

Effectiveness of the T&T AMD Treatment Plant on Muddy Creek

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Abstract: The West Virginia Department of Environmental Protection (WVDEP) Office of Special Reclamation's T&T Fuels Treatment Facility treats acid mine drainage (AMD) from above ground and below ground sources throughout the Muddy Creek Watershed. The treatment facility began operations at the end of 2017 and has been operating within the watershed for nearly five years. Within this period, there have been increases in fish and benthic populations in the impaired portion of Muddy Creek helping to connect the headwaters of Muddy Creek with the Cheat River. The environmental gains within Muddy Creek are due to the effective operation of the T&T Fuels Treatment Facility and its components such as the Glade Run In-Stream Doser, the Viking Lift Station and Force Main system, and T&T Fuels 3 Sludge Injection Borehole. Throughout the five years of AMD treatment, there have been several lessons learned which will be discussed to assist with design and operations of similar treatment facilities.