

COALWOOD SEWER PROJECT – PHASE 1

STATE PROGRAM: West Virginia Department of Environmental Protection

ASSISTANCE RECIPIENT: McDowell County Public Service District

ASSISTANCE AMOUNT: \$1.2M



PROJECT DESCRIPTION

Challenges such as declining population, low income, and mountainous terrain have made traditional sewer extensions infeasible in the community of Coalwood in McDowell County, West Virginia. Residential sewage had been either treated by individual septic tanks or discharged directly to Clear Fork, a tributary of the Guyandotte River. Previous projects that proposed a single system to serve the Coalwood area were turned down due to high operation costs for multiple pump stations. The McDowell County Public Service District's (PSD) Coalwood Sewer Project marks the district's first foray in becoming a sewer utility.

The McDowell County PSD pursued a creative solution to split the residents into different collection systems and wastewater treatment plants. This approach removed the need for multiple lift stations and deep interceptor sewers. The first phase of the project will install a decentralized collection system and a 17,500 gallon per day moving bed bioreactor wastewater treatment plant to serve 72 residents in the geographically remote area. Future phases will provide adequate treatment for an additional 137 residences, eliminating direct sewage discharges and failing septic tanks in Coalwood. Additionally, the PSD partnered with the nearby City of Welch, West Virginia, to provide sludge processing for Coalwood. This partnership removed the cost of adding sludge processing to the project and significantly reduced future trucking costs for sludge disposal. The PSD leveraged a \$1.2 million CWSRF loan with 100% principal forgiveness for decentralized systems in conjunction with a U.S. Department of Housing and Urban Development Community Development Block Grant and a West Virginia Infrastructure and Jobs Development Council Grant. This project will provide both public health and environmental benefits by reducing sewage discharges and lowering fecal coliform inputs to the impaired Clear Fork.

To read more about this case study, please visit <https://www.epa.gov/system/files/documents/2023-04/pisces-2022-compendium.pdf>.