

Dear Lawrence Utility Customer,

By now you will have received your utility bill with the new water rates adopted in the May 1, 2017 council meeting. You will be pleased to note that we have been very busy since then finalizing our Phase I projects and securing the Drinking Water State Revolving Fund loan. This \$8.5M loan will finance the construction of the Richardt Water Treatment Plant, the Sumac Road water main replacement and later this fall the Oaklandon Tower and Fort Harrison well field improvements. The Richardt and Sumac projects have been through the bidding process and awarded with construction slated to start about August 1st. The Richardt project was awarded to Graves Plumbing and the Sumac project to Finch Constructors. We would like to take this opportunity to congratulate these contractors and also thank all the other contractors who submitted bids and/or quotes and it is our hope that they will all continue to bid Lawrence Utility projects into the future. We will be providing regular updates on these projects as they progress towards completion.

I would like to focus some attention on an area that has been somewhat overlooked lately given all the activity focused on the water utility. And that is the continued problem with our sanitary sewer system, which suffers from the same age and condition issues as the water system. Back in 2008 the City received notification of an order from the EPA with regard to violations of the Clean Water Act, namely that we were to cease from having Sanitary Sewer Overflows (SSO's), resulting largely from Inflow and Infiltration (I&I). After lengthy negotiation and a comprehensive study of the system, a final Agreed Order was reached in which the Sewer Utility agreed to spend approximately \$2M per year on capital improvement projects designed to address this issue.

**What are Inflow and Infiltration? (from Global Water website: <http://www.globalw.com/support/inflow.html>)**

Inflow and infiltration or I & I are terms used to describe the ways that groundwater and stormwater enter into dedicated wastewater or sanitary sewer systems. Dedicated wastewater or sanitary sewers are created from pipes located in the street or on easements that are designed strictly to transport wastewater from sanitary fixtures inside your house or place of business. Sanitary fixtures include toilets, sinks, bathtubs, showers and lavatories.

Inflow is stormwater that enters into sanitary sewer systems at points of direct connection to the systems. Various sources contribute to the inflow, including footing/foundation drains, roof drains or leaders, downspouts, drains from window wells, outdoor basement stairwells, drains from driveways, groundwater/basement sump pumps, and even streams. These sources are typically improperly or illegally connected to sanitary sewer systems, via either direct connections or discharge into sinks or tubs that are directly connected to the sewer system. An improper connection lets water from sources other than sanitary fixtures and drains to enter the sanitary sewer system. That water should be entering the stormwater sewer system or allowed to soak into the ground without entering the sanitary sewer system.

Improper connections can be made in either residential homes or businesses and can contribute a significant amount of water to sanitary sewer systems. Eight inch sanitary sewer pipes can adequately move the domestic wastewater flow from up to 200 homes, but only eight sump pumps operating at full capacity or six homes with downspouts connected to the sanitary sewer pipe will overload the capacity of the same eight inch sewer pipes. A single sump pump can contribute over 7,000 gallons of water to sanitary sewer systems in a 24 hour period, the equivalent of the average daily flow from 26 homes.

Infiltration is groundwater that enters sanitary sewer systems through cracks and/or leaks in the sanitary sewer pipes. Cracks or leaks in sanitary sewer pipes or manholes may be caused by age

related deterioration, loose joints, poor design, installation or maintenance errors, damage or root infiltration. Groundwater can enter these cracks or leaks wherever sanitary sewer systems lie beneath water tables or the soil above the sewer systems becomes saturated. Often sewer pipes are installed beneath creeks or streams because they are the lowest point in the area and it is more expensive to install the pipe systems beneath a roadway. These sewer pipes are especially susceptible to infiltration when they crack or break and have been known to drain entire streams into sanitary sewer systems. Average sewer pipes are designed to last about 20-50 years, depending on what type of material is used. Often sanitary sewer system pipes along with the lateral pipes attached to households and businesses have gone much longer without inspection or repair and are likely to be cracked or damaged.

Lawrence bills its sewer customers based on the metered water gallons used. In turn we are billed by CEG for the gallons we send to the Southport sewage treatment plant. Lawrence's flow to CEG is measured by 15 flow meters located at various points in the sewer system. The problem lies in the huge disparity between the flow Lawrence bills its customers and the flow we get billed by CEG. For example, last year Lawrence billed its customers for 1.262 billion gallons of sewage. But we paid CEG to treat 2.433 billion gallons. That equates to about \$845K in charges for treating rain water. That is a big reason why I&I is such an important matter. It is also important because this I&I causes the sewer system to back up and overflow, resulting in poor performance of the system during rain events.

One of the things that property owners can do that will have a very beneficial and immediate impact is to check their property for illegal or improper connections and disconnect them. Every gallon of I&I removed works to lower our costs. It also helps prevent sewage backups by reducing surcharging of the system (the taking up of the pipes capacity by rain or ground water). You can help yourself and your neighbors by taking steps to reduce the impacts of these unauthorized connections.

In the meantime the Utility will continue to pursue capital improvements to fix the public portions of the sanitary sewer system in compliance with our Agreed Order. Unfortunately, in 2016 we were unable to perform any major projects due to the financial situation with the water utility, which required a loan from the sewer utility. That loan was essentially all of our capital projects money. However, we are actively planning projects for the sewer system that we plan on completing this year and are entirely focused on reducing I&I from the sanitary sewer system.

There is some very helpful information on this issue at: <https://www.mmsd.com/>. Just navigate to the "What You Can Do" tab. This information is provided by the Milwaukee Sanitary District and is well done.

Thank you,

Scott Salsbery, Superintendent ([ssalsbery@cityoflawrence.org](mailto:ssalsbery@cityoflawrence.org)) (317) 524-6305.

## **UTILITY TO FLUSH MAINS**

City of Lawrence Utilities will be flushing water mains west of Post Road from Sunday, July 16, 2017 through Thursday, July 21, 2017 from 10:00 p.m. to 6:00 a.m. Please visit our website at <http://www.cityoflawrence.org/utilities> for more information.

## ***Republic Announces New Heavy Trash Pick-Up Dates***

Beginning May 1<sup>st</sup>, Republic Services began a new heavy trash pick-up schedule. Republic Services now picks up heavy trash on the third pick-up of the month instead of the first pick-up of the month. If you should have any questions about this change, please contact Republic Services at 317-917-7300.