



Montana Abandoned Mine Lands Program

Montana Department of Environmental Quality's Abandoned Mine Lands Program reclaims hazards such as subsidence, mine fires, hazardous mine openings, acid mine drainage and dangerous highwalls that are remnants of mining prior to regulation.

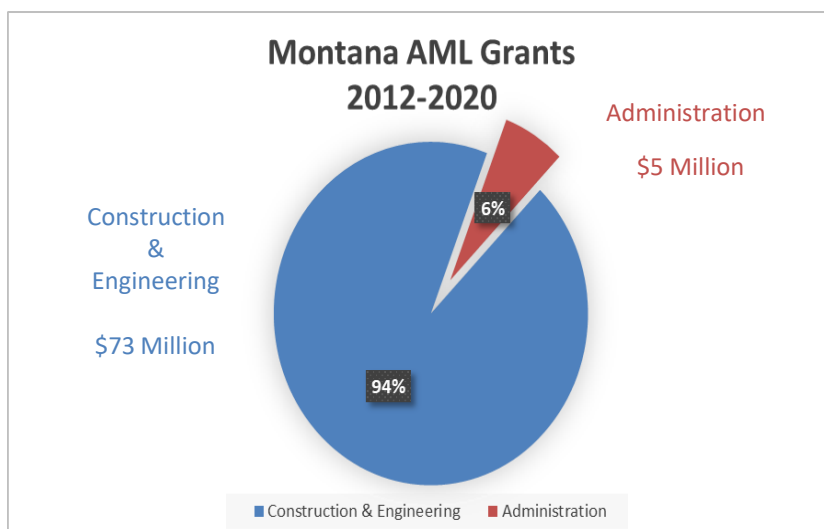


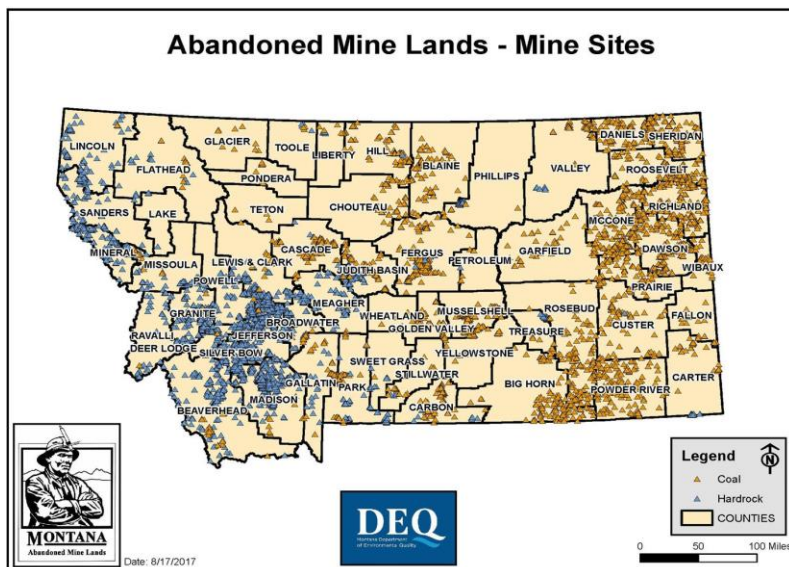
Abandoned Mine Lands (AML) are plagued by health and safety hazards as well as diminished economic opportunities. The AML Program is funded by a per ton fee on coal production as authorized by the Surface Mining Control and Reclamation Act (SMCRA). Montana AML works closely with the Office of Surface Mining Reclamation and Enforcement (OSMRE) to meet the intent of SMCRA which is to *"promote the reclamation of mined areas left without adequate reclamation prior to August 3, 1977, and which continue, in their unreclaimed condition, to substantially degrade the quality of the environment, prevent or damage the beneficial use of land or water resources, or endanger the health or safety of the public."*

The AML Fund

The Montana AML Program is very efficient at providing timely responses to new abandoned mine hazards that arise including emergencies. All reclamation projects comply with the National Environmental Policy Act and other state and local regulations.

In Montana, the AML Program is spending 94% on planning, engineering, construction and maintenance of AML projects. This correlates to good paying jobs and reclaimed lands. The AML Program spends approximately 6% on administration, which pays for staff time and the resources needed to support AML





Problems We Face

The majority of Montana's 56 counties have abandoned mine problems associated with former coal or hardrock mines. Montana has thousands of abandoned coal and hardrock mines and more are found every year.

These old mines and mills are hazardous to human health and the environment. Even though many have been reclaimed and revegetated, continued monitoring is essential. As the mine workings age new problems may arise. In addition, many more abandoned mines still need to be addressed.

Accomplishments

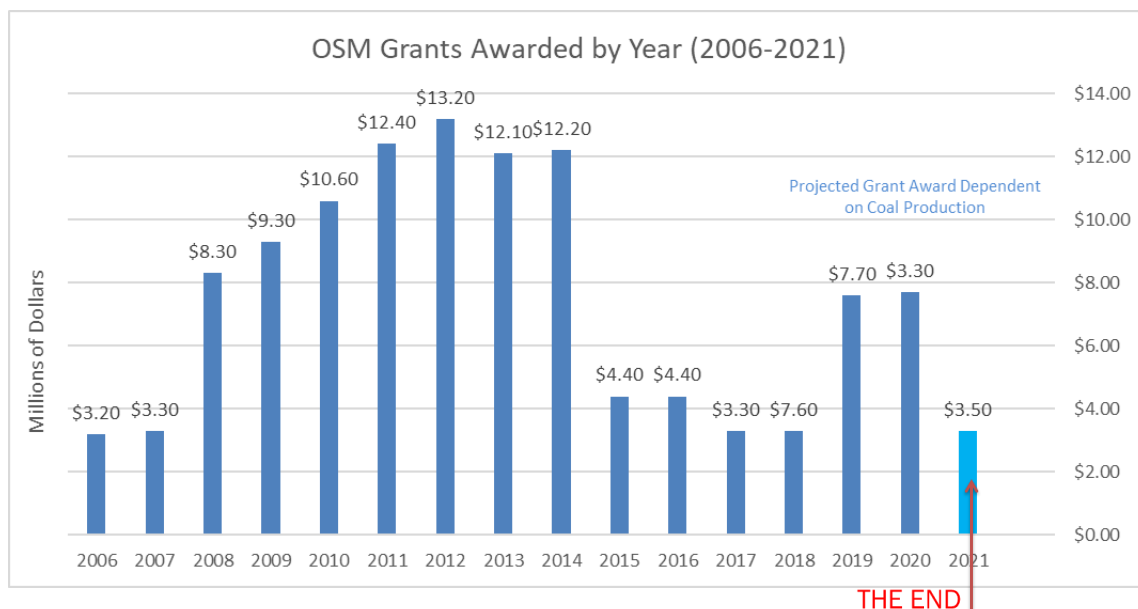
The AML program has reclaimed thousands of dangerous mine openings at abandoned coal mines, resulting in increased safety for thousands of Montanans. Key accomplishments include:

- Extinguished 16 coal mine fires.
- Closed 1,631 hazardous mine openings.
- Reclaimed 31 miles of streams and 157 acres of land impacted by mine waste.
- Spent \$17.5 million reclaiming contaminated surface water.
- For every construction dollar spent, \$3.00 is returned to the local



Abandoned Mines Today and Funding Risk

Despite these impressive accomplishments, \$137 million of high priority abandoned coal mine projects and millions more in unfunded abandoned hard rock hazards still threaten the public health and safety. The Montana AML inventory continues to grow as we discover new hazards as previously reclaimed sites continue to weather exposing new features and as citizens move further into the historically mined areas discovering new abandoned mine features. **AML funding is at risk as the fee collection that funds the program is set to expire in 2021.**



Recent Successful AML Projects

Roundup, MT, Bair-Collins Mine



The Bair-Collins mine operated from the 1920s to 1954 producing coal from the Bull Mountain Coal Field. Mining operations left coal waste covering an area of about 30 acres. Changes made to the Musselshell River channel by mining and former railroad surface structures, cut the river off from its floodplain exacerbating flooding in the City of Roundup. DEQ's Montana Abandoned Mine Lands Program project was designed to restore the floodplain and limit impacts to the City. AML, in coordination with its partners, removed 47,600 yards of wasted material, recontoured, and revegetated the site restoring it to more natural conditions.

Marysville, MT, Great Divide Ski Resort



In July of 2020, a mine subsidence opened on the edge of a run at the Great Divide Ski Resort in Marysville, MT. The subsidence, caused by the collapse of workings associated with the Bald Butte mine, measured about 15 feet in diameter and 40 feet deep. The AML program responded to a request for help from the property owner and filled the subsidence before the 2020-2021 ski season began. This action allowed the resort to open and operate without risking the safety of skiers to abandoned mine features.

Butte, MT, Carrie Mine



In April of 2018 an addition on a home in uptown Butte began to settle and pull away from the home. In July, after the removal of the addition, the ground failed leaving a 14 x 16-foot shaft almost 20 feet deep. The shaft connected to the abandoned Carrie mine which is located about 150 feet below the home. The AML Program stabilized the shaft, filled it with concrete and poured a separate concrete cap. The work took the remainder of 2018 and into 2019, saving the property.

What's Next for the Abandoned Mine Lands Program?

Belt Water Treatment Plant & The Great Falls Coalfield



Metals laden water that flows through Belt, MT

The AML Program is planning to build a water treatment plant in Belt to treat acid mine drainage from the abandoned coal mines surrounding the town. The pH-2 water contains elevated levels of metals including iron and aluminum. This water contaminates Belt Creek which runs through the middle of the community. The treatment plant is designed to meet all water quality standards and will restore Belt Creek to its beneficial uses.

The AML Program is working to reduce acid mine drainage from the Great Falls Coalfield that continues to impact communities including Sand Coulee, Stockett, Centerville and Tracy. The AML program is assessing options to capture and treat the multiple discharges to surface water in this area.



Acid Mine Drainage

Coal Inventory, Coal Fires and Abandoned Mine Hazard Response



Coal Fire outside of Miles City,



Subsidence in Wibaux, Co., MT

In 1995 the AML Program identified the highest priority abandoned hardrock mines across the state and cleaned up the top 39 mine sites. These projects addressed land and water contamination from heavy metals. Since 2012, the AML program returned its focus to coal mining impacts, including the persistent and challenging problems posed by acid mine drainage. Abandoned coal mine related problems appear each year, including mine subsidence and coal fires which require prompt hazard mitigation and reclamation work. The AML program has a clear record of effective work addressing the problems posed by abandoned mines.

