

WASTEWATER SYSTEM IMPROVEMENTS

STATE PROGRAM: West Virginia Department of Environmental Protection

ASSISTANCE RECIPIENT: Town of Pennsboro

ASSISTANCE AMOUNT: \$2.6M



PROJECT DESCRIPTION

The Town of Pennsboro's Wastewater Treatment Plant, which serves around 600 customers, was routinely failing to meet the discharge limits outlined in its NPDES permit and had recurring issues exceeding the 90 percent flow threshold. The community was issued an order by the West Virginia Department of Environmental Protection to eliminate two sanitary sewer overflows (SSO) and to effectively address their excessive infiltration and inflow concerns. With the town's low median household income of \$24,120 and small customer base, funding for the proposed \$10.8 million plant upgrade needed to be affordable. For the first time at a wastewater treatment facility in West Virginia, a three-phased financing approach utilized potential grant funding while continuing to implement the necessary upgrades. Phase One consisted of a new influent lift station, preliminary treatment facility, UV disinfection system, metering flume and an outfall structure, and the removal of one SSO. Phase Two consisted of a new sludge dewatering building, belt press, control building, generator, and necessary site work. Phase Three consisted of a new sequencing batch reactor, equalization basin, blower building, splitter box, conversion of the existing treatment tank to a sludge holding tank, removal of the second SSO, and an increase in design flow to handle a peak of 2.10 MGD and an average daily flow of 0.35 MGD. CWSRF loans were used to fund a portion of Phases Two and Three.

To read more about this case study, please visit https://www.epa.gov/sites/default/files/2018-11/documents/pisces_2018_compendium_0.pdf.