



SUBJECT: Home Adaptation Assessment Program

TO: Community and Corporate Services Committee

FROM: Capital Works

Report Number: CW-04-16

Wards Affected: All

File Numbers: 155-08-2

Date to Committee: July 11, 2016

Date to Council: July 18, 2016

Recommendation:

Approve the funding of \$50,000 from “SD0113 – Climate Change & Flood Mitigation Measures”, to support the promotion, delivery, evaluation and progress report associated with the implementation of a 2016 “Home Adaptation Assessment Program” (HAAP) Pilot; and

Authorize the Mayor and Clerk to sign a Funding Contribution Agreement and any related documents with the Intact Centre on Climate Adaptation, subject to the satisfaction of the City Solicitor and Executive Director of Capital Works.

Purpose:

Provide a simplified home evaluation tool intended to convey non-binding information to homeowners on measures they can undertake to reduce flooding risk on their property.

Background and Discussion:

Report CW-09-15 entitled “August 4, 2014 Flood Vulnerability, Prioritization and Mitigation Study Report – Update” was presented to the Development & Infrastructure Committee on July 6, 2015.

The report provided a status update of the Flood Vulnerability, Prioritization and Mitigation Study being undertaken by Amec Foster Wheeler, and a presentation of



preliminary recommendations for stormwater infrastructure capital improvements, flood mitigation projects and staffing requirements.

One of the recommendations referred to in this report was the potential development and implementation of a standardized assessment tool to be used by residents as a Flood Prevention Home Check-Up (FPHCU). Report CW-04-16 provides an update on the development of this program.

Strategy/process

The development and implementation of a standardized assessment tool to be used by residents as a Flood Prevention Home Check-Up (FPHCU) program was proposed to be undertaken in 2016. The FPHCU was to be a simplified home evaluation intended to convey non-binding information to homeowners on measures they can undertake to reduce flooding risk on their property.

In early 2016, the city was approached by the University of Waterloo's "Intact Centre on Climate Adaptation" (ICCA) regarding the development of a similar program, the "Home Adaptation Assessment Program" (HAAP). HAAP is intended to help homeowners reduce the risk of basement flooding by providing a customized site assessment and prioritized action plan consistent with best practices. As a result, Capital Works is looking at reallocating city resources from the FPHCU program to assist ICCA in the development of the HAAP.

The city is currently working with ICCA to develop this program and coordinating with Halton Region to ensure that the program does not conflict with their Basement Flooding Prevention Subsidy Program and the Voluntary Downspout Disconnection Program. ICCA is proposing to undertake a pilot program in Burlington which would include the assessments of approximately 500 homes. ICCA would administer the program as a third party, separate entity. Proposed funding for the program would include funding from the ICCA, homeowners, the Province of Ontario and City of Burlington. The pilot program would take place from August-November 2016. The intent of the pilot is to assess the application of the HAAP under diverse home and homeowner circumstances and to ultimately make this program available both provincially and nationally.



Requested Support from City of Burlington for 2016 Pilot Program

The following support is being requested by ICCA from the City of Burlington to support the rollout of the 2016 HAAP Pilot for 500 homes in various neighbourhoods.

1. Provide in-kind promotional support of the HAAP by integrating communication about the HAAP into Burlington's planned 2016 "Flood Prevention Home Check-Up Program".
2. Provide \$50,000 to support the promotion, delivery, evaluation and progress report associated with the implementation of a 2016 HAAP Pilot which will provide 500 Home Adaptation Assessments from August-November 2016 in neighbourhoods identified by the City of Burlington.

Identification of Neighbourhoods for 2016 Pilot Program

The 2016 pilot program is proposed to be undertaken in various neighbourhoods across the city which include a wide variety of house construction eras. These neighbourhoods include Aldershot, Brant Hills, Headon Forest, Millcroft and Orchard.

Capital Works will determine the locations to be included.

Adding Value to City of Burlington's Flood Prevention Home Check-Up Program

The following basement flood risk reduction campaign objectives were identified by the city previously for the "Flood Prevention Home Check-Up Program":

1. Increase homeowner awareness to the risk of basement flood damage,
2. Educate homeowners on potential ways a basement can flood,
3. Provide tools/methodology for homeowners to assess their risk to basement flood damage,
4. Provide information/resources/contacts to promote action by homeowners to reduce their risk of flood damages.

Supporting Existing Objectives

All of the objectives outlined above are supported by the web based materials which would be provided by the HAAP, at no cost to the city, to utilize and distribute to homeowners.



1. Free Online Resources for Homeowners

The HAAP directly supports the program objectives stated above by providing a wealth of free online resources for residents that can easily be linked to City websites, used in City social media campaigns, included on printed pamphlets/advertising and mentioned in face-to-face conversations and community presentations by City staff.

The free online resources include:

Background Information

- What does home insurance typically cover and not cover?
- How is your home attached to the storm and sanitary sewers?
- Common flood risks of homes of different eras and how to address them
- Local subsidies available to help you take action
- How to select a contractor to help you
- Flood-resistant materials for basement finishing
- Flood reduction checklists for inside and outside your home
- Seasonal maintenance checklists to reduce your flood risk
- Mould: actions to reduce risk, signs of mould damage, cleanup.

Outside the Home

- Tree installation and maintenance
- Rain garden installation and maintenance
- Bioswale installation and maintenance
- Foundation walls: different types, problem solving and maintenance
- Basement Windows: repair and maintenance
- Window wells: repair and maintenance
- Window well covers: installation and maintenance
- Doors below grade: repair and maintenance
- Eaves troughs: repair and maintenance
- Downspouts: installation, repair and maintenance
- Lot grading within 6 feet of home: repair and maintenance
- Rain barrels/ above ground cisterns: installation, repair and maintenance
- Below ground cisterns: installation, repair and maintenance
- Infiltration gallery: installation, repair and maintenance



- Permeable Paving (pervious concrete and asphalt, permeable interlocking concrete pavers, plastic grid pavers): installation, repair and maintenance.

Inside Your Basement

- Basement Windows: repair and maintenance
- Unfinished walls: repair and maintenance
- Finished walls: water resistant construction materials
- Finished floors: water resistant construction materials
- Unfinished floors: repair and maintenance
- Floor drain: maintenance
- Backwater valve: installation and maintenance
- Sump pit: installation and maintenance
- Sump pump: installation and maintenance
- Back-up sump pump: installation and maintenance
- Back-up power source for sump pump: different types, installation and maintenance
- Electrical panel: flood resistant location
- Mechanical systems: flood resistant location
- Protecting electronics from flood
- Protecting stored items from flood

Supporting Enhanced Objectives

The following details provide information about how supporting the rollout of the HAAP will enhance the objectives of the Burlington's "Flood Prevention Home Check-Up Program" and will increase the overall uptake of homeowner actions to reduce basement flood risk.

1. One-on-One Support for Homeowners

In select neighbourhoods identified by the City of Burlington, for a small fee (average \$125 per home), homeowners will participate in a Home Adaptation Assessment. This allows them to access customized, one-on-one support for taking simple and cost effective actions to reduce their risk of basement flooding and minimize damage if flooding occurs. With a certified HAAP Assessor, trained by ICCA, homeowners examine a total of 50 points inside and outside the home, to assess the risk of water entering their basement (City employees will



not be participating as HAAP Assessors). Together they prioritize a list of short term and long term actions. An easy-to-read report summarizes the results of the assessment and provides subsidy, how-to and contractor information to support action. A customer help-line, follow-ups at regular intervals and seasonal maintenance reminders provide ongoing customer support to reduce basement flood risk.

The recommendations of the HAAP will be provided directly from ICCA, not the city. The intent of the recommendations is to provide a list of suggestions for possible flood risk reduction works that could be done. The final determination of the works to be done will be the decision of the homeowner.

2. Increasing Uptake of Actions in Target Neighbourhoods

Neighbourhood Level Engagement: The HAAP educational campaigns will be developed in consultation with Burlington staff as well as neighbourhood leaders to customize engagement strategies to match the unique needs of neighbourhoods. Highlighting successful local action also motivates neighbours to follow the examples of their peers. Examples include:

- Neighbourhood Case Studies: With permission, stories will be collected and posted online, from residents in each neighbourhood who have experienced flood-related challenges, have taken specific action and have benefitted from the results. Showcasing success stories greatly enhances the likelihood of neighbours taking action.
- Yard Signs: Giving residents the opportunity to demonstrate their pride in taking action to reduce flood risk by posting a yard sign greatly increases participation and encourages neighbours to help each other take action.

3. Generating Support from Local Suppliers and Contractors

Burlington residents often reach out to local hardware stores, garden centre staff and local contractors for help to reduce basement flood risk.

- Engaging Local Hardware Stores and Garden Centres: Direct opportunities to educate staff and place educational posters at key locations will reinforce program messages for residents and encourage action.
- Engaging Local Contractors: Direct opportunities to educate plumbing, landscaping and basement waterproofing contractors and to provide them with information pamphlets will reinforce program messages for residents and encourage action.



4. Raising the Profile of Basement Flood Risk Reduction

Burlington will be a test case for HAAP delivery across the province of Ontario and across Canada. The local, provincial and national media and social media coverage that will be generated as part of HAAP delivery will increase the awareness of Burlington residents about the value of taking practical action to reduce flood risk and will increase uptake of action.

It is very important that this program be strategically coordinated with Halton Region's current Basement Flooding Prevention Subsidy Program as well as their Voluntary Downspout Disconnection Program.

The details and the planned implementation of the HAAP are currently being discussed. If the pilot program approval is provided, staff would proceed with the program in late summer 2016 and report back to committee in the spring of 2017 with a status update and possible recommendations for the expansion of the program to other areas of the city.

Indemnity and Insurance

The ICCA has agreed that they will indemnify and hold harmless the City of Burlington from and against any and all liability, in any way arising out of or in connection with the HAAP.

The ICCA will name the City of Burlington as an Additional Insured on their liability insurance policy with a minimum coverage of \$5M. This policy will also include a cross-liability clause, contractual liability coverage and a 30 day written notice of cancellation.

A Funding Contribution Agreement will be prepared and executed between the city and ICCA. This agreement will include the requirement for ICCA to provide indemnity and insurance requirements and certificates of insurance to the city.



Financial Matters:

Total Financial Impact

ICCA has requested the City of Burlington provide \$50,000 to support the promotion, delivery, evaluation and progress report associated with the implementation of a 2016 HAAP Pilot which will include 500 Home Adaptation Assessments from August-November 2016 in neighbourhoods identified by the City of Burlington.

Source of Funding

The funding source of the \$50,000 is proposed to be "SD0113 – Climate Change & Flood Mitigation Measures".

Other Resource Impacts

Not applicable.

Connections:

Environmental Matters:

Climate Change adaptation is a major concern for municipalities and homeowners. Council's July 2015 approval of additional stormwater capital funding and staff resources has provided added capabilities to help address these needs.

The combined efforts and resources of the province of Ontario, University of Waterloo's "Intact Centre on Climate Adaptation", City of Burlington and homeowners to implement a 2016 HAAP Pilot has the capability to provide homeowners with educational information and practical recommendations to reduce the risk of home flooding.



Public Engagement Matters:

The initiation of the HAAP would involve a media campaign to provide program objectives, details and potential benefits to homeowners. This campaign would include advertisements in newspaper, on the city website, on social media and an Open House. As the program progresses, various engagement methods described in the “Background and Discussion” section above would be initiated.

Conclusion:

Staff recommend approval of the 2016 HAAP Pilot.

Respectfully submitted,

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Notifications:

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Report Approval:

All reports are reviewed and/or approved by Department Director, Director of Finance and Director of Legal. Final approval is by the City Manager.