Date June 11, 2019  Report No. 2019-337

To Chair and Members  Committee of the Whole - Operations and Administration

From Jo Atanas, General Manager  Health and Human Services

1.0 Type of Report
Consent Item [x]  Item For Consideration []

2.0 Topic  Heat Advisory Procedure [Financial Impact: None]

3.0 Recommendation
THAT Report #2019-337 Heat Advisory Procedure BE RECEIVED.

4.0 Purpose and Overview
The purpose of this report is to outline the City of Brantford’s current Heat Advisory procedure and provide an overview of the cost and effectiveness of developing sole purpose cooling centres.

5.0 Background
Exposure to hot weather over an extended period of time can have negative health impacts, particularly for children, older adults, and people with respiratory or other chronic medical conditions. Low-income households may also be disproportionately impacted by heat events due to limited access to air conditioning, high electricity costs or transportation barriers. The inability to take measures to counteract the heat such as spending time in cool environments, drinking fluids and moderating physical activities can result in significant medical
distress, and the Brant County Health Unit reports that 24 emergency room visits occurred in 2018 due to heat-related illness, and a total of 124 visits have occurred since 2013.

5.1 Local Heat Advisory Procedure

As outlined below, the City of Brantford has established a joint procedure with the Brant County Health Unit to respond to heat events.

Environment Canada issues a Heat Warning when temperature highs are $\geq 31^\circ\text{C}$, together with nighttime lows of $\geq 20^\circ\text{C}$; or if humidex values are $\geq 40^\circ\text{C}$ and expected to last for two days or longer. These warnings are distributed locally by the Brant County Health Unit through its ‘Extreme Weather Fan-Out List’, which includes, but is not limited to, the City of Brantford and local media outlets.

In the past three years, 12 Heat Warnings have been issued covering a total of 40 days. Notably, 2018 included eight heat warnings covering 27 days, a marked increase from 2016 and 2017 which recorded five and eight Heat Warning days respectively.

When the Brant County Health Unit distributes a Heat Warning various City departments respond with information and activities designed to reduce the incidence of heat-related illness.

1) Communications and Community Engagement staff issue an All Staff Communication advising of the warning, so that internal management teams can take necessary precautions for the occupational health and safety of employees. Additional messages are sent out through all major corporate communications channels including the City of Brantford website, Facebook and Twitter accounts advising of the Heat Warning and linking to information from the Brant County Health Unit regarding best practices to prevent a heat-related illness. The City’s communication also includes a summary of City programs and activities that are available to the public for cooling, such as splash pads and pools.

2) Community Programs, Parks and Recreation staff determine if staffing resources are available to extend pool and splash pad operations, and report to Communications and Community Engagement on the ability to extend these hours for further communication to the public.
3) Health and Human Services staff ensure that emergency shelters are aware of the Heat Warning. Homeless individuals can access walk-in services through the Housing Resource Centre as per the standard operating procedure. Air conditioned common rooms, where available, are provided to residents of social housing sites.

4) At the discretion of the Chief Administrative Officer, an ongoing Heat Warning ('Heat Wave') may trigger the activation of the Emergency Response Plan, which could include the provision of evacuation centres and other emergency procedures in addition to the response outlined above.

At the September 18, 2018 City Council meeting, the following Resolution was approved:

WHEREAS according to The Weather Network the summer of 2018 had 15 days reaching over 30°C; and

WHEREAS nine heat warnings have been issued by the Brant County Health Unit since late May; and

WHEREAS many residents do not have air conditioning; and

WHEREAS not all residents can access air conditioned spaces during extreme heat events;

NOW THEREFORE BE IT RESOLVED

A. THAT Staff BE DIRECTED to develop a plan and bring a report back to Council outlining costs and options for creating additional cooling centres for the summer of 2019 that are centrally located and accessible for the public; and

B. THAT staff BE DIRECTED to work with the Brant County Health Unit, local businesses and service providers to develop this plan.

6.0 Corporate Policy Context

Economic Vitality & Innovation

7.0 Input From Other Sources

Brant County Health Unit
8.0 Analysis

Municipalities across Ontario have undertaken a variety of strategies to protect residents from high temperatures including public alerts, extended hours for cooling locations such as pools and splash pads, free public transit and operating cooling centres, which are designated air-conditioned buildings that can be accessed during extreme heat.

As per the approved September 2018 City Council resolution, staff has explored the cost and potential efficacy of providing municipally operated, sole purpose cooling centres.

The annual estimated minimum cost of providing a sole purpose cooling centre during Heat Warnings is difficult to predict, and depends on both the number of days the centre is activated and the number of visitors. It is recommended that a minimum of eight staff be present in the cooling centre at all times to ensure the operations and safety of the facility. Maintaining this level of staffing would cost approximately $6700 for every 24 hours of operation.

As noted above, in 2018 the City of Brantford experienced 27 ‘heat warning days’ compared to five in 2016 and eight in 2017. This recent discrepancy and the low predictability of seasonal temperatures make accurate cost estimates difficult. Using a three year average of 13 ‘heat warning days’ per year, the establishment of a single cooling centre would require an annual investment of $87,000. Cooling centres would be simultaneously required in multiple neighbourhoods to provide city-wide access for residents. However, cooling centres may not be required for an entire 24-hour cycle, and costs could be mitigated by setting hours of operation only during the hottest portion of the day.

Additional costs such as food, staff overtime, increased utility usage and the transportation and cleaning of sleeping cots would be incurred. The City may also experience service impacts resulting from staff reassignments from Health and Human Services and Community Programs, Parks and Recreation to support the cooling centre. Converting ‘community centres’ to ‘cooling centres’ would further result in lost revenue, due to cancelled programs and rentals during the heat event.
Evaluating the overall effectiveness of cooling centres is also challenging. Although there is consensus in the medical community that individuals need to access cool places to avoid negative health impacts, centres that are set up for the sole purpose of providing relief from the heat may not be as effective as directing people to existing air-conditioned locations within the community. Residents may choose not to attend sole purpose cooling centres for a variety of reasons such as stigma, not identifying as a heat vulnerable person, lack of transportation, and not wanting to spend time in a place with no relevant activities. Instead, residents may prefer to stay in their home, or use existing facilities such as libraries, malls, aquatic centres, or other air-conditioned public spaces. As a result, cooling centres are often underutilized, even in extreme heat.

Notably, when the City of Brantford opened community centres in response to the 2003 ‘Blackout’ event and 2018 ‘Grand River Flood’ event, these centres were attended by very few residents, despite a community wide media and awareness campaign notifying the public of their availability and location. Other communities, including the City of Toronto, are currently reviewing the effectiveness of their cooling centres, and the City of Windsor has discontinued its cooling centre program due to low attendance.

9.0 Financial Implications

There are no direct Financial Implications associated with this report.

10.0 Conclusion

A municipality must determine based on its population, resources and existing service infrastructure what approach could be most effective in reducing heat related illnesses. The City’s current joint procedure with the Brant County Health Unit provides notice of heat events and directs the public to health information and existing cooling locations within the community. Given the cost and uncertain effectiveness of municipally-run sole purpose cooling centres staff is not recommending that the City invest in a cooling centre program.
In adopting this report, is a by-law or agreement required? If so, it should be referenced in the recommendation section.

By-law required [ ] yes [x] no

Agreement(s) or other documents to be signed by Mayor and/or City Clerk [ ] yes [x] no

Is the necessary by-law or agreement being sent concurrently to Council? [ ] yes [x] no