

ERIE WATER WORKS

2017 COMPLETED CAPITAL IMPROVEMENT PROJECTS

STORAGE

➤ **ASBURY TANK #2 EXTERIOR RECOATING**

The 1.5 million gallon (MG) Asbury Tank received an exterior coating in 2017. The tank was originally constructed by Pitt-Des Moines in 2000. The 70-foot diameter, 53.5-foot deep welded steel tank provides water for average and peak day use and emergencies (such as power outages or fires) for the western portion of Millcreek Township. Visitors of Asbury Woods have likely spotted this and a second 1.0 MG tank when frequenting this popular recreation site. It is necessary to maintain and repair tank coatings in order to prevent corrosion of the steel beneath. Failure of the steel could cause significant disruption to our customer's water service. Keeping EWW tanks in a reliable operational state is critical to our business.



➤ **DEPOT ROAD WATER STORAGE TANK – MIXING & POWERVENT SYSTEM**



The interior of the 0.75 MG Depot Road Tank was resealed in 2017. The tank was originally constructed by Mid-Atlantic Storage Systems in 2002. The 45-foot diameter, 65-foot deep bolted steel tank provides water for average and peak day use and emergencies (such as power outages or fires) for the southeastern portion of Harborcreek Township. A mechanical mixing and ventilation system were also installed to promote uniform water quality and to help control disinfection byproducts.



TREATMENT & PUMPING

➤ **SIGSBEE PUMP STATION SODIUM HYPOCHLORITE STORAGE TANK REPLACEMENT**

The project replaced two 1,100 gallon Sodium Hypochlorite Bulk tanks and one 110 gallon Day tank at the Sigsbee Pump Station. The new tanks are High Density Cross-Linked Polyethylene to provide the longest life expectancy and warranty. Sodium Hypochlorite is a very important part of the treatment process as it is used to disinfect the water.



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➤ VARIABLE FREQUENCY DRIVE (VFD) ADDITIONS

VFDs are used to control pump motors in order to smooth out operational parameters, provide unparalleled control of pumping schemes and to achieve energy savings. In 2017, EWW installed VFDs at two pump stations; the Johnson High Service Pump Station and the Richard S. Wasielewski Water Treatment Plant. Pumps can now be controlled with greater precision and operational flexibility. Local contractor Newco Electric completed the work.



TRANSMISSION & DISTRIBUTION

➤ EAST 12th STREET WATER MAIN REPLACEMENT



This important project was located between East Avenue and Downing Avenue in the City of Erie. The scope included the replacement of 5,500-feet of 1899 and 1940s vintage water main with new 16-inch ductile iron pipe. The old lines were located in PENNDOT shoulder and restoration costs were exorbitant during the winter months. The contract was completed by Konzal Construction for about \$1,600,000. Reinvesting in our aging system is critical to long-term sustainability.

➤ PONDEROSA DRIVE WATER MAIN EXTENSION

The project extended 1,700-feet of 8-inch water main along Ponderosa Drive in Summit Township. EWW staff worked with property owners desirous of obtaining high quality potable water and fire protection in order to extend water service to the area. Water system expansion is an important goal of EWW and each project completed helps people struggling with access to a reliable water supply.



➤ EAST 2nd STREET WATER MAIN REPLACEMENT



This project replaced 750-feet of 4-inch water main (installed in 1887) along East 2nd Street between French Street and Holland Street. The water main had experienced many recent breaks and was also undersized to accommodate the new UPMC Hamot Patient Care Tower project planned for 2018/2019. A new 12-inch ductile iron water main was installed by Chivers Construction Company. EWW staff designed and bid the project worked with UPMC Hamot to phase the work with

minimal disruption to normal business. Renewing and replacing infrastructure is an important challenge facing public and private utilities across the United States.