

Project Summary

Project: Wastewater Treatment Plant Expansion Project
Client: Johnsonburg Municipal Authority, Elk County, PA



The Wastewater Treatment Plant Renovations encompass the following:

Main Pump Station: Raw sewage triplex submersible pumps, influent force main, submersible sewage grinder and an auxiliary emergency generator. Pump output is controlled via variable-frequency drives.

Pretreatment Facilities: Automatic high-flow screen, screenings washer/compactor, grit removal chamber, aeration blowers, grit transfer pumps, grit classifier, and system controls.

Flow Equalization Tanks: Two rectangular concrete equalization tanks provide a 0.5 MG total capacity.

Aeration Basins: The existing two packaged activated sludge, (contact stabilization), basins have been rebuilt and converted to aeration basins.

Clarification Tanks and Mechanical Room: Two new concrete circular clarification tanks with rapid-uptake sludge collection mechanisms. A concrete room between the two clarifiers house mechanical/electrical equipment related to the operation of the clarifiers, aerobic sludge digesters, chlorine contact tank, return activated sludge pumps, waste activated sludge pumps, utility water system, and electrical control systems.

Chlorine Contact Tank: The new chlorine contact tanks have two independent flow channels. Static mixing is provided. A discharge basin at the effluent end of the tank provides a sump for a utility water intake.

Aerobic Digestion Tanks: Two concrete aerobic digestion tanks provide hydraulic volume and diffused aeration.

Plant Monitoring System: A plant-wide SCADA network allows plant operators to control pertinent plant functions and monitor performance of plant equipment and processes.

