



## THE CORPORATION OF THE TOWN OF AMHERSTBURG

### OFFICE OF ENGINEERING AND PUBLIC WORKS

**MISSION STATEMENT:** *Committed to delivering cost-effective and efficient services for the residents of the Town of Amherstburg with a view to improve and enhance their quality of life.*

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**To:** Mayor and Members of Town Council

**Subject:** Mandatory Downspout Disconnection By-law

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#### 1. **RECOMMENDATION:**

It is recommended that:

1. By-law 2020-044 being a By-law to require downspout disconnection in designated areas for the purpose of regulating stormwater drainage be taken as having been read three times and finally passed and the Mayor and Clerk **BE AUTHORIZED** to sign the same.

#### 2. **BACKGROUND:**

In previous years, when significant rainfall events were not as prevalent, building practices encouraged the use of eavestroughs and downspouts to collect and divert rainwater from rooftops to sewers as quickly as possible. In recent years, with the increase in amount and intensity of rainfall events, the sewer systems can be quickly overloaded by heavy rainfall. By disconnecting downspouts there is a delay of stormwater entering the system. This eases the pressure on the system at critical times and may assist homeowners with basement flooding.

The practice of disconnecting downspouts is a simple and inexpensive method of reducing the amount of storm water entering the sewer system during these unprecedented heavy rainstorms. In addition to the direct benefit of reducing the load on the sewer system, indirect benefits include reduced water to the sewage treatment plants and reduction in treatment costs. Though theoretically we should have no storm water making its way to the sanitary treatment plant, the reality is that the older parts of Town still have foundation drains and certain downspouts connected directly to the sanitary system. To this point the Town has provided the service to the lot line but has not required

owners to disconnect downspouts from the sanitary service and properly connect to the storm service.

The Town began a voluntary Town-wide Downspout Disconnection Program in 2017. The program is currently free of charge, voluntary, and open to all residential homes interested in disconnecting their downspouts. A combination of Town staff and hired contractors perform the disconnection work. All costs to perform the work are included in the Wastewater budget centre and funded by wastewater rates.

On request from the resident, each home is evaluated on a case-by-case basis. In some instances, disconnection is not possible due to flat terrain of the area, proximity of adjacent homes or the disconnection would cause tripping hazards for the homeowners. In these cases, recommendations are made for the connections to remain.

#### Benefits to Mandatory Disconnection

- Extra capacity in existing sewers (i.e. reduced need to build storm relief sewers)
- Environmental benefit of ground water recharge
- Cost-effective method to mitigate the risk of flooding to vulnerable homes

#### Negatives to Mandatory Disconnection

- Increase in surface flooding complaints
- Possible flooding of adjacent properties
- Resident resistance to providing access to their private property
- Additional cost to administer the program

Many municipalities in Canada and the United States have already begun to either impose voluntary or mandatory downspout disconnection policies. Some of these policies include reduced cost or no cost disconnection as incentives for residents to participate.

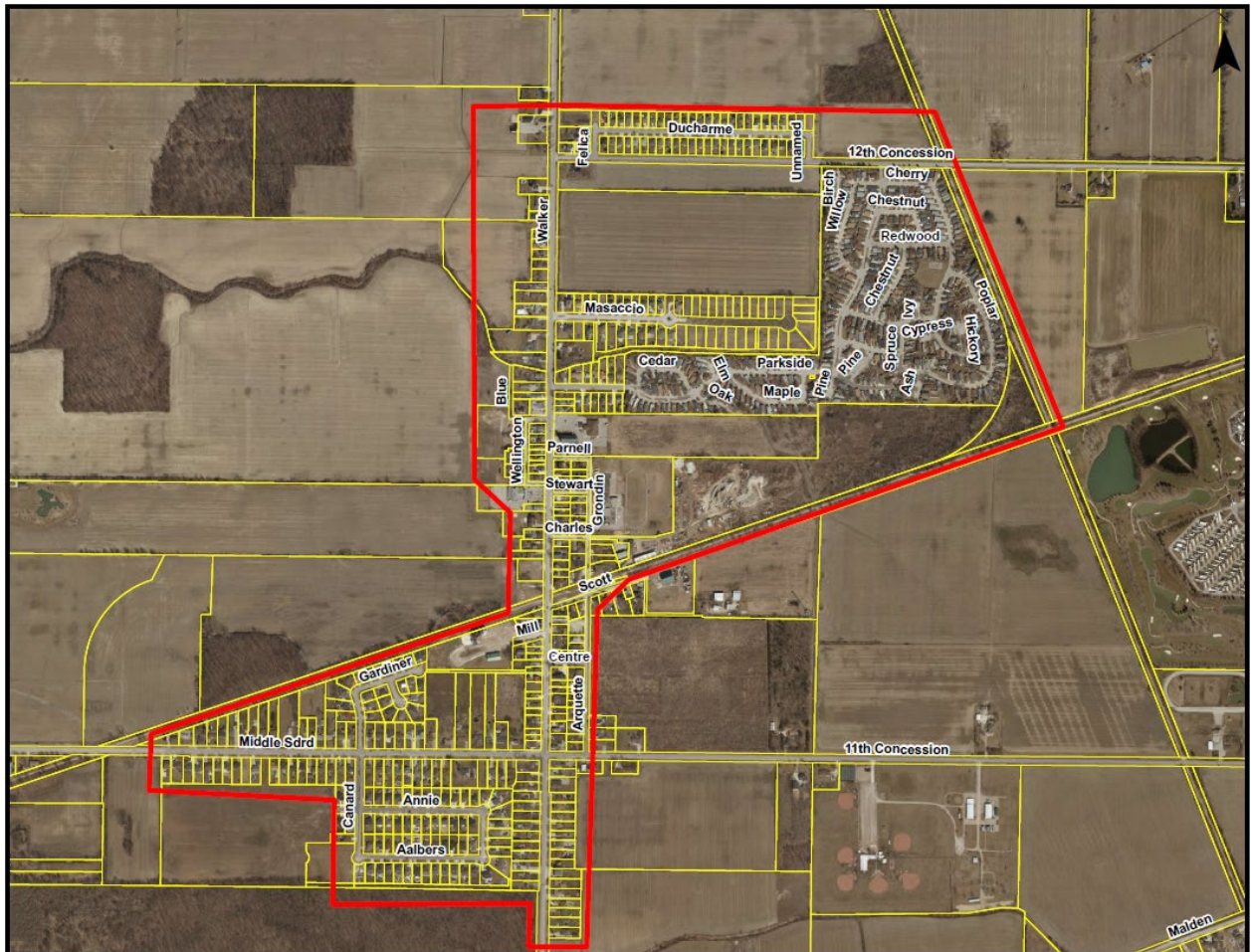
### **3. DISCUSSION:**

Downspout disconnection has been recognized as a key source control measure to help reduce the amount of stormwater runoff entering a municipal storm system and thereby reduce the frequency of basement flooding.

At this time the areas noted below are recommended to be designated for mandatory downspout disconnection under By-law 2020-044. Administration will continue to monitor the need to add further Downspout Disconnection Areas where homes are vulnerable to flooding or the proposed disconnection area is known to have increased sanitary sewer flows during rain events.

## Phase 1 – Kingsbridge Subdivision and McGregor

The McGregor area has experienced two rain events. One of those events occurred on August 28, 2017. Using data gathered from the Town's rain gauge in McGregor, it was observed that 120 mm (4.7 inches) of rain fell in a 4 hour period. The McGregor areas recommended for mandatory downspout disconnection include Hidden Creek Condominium Community, the downtown core, Canard Estates and the Fox Glen subdivision.



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Kingsbridge - On October 6, 2018, an extraordinary rainfall event of extreme intensity occurred in Town.



There are currently approximately 1,121 residences in McGregor and 1,200 residences in the Kingsbridge areas where a large portion of residents have not taken advantage of the voluntary program. The Town has made efforts to promote the program, including advertisement in the local newspaper (River Town Times) and on social media on numerous occasions and most recently with some door to door flyer deliveries to the McGregor area. Despite these efforts, these areas continue to have the majority of homes with connected downspouts and, therefore, remain vulnerable to major storm events. Making the downspout disconnection mandatory, as other municipalities have done, will help alleviate some of this risk.

Upon approval of the mandatory downspout disconnection By-law, letters will be sent out to homes in the McGregor and Kingsbridge areas regarding the new mandatory program with expected start dates. Administration will procure the services of a contractor to undertake the downspout disconnections.

#### Applications for an Exemption from the By-law

While property owners are encouraged to take action to disconnect their downspouts, it is recognized that not all downspouts are suitable for disconnection and should be avoided in particular situations. Under the proposed By-law, property owners can make an application to the Town for an exemption from the By-law provisions, where disconnection of downspouts would create a hazardous condition or is not technically feasible. Exemptions would be granted for extenuating, site specific conditions, such as flooding of adjacent properties or contributing to slope failure or erosion in ravines, or where disconnection would require internal reconstruction or plumbing retrofits. Before applying for an exemption, property owners are required to make every effort to disconnect their downspouts safely. This includes relocating one or more downspouts and/or re-grading eaves troughs, as well as correcting slope/grading on the property.

#### **4. FINANCIAL MATTERS:**

Expenditures related to the disconnection of downspouts are made as a charge to the Wastewater budget centre under maintenance - inflow and infiltration expense. The 2020 Wastewater budget centre includes \$360,000 for work related to system maintenance for inflow and infiltration. The cost of a single disconnection, excluding administrative costs, generally ranges from \$300-\$500, depending on site conditions. Administration will monitor the available funding and schedule work that can be completed within the annual budget constraints.

#### **5. CONSULTATIONS:**

N/A

**6. CONCLUSION:**

Mandatory downspout disconnection is an effective tool assist vulnerable homes with flooding. Administration recommends mandatory disconnection for McGregor and Kingsbridge areas of the Town at this time.



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Dan Beaulieu  
**Manager of Environmental Services**

## Report Approval Details

Document Title:	Mandatory Downspout Disconnection - revised.docx
Attachments:	- DRAFT - BY-LAW 2020-044 Downspout Disconnection.docx
Final Approval Date:	Sep 9, 2020

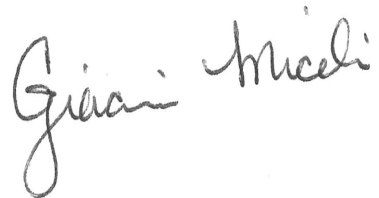
This report and all of its attachments were approved and signed as outlined below:



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