

315 Clay Road • P.O. Box 336 • Lititz, PA 17543 717-627-2379

www.warwicktownship.org/WTMA www.facebook.com/warwickwaterandsewer

Daniel L. Zimmerman, Manager • Todd Kauffman, Superintendent

# INFLOW & INFILTRATION (I&I)

## WHAT IS I&I?

Inflow is stormwater that enters into the sanitary sewer system through illegal connections. Various sources contribute to the inflow including footing/foundation drains, roof drains or leaders, down spouts, and sump pumps. Illegal connections can contribute a significant amount of stormwater to sanitary sewer systems. A single sump pump can contribute over 7,000 gallons of water to a sanitary sewer system in a 24-hour period. The equivalent of the average daily flow from 28 homes.

Infiltration is groundwater that enters sanitary sewer system through cracks and/or leaks in sanitary sewer pipes or manholes caused by age related deterioration, loose joints, damage or root infiltration. Groundwater can enter the sanitary sewer system when the ground above the sewer system becomes saturated or when the line is located near or under a stream.

## THE IMPACT OF I&I

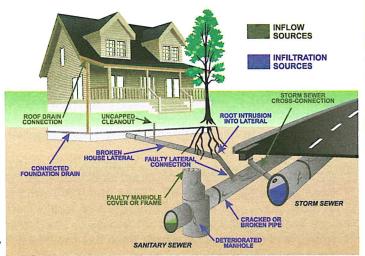
Inflow and infiltration of stormwater and groundwater into a sanitary sewer system can reduce the efficiency of

wastewater treatment and may cause sewage volumes to exceed the capacity of wastewater treatment facilities. Inflow and infiltration also increase operating costs proportional to the amount of clean water entering the wastewater treatment plant.

# **REDUCING 1&I**

WTMA is embarking on a multi-year project to significantly reduce the infiltration of groundwater into the sanitary sewer system. The Authority has physically inspected, and video-inspected, approximately 12 miles of sanitary sewer lines and over 300 manholes to identify those areas of the sanitary sewer collection system for repair.

Property owners can also reduce inflow by disconnecting sump pumps from the sanitary sewer system, redirecting roof runoff, or replacing broken vent caps and cleanout covers. Vent caps and cleanout covers can be purchased at the WTMA office.



#### PAYMENT OPTIONS

- Cash, check, debit/credit card or money order
- By mail. Please make your check payable to: WTMA PO Box 336 Lititz. PA 17543-0336

#### eBills

Signing up for eBills allows you to eliminate your paper billing and view your billing, payment and usage history. Sign up is easy. All you need is a valid email address and some information from your most recent bill. Sign up at https://warwicktwp.authoritypay.com.

- In person (during regular office hours, Monday Friday 8am-4:30pm):
  315 Clay Road
  Lititz. PA
- **24/7 Payment Dropbox.** There is a payment dropbox inside the Warwick Twp. Municipal Building lobby.
- Automatic ACH Payments. Quarterly withdrawal from your bank account by the due date.
- Online payment through Authority Pay. Note: only the WTMA water/sewer bill can be paid online. Invoices can not be paid by credit card.
- MasterCard, Visa, American Express and Discover credit or debit cards. Please note that there is a minimum fee of \$3.00 for all transactions and a 2.65% fee for transactions over \$113.00.





# Fall 2019

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# SIMPLE WAYS TO CREATE A BETTER COMMUNITY

Warwick Township is a great community; all great communities consist of many great neighborhoods. It is important that we continue to practice neighborly courtesy in each of our neighborhoods. Some resident questions that the township frequently receive include the following:



- Maintain or cut lawns (grass/weeds need to be below 12"). Branches that
  extend over a sidewalk must be trimmed to a height of 7' above grade, and to a height of 18' over a roadway.
- Open burning of trash is prohibited; open burning of yard waste is prohibited on residential properties (this material is considered recyclable by PA DEP; residents may obtain a key fob to the yard waste drop-off site for a small fee).
- Dogs are not permitted to run at large; dog guidelines can be found at this link: www.ecode360.com/11668160.
- Yards must not be littered with trash, unused furniture, building material, etc.
- Trash & recycling collection is permitted between 5am & 6pm (unless there is an unusual circumstance.)
- Fences must be out of easements and rights-of-way, and require a zoning permit.
- Repair cracked or heaving sidewalks; these obstructions create a hazard for pedestrians. Also, remove any weeds & grass within the cracks of the sidewalk.

# WINTER MAINTENANCE

Before we know it, winter will be upon us. Winter brings the potential for snow; homeowners can assist the Public Works Department to provide an improved level of service by observing the following guidelines:

- Do not park vehicles on the street until the street has been completely cleared off. Note that the Township, in most cases, will plow the street two separate times. The first time will be to clear an access to the primary roads, and the second pass will push the snow back to the edge of the street.
- Wait until the street is plowed before clearing driveway openings.
- Never shovel snow out into the streets.
- Shovel out fire hydrants if they are located on your property.
- Motorists should be aware of Township vehicles salting or plowing snow. Motorists should not interfere or impede the plow in any way.
- Remove the snow or ice from your sidewalk within 12 hours after the cessation of any fall of snow, sleet, or freezing rain.
- Make sure mailboxes are properly secure.

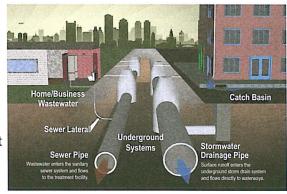
As stated above, observing these guidelines will assist in providing our residents with the highest level of service.





## STORMWATER GUIDELINES

If you have a stormwater management facility on your property, such as a swale, basin, inlet, or outlet structure, most likely, you are



responsible for maintenance of the facility. This could include simply mowing these areas and keeping them free from debris, to making sure the rip rap (dispersing rocks) is replaced as needed, that pipes are not clogged, or possibly replacing malfunctioning facilities. Warwick Township staff inspects inlets and outfalls annually. If a maintenance issue arises, a notice is mailed to the property owner identifying the problem and providing recommendations to correct the issue.

Unlike the public sewer system that treats wastewater, stormwater drains directly to our streams, and ultimately, to our watershed untreated. Contamination of the stormwater system leads to contamination of our streams and water supply. Clean water is everyone's responsibility. Below are guidelines to follow to do your part for the environment:

- Don't dump or pour any material into storm drain inlets.
- Don't pile or dump grass clippings, leaves, mulch or other debris in basins, swales or streams.
- Don't apply pesticides, fertilizer or herbicides prior to or during a rainfall.
- Report illegal dumping to Warwick Township. To learn more, visit our website at:

www.warwicktownship.org/stormwater.