure. With the water levels of Lake St. Clair expected to peak in June/July it is imperative that these mitigation measures are implemented quickly.

At this time, PWES has identified eight locations comprised of 16 properties where flood mitigation measures are recommended to reduce the risk of in-land flooding. These properties include some of those who were identified as low-lying and received filled sand bags in 2019, while others are those who experienced recent flooding during certain wind events. The most recent wind event occurring on March 5, 2020, where lake flooding occurred at four locations, with flood water reaching Riverside Drive at three of them. The scope of the proposed flood mitigation measures is to install clay berms along with site grading and restoration in those low-lying areas which will serve as a semi-permanent/permanent measure. These berms are to remain in place and are not to be modified or removed as they are essential in protecting a large portion of the Town. The 2020 Shoreline Management Plan study will further determine the required shoreline protection measures as it relates to modelled and projected lake levels and how climate change may affect the high and low lake level peaks.

PWES has previously visited and inspected each of these locations in 2019 with the property owners. On Friday April 10, 2020, the Manager Roads & Fleet along with a Contractor visited the affected properties to meet and discuss with the majority of the owners the best options for the installation of flood mitigation measures. There may be additional locations that require mitigation measures as they present themselves with the increase in lake levels moving into the spring/summer. Public Works staff will continue to monitor the shoreline during wind and rain events to identify these locations.

The affected property owners shall be notified by letter and telephone in advance of any works commencing, which is anticipated to be as early as Monday, April 20, 2020, should Council give favourable consideration to this report.

Authority Under a Declared Emergency

The *Emergency Management and Civil Protection Act R.S.O. 1990*, c. E.9, s. 4(1) permits the Head of Council to declare that an emergency exists within the municipality ... and to take such action and make such orders as he or she considers necessary and are not contrary to

law to implement the emergency plan of the municipality and to protect the property and the health, safety and welfare of the inhabitants of the emergency area.

As Council is aware, the Mayor declared an emergency on March 22, 2020 related to both the COVID-19 pandemic and anticipated flood emergency. An order issued by the Mayor under the declared emergency would be required to enable Administration to enter onto private property to make improvements to help mitigate flooding. Attachment 1 contains correspondence from Edwin C. Hooker, Barrister & Solicitor explaining the need to establish a more detailed Order to enable the Town to undertake these works on private lands, as well as to define the geographic area of the Town where such works may be needed. The proposed new Emergency Order and Schedule A are attached to this correspondence.

Summary of Revisions to the Town of Tecumseh Flood Response Plan

The proposed amendments to the Town of Tecumseh Flood Response Plan are contained within Paragraph 1.4, Planning Assumptions, Paragraph 1.5, Plan Limitations and Paragraph 4.4 which sets out the responsibilities of the Corporation of the Town of Tecumseh. A summary of the proposed amendments is provided in a letter prepared by Edwin C. Hooker, Barrister & Solicitor, included with this report as Attachment 1, including reference to legislative authority under the *Municipal Act*.

As the Tecumseh Flood Response Plan is part of the Tecumseh Emergency Response Plan, a by-law to adopt the updated Emergency Response Plan is required and is in the by-law section of the agenda.

Next Steps

As outlined in Attachment 1, the next step beyond the immediate need set out in this report is to develop a by-law that imposes standards of general application on waterfront property owners in relation to flood control. The by-law would incorporate the results of the shoreline study underway in 2020. It is anticipated that property owners would be required to implement the recommendations of this shoreline study, at their own expense and within a reasonable timeline. The by-law would position the Town to take remedial action where compliance is not forthcoming and enter the property to do the work with recovery of costs from the property owner. By-law development would be subject to public input and consultation and would require Council adoption in future.

More immediately, the Town is issuing additional communications to property owners within the flood prone areas. As part of the regional flooding response, the City of Windsor's Fire Department developed a flood emergency brochure that captures details on flooding and what to do in an emergency self-evacuation. The brochure was shared with regional municipalities to ensure continuity of information across the region. Tecumseh modified the brochure for local residents and printed copies for all property owners within the flood prone area. The brochure will be mailed the week of April 13 to 6,450 properties in Town. It will also be posted to the

dedicated Lake Flooding page and shared out on social media. A copy of the brochure is attached to this report as Attachment 3.

Consultations

Chief Administrative Officer
Financial Services
Parks & Recreation Services
Public Works & Environmental Services
Town Solicitor

Financial Implications

The estimated cost to construct flood mitigation defenses on those private properties that pose a significant risk for further in-land flooding is \$500,000. This cost includes a substantial contingency for any unforeseen issues during construction or additional locations along the shoreline that would require mitigation measures as they present themselves as the lake levels increase moving into the spring/summer. It is the intent to retain contractors on a 'time and material' basis to complete the works, which will be tracked by a project administrator. The \$500,000 is anticipated to be an upset limit.

It is recommended that this cost be funded from the Infrastructure Reserve.

An Amended 2020-2024 Infrastructure Reserve Five-Year Projection schedule is included as Attachment 2.

Link to Strategic Priorities

Applicable	2019-22 Strategic Priorities
<input checked="" type="checkbox"/>	Make the Town of Tecumseh an even better place to live, work and invest through a shared vision for our residents and newcomers.
<input checked="" type="checkbox"/>	Ensure that Tecumseh’s current and future growth is built upon the principles of sustainability and strategic decision-making.
<input checked="" type="checkbox"/>	Integrate the principles of health and wellness into all of Tecumseh’s plans and priorities.
<input checked="" type="checkbox"/>	Steward the Town’s “continuous improvement” approach to municipal service delivery to residents and businesses.
<input type="checkbox"/>	Demonstrate the Town’s leadership role in the community by promoting good governance and community engagement, by bringing together organizations serving the Town and the region to pursue common goals.

Communications

Not applicable

Website

Social Media

News Release

Local Newspaper

This report has been reviewed by Senior Administration as indicated below and recommended for submission by the Chief Administrative Officer.

Prepared by:

Wade Bondy
Director Fire Services & Fire Chief, C.E.M.C.

Reviewed by:

Phil Bartnik, P.Eng.
Director Public Works & Environmental Services

Reviewed by:

Paul Anthony, RRFA
Director Parks & Recreation Services

Reviewed by:

Tom Kitsos, CPA, CMA, BComm
Director Financial Services & Chief Financial Officer

Recommended by:

Margaret Misek-Evans, MCIP, RPP
Chief Administrative Officer

Attachment Number	Attachment Name
1	Letter of Edwin C. Hooker, Barrister and Solicitor dated April 13, 2020
2	Amended 2020-2024 Infrastructure Reserve Five Year Projection
3	Tecumseh Flood Brochure