What is Inflow/Infiltration?

Inflow and infiltration (I/I) are terms for the ways that stormwater runoff and groundwater (clear water) make their way into sanitary sewer pipes. With inflow, clear water enters the wastewater system through rain leaders, sump pumps, storm sewer cross connections, and foundation drains that are connected to sanitary sewer pipes. Inflow is greatest during major storm events and can more than triple wastewater volumes. Infiltration is a more gradual process, and occurs when water seeps into sanitary sewer pipes through cracks, leaky pipe joints and/or deteriorated manholes.

Infiltration: ground water that seeps into the sanitary sewer through cracks or joints. Inflow: rain water that enters the sanitary sewer through holes in manhole covers, catch basins, or improper plumbing connections.



Why Inflow/Inflation Matters?

Excessive I/I in the sewer systems create multiple problems:

- Expensive Treatment of Clear Water Once clear water gets mixed in with wastewater, all water is treated. This is expensive and impacts the system. Reducing excessive I/I in the system saves thousand of dollars.
- Reduced Interceptor Capacity I/I uses fixed capacity in large regional sewer pipes, which is planned to serve future growth. The additional flow takes capacity that was built to accommodate existing flow and new development. During major rain events, the additional flow can exceed the available sewer system capacity causing overflow issues.
- Water Quality If capacity of the sewer system is exceeded, wastewater can result in overflows and spills with untreated wastewater impacting water quality as well as public health and the environment.



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Linda Chesser is the Secretary / Treasurer at the water office for the Springfield Water & Sewer Commission. Linda has resided in Washington County her entire life with her parents, Rick and Sarah Libby and began working for the commission, part time, in 2011 after graduating from Washington County High School. She then became full time in 2015 after graduating from Saint Catharine College with a degree in business/management. She is married to Justin Chesser and they have two children - Oakley and Hayden. Their family enjoys camping, boating, and being outdoors.

Looking for a Local Career?

The SWSC is seeking applications for the water department in the distribution and operator departments. This is a full-time position with good pay and full benefits. Pre-employment drug testing required. Please reach out to service@springfieldwater.org with expressions of interest and/or more information.



Water usage increase that you don't understand?

Have you ever received a water bill that is higher than normal or average? Here are a few items to consider for an explanation:

- Check the reading dates. Two weeks will have already passed between reading the meter and receiving the bill. Consider any unusual activity as this usage will cover activity from 2-6 weeks prior to receiving the bill.
- During the summer consider watering gardens or yards, washing cars, children's water slides, swimming pools (even small ones as they may get dumped and filled several times), extra laundry and usage if you have had much company come in and pressure washing. Also consider school age children, they may be home all day and this may increase your usage.
- During the winter consider winter breaks when children are out of school and any family that may have visited over holidays. If the weather has been very cold and you left faucets dripping to prevent freezing keep that in mind. A very small, steady stream is all that's needed to keep pipes from freezing.
- The biggest mystery usage in households are toilets. They may hang and run off and on, making it difficult to identify. A few things to check for: flush toilet and let it finish filling then put dye in the back toilet tank (available at the water office), do not use toilet for 15-20 minutes then check to see if any dyed water is now showing up in the toilet bowl. This would indicate a leaky flapper valve. Make sure the chain from the handle to the flapper isn't too long where it may bunch under the flapper valve which would allow water to continually run. In the toilet tank there is a hollow overflow tube to allow any excess water to empty down the toilet drain instead of on your floor. Make sure your standing water level is at least one inch below the top of the tube. If you have a bathroom that is seldom used it may be wise to turn the water off to the toilet in case it starts to leak.
- Finally, if none of these prove the culprits you may have a leak. An unusually green spot in your yard or wet spot may indicate a problem. Free standing water spigots are good places to start. Listen in your house for any hissing noises, especially where your water line enters the home. Hot water heaters leaking are not often thought of and they will also run your electric or gas bill up.

We hope these tips will help should your water bill concern you.



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