

## **Bayfield wastewater collection and treatment update**

The Village of Bayfield developed a wastewater collection system and treatment facility in the late 1990's. Construction was completed and the system became operational during the amalgamation year 2001. In 2009, a Class Environmental Assessment process was initiated to plan for expansion of the treatment facility to address a looming capacity issue at the plant.

Since initiating the Class EA process there have been several delays.

In the early stages Central Huron considered being part of the EA process. Final resolution of their involvement took several years. In the end, Central Huron decided not to participate.

In 2016, the Class EA process was again put on hold because it was identified that flow volumes exceed what is normal from the number of dwellings currently connected to the system. It was thought it might be possible to delay a plant expansion if the source of excessive flow could be discovered and eliminated.

*A wastewater collection system is a "closed system" meaning that only wastewater is expected to flow through the system. Domestic wastewater is sewage from toilet, laundry, bath and shower, hand sink, kitchen sink, dishwasher etc. The source of domestic wastewater is almost entirely from the drinking water supply. The wastewater system is not designed to handle water from foundation drains, roof troughs etc. Inflow of surface water and infiltration of groundwater can be the source of unnecessary flows in a wastewater collection system.*

An initial investigation of the source of these excessive flows was completed in 2016 followed by an intensive review of the entire wastewater collection system in 2017. Study evidence shows that some of the source of inflow and infiltration is from cracks and leaky joints in maintenance hole structures and main sewers. It also shows that a significant amount is coming from flowing private service connections.

The results of that 'Inflow & Infiltration' study were presented to Council on June 18<sup>th</sup>.

The report recommends rehabilitation work to seal the system and proposes a value for the expected sewage flow reduction that would result from rehabilitation work. Acceptance of the reduction value by Council will allow the Class EA to proceed as it will permit determination of a design capacity for the expansion. It is expected that the EA can be completed by the end of 2018 or early 2019.

Some collection system rehabilitation work is proceeding in 2018. The results of this work will be closely monitored to judge the potential flow reduction that more extensive rehabilitation might achieve.

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