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TO:	CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING TUESDAY, MAY 9, 2017
FROM:	KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR OF ENVIRONMENTAL AND ENGINEERING SERVICES & CITY ENGINEER
SUBJECT:	BASEMENT FLOODING GRANT PROGRAM BY-LAW UPDATE

RECOMMENDATION

That, on the recommendation of the Managing Director of Environmental and Engineering Services & City Engineer, the following actions **BE TAKEN** with respect to sump pump, backwater valve, sewage ejector and storm private drain connection grants:

- a) The proposed by-law attached as Appendix 'A' **BE INTRODUCED** at the Municipal Council Meeting on May 16, 2017 to repeal and replace the existing "Grants for Sump Pump, Sewage Ejector, and Storm Private Drain Connection By-law A-7015-285 to reflect the following changes to the grants available for owners of single detached, semi-detached, and duplex dwellings deemed eligible to participate in the grant program, subject to funding being available in the yearly budget allocation for this purpose:
 - i. a splitting of costs between the property owner, condominium corporation, or non-profit housing co-operative and the City such that the City would pay nine tenths of the construction costs up to certain upset limits;
 - ii. a loan which the property owner, condominium corporation, or non-profit housing co-operative has the option of obtaining from the City in order to pay for their portion of the construction costs with such loan not to cover any unrelated renovation works;
 - iii. updates to the upset limit amounts, which were last adjusted in September, 2013;
 - iv. item i. above to be retroactive to applicants that have been approved for the basement flooding grant program funding on or after January 1, 2017; it being noted that if applicants have already received a grant payment they will receive an additional grant payment equal to the difference between what they would have been approved for given the new 90% grant funding and increased upset limits, and their received grant payment amount; and, if applicants have not yet received a grant payment they will receive a payment under the updated grant funding structure;
 - v. in order to be eligible for the program, quotes for the proposed construction works must be obtained directly from a licenced bona fide plumbing contractor, not a 3rd party representative;

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- vi. property owners who install a sump pump and backwater valve through the grant program are also eligible to receive grant funding for sump pump battery backup systems;
- vii. residential properties which don't have weeping tiles (foundation drains) connected to City storm or sanitary sewers are eligible for grant funding for backwater valves if the property is in an area that is susceptible to basement flooding due to sanitary sewer surcharging;
- viii. some residents may qualify for backwater valve alarms under the grant program, depending on the type of alarm installed and the City's need to obtain backwater valve data for the area;
- ix. a backwater valve installation is required in order to receive grant funding for disconnecting weeping tiles and installing a sump pump;
- x. where the distance from the discharge point of an installed sump pump to a City sidewalk, road, or neighbouring property is less than four metres, or at the City Engineer's discretion (depending on lot grading and soil type), a Storm Private Drain Connection is required to be installed in order to receive grant funding for disconnecting weeping tiles and installing a sump pump;
- xi. homes which have a reverse grade driveway and have private catchbasins connected to the sanitary sewer are eligible to receive grant funding for the disconnection of the catchbasin from the sanitary sewer, and installation of a sump pump and a storm private drain connection;
- xii. condominium corporations and non-profit housing cooperatives are only eligible for grant funding if their weeping tiles are or will be disconnected from the City's sanitary sewers;
- xiii. condominium corporations and non-profit housing cooperatives are only eligible for grant funding for the individual units having works completed to them or receive a direct benefit from the works (such as grading), not the total number of units in the condominium block; and
- xiv. the City may advance 100% of the grant and loan amounts to the plumbing contractor who completes the construction works for the applicant owner(s), condominium corporation, or non-profit housing cooperative upon receipt of an invoice for the completed construction works and confirmation that a plumbing permit has been issued and passed in full.

PREVIOUS REPORTS PERTINENT TO THIS MATTER

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September 9, 2013	“Grants for Sump Pump, Sewage Ejector and Storm Private Drain Connection By-Law – Proposed Amendment”, Civic Works Committee
September 13, 2010	“Grants for Sump Pump, Sewage Ejector and Storm Private Drain Connection By-Law.” Environment and Transportation Committee
August 24, 2009	“Grants for Sump Pump, Sewage Ejector and Storm Private Drain Connection By-Law.” Environment and Transportation Committee
July 27, 2009	“Grants for Sump Pump, Sewage Ejector and Storm Private Drain Connection By-law.”, Environment and Transportation Committee
July 20, 2009	“Grants for Sump Pump, Sewage Ejector and Storm Private Drain Connection By-law.”, Environment and Transportation Committee

2015-2019 STRATEGIC PLAN

The 2015 – 2019 Strategic Plan identifies this objective under Building a Sustainable City; 1B – Manage and improve our water, wastewater and stormwater infrastructure and services; and 3E – Work together to protect all aspects of our natural environment including woodlands, wetlands, river and watercourses, and air quality as our city grows.

BACKGROUND

Purpose

This report responds to a March 2, 2017, resolution of the Municipal Council with respect to amendments to the Basement Flooding Grant Program By-law:

*That the Civic Administration **BE DIRECTED** to:*

- a) *Report back to the Civic Works Committee with a draft proposed by-law to amend By-law No. A.-7015-285 entitled “A by-law to repeal and replace By-law No. A.-6403-272 being “A By-Law to provide for a City of London Sump Pump, Sewage Ejector, and Storm Private Drain Connection Grant Program to owners of semi-detached, detached and duplex residential properties, condominium corporations, and to non-profit housing co-operatives for units used for residential purposes” to provide for the following:*
 - i. *A grant of up to 90% of the demonstrated installation costs; and,*
 - ii. *Remaining costs to be provided to the home owner by means of a loan with a repayment period of up to 10 years, with payments being applied to the property taxes; and,*
- b) *The Civic Administration **BE DIRECTED** to report back to the Civic Works Committee with respect to anticipated uptake for the program and whether or not the anticipated uptake could be covered within the existing budget;*

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It being noted that the Civic Works Committee received the attached communication dated February 17, 2017, from Councillors V. Ridley and J. Helmer with respect to this matter.

DISCUSSION

The goal of this program is to reduce the risk of basement flooding to property owners and at the same time reduce the amount of extraneous flow into the City's sanitary sewage systems. The implementation of the program continues to include education of local plumbing contractors on how the revised program works, advertising the grant program to residents throughout the City (specifically in known problem areas), and carefully reviewing all inquiries, applications, and installations to ensure the funds allocated for this program are spent effectively.

Attached to this report is a revised Basement Flooding Grant Program By-law in Appendix 'A'. The revised by-law modifies the construction cost split between the property owner, condominium corporation, or non-profit housing co-operative and the City, to one tenth for the property owner and nine tenths for the City up to certain upset limits.

The City continues to encourage residents, within areas of the City which are prone to basement flooding, to participate in the grant program. Included in this initiative are those households that contribute to downstream basement flooding, even if they may have not actually experienced basement flooding in the past. However, in many cases, it is a challenge to encourage residents with dry basements in basement flood prone areas to participate in the program.

The proposed by-law change incorporates the direction of the Municipal Council to increase the City grant from 75% to 90%. The Civic Administration also considered the grant upset limits to sufficiently cover 90% of the actual costs. The updates to the upset limit amounts in this by-law amendment are based on both the revised percentage split and average construction costs over the past three years. Adjusting these upset limits and percent grant coverage for the installation of these devices will more accurately reflect the cost of installation, and likely increase participation in the program.

At the property owner's discretion, the remaining construction costs not covered through the grant can now be provided by the City to the property owner as a repayable loan. The amount will be added to the property owner's tax roll over a ten year period with the addition of an appropriate financing charge as determined by the City Treasurer, under the authority of subsection 398(2) of the Municipal Act, 2001, as amended.

The proposed by-law also includes additional amendments that are recommended to be implemented in order to increase resident uptake in the program, alleviate frustrations that customers have had with the program, and to minimize future customer grievances stemming from works completed through the program.

The recommended changes for property owners of residential detached, residential semi-detached, and duplexes are as follows:

1. Sump pump installation - up to a maximum of \$2,475.00 for out-of-pocket expenses to disconnect the footing tiles when they are connected to the main drain inside the basement. In the case where footing tiles previously drained to

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the sanitary sewer the property owner must also install an approved backwater valve through this grant program. The current maximum allowed grant for this type of installation is \$1,950.00.

2. Sump pump installation - up to a maximum of \$3,125.00 for out-of-pocket expenses to disconnect the footing tiles when they are connected to the main drain outside the basement. In the case where footing tiles previously drained to the sanitary sewer the property owner must also install an approved backwater valve through this grant program. The current maximum allowed grant for this type of installation is \$2,650.00.

For items (1) and (2), the installation of backwater valves will be considered as mandatory works in order to receive grant funding for the weeping tile disconnection and sump pump installation. The installation of a backwater valve is not currently mandatory and some residents choose not to install them. Although the disconnection of the home's weeping tiles and installation of a sump pump does marginally decrease basement flooding risk, neighbouring properties likely still have weeping tiles connected which continues to put the home at risk of basement flooding due to sanitary sewer surcharging. A backwater valve, when properly installed and maintained, provides the best protection from basement flooding due to sanitary sewer surcharging. See recommendations (a) iii. and ix.

3. Sump pump battery backup installation – up to a maximum of \$1,100.00 for out-of-pocket expenses when a sump pump battery backup system is installed in a residential home that has or will have an approved sump pump and an approved backwater valve installed through the grant program.

This is an expansion of scope. The primary reason homeowners choose not to participate in the program, apart from financial concerns, is that sump pumps do not function during a power outage; power outages can occur during a large storm event. During a large storm event a significant volume of water can be directed to the sump pump pit. A sump pump not functioning due to a power outage can lead to stormwater flooding the basement through the sump pit. With a battery backup system installed in the sump pump pit, homeowners can have confidence that their sump pump system will function even during a power outage due to a large storm event, further increasing their level of protection from basement flooding and increasing participation in the grant program. See recommendation (a) vi.

4. Sump pump installation - Up to a maximum of \$2,475.00 for out-of-pocket expenses to disconnect private catchbasins or drains on, or adjacent to, a driveway or garage that drain storm runoff from a reverse grade driveway, where the private catchbasins or drains are connected to the City's sanitary sewer.

This is an expansion of scope. Homes which have a reverse grade driveway and private catchbasins connected to the sanitary sewer will now be eligible to receive grant funding for the disconnection of the catchbasin from the sanitary sewer, and installation of a sump pump and a storm private drain connection. There are a small number of homes which have this reverse grade driveway format in London; however, disconnecting these catchbasins from the sanitary sewer will result in a significant reduction of stormwater contribution from the home to the City's sanitary sewer. See recommendation (a) xi.

5. Backwater valve installation - up to a maximum of \$1,200.00 for out-of-pocket expenses when a full port type backwater valve is installed in a residential home

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that already has an approved sump pump. The current maximum allowed grant for this type of installation is \$825.00. See recommendation (a) iii.

6. Backwater valve installation - up to a maximum of \$1,200.00 for out-of-pocket expenses when a full port type backwater valve is installed in a residential home that does not have weeping tiles due to age of construction but is located in an area where sanitary sewer surcharging is a risk.

This is an expansion of scope. Homes built before the mid 1920's were not constructed with weeping tiles; however, most are constructed in areas where sanitary sewer surcharging may occur due to other tributary homes which do have weeping tile connections to the sanitary sewer. During large rainfall events, this can cause basement flooding problems in homes that don't have weeping tiles. Even though these homes are not contributing to the sanitary surcharging issue, it is recommended that they be eligible to install backwater valves so that they can be protected. See recommendation (a) vii.

7. Sewage ejector installation - Up to a maximum of \$2,050.00 for out-of-pocket expenses incurred when, in lieu of a full port type backwater valve being installed with the sump pump, a sewage ejector and holding tank is installed for the disposal of effluent from basement plumbing fixtures. The current maximum allowed grant for this type of installation is \$1,525.00. See recommendation (a) iii.
8. Backwater valve - Up to a maximum of \$190.00 for out of pocket expenses when an alarm is installed for the full port type backwater valve on the condition that the installed alarm records backwater valve flap activity data, the property owner agrees to allow the City to download the data as needed for up to 5 years after the installation date, and the City Engineer deems it necessary to collect information from the backwater valve to aid in sewer performance research.

This is an expansion of scope. Some residents may qualify for backwater valve alarm systems. Backwater valve alarms may produce visual and/or audible warnings as to when the backwater valve is engaged, indicating that plumbing fixtures in the home should not be used to avoid self flooding. The technology of the alarm equipment is advancing and there are concepts for alarms which send text messages and emails to alert property owners as well as recording backwater valve activity data. If a property owner agrees to install a backwater valve alarm which records data and is willing to share that data with the City, the data could provide valuable insight into the performance of the local sanitary sewer. The City could then use this information to help inform future decisions pertaining to the sanitary sewer or weeping tile disconnect initiatives. If a property owner would like to install a backwater valve alarm through the Basement Flooding Grant Program, the backwater valve would need to be able to record data, the City Engineer or designate would need to consider the home to be in an area where additional monitoring data would provide value to the City, and the property owner would need to sign a consent to enter agreement which would allow the City to enter the home for the purpose of collecting the backwater valve data on an as needed basis for up to 5 years. See recommendation (a) viii.

9. Storm Private Drain - Up to a maximum of \$7,025.00 for out of pocket expenses incurred by an owner for the construction of a storm private drain connection within the City road allowance or within a City easement and on private property to the dwelling, to connect to pumped footing tile water. The current maximum allowed grant for this type of installation is \$6,000.00. See recommendation (a) iii.

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10. Up to a maximum of \$1,750.00 for out-of-pocket expenses to construct a storm building sewer on private property from the dwelling unit to an existing storm PDC at the City road allowance or within a City easement. The current maximum allowed grant for this type of installation is \$1,000.00. See recommendation (a) iii.
11. Where a storm sewer outlet is available, a Storm Private Drain Connection will be required to be installed in order to receive grant funding for disconnecting weeping tiles and installing a sump pump in some instances: when the discharge point of the sump pump is less than four metres away from a City sidewalk, City road, or neighbouring property, or at the City Engineer's discretion based on the soil type and grading of the lot which makes sump pump discharge water unable to infiltrate into the lot's ground adequately.

This is an expansion of scope. Civic Administration is recommending making Storm Private Drain Connections mandatory for homes where overland sump pump discharge would cause flooding or icing problems on City sidewalks, roads, or neighbouring properties. This will prevent future occurrences of sidewalk and road icing issues and flooding disputes between neighbours. See recommendation (a) x.

The recommended changes for condominium corporations and non-profit housing co-operatives are as follows:

1. Up to a maximum of \$1500.00 (per condominium unit, or non-profit housing co-operative unit, that are having construction works completed to them or are directly benefiting from construction works) for out-of-pocket expenses for lot grading, sump pump systems, backflow prevention systems, and certification. Condominium corporations and non-profit housing cooperatives are only eligible for grant funding for units which are having works completed to them or receive a direct benefit from the works (such as adjacent grading works), not total number of units in the condominium block. Units in the condo block not undertaking any works are not to receive grant funding. This maximum grant amount has been revised from the previous amount of \$900.00. See recommendations (a) iii. and xiii.
2. Any grants provided to condominium corporations or non-profit housing co-operatives which have weeping tile connections to the City's sanitary sewer will be payable only if those weeping tiles are disconnected. Any units which still have weeping tiles connected to the City's sanitary sewers are not eligible for grant funding.

This is an expansion of scope. As explained previously, it is in the best interest of the City to remove extraneous weeping tile flow from sanitary sewers. Units which still have weeping tiles connected to the sanitary sewers are not eligible for grant funding since they are still contributing extraneous flows to the municipal sewer system. See recommendation (a) xii.

Other recommended changes for property owners, condominium corporations and non-profit housing co-operatives include:

1. To remove the program disincentive of affordability, an applicant can request a loan from the City that covers the owner's portion of construction costs, with such loan not to cover any unrelated renovation works. Like Local Improvement charges, the cost will be added to the property tax roll and repaid over 10 years

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with interest. See recommendation (a) ii.

2. Funding changes be retroactive to applicants who have applied to the grant program on or after January 1, 2017 and have subsequently been approved. This is recommended because the customers who recently received or have been approved for the smaller grant amount under the previous by-law were taking proactive measures to safeguard their homes from flooding for the 2017 Spring season. Since January 1, 2017 five homeowners have been approved. The total cost of retroactively applying the new grants to these applicants is \$2,975.00. See recommendations (a) i. and iv.

3. Since the combination of grant and loan funding is effectively covering one hundred percent of the costs of construction for the works, quotes for the proposed construction works must be obtained directly from the plumbing contractor, not a 3rd party representative, in order to be eligible for the program. Through lessons learned from other Ontario municipalities, which have similar grant programs with near one hundred percent funding, it was found that the plumbing contractor marketplace becomes less competitive.

This may result in non-competitive pricing practices amongst different plumbing contractors, as well as individuals or businesses 'selling' on behalf of multiple plumbing contractors, receiving a 'finders fee' for the business they obtain and further increasing the costs of construction. See recommendation (a) v.

4. Property owners, condominium corporations, and non-profit housing co-operatives that do not have the required financial resources to pay for the construction works upfront would be eligible for an advance of one hundred percent of the grant and loan amounts to be forwarded directly to the plumbing contractor who completed the construction works upon receipt of an invoice for the completed construction works and confirmation that a plumbing permit has been issued and passed in full. This ensures that customers who are unable to front, or obtain a loan for, the cost of these works are able to participate in the program and that plumbing contractors are paid for their work. See recommendation (a) xiv.

Implementing the Program Changes

Communicating the recommended by-law changes will be an important part of improving the success of the program. Updates to the program pamphlet will be completed. The changes will be published, and the City's website will be updated. New application forms for property owners, condominium corporations and non-profit housing co-operatives will also be prepared to reflect these new changes. A public meeting for plumbing contractors will be held to update them on these changes. The Finance Department will set up the processing of loans and transfers to the tax bill.

The existing budget appears to be sufficient to cover expected costs during the remainder of 2017 and 2018. In 2017, \$18,602 has been spent through the program so far; there is \$285,367 in the program's reserve fund. In 2018 the program fund is scheduled to receive \$500,000 as a reserve fund top up allocation. Therefore, a budget adjustment is not anticipated for 2017 or 2018 for this grant program at this time. If uptake in the program dramatically increases in the next few years the budget may have to be revised in the next four year budget cycle to accommodate the larger number of applicants. A summary of yearly Basement Flooding Grant Program expenditures and the year-end reserve fund position from 2009 to 2016 can be found in Appendix 'B'.

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Conclusion

Certain changes to the Grants for Sump Pump, Sewage Ejector and Storm Private Drain Connection By-law have been directed by the Municipal Council. Others are included in the report recommendations that give full effect to the intent of the Municipal Council or are updates to solve program deficiencies as experienced by London and other communities.

Through advertising and education, the new details of the voluntary grant program as defined in the updated Grants for Sump Pump, Sewage Ejector and Storm Private Drain Connection By-law will reach residents throughout the City. The City continues to target areas that are prone to basement flooding to encourage participation through this voluntary grant program. This is beneficial for both the property owners who participate and to the City in removing extraneous flows from the sanitary sewer system.

It is anticipated that the recommended changes to the percent grant coverage, upset limits, and eligible works identified above will encourage more property owners to participate in the program.

No additional budget for this program is anticipated for 2017 or 2018, as sufficient funds remain to be available within the approved existing budget. This will be re-evaluated for 2019 budget considerations.

Acknowledgements

This report was prepared within the Wastewater and Drainage Engineering Division by Mitchell Heighway, P.Eng., Environmental Services Engineer.

PREPARED BY:	REVIEWED BY:
TOM COPELAND, P.ENG. DIVISION MANAGER WASTEWATER AND DRAINAGE ENGINEERING	JOHN LUCAS, P.ENG. DIRECTOR-WATER AND WASTEWATER
RECOMMENDED BY:	
KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR ENVIRONMENTAL & ENGINEERING SERVICES AND CITY ENGINEER	

- Appendix A:** Proposed Basement Flooding Grant Program By-law
- Appendix B:** Financial History of the Basement Flooding Grant Program since 2009
- Appendix C:** Basement flood reduction in a typical two-storey home

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Appendix A

Bill No.
2017

By-law No. A.- _____

A By-law to repeal and replace By-law A.-7015-285 being the Grants for Sump Pump, Sewage Ejector, and Storm Drain Connection Grant Program By-law.

WHEREAS section 5 of the *Municipal Act, 2001*, S.O. 2001, c.25, as amended, provides that the powers of a municipality shall be exercised by its council by by-law;

AND WHEREAS section 107 of the *Municipal Act, 2001* provides that a municipality may make grants to any person, group or body, including a fund, for any purpose that council considers to be in the interests of the municipality;

AND WHEREAS section 107 of the *Municipal Act, 2001* provides that a municipality's power to make grants includes the power to make a grant by way of loan and to charge interest on the loan;

AND WHEREAS on September 17, 2013 Council for the City passed By-law A.-7015-285 being the Grants for Sump Pump, Sewage Ejector, and Storm Drain Connection Grant Program By-law. to provide grants to certain owners of residential semi-detached dwellings, single detached dwellings and duplex dwellings, to condominium corporations for units used for residential purposes, and to non-profit housing co-operatives, to disconnect the footing tiles from either the sanitary or storm sewer, and install a sump pump system for disposal of weeping tile (foundation drain) water to a suitable outlet other than the sanitary sewer system;

AND WHEREAS it is deemed expedient to repeal and replace By-law A.-7015-285 being the Grants for Sump Pump, Sewage Ejector, and Storm Drain Connection Grant Program By-law, passed on September 17, 2013;

NOW THEREFORE the Municipal Council of The Corporation of the City of London enacts as follows:

1. That the City of London Sump Pump, Sewage Ejector, and Storm Private Drain Connection Grant Program Guidelines, be established and implemented as per Schedule "A" attached to this by-law.
2. That the Program is not retroactive and shall not apply to any installations of sump pump systems, disconnections or connections of footing tiles, the installation of a backwater valve, nor the installation of a sewage ejector and holding tank, prior to the coming into force of this by-law.
3. That the issuance of grants under the Program is subject to availability of funds as determined by Council from time to time.
5. That the short title of this by-law is the "Basement Flooding Grant Program By-law".

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6. That the Reserve Fund established for the Program be continued.
7. That By-law A.-7015-285 being the Grants for Sump Pump, Sewage Ejector, and Storm Drain Connection Grant Program By-law passed by Council on September 17, 2013 hereby be repealed.
6. That this by-law shall come into force and effect on the day it is passed.

PASSED in Open Council on May 16, 2017.

Matt Brown
Mayor

Catharine Saunders
City Clerk

First Reading – May 16, 2017
Second Reading – May 16, 2017
Third Reading – May 16, 2017

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Schedule "A"

City of London Sump Pump, Sewage Ejector, and Storm Private Drain Connection Grant Program Guidelines

Purpose

To provide a grant to residential home owners, condominium corporations for units used for residential purposes, and to non-profit housing co-operatives, who have experienced sanitary sewer surcharging in their basements and who have installed an approved sump pump system in accordance with this by-law; to provide a grant to owners, condominium corporations for units used for residential purposes, or non-profit housing co-operatives, who are experiencing or are in an area likely to experience basement flooding caused by a surcharged sanitary or storm sewer and who subsequently disconnect the footing tiles from either the sanitary or storm sewer and install a sump pump system for disposal of footing tile water to a suitable outlet other than the sanitary sewer system.

Definitions

"City Engineer" means the General Manager of Environmental and Engineering Services & City Engineer, or designate;

"condominium corporations" means condominium corporations under the *Condominium Act, 1998* for units used for residential purposes;

"non-profit housing co-operatives" means a non-profit housing co-operative under the *Co-operative Corporations Act*

"dwelling unit" has the same meaning as contained in the City's Zoning By-law;

"owner" means an owner in fee simple under the *Land Titles Act*, R.S.O. 1990, c. L.5;

"property" means a separate parcel of land which has been assigned a property identifier under section 141 of the *Land Titles Act*, R.S.O. 1990, c. L.5;

"residential homes" means residential semi-detached dwelling, single detached dwelling and duplex dwelling, as defined in the City's Zoning By-law.

Funding

This Program will be funded in an amount determined by Council in its sole discretion from time to time. Grant commitments will be provided subject to funding availability as determined by Council at its sole discretion from time to time. The amended grant commitment program identified below is retroactive to January 1, 2017, applicants who applied and received a grant payment through the program after this time are eligible for grant payments equal to the difference between what they received and what they would have received under this amended by-law.

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Eligible Work

A) For residential homes, upon completion of the installation and subject to funding being available in the yearly budget allocation for this purpose, the City pay to the owner up to 90% of the demonstrated construction costs established as follows:

- (i) up to a maximum of \$2,475.00 for out-of-pocket expenses to disconnect the footing tiles when they are connected to the main drain inside the basement when the home has an approved backwater valve installed, in the case where footing tiles previously drained to the sanitary sewer; or
- (ii) up to a maximum of \$3,125.00 for out-of-pocket expenses to disconnect the footing tiles when they are connected to the main drain outside the basement when the home has an approved backwater valve installed, in the case where footing tiles previously drained to the sanitary sewer;
- (iii) up to a maximum of \$1100.00 for out-of-pocket expenses when a sump pump battery backup is installed in a residential home that already has an approved sump pump and an approved backwater valve installed as part of the grant program works
- (iv) up to a maximum of \$2,475.00 for out-of-pocket expenses to disconnect the private catchbasins or drains on, or adjacent to, a driveway or garage that drain storm runoff from a reverse grade driveway, where the private catchbasins or drains are connected to the City's sanitary sewer;
- (v) up to a maximum of \$1,200.00 for out-of-pocket expenses when a full port type backwater valve is installed in a residential home that already has an approved sump pump;
- (vi) up to a maximum of \$1,200.00 for out-of-pocket expenses when a full port type backwater valve is installed in a residential home that does not have weeping tiles due to age of construction but is located in an area where sanitary sewer surcharging is a risk and provided that the backwater valve is serving only one dwelling unit;
- (vii) up to a maximum of \$2,050.00 for out-of-pocket expenses incurred when, in lieu of a full port type backwater valve being installed with the sump pump, a sewage ejector and holding tank is installed for the disposal of effluent from basement plumbing fixtures;
- (viii) up to a maximum of \$190.00 for out of pocket expenses when an alarm is installed on the full port type backwater valve on the condition that; the installed alarm logs when the backwater valve flap is engaged or fluctuates, the homeowner agrees to allow the City to download the data as needed for up to 5 years after the installation date, and the City Engineer deems it necessary to collect information from the backwater valve to aid in sewer performance research;
- (ix) up to a maximum of \$7,025.00 for out of pocket expenses incurred by an owner for the construction of a storm private drain connection within the City road allowance or within a City easement, including a storm building sewer on private property where the owner extends the storm P.D.C. onto the property and connects it to pumped footing tile water it being pointed out that this subsidy applies to the construction of a storm P.D.C. within a

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City road allowance or within a City easement, and extending it through private property;

- (x) Up to a maximum of \$1,750.00 for out-of-pocket expenses to construct a storm building sewer on private property from the dwelling unit, from an existing storm PDC on the City road allowance or within a City easement;
- (xi) the works of either items (viii) or (ix) are mandatory, provided that there is a storm sewer outlet available, if the owner is undertaking works of items (i) or (ii) or (iii) and when the discharge point of the sump pump is less than 4 metres away from a City sidewalk, City road, or neighbouring property, or at the City Engineer's discretion based on the soil type and grading of the lot which makes sump pump discharge water unable to infiltrate into the lot's ground adequately;
- (xii) the owner execute an appropriate liability release document, approved by the Manager of Risk Management and the City Solicitor's Office; and
- (xiii) that eligibility for this grant will be based on a demonstrable need for such work, as determined solely by the General Manager of Environmental Services & City Engineer.

Also available for residential homes, upon completion of the installation and subject to funding being available in the yearly budget allocation for this purpose, the City will loan to the applicant owner the remainder of the demonstrated construction costs established as above. This loan is to be paid back to the City in ten equal annual instalments including interest in accordance with the 10-year financing rate for local improvements. Remediation or renovation works required by the homeowner are not eligible for grant or loan funding.

B) For condominium corporations, and non-profit housing co-operatives upon completion of the installation and subject to funding being available in the yearly budget allocation for this purpose, the City pay to a condominium corporation, or non-profit housing co-operative up to 90% of the demonstrated cost established as follows:

- (i) up to a maximum of \$2,000.00 for out-of-pocket expenses for an Engineering Report, which is subject to City Engineer's approval, and the consulting engineer's confirmation that works have been completed in accordance with the Engineering Report;
- (ii) up to a maximum of \$1500.00 (per condominium unit, or non-profit housing co-operative unit, that are having construction works completed to them or are directly benefiting from construction works) for out-of-pocket expenses for lot grading, sump pump systems, backflow prevention systems, and certification;
- (iii) that any grants provided to condominium corporations or non-profit housing co-operatives will be payable only if the entirety of the Engineering Report is implemented;
- (iv) that any grants provided to the condominium corporations or non-profit housing co-operatives which have weeping tile connections to the City's sanitary sewer will be payable only if those weeping tiles are disconnected, any units which still have weeping tiles connected to the City's sanitary sewers are not eligible for grant funding;

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- (v) the City assumes no liability whatsoever relating to the work undertaken by the condominium corporation, or non-profit housing co-operative;
- (vi) the condominium corporation, or non-profit housing co-operative execute an appropriate liability release document, approved by the Manager of Risk Management and the City Solicitor's Office; and
- (vii) that eligibility for this grant will be based on a demonstrable need for such work, as determined solely by the General Manager of Environmental Services & City Engineer.

Eligibility for Grant

The applicant(s) for the grant must meet the following criteria in order to qualify for the Program:

- must be the owner(s) of the property, a condominium corporation, or a non-profit housing co-operative;
- has not commenced any construction works they are applying for grant funding for prior to grant approval;
- there must be no other outstanding debts to the City of London;
- the owner(s), condominium corporation, or non-profit housing co-operative must meet all conditions of this Program.

Approval of all grant applications is also subject to availability of funding at any given time, as determined solely by Council.

Manufacturing businesses or industrial or commercial enterprises are not eligible for this Program.

Grant and Loan Details

Grants and loans will not be available to cover any other associated costs including, but not limited to, renovation costs.

The maximum amount of each grant and loan will be determined in each case by the City Engineer, based on the City Engineer's determination of the reasonable cost and scope of the proposed work. Grant and loan approvals are subject to the availability of funding at any given time, as determined by Council. Grant and loan applications will be processed in chronological order based on the date of receipt of applications.

Grant and loan approvals will be valid for six months and will expire if the work is not completed within that time period (unless extended at the City Engineer's discretion).

Application Procedure

1. The applicant owner(s), condominium corporation, or non-profit housing co-operative will be required to complete an application form provided by the City Engineer.

In addition to the completed application form the applicant owner(s), condominium corporation, or non-profit housing co-operative must provide:

- A minimum of 3 quotes for the work from *bona fide* qualified Contractors, not a 3rd party representative, for costs above \$10,000.00, to the City Engineer's satisfaction;

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- A minimum of 2 quotes for the work from *bona fide* qualified Contractors, not a 3rd party representative, for costs between \$5,000.00 and \$10,000.00, to the City Engineer's satisfaction;
- One quote for the work from a *bona fide* qualified Contractor, not a 3rd party representative, for costs below \$5,000.00, to the City Engineer's satisfaction;
- The quotes must detail what work is to be done, and separate out costs for each portion of construction work, i.e. total cost of labour and materials to install backwater valve, total cost of labour and materials to install PDC, etc.;
- Condominium corporations and non-profit housing co-operatives must also submit a quote from a licenced professional engineer for the cost of the engineer's report and subsequent engineer's letter confirming that works have been completed in accordance with the engineer's report;
- Such other further information or documentation as may be required by the City Engineer.

At the discretion of the City Engineer, any work that is started or completed prior to the grant application approval may be deemed ineligible under this Program.

2. City reviews application and supporting documentation and decides whether to approve the grant amount and loan, and determines approximately how much the grant and loan amounts will be. City advises applicant in writing of its decision.

3. Applicant or Contractor obtains any necessary permits, including a plumbing permit from the City's Building Division (7th Floor, City Hall, 300 Dufferin Avenue, London, 519-661-4555) prior to work commencing. Failure to obtain a plumbing permit prior to work commencing will result in cancellation of any approved grant and loan amounts.

4. The Contractor must co-ordinate work with the City well in advance. The Contractor is responsible to obtain all utility locates for the work for both private property and City property.

5. The Contractor or the applicant must arrange for an inspection by the City with respect to the plumbing permit. Plumbing permits that have not had an inspection by the City will result in cancellation of any approved grant and loan amounts.

6. Within six months of receiving grant approval, the owner(s), condominium corporation, or non-profit housing co-operative must submit to the City the final paid invoice from the Contractor setting out the amount due and paid for the work. Condominium corporations and non-profit housing co-operatives must also submit to the City the final paid invoice from the consulting engineering setting out the amount due and paid for the Engineer's Report(s). Any owner, condominium corporation, or non-profit housing co-operative submitting an invoice six months after the grant approval will be ineligible for payment of the grant and loan (subject to the discretion of the City Engineer). The City will not provide a grant or loan for an amount greater than the grant or loan amount set out in paragraph 2 above, even where the final invoice is greater than the grant amount. The owner(s), condominium corporation, or non-profit housing co-operative must also resubmit the grant application form with the liability release section signed by all owners or representatives able to bind the condominium corporation or non-profit housing co-operative.

7. If the owner(s) are having a backwater valve alarm installed as part of the works as approved by the City Engineer, along with the items required for submission in paragraph 6, the homeowner must submit a signed 'Consent to Enter' form detailing the frequency of data downloading the City will perform and the expiration date of the consent.

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8. Where there is a request to do so and subject to the discretion of the City Engineer, the City may advance 100% of the grant and loan amounts as set out in paragraph 2 above to the qualified plumbing contractor who completes the construction works for the applicant owner(s), condominium corporation, or non-profit housing co-operative, upon receipt of an invoice for the completed construction works and confirmation that a plumbing permit has been issued and passed in full.

Information to Accompany Application

- Complete application form completed by owner(s), condominium corporation, or non-profit housing co-operative;
- A minimum of 3 quotes for the work from *bona fide* qualified Contractors, not a 3rd party representative, for costs above \$10,000.00, to the City Engineer’s satisfaction. The quotes must detail what work is to be done, and separate out costs for each portion of work.
- A minimum of 2 quotes for the work from *bona fide* qualified Contractors, not a 3rd party representative, for costs between \$5,000.00 and \$10,000.00, to the City Engineer’s satisfaction. The quotes must detail what work is to be done, and separate out costs for each portion of work.
- One quote for the work from a *bona fide* qualified Contractor, not a 3rd party representative, for costs below \$5,000.00, to the City Engineer’s satisfaction. The quote must detail what work is to be done, and separate out costs for each portion of work.
- One Engineer’s report subject to revisions and approval of the City Engineer if applicant is a condominium corporation or non-profit housing co-operative.
- One quote for the Engineer’s report and approval letter if the applicant is a condominium corporation or non-profit housing co-operative.
- Such other further information or documentation as may be required by the City Engineer.

Not Retroactive

The Program will not be retroactive to apply to works started before the commencement of the Program.

Discontinuation of Program

The terms of the Program are subject to change. Council may periodically review the Program Guidelines to determine if the Program should continue, be modified, or cease to issue any new grants. The City may discontinue the Program at any time, without notice.

City Not Liable

In order to qualify for a grant, the owner, condominium corporation, or non-profit housing co-operative agrees that the City shall not be liable for any damages to the owner’s property or property for which the condominium corporation, or non-profit housing co-operative is responsible as a result of any of these installations.

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Appendix B

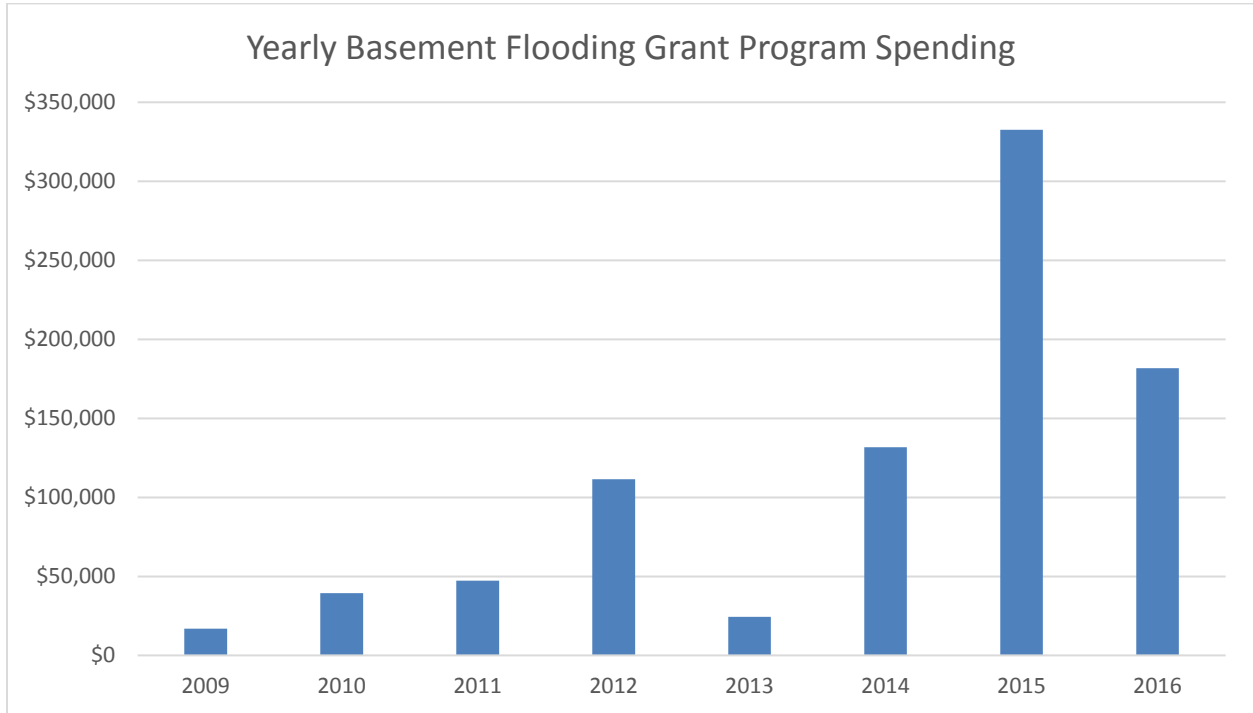


Figure 1: Total Basement Flooding Grant Program spending from 2009-2016

Year	Total Amount Spent	Reserve Balance at Year End
2009	\$16,995	N/A
2010	\$39,472	\$500,000
2011	\$47,208	\$506,165
2012	\$111,510	\$514,837
2013	\$24,356	\$524,782
2014	\$131,754	\$534,623
2015	\$332,543	\$359,256
2016	\$181,797	\$284,467
2017	\$18,602	\$285,367
Total	\$904,834	

Table 1: Total Basement Flooding Grant Program spending from 2009-2016

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Appendix C

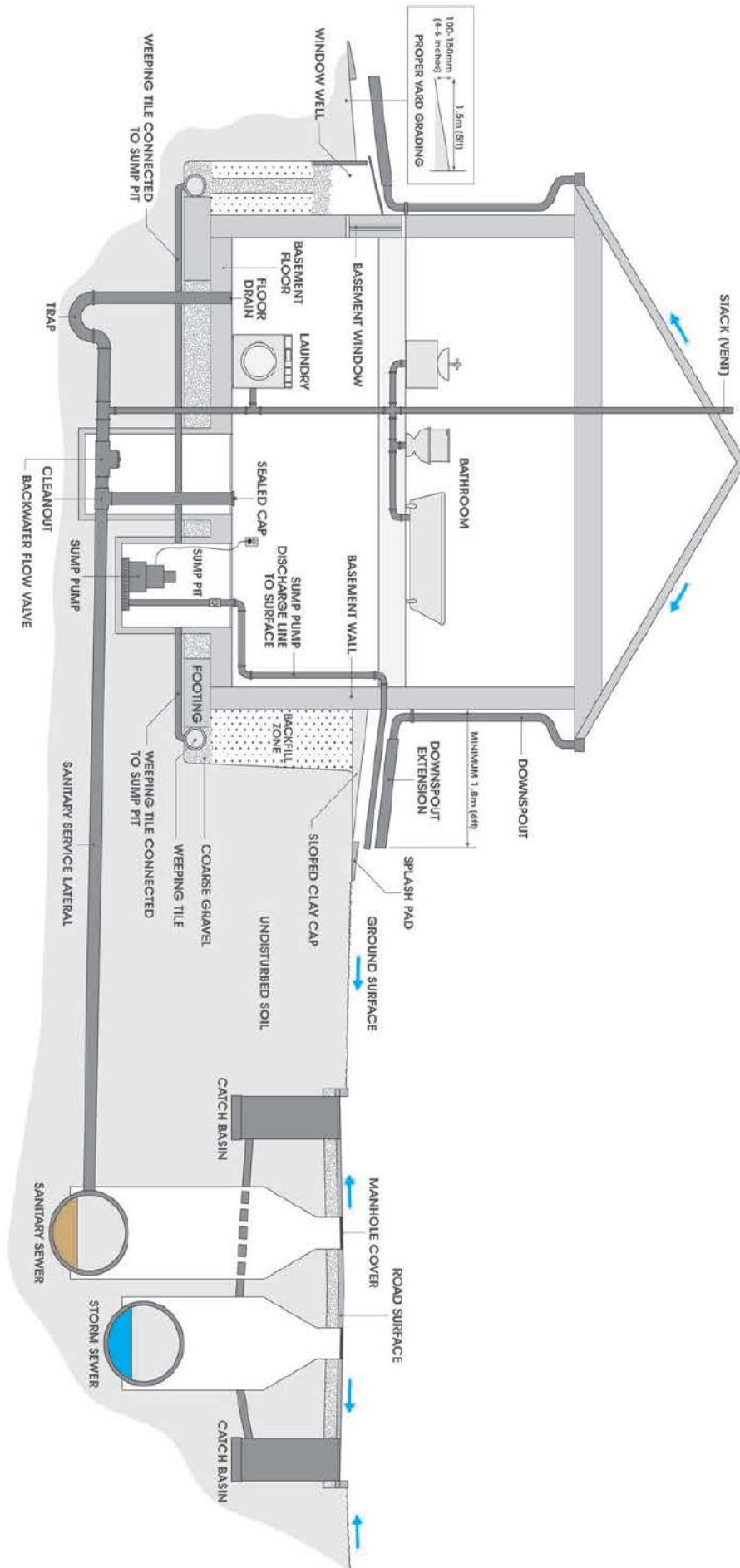


Figure 2: 'Basement flood reduction in a typical two-story home' provided by the Institute for Catastrophic Loss Reduction