

Sewer Lateral Certification Program

What is the Sewer Lateral Certification Program?

To ensure the functionality and efficiency of the municipal sanitary sewer system, it is important that all sewer laterals channeling sewage into the system are in good shape. Laterals that are broken, cracked, worn, or damaged in some way may allow effluent (sewage) to leak out into the surrounding soil or allow influent (rain water, lake water, lawn irrigation, etc.) to enter the system, which would add to the sewer system flow and decrease capacity. In response to this problem, the Franklin Township Municipal Sanitary Authority has created a certification program, involving the inspection and testing of sewer laterals. The program is designed specifically to identify and remedy sewer laterals in need of repair or replacement.

The purpose of the testing is to ensure that there are no defects or connections that would allow extraneous water to enter the sanitary sewer such as but not limited to; French drains, down-spout tie-ins and infiltrations of ground water. Video camera inspection with digital recording allows the Authority to view the condition of the sewer lateral. Upon passage of a lateral test, the property owner will be granted a certificate by Authority certifying that their sewer lateral is functioning well. The goal is to maintain a sewer system that best serves your needs.

Single family houses, duplexes, condos and apartment complexes make up the majority of sewer lateral connections within the Authority's service area. Most of these homes are older than 20, even 30 years or more. In each case, the sewer lateral for each unit is just as old and, depending on the material of the lateral, may be deteriorating or succumbing to the effects of root infiltration. Roots penetrating into sewer laterals is a primary cause for inflow and infiltration, otherwise known as I&I. Other causes of I/I are broken, cracked, fractured, offset, sag, change in material or out of round sewer laterals..

Sanitary Sewer vs. Storm Sewer – What's the Difference?

It is important to understand the difference between sanitary sewage and storm water flow. The Authority's sewer network consists of sanitary sewers that are separated from storm sewers. A sanitary sewer system is meant to convey wastes from bathrooms, sinks, industrial and commercial processes, and other sources to the wastewater treatment plant where the sewage can be treated before being discharged into Turtle Creek. This treatment has to meet criteria established within the Authority's NPDES permit.

Storm sewers, on the other hand, are meant to convey excess rain or groundwater from private and public land areas to the nearest ditch, creek, stream, pond, or lake in order to prevent flooding. These sewers discharge untreated water into the receiving systems. Within neighborhoods, drainage from driveways, sidewalks, paved streets, parking lots, sump pumps, and drainage tiles around homes may discharge into the storm sewer.

It is necessary to keep these two systems of sewers separated. Sewage from sewer overflows can cause major environmental concerns for nearby creeks, rivers, and lakes. Rain or groundwater flowing into the sanitary sewer can cause sanitary sewer back-ups as well as a large amount of unnecessary treatment costs. Keeping these sewer systems separated is a win-win situation for the environment and all entities involved.

Sanitary Sewer Overflows (SSOs) and Peak Flows

SSOs are an example of an EPA water quality violation and are not permitted under the Authority's NPDES wastewater treatment plant permit. SSOs can cause significant environmental and public health problems. They can pollute surface waters, endanger aquatic life, interfere with recreational uses and industry resources, and contaminate drinking water supplies. SSOs often contain high levels of suspended solids, pathogenic organisms, toxic pollutants, nutrients, oil, and grease. Typical consequences of SSOs include the closure of beaches and other recreational areas, inundated properties, and polluted waterways.

SSOs typically occur during extreme wet weather events due to the amount of stormwater inflow and infiltration (I/I) entering the sanitary sewer system. One goal of the I/I Reduction Program is to eliminate these overflows by reducing the amount of stormwater I/I the sanitary sewer is subject to.

Properly designed, operated, and maintained sanitary sewer systems are meant to collect and transport all of the sewage that flows into them to a publicly owned treatment works (POTW). However, occasional unintentional discharges of raw sewage from municipal sanitary sewers occur in almost every system. These types of discharges are called sanitary sewer overflows (SSOs). SSOs have a variety of causes, including but not limited to blockages, line breaks, sewer defects that allow storm water and groundwater to overload the system, lapses in sewer system operation and maintenance, power failures, inadequate sewer design and vandalism. The untreated sewage from these overflows can contaminate our waters, causing serious water quality problems. It can also back-up into basements, causing property damage and threatening public health.

Additionally, aging sewer line infrastructure in many communities allows rain and snow melt to enter sanitary sewer systems. During significant wet weather events it is possible for influent flows to exceed the treatment capacity of existing secondary treatment units. Known as "peak flows," these wet weather flows are sometimes diverted around secondary treatment units and then either recombined with flows from the secondary treatment units or discharged directly into waterways from the treatment plant in order to prevent any damage to the treatment facility. Operators of wastewater treatment plants must manage these high flows to both ensure the continued operation of the treatment process and to prevent backups and overflows of raw wastewater in basements or on streets.