

Nelson Township Authority Water Treatment Plant



Filter Unit



Backwash & Service Pumps; Control System



Chemical Addition



Effluent & Backwash Piping



Influent Piping



Chart Recorders to Monitor Water Quality



Finished River Intake Wetwell

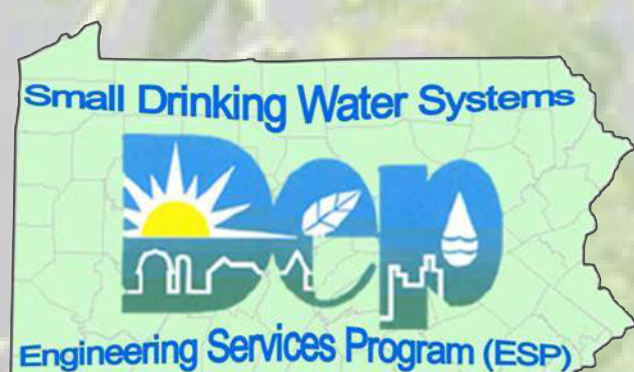


150,000-Gallon Storage Tank

The Nelson Township Authority, Tioga County, Pennsylvania, experienced severe water problems including low well yields and poor water quality due to high levels of iron and manganese. Residents in the Nelson Township Authority service area had been subjected to voluntary or mandatory conservation measures for years due to the deteriorated well system.

To resolve these issues and produce safe drinking water, Nelson Township Authority chose the Cowanesque River as the primary source of water and constructed a conventional-filtration water treatment plant to meet current and anticipated usage demands.

Grants from the U.S. Environmental Protection Agency, the Pennsylvania Infrastructure Investment Authority (PENNVEST), and the Pennsylvania Community Development Block Grant Program provided the community with the funds necessary to develop a new source supply and treatment system. The project included new meters, a river intake structure, and a 43,200-gallon per day filtration plant. The plant includes facilities for chemical coagulation, rapid mixing and flocculation, and sedimentation and conventional filtration meeting stringent Safe Drinking Water Act standards. Nelson Township Authority received assistance through the Pennsylvania Department of Environmental Protection Small Drinking Water Systems Engineering Services Program, which provided engineering design and permitting, contract administration, and construction management services.



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