

The Huling Branch AML Reclamation/ATV Recreation & Watershed Improvement Project was recognized by the OSMRE as the 2017 Abandoned Mine Land Reclamation National Award winner. The project addressed three major concerns that were associated with the 103-acre AML site located in the heart of Pennsylvania's 307,140-acre Sprout State Forest, Clinton County, that is maintained by the Pennsylvania Department of Conservation and Natural Resources, Bureau of Forestry.

The first concern was to eliminate four Priority 2 dangerous highwalls from past surface mining that were more than 70 feet in height and had a combined length of over 6,000 linear feet. Associated with the four highwalls was a massive 103-acre Priority 3 spoil area which contained a large amount of acid forming materials. During the surface mining, collapsed entries that were discharging highly contaminated acid mine drainage (AMD) from previously underground mined areas were intersected. The backfilling and reforestation reclamation plan utilized both the Forestry Reclamation Approach and conventional backfill/compaction methods. Located all around and on top of the AML area were segments of the 50-mile-long Whiskey Springs All-Terrain Vehicle (ATV) trail system. The recreational use of the trail system had attracted intense public visitation to areas off the designated trail and within the AML area. The unauthorized use of the AML site by ATV riders and others resulted in numerous ATV accidents and injuries, several of which required a life flight helicopter to transport the victims. The reclamation plan removed the dangerous highwalls and eliminated access to the unauthorized ATV riding areas.

The second concern was to maintain and re-establish 3.6 miles of the project construction site access that is a functioning segment of the ATV trail system. Portions of the AML reclamation plan were intersected by the ATV trail. This section of the trail was closed to the public during construction of the project. The 3.6-mile dual use of the rehabilitated and maintained construction site access/ATV trail was restored after construction to promote recreational and economic redevelopment. Portions of the trail are also used for the annual Rattlesnake National Enduro which is the 5th of 9 rounds of the 2017 Kenda American Motorcyclist Association (AMA) National Enduro Championship Series. The reclamation project, including the reconstruction of a portion of the ATV trail system, is contributing to increased economic and recreational opportunities and benefits northcentral Pennsylvania while improving the overall safety for users of the ATV trail system.

The third and final objective of the project was to reduce AMD impacts upon both surface and groundwater discharges emanating from the project site. This was achieved through alkaline addition and other AMD source abatement/amelioration techniques including hydrologic controls and identification, and removal and/or special handling of acid forming materials. On-site AMD sources included discharges from abandoned underground mine workings, buried refuse with a very high sulfur content, and acidic unreclaim surface mine spoil. While it was clear that design elements of the Huling Branch AML Reclamation Project aimed at addressing AMD impacts would not eliminate those impacts, it was believed that incorporating these measures into the project reclamation plan would result in a long-term reduction in pollution load and reduce the scope of AMD complexity of future AMD treatment and watershed restoration work. Continual water sample analysis at the Site 4 Discharge Monitoring Point illustrate that median values of; sulfate, acidity, and manganese concentrations have decreased by 50%, 37%, and 49% respectively.