

WASTEWATER DEPARTMENT



Purchased new Volvo Compact Excavator

We treated 936 million gallons of residential, commercial and industrial wastewater with an average flow of 2.56 million gallons per day (MGD). Removal rates of 96.7% for carbonaceous biochemical oxygen demand, 98.1% for total suspended solids, and 97.8% for ammonia have been achieved consistently through the treatment plant.

Our National Pollutant Discharge Elimination System (NPDES) permit was renewed on May 1, 2015 and expires on January 31, 2020. This permit is issued by the Ohio Environmental Protection Agency (OEPA) and gives permission to discharge from the City of Wilmington's wastewater treatment plant (WWTP) into Lytle Creek. The most notable change is we now have a phosphorus limit of 1.0 mg/l that we have to achieve compliance by October 31, 2018 and no later than July 1, 2030 we have to achieve the waste load allocation of 0.913 kg/day or 0.08 mg/l. The 1.0 mg/l limit we should be able to achieve through chemical addition, but to meet the 0.08 mg/l we will need to do a major upgrade of the wastewater treatment plant.

199.46 total dry tons of sludge was removed from the Wastewater Treatment Plant between March 1, and December 15, 2015. This is an average of 0.55 dry tons produced per day in 2015. This sludge was applied to farm ground as fertilizer.

The operation of the pretreatment program continues to be successful. The occurrence of upset, interference or pass-through violations is almost nonexistent. Multiple industrial wastewater effluent samplings and facility inspections are conducted each year.

The City of Wilmington “Storm Water Management Program” has started its second permit cycle that became effective February 3, 2015. The City is covered under Ohio EPA NPDES General Permit OHQ000003 associated with “Small MS4 NOI”. A revised plan must be submitted by the City before February 3, 2017.

The Wastewater Department continues to take the proactive approach to safety by conducting periodic safety meeting and enforcing the policies already in place. We believe the City’s greatest assets are its’ employees and the citizen they serve, and do not wish to jeopardize the health and well-being of either.

There were 6,954 feet of sanitary sewer rehabilitated by inserting a flexible PVC liner that was molded into the existing pipe. Through rehabilitation we are removing inflow and infiltration (I/I), which can put a strain on our sewer system during wet weather. This process also reinforces the structural integrity of the line.

We also rehabilitated two manholes using a process known as SpectraShield Liner System. This process is a patented polymeric lining system that will protect the manholes using a flexible urethane that stops infiltration and corrosion. It also protects wastewater infrastructure from damaging hydrogen sulfide and restores the structure to their original profile. By using this method verses dig up and replace we saved over \$20,000 due to one manhole being 30 feet in depth and the other being in a high traffic area.



SpectraShield Manhole

LABORATORY

The Wastewater Laboratory’s mission is to assure the public health and safety by affirming our compliance with the National Discharge Elimination System Permit, The Clean Water Act, and State of Ohio mandates. It is our goal to produce the most accurate data possible to protect our environment and to serve the community’s best interest.

The lab results provide operational information to plant personnel ensuring adequate treatment is received. The data determines plant loadings, demonstrates the effects of the plant effluent upon the receiving stream and is used for future plant designs.

Our Lab utilizes a wide range of methodology to include wet chemistry, atomic absorption spectrophotometry, microbiology, gravimetric, bio-chemical,

