

Memorandum

TO: Administration and Finance Committee
Board of Public Works

FROM: Joseph Burtch, Assistant City Engineer

DATE: November 19, 2013

RE: Communication from the Assistant City Engineer regarding the progress on the proposal to establish a Private Property Inflow/Infiltration Reduction Fund.

The primary purpose of this fund is to provide a mechanism for improvements on residential private property to reduce inflow and infiltration (I/I) in the City's sanitary sewer system from private property sources, such as foundation drains and leaking/failed services. The sanitary sewer system in West Allis is aging. A significant amount of the public system has been rehabilitated as part of the City's regular maintenance program due to the deterioration of pipe and structures. The City has diligently inspected and maintained the public system throughout its existence. In general, residential property owners do not inspect or maintain their private sanitary service until they experience a problem. The elimination of excessive inflow and infiltration on private property is an effective and efficient method to significantly reduce clear water entering the sanitary system during rain/wet weather events.

This fund would also provide a great benefit to the residential property owners. The vast majority of private sanitary services are clay pipe, which has a life expectancy of 75 to 100 years. Many of these private services are past their expected useful life, many leak significantly and many are beginning to fail. The average cost to repair a failed sanitary service is between \$6,000 and \$12,000, with some repairs exceeding \$30,000. This fund would provide protection to the residential property owners by paying for the rehabilitation of their failed or leaking sanitary service. This fund would also provide disconnection of foundation drains from the sanitary system to comply with the current plumbing code for foundation drains. Rehabilitating sanitary services and installing sump pumps to disconnect foundation drains from sanitary services will significantly reduce the amount of clear water entering the sanitary system, which in turn provides additional protection from sanitary sewer back-ups throughout the city.

Property owners will retain ownership of the sanitary service from the connection at the sewer main to the building. The following are the responsibilities of the property owner:

- General maintenance of the service
- Removal of blockages in the service (a blockage is debris lodged in the service that can be removed without repair to the existing pipe)

- Cleanup from basement back-ups caused by blockages/failures in the service
- Inspection of the service (inspection by closed circuit television)
- Provide proof of service failure or excessive inflow and infiltration to the City (ie. Video of inspection or evidence from plumbing/pipe cleaning professional)

The City of West Allis Private Property Inflow and Infiltration Reduction Fund will provide the following:

- Full rehabilitation of failed sanitary service from the main to outside of building (requires proof of failure from owner; a failure is a collapse of the existing service pipe that must be repaired, usually by excavation, to restore functionality of the service) Note: services that are determined to be failed will be repaired/rehabilitated on an emergency basis. There is a Special Assessment of \$1,000 proposed for an emergency repair. This Special Assessment has payment options of up to ten year payment plans.
- Full rehabilitation of sanitary service with excessive inflow and infiltration from main to the closest accessible point outside of building (requires proof of excessive I/I from owner) Note: services will be prioritized and rehabilitated as funding allows
- Disconnection of foundation drains from sanitary system (sump pump installation) Note: sump pump installations will be done when feasible, as determined by Engineering
- Sanitary service rehabilitation and/or disconnection of foundation drains on City Contracts in areas targeted for sanitary flow reduction.

The proposed fee for each property is \$50 annually, which is slightly higher than the \$32 originally suggested. After careful review of the program with Mark Wyss, Finance Manager/Comptroller, it was determined that the amount of the fee needed to increase to better protect the City's liability. The fee was determined by considering the history of the reported failures and the plan to establish a proactive rehabilitation program.

This fee can be an additional fee charged with the property tax bill, or as a quarterly charge of \$12.50 on the utility billing. There are approximately 17,382 residential properties in West Allis. (Residential property is defined as property with one to three residential units and no commercial, industrial or institutional use.) The proposed fee will generate approximately \$869,100 annually. This amount should be adequate to fund the failing laterals along with funding additional projects targeting areas where flow reduction is required. At this level of funding it would take over 100 years to rehabilitate all of the residential services using the current methods. With the amount of interest in the world regarding this type of work, we should see the cost of lateral rehabilitation come down in the future.

The City also receives funding from Milwaukee Metropolitan Sewerage District to be used for reduction of I/I on private property. We received approximately \$400,000 to be used in 2013. The MMSD funding cannot be used for repair of a failed service, but can be used to rehabilitate a leaking service and disconnection of foundation drains. The combination of these funds along with upcoming improvements to rehabilitation technology will significantly reduce the time required to rehabilitate all of the services.

This program is not intended to instantly resolve the problems of aging private sewer infrastructure. It is intended to be a long term program to provide continued support to residential property owners. The entire City will benefit from the reduction in sanitary flows due to the reduced risk of sewer back-ups and reduced cost of future sewer expansion. Each individual property will eventually benefit from the rehabilitation of their sanitary service.

Other cities are dealing with similar problems in their sanitary systems. Attached to this memo are some examples of how other municipalities have addressed the issue.

Also attached to this memo is a copy of a draft of the ordinance to establish this fund. The ordinance is a rough draft and will be reviewed by the City Attorney.

Cc: Mayor Dan Devine
Paul Ziehler, CAO
Mike Lewis, Director of Public Works/City Engineer

Other Cities Private Property Inflow and Infiltration Plan Comparisons

Many Cities around the country have adopted a plan to remove private property I/I. The plans vary greatly, but ultimately serve the same purpose. Below are examples of methods used to address the private sources of I/I.

Greenfield, Indiana, pop. 20,000: The city implemented a lateral replacement program to eliminate basement back-ups. Originally, the portion of the lateral in the right of way was replaced with the option to have the remaining portion replaced for a \$200 fee. Only 5% opted for the remaining portion of lateral to be replaced, so the city decided to fund the entire replacement. The city allocates \$500,000 annually in the Capital Projects budget for the lateral replacement program.

McMinnville, Oregon, 10,000 lateral connections: Acting under a Consent Decree with the State of Oregon, the city implemented a lateral inspection and rehabilitation program. Under this program laterals were inspected using closed circuit televising. The service within the right of way was replaced and the property owners were notified if any rehabilitation is required on the remaining section. The city offers \$250 toward the rehabilitation if the property owner completes the repair within 90 days. After 90 days, the property owners have 10 months to have the lateral rehabilitated before receiving a \$500 fine.

Erie County, Buffalo, New York, 100,000+ lateral connections: Erie County's sanitary system cannot handle any additional flow, but the County has a lot of space for development. The sanitary system experiences a high number of overflows due to high I/I from private property. In order to allow further development, the New York State Department of Environmental Conservation required Erie County to come up with a plan to make capacity available within the sewer system. In response, the County came up with a lateral replacement program aimed at developers. If a developer wants to add new connections, they must first remove four times the proposed peak flow expected from that development from the existing system. Developers are credited 42 GPM for each lateral they rehabilitate. The County inspects existing laterals to generate a list of potential laterals for rehabilitation.

City of Racine, Wisconsin, pop. 80,000: Over half of the homes in the City of Racine are over 75 years old. The City expects the frequency of private service failures to increase greatly in the near future. The City has taken over the responsibility for structural failure of private sanitary laterals within the road right of way in an effort to eliminate the great financial burden property owners face when sanitary services fail in the street. The property owner retains ownership and general maintenance responsibilities. Property owners are charged \$50 annually for this service.

ORDINANCE NO. xxx

AN ORDINANCE TO CREATE SECTION X.XXX OF THE REVISED MUNICIPAL CODE RELATING TO USER FEES FOR RESIDENTIAL PRIVATE PROPERTY SANITARY INFLOW AND INFILTRATION REDUCTION PROGRAM

BY Public Works Committee/Administration and Finance Committee

The Common Council of the City of West Allis do ordain as follows:

PART x. Section x.xxx of the Revised Municipal Code is hereby created to read:

x.xxx Residential Private Property Sanitary Inflow and Infiltration Reduction Program Fees.

(1) **Purpose.** It is determined and declared to be necessary and conducive to the protection of the public health, safety, welfare and convenience of the City to collect charges from all residential users of the City's sanitary collection system. This fee is collected under police power by the City of West Allis to satisfy the current stipulation by the State of Wisconsin to reduce Inflow and Infiltration from private property sources. The proceeds of such charges will be used solely to fund the reduction of Inflow and Infiltration in the sanitary system from residential private property sources, to include repair of structurally failed residential private sanitary laterals, the rehabilitation of private sanitary laterals in areas targeted for sanitary flow reduction, the rehabilitation of residential private sanitary laterals deemed by the City Engineer to be excessively leaking and other improvements to residential private property sanitary systems that, in the opinion of the City Engineer, will reduce or eliminate the source of clear water entering the sanitary system.

(2) **Definitions.** Unless the context specifically indicates otherwise, the meaning of terms used in this section shall be as follows:

- (a) "City" means the City of West Allis.
- (b) "Common Council" means the Common Council of the City.
- (c) "RPPSI/IR Program" means the Residential Private Property Sanitary Inflow and Infiltration Reduction Program. This is the program to reduce inflow and infiltration from private residential properties.
- (d) "The sanitary lateral program" means the Residential Private Property Sanitary Inflow and Infiltration Reduction Program.
- (e) "Residential unit" means a single unit or apartment providing complete, independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation.

- (f) “Residential property” means a property with one to three dwelling units with no commercial, industrial or institutional use. (schools, churches, hospitals, fraternal organizations, municipal facilities, etc.)
- (g) “Sanitary lateral” means the sewer pipe that conveys the sanitary sewage discharge from a residential property from an accessible point outside the building foundation to the connection on the City’s public sanitary sewer main. The sanitary lateral is owned by the property owner.
- (h) “Structurally failed sanitary lateral” means a sanitary lateral that is no longer functional due to a structural failure of the pipe, such as a collapse, and cannot be cleared using traditional trenchless methods. Final determination of a structurally failed sanitary lateral shall be made by the City Engineer.
- (i) “Proof of failure of sanitary lateral” means information provided to the City Engineer by the property owner that demonstrates a sanitary lateral that is no longer functional.
- (j) “Blocked sanitary lateral” means a sanitary lateral that is no longer functional due to a blockage of the pipe caused by roots or solids that can be cleared using traditional trenchless methods.
- (k) “Fiscal year” means a twelve (12) month period commencing on the first day of January of any year.
- (l) “Operating budget” means estimated revenues and the estimated costs for the sanitary lateral program and debt service of the program for each fiscal year.
- (m) “Program costs” means the current expenses, paid or accrued, for repair, rehabilitation, foundation drain disconnection and program administration, as calculated in accordance with sound accounting practice and includes, without limiting the generality of the foregoing, insurance premiums, administrative expenses, executive compensation, the cost of construction and charges for the accumulation of appropriate reserves for current expenses not annually incurred, but which are such as may reasonably be expected to be incurred in accordance with sound accounting practice.
- (n) “User fee” means the charge established by the Common Council on residential property in the City connected to the City’s sanitary sewer system to pay the program costs for the sanitary lateral program.
- (o) “Rate” means the amount charged for the user fee on each residential property. The rate is determined by the Common Council for each fiscal year.
- (p) “Revenues” means all fees, assessments, rentals, fines or other charges or other income received by the City, in connection with the management and operation of the program, including amounts received from the investment or deposit of moneys in

any fund or account, as herein required, and any amounts contributed by the City, all as calculated in accordance with sound accounting practices.

- (q) “Debt service” means, with respect to any particular fiscal year and any particular bond series, an amount equal to the sum of (i) all interest payable on such bonds during such fiscal year, plus (ii) any principal installments of such bonds during such fiscal year.
- (r) “Infiltration” means the clear water entering the sanitary system through cracked pipes, holes in the pipes, leaking joints, etc.
- (s) “Inflow” means clear water entering the sanitary system through an illegal connection of downspouts, yard drains, foundation drains, sump pumps, etc. and the allowed connections of foundation drains from buildings constructed prior to the current sump pump regulations.
- (t) “Sewer main” means the public sanitary sewer, including the wye connection or riser pipe, which is owned by the City of West Allis. The public sanitary sewer conveys sewage from private sanitary laterals to the Milwaukee Metropolitan Sewerage District’s collection system.
- (u) “Riser pipe” means the pipe rising vertically from the public sanitary sewer to connect a shallower sanitary lateral.
- (v) “Connection at sewer main” means the point at which the sanitary lateral connects to the wye pipe, or other connection such as a tee or a core on the sewer main or the connection to a riser. This point defines the division between the public sewer main and the private lateral with the connection at the sewer main being part of the public sewer.
- (w) “Inspection” means the inspection of the sanitary lateral from the connection at the sewer main to the building by closed circuit televising, recorded on a media viewable by the City Engineer, with adequate quality to make a condition assessment. An inspection will be required for lateral rehabilitation to be considered in this program.

(3) **Property Owner Responsibilities.** Property owner retains ownership of the sanitary service from the connection at the sewer main to the building. The following are the responsibilities of the property owner:

- General maintenance of the service. (cleaning and inspection)
- Removal of blockages in the service (a blockage is debris lodged in the service that can be removed without repair to the existing pipe)
- Cleanup from basement back-ups caused by blockages/failures in the service

- Inspection of the service to show proof of failure and/or need of rehabilitation. Inspection is required to provide proof of service failure or excessive inflow and infiltration to the City Engineer. (ie. Video of inspection or evidence from plumbing/pipe cleaning professional) (note: No scheduled inspections are required by the City.)

(4) Residential Private Property Inflow and Infiltration Reduction Fund Provisions.

The City of West Allis Residential Private Property Sanitary Inflow and Infiltration Reduction Program Fund will provide the following services as deemed necessary by the City Engineer:

- Repair of structurally failed sanitary lateral between the main to an accessible point outside of building (requires proof of failure from owner and levy of Special Assessment)
- Full rehabilitation of failing/leaking sanitary service from the main to an accessible point outside of building as deemed necessary by the City Engineer (Requires proof of excessive leaking from owner unless property is part of a flow reduction project) Schedule of rehabilitations shall be prioritized by the City Engineer.

(5) Disposition of Revenue.

(a) The user fees hereunder shall generate adequate annual revenues to pay costs for the Residential Private Property Sanitary Inflow and Infiltration Reduction Program.

(b) The portion of the total user fees collected which are designated for sanitary lateral repair, sanitary lateral rehabilitation, foundation drain disconnection and debt service, shall be deposited in a separate non-lapsing fund known as the "Sanitary Lateral Program Fund" and will be kept in three (3) primary accounts as follows:

(i) An account designated for the specific purpose of defraying emergency repair of a failed sanitary lateral costs. (sanitary lateral repair account).

(ii) An account designated for the specific purpose of sanitary lateral rehabilitation and foundation drain disconnection. (sanitary lateral rehabilitation account).

(iii) An account designated for the specific purpose of payment of debt service (debt service account). The City may credit from this account to the general fund of the City sums to be expended for the retirement of outstanding sanitary lateral program indebtedness of the City.

(c) Fiscal year end balances in the sanitary lateral repair account, the sanitary lateral rehabilitation account and debt service account shall be carried over to the same accounts in the subsequent fiscal year and shall be used for no other purpose than those designated for these accounts. Moneys which have been transferred from other sources to meet temporary shortages in the sanitary lateral repair, sanitary lateral rehabilitation and debt service accounts shall be returned to their respective accounts upon appropriated adjustment of the user fee rates. The user fee rate shall be adjusted such that the transferred monies will be returned to their respective accounts within the fiscal year following the fiscal year in which the monies were borrowed.

(6) User Fees and Rates.

(a) **User Fee.** The Common Council shall require that adequate revenues are generated through user fees to provide for a balanced operating budget. A user fee shall be charged per sanitary lateral. The Common Council hereby authorizes the imposition of user fees on all developed residential property with sanitary service to the City's sanitary sewer system.

(b) **Rates.** The Common Council will establish rates for each fiscal year. All rates established by the Common Council will be fair and reasonable and calculated to achieve a balanced operating budget for the program. Current rates will be on file in the office of the City Clerk/Treasurer.

(7) Billing and Payment. Bills for the user fee shall be rendered as part of the water bill for the property and become due and payable on the same date as the water bill. A penalty of one and one-half percent (1- 1/2%) per month shall be added to bills not paid by the due date.

(8) Lien. All user fees established hereunder shall be a lien upon the property served pursuant to secs. 66.0821(4)(d) and 66.08xx of the Wisconsin Statutes and shall be collected in the manner therein provided.

Scott, which provision would you recommend, or feel is most appropriate?

(9) Severability. If any provision or part of this section is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of this section shall not be effective thereby.

PART II. All ordinances or parts of ordinances contravening the provisions of this ordinance are hereby repealed.

PART III. This ordinance shall take effect and be in force from and after xxx x, 2013, following its passage and publication.

PASSED: XXber X, 2013

/s/ Paul Ziehler

CAO/City Clerk/Treasurer

APPROVED: XXXber X, 2013

/s/ Dan Devine, Mayor