

APPENDIX 1

MMSD Policy Private Property Inflow Infiltration Reduction Policy

Statement of Policy

Milwaukee Metropolitan Sewerage District's 2011-2020 Private Property Inflow and Infiltration Reduction Program

Introduction

Infiltration is the quantity of water entering a sewer system through such sources as defective pipes, pipe joints, connections or manhole walls. Inflow is the quantity of water entering the sewer system through connections such as area or foundation drains, connected downspouts, and catch basins. Many sources of inflow are illegal. During rain events, infiltration and inflow (“I/I”) dramatically increases the flows in the sanitary sewer system.

Infiltration and inflow increases the amount of flow in the sewer system that ultimately must be conveyed, stored or treated by the Milwaukee Metropolitan Sewerage District (“District”) at a cost to the District’s tax and rate payers. Infiltration and inflow, during significant rain events, can lead to overflows from the sewer system into area waterways and can cause property damage like basement backups. In 2008, 2009 and 2010, severe storms caused thousands of basement backups in the District’s service area causing a loss of possessions, destroyed appliances, and ruined living spaces at a significant cost to area residents that, in many cases, cannot be recovered through insurance claims, and significant personal distress to thousands of people.

Infiltration and inflow can occur from sources on both public and private properties. Under Wisconsin law¹, the District is not authorized to “operate, maintain, rehabilitate or preserve local sewers or appurtenant local facilities” (*see* Wis. Stat. § 200.33) and therefore this 2011-2020 Private Property Inflow and Infiltration Reduction Program (“Program”) is not providing funding for work on local sanitary sewers that are owned and operated by the District’s member and customer communities. The District has determined that it may perform or fund work on private property to reduce I/I and thereby reduce operating costs, capital program expenditures, and reduce the risks of overflows and basement backups. (*See* Wis. Stat. § 200.35, storm sewers within general powers of the Commission).

¹ Wis. Stat. § 200.33(1)(b) states “[e]xcept as provided in sub. (2), ss. 200.21 to 200.65 do not authorize the commission to operate, maintain, rehabilitate or preserve local sewers or appurtenant local facilities constructed by a Municipality....”

There are a variety of ways to remedy I/I on private property. These include downspout disconnection, foundation drain disconnection, lateral repair, lateral rehabilitation, and improved surface water drainage.

This Program, as described by this Policy Document, is focused on funding remedies for I/I to reduce the amount of flow that must be conveyed, stored, and treated by the District, thereby reducing the risk of basement backups and over flows. This Policy Document sets forth a framework for the Program – as the Program matures and additional information is gathered, the District anticipates that it will be necessary or desirable to modify this Policy Document, including the potential for a financial contribution by the private property owner served.

The District makes the following Legislative Findings as the rational basis for this Program.

1. Basement backups are a significant public health and safety issue.
2. Under many circumstances, removing I/I from private property is the most direct means to reduce the risk of basement backups because it removes excess flow at the source.
3. In most circumstances, basement backups are caused by sewer surcharging that is very close to the affected property. Therefore, a) I/I reduction work in the combined sewer area will help reduce the risk of basement backups in the combined sewer area, and b) separating combined sewers is likely to have a minimal effect, if any, on basement backups in the separated sewer area. Most basement backups in 2008-2010 occurred in separated sewer areas.
4. Private property I/I work can result in lower capital and operating costs to the District and the 28 municipalities it serves, along with benefits including the availability of sewer backup insurance, lower disaster recovery costs, and preventing the devaluation of properties.
5. Disconnecting foundation drains is a very effective strategy for reducing inflow.
6. Rehabilitation or replacement of laterals (including flood grouting) is also one of the most effective strategies for reducing infiltration, especially in older communities where deteriorated laterals can contribute very large quantities of clear water to the sanitary sewer system.
7. Private property I/I work reduces the risks of combined and sanitary sewer overflows to surface water during wet weather by increasing the percentage of total flow that can be conveyed, stored and treated.

8. Deteriorated laterals are also a source of pollution to area surface and ground waters and pose public health issues other than basement backups.
9. Privately owned, lateral sewers are a necessary part of the collection system, and lateral replacement or rehabilitation may be a benefit to the private property owner. Any benefit to the private property owner is incidental to the public benefits and public purpose described above.

Definitions

Account: The District will maintain a record of the funding allocated annually to each Municipality (the Funding Allocation) and the Cumulative Funding Allocation (see below) for each Municipality net of any disbursements or transfers.

CIR: Construction, Implementation, and Rehabilitation.

Cumulative Funding Allocation (CFA): Means the amount of money allocated to a Municipality accumulated over a period of years up to the current District fiscal year, net of any disbursements or transfers.

Design, Planning and Investigation Work: Professional services to plan an I/I reduction program, to assemble bid packages, or to design rehabilitations or replacements. This includes investigation work such as house inspection, televising, dye testing and smoke testing, as well as flow monitoring work.

Design, Planning and Investigation Cap: The District has calculated the Design, Planning and Investigation Cap for each Municipality. The Cap has been calculated by taking 20% of the projected total allocation over ten years (2011-2020), assuming total allocation of \$62 million², based on the equalized value percentages for budget year 2011. For example, a Municipality with 4.5% of the equalized property value would be projected to receive a total of \$2,790,000 during the ten years of the Program (based on \$62 million in total allocation) and would have a calculated Design, Planning, and Investigation Cap of \$558,000. **The actual amount allocated and eligible for disbursement to the Municipality will depend on the District's annual budget process**, but to provide some level of certainty at the beginning of the Program, the Design, Planning and Investigation Cap will be based on the spending projection as outlined in this paragraph.

² \$62 million represents the total project cost of \$60 million for this Program, plus \$2 million for the total project cost of the former Stormwater Best Management Practices Program. The District allowed Municipalities to transfer allocation from the Stormwater Best Management Practices Program to the Program.

The design cap will remain based on the \$62 million through 2020. In the event that the total program allocation increases during the ten-year period through 2020, the Design, Planning, and Investigation Cap will increase proportionally for subsequent eligible work. No reimbursement will be provided retroactively for Design, Planning, and Investigative work that was not approved through the Work Plan process prior to an increase in total program allocation.

In the event that the total program allocation decreases during the ten-year period, the Design, Planning, and Investigation Cap will not decrease.

Municipalities will be eligible for an additional \$1 of Design, Planning, and Investigation funding for every \$4 of non-District cost match (may include Municipal funds, property owner contribution, grant proceeds, or similar) Program Construction Implementation Rehabilitation (CIR) work approved and verified through the Work Plan process.

Funding Agreement: The document that is drafted upon approval of a Municipality submitted Work Plan. The Funding Agreement defines the administrative, technical, legal, financial responsibilities, and deliverables of the municipal and District project partners in completing the scope of work proposed in the subject Work Plan. The Funding Agreement is in force and the scope of work within the Work Plan may be executed upon endorsement of the Funding Agreement by the municipal and District authorities.

Funding Allocation: Means the amount of money from the Program annually allocated to a Municipality in any given year of the Program. The Funding Allocation will be based on a proportional basis to the amount of equalized value of property in the Municipality that is serviced by the District as a percentage of total equalized value in the District's total service area. **The actual amount allocated and eligible for disbursement to the Municipality will depend on the District's annual budget process.** The actual percentage allocated may vary annually for each Municipality based on the equalized value for the individual Municipality in relation to the whole.

Infiltration: Has the meaning established by sec. NR 110.03(16), Wis. Admin. Code.

Inflow: Has the meaning established by sec. NR 110.03(17), Wis. Admin. Code.

Lateral: For the purpose of this Program, the entire pipe that carries wastewater flow from a privately owned building to a publicly owned sewer, also known as a "building sewer." For the purpose of this Program, the "upper" (generally the portion on private property) and "lower" (generally the portion in the public right-of-way) lateral, the building drain and any portion of the pipe located beneath the building.

Municipality: Municipality refers to the 28 municipalities serviced by the District, either as members or customers. Milwaukee County is not considered a Municipality for this Program.

Private Property: Property that is not owned by a governmental entity. Governmental entities include cities, villages, towns, counties, school districts, sewerage districts, park districts, federal agencies and the State of Wisconsin.

Program: The District's 2011-2020 Private Property Inflow and Infiltration Reduction Program.

Program Funding: The money provided by the District to Municipalities under this 2011-2020 Private Property Inflow and Infiltration Reduction Program. Additional funding proposed through District long-term financing plans beyond 2020 does not constitute an increase in Program funding until committed by the District through the annual District budget approval process or through specific Commission action.

Work Plan: The document submitted to the District by the Municipality outlining the proposed work for a specific project that the Municipality would like to seek reimbursement for through the Program. The Work Plan provides the information on geographical location, historical background, technical characteristics, project objectives, scope of work, cost estimate, schedule, and other pertinent project elements in sufficient detail for the District to determine the eligibility of the costs that are anticipated to be incurred within the context of the program.

Eligible Work

This Program provides funding for work that reduces I/I from private property sources. In order to receive funding, a Municipality must submit a Work Plan to the District and obtain approval from the District through a fully executed Funding Agreement prior to beginning work. Work Plans for Design, Planning and Investigation Work may be submitted separately from, or together with, Work Plans for physical remediation work. The District expects Municipalities to prioritize work areas, where feasible, to focus on areas with sewersheds within identified metersheds that do not comply with the District's rules on Peak Flow Rate Reduction (MMSD Rules §3.201 et seq.) on areas with basement back-up issues, on areas with a history of municipal or District overflow activity, and other areas identified as sources of high I/I because of age and type of infrastructure. Municipalities that demonstrate they have no contiguous or discrete I/I problem areas may utilize funding for I/I work across the Municipality.

The following activities on private property will be eligible for funding upon approval of a Work Plan:

1. Disconnection of a foundation drain from draining to the sanitary sewer system and installation of a sump pump and piping to discharge the drainage to a yard, rain garden, or storm sewer system.
2. Replacement of deteriorated lateral sewers.
3. Rehabilitation of deteriorated lateral sewers (for example, using cured-in-place lining, flood grouting or other methodologies).
4. Complete disconnection or proper abandonment of existing laterals.
5. Installation of privately owned storm sewer laterals and/or privately owned and located storm sewers where necessary to convey stormwater that is no longer going to the sanitary sewer system.
6. Inspection/investigation costs, such as dye testing, smoke testing, televising and flow monitoring (subject to the Cap).
7. Professional services including planning, design work, preparation of bid documents, and home inspections (subject to the Cap).
8. Construction inspection costs (different from item 6 above) to inspect and verify the performance of contractors.
9. Public education and outreach work.

In addition, when unknown, illegal connections to the sanitary sewer system are uncovered during rehabilitation work being done pursuant to an approved Work Plan, funding may be used for the actual, reasonable costs of remedying the illegal connection.

The following activities may be eligible for funding as determined by the District on a case-by-case basis. **These activities must be pre-approved by the District through the Work Plan and Funding Agreement process. No reimbursement will occur for activities that are not pre-approved.**

1. Facilities or practices for management of surface flooding in circumstances where surface flooding is a source of inflow. Preference will be given to solutions that employ stormwater best management practices.
2. Public building laterals that are part of a larger private property-based project in a high priority I/I reduction area.

3. Circumstances where disconnection of illegal connections to the sanitary sewer system, such as downspouts, yard drains, foundation drains³, and sump pumps, makes sense because the illegal connections were installed on an area-wide basis without the current homeowner knowledge. Before approving remedies for such illegal connections, the District will require that a Municipality demonstrate to the satisfaction of the District that remedy of the illegal connection(s) through this program is the most efficient and effective pathway to permanent removal of the clear water source to the sanitary system. When the project includes multiple property owners to achieve the maximum benefit of the remediation, the Municipality will be required to provide a cost share proportional to the percentage of non-participating property owners in the project area, or equivalent thereof through in-kind services (such as work done by municipal staff).
4. Construction of new or larger storm sewer infrastructure under the following circumstances:
 - a. The infrastructure must be for the primary purpose of conveying flows removed from the sanitary sewer system through private property I/I reduction efforts such as foundation drain disconnection and lateral repair; and
 - b. The Municipality has investigated the potential to manage this additional flow using pervious areas and green infrastructure and has demonstrated to the satisfaction of the District that it is not feasible for the flows removed from the sanitary sewer system to be managed without additional storm sewer infrastructure
5. Any other strategies for I/I reduction where demonstrated to be effective.

The District is more likely to approve work described within this “may be eligible” category when there is a significant municipal contribution through cost-share or in-kind services.

The following activities are not eligible for funding:

1. Backflow preventers, hung plumbing, and other basement backup prevention measures that do not result in a reduction in I/I.
2. Municipal staff time except as described in an approved Work Plan for activities the Municipality elects to self-perform rather than contract out (see Option 3, below).
3. Costs to develop, promulgate or enforce ordinances relating to I/I.

³ Certain foundation drains may be legally connected to a sanitary sewer system.

Work Plans should include the following information:

1. A map of the location of the work.
2. A description of the work to be performed, including public information/outreach and, for construction/remediation work, a plan for provision of construction inspection.
3. A project schedule, including approximate start and end dates.
4. A project budget, including a proposed procurement strategy, detailing how the Municipality anticipates obtaining necessary services (public bid, three quotes, self-perform, etc.).
5. Expected results of the work, including a strategy for quantifying the reduction in I/I.

Work Plan Execution

Upon District approval of a Work Plan, the District and the Municipality will enter into a Funding Agreement that sets forth the specific terms and conditions of funding. A fully executed Funding Agreement can be implemented through a variety of procurement options:

Option 1: The Municipality can hire contractors (including consultants) to perform the work and receive reimbursement from the District. The District will reimburse costs as incurred by the Municipality and verified by the District. The District will strive to reimburse all costs within 30 days of submission of an invoice and adequate back-up documentation to the District.

Under Option 1, the selection of professional service providers must be performed in accordance with the Municipality's ordinances and policies. All non-professional service work (i.e. construction, sewer inspection, post-construction restoration) must be procured in accordance with State of Wisconsin statutes and regulations and in accordance with the Municipality's ordinances and policies. Whenever work valued over \$25,000 is procured without the use of a public sealed bidding process, the District may request and the Municipality must provide an opinion from a licensed attorney representing the Municipality stating that the procurement is in compliance with State of Wisconsin law and Municipal ordinances.

Option 2: The District can hire contractors (including consultants) to perform the work, and the District will make direct payments to the contractors. The use of this Option 2 is at the discretion of the Municipality but may be attractive for Municipalities who do not have the internal staff to manage bidding, contracting and oversight of the work. Municipalities may be able to combine

Work Plans under District-let contracts for additional cost savings. The cost of District management and oversight will be deducted from the Municipality's funding allocation.

Option 3: A Municipality can elect to have its own staff perform planning and design work and/or remediation work. The District will reimburse actual labor (hourly rate plus a benefits multiplier), material and equipment costs for self-executed work. The District will reimburse costs for training work crews on I/I reduction strategies. The District will not reimburse administrative or indirect management costs.

Option 4: The Municipality can require private property owners to directly contract for the work and then provide reimbursement to the property owners from funds it receives from the District. Reasonable management costs would also be eligible for reimbursement under this option.

Access

Access to private properties can be obtained through a voluntary Access Agreement. If the Municipality desires, the District will provide a template Access Agreement that can be customized by the Municipality. Obtaining access is the responsibility of the Municipality (except under the District-let procurement option (Option 2) and the cost of obtaining access is eligible for reimbursement.

If a Municipality or the District identifies property owners who will not allow voluntary access, either the Municipality or the District may apply to the appropriate Court for enforcement of the District's or Municipality's rules.

Work Plan Verification

Each Funding Agreement will set forth specific mechanisms for inspection and verification of the work by the Municipality or the District, depending on the size, scope and nature of the work to be performed. The District expects Work Plans to provide a strategy for performing adequate construction inspection.

In addition, the District may, at its sole cost and without debit to a Municipality's Funding Allocation, perform periodic checks of construction projects to ensure that the work is proceeding according to the approved Work Plan and Funding Agreement.

In addition, each Municipality will be required to submit final documentation to the District detailing the work accomplished, barriers encountered, costs, and any available flow reduction information.

Design, Planning and Investigation

The focus of this Program is on actual remediation work to reduce I/I from private property sources. Therefore, the District will cap reimbursement of management, planning, design and inspection/investigation work. The Cap will be established as set forth in the definitions. A Municipality may select a professional service provider (engineering firm, planning firm, etc.) or it may self-perform this work.

In addition, the District will enter into contracts for regional engineering, field investigative services, construction services, and/or public outreach related to private property I/I reduction work as the need arises. As available, the regional services provided by these District contracts are available to all Municipalities for completion of private property I/I reduction projects. Each of the District's Municipalities may obtain services from the contracts, subject to the District's budget, pending Funding Agreement completion and the individual municipal Account balance. The cost of service obtained from the regional contracts will be debited against the Municipality's Account and will count toward the Design, Planning and Investigation Cap as applicable.

As the Program develops over time and the District is able to better evaluate the need for design, planning and investigation services, the District may elect to raise the Design, Planning and Investigation Cap.

Public Education and Outreach

Public education and outreach will be critical to the success of this Program. Owners will need to understand the importance of having this work performed on their property, and will need to understand their new infrastructure – particularly where foundation drains are disconnected and sump pumps are installed.

Public education and outreach performed in a specific Municipality in conjunction with I/I reduction work is eligible for reimbursement under this Program. Public education and outreach is not subject to the Design, Planning and Investigation Cap.

Rule Changes

In support of this Private Property I/I Reduction Program, the District may make changes to its rules. Should this occur the District will follow the notice and comment procedures required by Wisconsin Statutes § 200.45 and involve the Technical Advisory Team.

Funding

A. 2011-2020 Funding Allocation (FA)

The Funding Allocation is the amount of money from the Program annually allocated to a Municipality in any given year of the Program based on the Equalized Value of the Municipality's service area as a percentage of the Equalized Value of the District's total service area.

Funding that is not provided to a Municipality (either by reimbursement or through District spending on behalf of the Municipality) during the year will be carried forward to the next year, referred to as the Cumulative Funding Allocation (CFA).

Any allocation of funding that remains in a Municipality's CFA account (i.e., money that has not been disbursed to the Municipality or spent by the District on the Municipality's behalf) as of January 1, 2021, may be reallocated by the District to other capital expenditures. However, if a Municipality has been making progress under an approved Work Plan, and unforeseen circumstances cause a delay in completion of the work, the District may extend the funding allocation to allow for completion of the work.

B. Municipality's CFA Account

A Municipality's CFA account can be debited in two ways. First, the Municipality can perform eligible work and receive a reimbursement. Second, the District may contract directly for work on behalf of the Municipality and the payments made by the District for that work are debited against the Municipality's CFA account.

C. Spending Above the Annual Funding Allocation

Municipalities may wish to spend more dollars in a given year than the Funding Allocation for that year. Pursuant to an approved Work Plan, a Municipality may spend more than its Cumulative Funding Allocation, but the Municipality must wait for future years for reimbursement. For example, if a Municipality has an annual expected Funding Allocation of \$500,000, and it elects to spend \$2,000,000 on private property I/I reduction in 2011; it may

receive reimbursement of the \$2,000,000 over four years – receiving the first \$500,000 in 2011, and the remainder as three lump sum payments of \$500,000 per year if funds are available through subsequent District budgets. Such lump-sum payments will not be made until May 1 of any given year and the District will not cover financing costs.

It is important to note that no Funding Allocation for any year is guaranteed until the District's Commission passes the Budget for that year.

D. Cost Match

In general, the District is not requiring any matching funds from Municipalities in order to receive funding from the District under this Program. The District encourages Municipalities to put some of their own money toward private property I/I reduction to maximize the results that can be achieved through this Program. A cost match may be required where a Municipality is using funding for the remediation of illegal connections and where the Municipality is using funding to construct additional storm sewer infrastructure. A Municipality that contributes a cost match and/or supplemental funding to a project may receive credit towards increasing the Design, Planning, and Investigation Cap for the Municipality according to the definitions.

E. District Will Pursue Identified Remediation Work

The District is concerned about funding investigation activities where the investigation identifies needed remedial work but the Municipality fails to follow up with a Work Plan to actually perform the remediation. Therefore, where District-funded investigation activities identify the need for private property I/I reduction work, the District expects that the Municipality will follow up with the remediation work, at least to the extent that Program funding is available to pay for the work. If a Municipality does not proceed to use its allocated funding to perform identified remedial work, the District may decide to self-perform such work. In that case, the Municipality's CFA will be debited by the cost of the work.

Alternatives for “Low I/I” Municipalities

Certain Municipalities serviced by the District may reach a point where identifiable private property sources of I/I have been remediated, and the Municipality is not able to use its CFA to remediate private property I/I. For example, Municipalities with primarily post-1970 construction may reach a point where there is no private property I/I work to be accomplished. These Municipalities will be allowed to use their CFA for alternative activities designed to reduce flows to the sanitary sewer system, improve water quality, and maintain I/I levels into the future.

A Municipality that wishes to use such alternatives must first demonstrate to the satisfaction of the District that:

1. I/I from all sewersheds in the Municipality is at or below the standards set forth in the District's Chapter 3 rules on Peak Flow Rate Reduction (§3.201 et seq.); and
2. The Municipality has not experienced recurring sanitary sewer overflows or basement backups whose root cause is I/I; and
3. To the best of the Municipality's knowledge, and making reasonable assumptions, private properties in the Municipality do not have foundation drains that discharge to the sanitary sewer system; and
4. To the best of the Municipality's knowledge, and making reasonable assumptions, private properties in the Municipality do not have deteriorated laterals that discharge I/I to the sanitary sewer system; and
5. To the best of the Municipality's knowledge, and making reasonable assumptions, illegal connections of clear water flow to the sanitary system have been identified and remediated.

Alternative expenditures of CFA under this Program will be approved on a case-by-case basis following a written application to the District by the Municipality. Alternative expenditures that may be approved by the District could include installation of Stormwater Best Management Practices such as pervious pavement, green roofs, rain gardens, constructed wetlands, bioswales and the like. The District will not approve any alternative expenditures that violate state law.