

Private Property Inflow / Infiltration Reduction Policy

Purpose: The following policy addresses the reduction of excessive clear water (inflow and infiltration) entering the sanitary sewer system from private property in the City of Brookfield. This policy is in addition to the provisions of and prohibitions against clear water entering the sanitary sewer as codified in the City's Sewer Use Ordinance, section 13.16.110.

Background: Since 1999, in response to two extreme rain events causing widespread flooding and basement backups, the City has made major upgrades to its publicly owned sanitary sewer system. It has also made substantial and comprehensive repairs and rehabilitation of publicly owned sewers and manholes, and enforced ordinance provisions for maintenance of privately owned sanitary sewer systems for clear water reduction. Even so, during major rain events, City sewers have experienced high flows which are believed to be a result of Infiltration and Inflow (I/I) into the sanitary sewer; albeit, the severity and frequency of the high flows has been reduced because of the City's efforts on the public side of the system.

The City would like to further reduce the frequency and severity of these high flows and impacts of same during heavy rain events. It is believed that there are substantial sources of excessive I/I that can be found and removed from private sector sources.

Excessive I/I prohibited from Private Sector Sources: While the City's Sewer Use ordinance prohibits discharge of clear water to the sanitary sewer system, the plumbing code permits some of these sources as grandfathered in at the time of construction (e.g. foundation drains, footing tiles and combination sumps prior to 1954 or while on septic, prior sewer construction respectively). It is also difficult to prove the source of I/I for those facilities that may be legally constructed but have deteriorated over time (e.g. leaking sewer lateral).

Establishment of a Private Property Inflow/Infiltration Reduction (PPIIR) Program: To aid in finding and removing sources of excessive I/I, the City established a Private Property Inflow/Infiltration Reduction (PPIIR) Program. This shall serve as a pilot program, using funds from the MMSD PPIIR program, as well as designated funds from the City's sewer budget for reduction of I/I from private property (PPII).

The program consists of inspections of residential properties and private sewer laterals on a voluntary basis. Inspections shall be conducted by City staff or its consultants/contractors in areas that are deemed to be most advantageous to the City. Once sources of PPII are determined, the City shall work with private property owners to make repairs sufficient to eliminate or reduce I/I to acceptable levels.

Development of a Reimbursement Program to Assist Property Owners with Cost of Repairs: Repairs to facilities that may contribute excessive amounts of I/I to the City's sanitary sewer system can be expensive. This policy requires rehabilitation of sanitary sewer laterals; disconnection of footings, foundation drains and combination sumps and installing sump pumps to divert water from those sources to surface water drainage systems; compliance with existing City codes concerning clear water sources; and addressing private drainage issues that may introduce PPII to the City sewer system under large storm conditions. The City will encourage

these improvements by providing financial incentives to property owners for the aforementioned improvements and to provide financial assistance to those property owners who will bear a portion of the costs of this necessary work. This incentive program will remain in effect for as long as the MMSD's PPIIR program remains funded or as long as the City funds this work from the sewer budget. There is no guarantee that this program will remain in effect indefinitely as budget conditions change.

Implementation of the PPIIR Program: Staff has developed a set of Guidelines for implementation of this policy in the same manner that guidelines supplement the City's Traffic Calming policy and the Water Main Assessment policy. These Guidelines were initially reviewed and adopted by the Water and Sewer Board in conjunction with this policy and shall be updated periodically as the program evolves and changes based on effectiveness and budget parameters.

The area of the City impacted by this policy has expanded and applies to the Fox River side of the City also. Funding for inspections and improvements in the Fox River basin will need to come from the sewer Budget.

This policy shall be reviewed every three years beginning in July, 2014.

Drafted: July 5, 2011

Adopted: July 19, 2011

Revised: February 21, 2012

Reconfirmed: February 17, 2015

**CITY OF BROOKFIELD
PRIVATE PROPERTY INFILTRATION AND INFLOW REDUCTION PROGRAM
GUIDELINES**

Statement of Purpose

Establishing a Private Property Inflow/Infiltration Reduction (PPIIR) Program for selected areas of the City is one of the remaining steps in addressing sources of inflow/infiltration (hereinafter referred to as “I/I”) that contribute to sanitary sewer overflows and basement backups.

These guidelines detail the steps needed to implement a PPIIR Program (hereinafter referred to as the “Program”). The Program consists of inspections of private property (residential property at this time) and institutes rehabilitation of private sanitary sewer laterals; disconnection of footings, foundation drains and combination sumps and installing sump pumps to divert water from those sources to surface water drainage systems; compliance with existing City codes concerning clear water sources; and addressing private drainage issues that may introduce I/I to the City sewer system under large storm conditions.

I. PPIIR Program Concept

Pursuant to and subject to the process set forth below the City will determine whether private properties are contributing excessive clear water (also known as I/I) to the City’s sanitary sewer mains by virtue of a deteriorated or damaged private sewer lateral, footing and foundation drains, combination sumps, cleanouts, or connections prohibited by the plumbing code (hereinafter referred to “source of PPII”). Upon such determination, the City will notify the property owner of this condition and request that the property owner(s) (hereinafter referred to as the “Owner”) make appropriate repair of the source of PPII and will further notify them that, upon completion of such repair in a satisfactory manner, the City may reimburse Owner for a portion of said work. The Owner will be responsible for properly applying for reimbursement, and having all inspections of the Work performed and for submitting all necessary documentation to the City in order to be entitled to reimbursement.

II. Identification of Properties to be Included in the Program

The process for identifying properties to be included in the PPIIR Program is as follows:

- 1.) The Water and Sewer Board (hereinafter referred to as the “Board”) will designate the sanitary sewer service areas (hereinafter referred to as a “Focus Area”) where the Board determines there is the most immediate need to implement the Program and which the Board determines will provide the highest return in terms of reductions of I/I for the City’s cost of implementing the Program in the designated area.
- 2.) Factors for determining which properties to include in the PPIIR Program shall include but not be limited to:

- a. Age of development
- b. Age of sanitary sewer system serving the area
- c. Materials of construction for the sanitary sewer system
- d. History of sanitary sewer overflows or basement backups in the area
- e. Any other factor that is helpful

III. Inspections

The process for inspections to occur and Owners to participate in the Program is as follows:

- 1.) With the Owner's written permission, the City will authorize the inspection of the property and structure and sewer lateral (by way of closed circuit television examination) and any other plumbing or source visible on the property that may be introducing clear water into the sanitary sewer system.
- 2.) If a source of PPII is discovered during the inspection to be introducing an excessive amount of clear water into the sewer system or has the potential to do so, the City will request the Owner to participate in the Program. Properties so identified are hereinafter referred to as an "Identified Property."
- 3.) The City will provide written notification (hereinafter referred to as "Notification") to the Identified Property of the need to repair the source of PPII. For the purposes of this notice, the Owner shall be deemed to be the person(s) identified as such on the information on file in the office of the Waukesha County Register of Deeds.
- 4.) The Notification referred to in Article III Section 3). above shall include the following:
 - a. The name(s) and address of the Owner.
 - b. The address of the Identified Property.
 - c. Notification that the Identified Property has been determined to be allowing I/I to enter the City's sanitary sewer mains and that the identified source of PPII should be repaired, replaced, relined or other work should be done to eliminate the I/I (hereinafter referred to as the "Work").
 - d. Notification that the Work should be completed one year from the date of Notification.
 - e. Notification that the Owner is eligible for participation in the Program to defray a portion of the cost of the Work provided they complete the Work within the time specified, otherwise they lose eligibility for reimbursement of cost for the Work.
 - f. Notification that the video recording of the sewer lateral and results of the property and structure inspection that identifies the Owner's identified source(s) of PPII are available for review upon request from and arrangement with the City.

IV. Reimbursement Program

The process for reimbursement is as follows:

- 1.) To be eligible for reimbursement under the Program, the property must be located within a Focus area and have been inspected by the City or its contractors, determined to be an Identified Property and received a Notification of a source of PPII that needs to be repaired.
- 2.) To be eligible for reimbursement under the Program, any clear water connections prohibited by the plumbing code discovered during the Inspection of the property shall have been disconnected from the City's sanitary sewer system or Owner shall commit to the completion of such disconnection at the same time as the Work is performed. The cost of such disconnection work shall not be part of the Work under the Program and shall not be available for reimbursement under the Program.
- 3.) To be eligible for reimbursement under the Program, there shall be no outstanding or delinquent fees or taxes owed to the City or the City's utilities.
- 4.) Any eligible Owner desiring to receive reimbursement under the Program to defray a portion of the cost of the Work shall complete and execute an "Application for Private Property I/I Reduction Program Reimbursement" (hereinafter referred to as "Reimbursement Application") and submit same to the City for its review and approval.
- 5.) The Owner shall be required to obtain at least three quotes for the Work to be eligible for reimbursement under the Program. The City reserves the right to approve reimbursement without the minimum three quotes if the property owner has sufficiently demonstrated that compliance with this requirement is not possible or practical.
- 6.) Upon receipt of the Reimbursement Application complying with the requirements of the Program and subject to available funds for the Program, the City may approve the application, and approve funding for reimbursement as herein provided for the Work at the Identified Property. Notice of such approval shall be sent to the Owner in the same manner as the Notification.
- 7.) Upon receipt of the approved Reimbursement Application for the Work from the City, the Owner shall thereafter contract for the construction of the Work.
- 8.) Upon completion of the Work in accordance with the requirements of Article V below, and in order to be considered eligible for reimbursement, the Owner must complete and execute a "Private Property Infiltration and Inflow Reduction Program Reimbursement Form", (hereinafter referred to as "Reimbursement Form") which, together with such documentation as the City shall reasonably require (e.g. contracts, invoices, proof of payment, and inspection results), shall be sent to the City at the address specified on the Reimbursement Form.

- 9.) Upon approval by the City of the Reimbursement Form, of the Work and of the required documentation, the City will reimburse the Owner, subject to available funding and to the limitations of Section 10 below. In the event that the documentation does not establish that contractor(s) performing the Work have been paid, reimbursement may be made jointly to the Owner and to such contractor(s), at the City's discretion.
- 10.) The reimbursement available under the Program with regard to the Work related to any single Identified Property shall be as follows (as approved pursuant to Section 3 of this Article above):
- a. Sewer Laterals - 75% reimbursement by the City, with a maximum cost of \$8,000
 - b. Removal of a Combination Sumps - 100% reimbursement by the City, with a maximum City reimbursement of \$8,000
 - c. Repair to outdoor cleanout - 50% reimbursement by the City, with a maximum City reimbursement of \$100
 - d. Installation of glass blocks in window wells - 50% reimbursement by the City, with maximum City reimbursement of \$500
 - e. Extension to roof downspout - 50% reimbursement by the City, with a maximum reimbursement of \$25 for each downspout extension
 - f. Private stormwater improvements to relieve flooding of structure and reduce potential of PPII - 50% reimbursement by the City, with a maximum City reimbursement of \$8,000
 - g. Total property grant funding across all categories shall not exceed \$10,000
- 11.) Only costs directly related to performance of the Work will be eligible for reimbursement. Costs for upgrading electrical service or panels shall not be eligible for reimbursement as part of this Program. Costs for compliance with the plumbing code or removing connections prohibited by the plumbing code (e.g. sump pump discharge to laundry tubs) shall not be eligible for reimbursement as part of this program.
- 12.) This program has a limited budget, therefore, requests will be taken on a first come, first served basis. Property owners that have applied for reimbursement but were not funded because the budget had been exhausted in a given year will receive preference in the following year's allotment of funds (if such funds are available).
- 13.) Reimbursement for any Work by the City does not impute to the City any ownership of or responsibility for the equipment or materials used in the Work. Owner shall be sole owner of said equipment and materials used in the Work and shall be solely responsible for the Work, the performance of equipment and materials used in the Work, and any future maintenance of any improvements made or equipment installed as part of participating in the PPII Reduction Program.

V. Performance of the Work

Eligible Work performed under this Program shall conform to the following process:

- 1.) Prior to any work being performed by the Owner or his contractor, a plan must be submitted to the City for approval. The plan must include methods to prevent clear water from entering the sanitary sewer system from private property. The City will review the plan and either approve, deny or suggest revisions.
- 2.) The Owner shall be responsible for securing or for having secured by Owner's contractor all permits (including plumbing permits as applicable) required under the Wisconsin State Building Code, City's plumbing code and code of ordinances, any ancillary codes adopted by reference and any other required permits. The cost of such permits shall be the responsibility of the Owner but shall constitute an eligible cost of the Work for the purposes of reimbursement.
- 3.) The Owner shall be responsible for having the Work performed within the time parameters set forth in the Notification and for paying the contractor(s) performing the Work for the costs thereof. The cost of performing the Work shall be the responsibility of the Owner but shall constitute an eligible cost of the Work for the purposes of reimbursement. Labor performed by the Owner shall not be an eligible cost for the purposes of reimbursement. Materials provided by the Owner and documented to have been part of the Work are eligible costs for the purpose of reimbursement.
- 4.) The Owner and his contractor shall be responsible for securing and having performed all inspections necessary to ensure that the Work has been performed in accordance with the requirements of the Notification, of the plans for the Work and in conformance with the Wisconsin State Building Code and ancillary codes adopted by reference. The cost of such inspections shall be the responsibility of the Owner (as part of the permit fee) but shall constitute an eligible cost of the Work for the purposes of reimbursement. Failure to secure and have performed all such inspections shall be grounds for denying reimbursement under the Program. In addition, the costs, if any, incurred to expose any work which is covered or obscured prior to inspection shall not be eligible for reimbursement under the Program. Furthermore, any costs incurred by the property owner in order to provide access for the necessary inspections shall not be eligible for reimbursement under the Program.

VI. City performs some work

In some cases, it is to the advantage of the City and the participants of this program to have the City perform the work under a City contract (e.g. lateral lining). In those cases, the City shall obtain property owner's agreement to perform the work and to assess the property owner's portion of the costs to the property.