



Cleaning Up Mine-Scarred Lands in Crested Butte



Water that runs through hard rock tailings carries contamination to a pond on the former Peanut Mine site.

Crested Butte, Colorado

The 2002 Brownfields Law expanded the definition of brownfields to include mine-scarred lands, providing a new tool for cleanup and revitalization of mining properties. The Peanut Mine reclamation project near Crested Butte, Colorado offers an example of accomplishing reclamation at abandoned mines. This project is a collaborative effort between local officials, the Crested Butte Land Trust, Peanut Mine, Inc., and state and federal agencies to restore a 16-acre portion of an 83-acre property impacted by a former coal mine and hard-rock ore processing operation in the Slate River watershed. These operations, which occurred between 1904 and the 1970s, produced extensive tailings piles currently located near the Lower Loop Trail, one of Crested Butte's most popular recreational corridors.

Hundreds of people pass through the Peanut Mine site area daily in order to access the multi-season trails of the Lower Loop area. The site's yellow, foul-smelling tailing ponds contain heavy metals, which have been draining into Peanut Lake for years. Clean water from the mine adit (a horizontal entrance to the mine) picks up this contamination as it passes through the hard rock tailings piles covering the property. The exposed area also creates the potential for unhealthy airborne dust.

Because of these concerns, local citizens have made the cleanup of this eyesore property a priority. According to Susanna Linam, a local resident, "The Lower Loop here is used by the locals and by tourists who come to bicycle and hike, so it would be absolutely wonderful to get that mine cleaned."

The effort to clean up the Peanut Mine began in the late 1990s, when the Crested Butte Land Trust acquired property in the area, including the mine, with the goal of improving access to nearby national forest and wilderness areas and improving environmental quality. The Peanut Mine property has since been transferred to Peanut Mine, Inc., which was established to oversee the reclamation project.

In 2005, Peanut Mine, Inc. began on-the-ground activities to consolidate most of the coal and hard rock tailings into one large disposal area and cover them with soils that can be revegetated. Once construction is completed, the water that runs out of the mine and over the site will be directed away from the disposal areas, to prevent further contamination. In addition, a layer of limestone will be placed under the disposal area, to neutralize any acidity in case of water seepage, and French drains were

JUST THE FACTS:

- An EPA Brownfields Cleanup grant enabled Peanut Mine, Inc. to begin cleanup on a 16-acre portion of the 83-acre property where the Peanut Mine and Mill formerly operated for 70 years.
- Cleanup will involve consolidating all of the hard rock tailings into a few, larger mounds, and covering them with soils that can be re-vegetated. The water that runs out of the mine adit and over the site will also be directed away from the mounds, to prevent further contamination.
- Cleanup will be followed by the development of improved trail access and will result in water quality and wildlife habitat improvements.

created beneath the limestone to direct water away from the disposal area. The lower portion of some mill tailings ponds will remain in place and be capped with a layer of coal and a second layer of soil for revegetation with native plant species.

The Peanut Mine project is scheduled for completion by the end of 2005 unless there are delays from cold weather. In addition to improved access, cleanup of the property will prevent contamination of the Slate River, which is fed by Peanut Lake and provides water for other downstream users.

The project is expected to also benefit the area's ecosystem by improving fish, animal, and bird habitats. The Colorado Department of Public Health and the Environment required an environmental covenant that requires notices to be posted on all sides of the disposal area; forbids drilling for water on the property; and requires that the property be maintained to prevent erosion.



Cleanup in progress on the former Peanut Mine site.

This extensive reclamation project is primarily funded by a \$200,000 EPA Brownfields Cleanup grant, which provided critical funding for the reclamation and revegetation of the site, as well as the Colorado Division of Minerals and Geology's (DMG) Colorado Inactive Mine Reclamation Program. As a key partner, DMG designed the Peanut Mine reclamation plan, contracted the work locally, and supervised the reclamation construction. In addition, the Town of Crested Butte, Gunnison County, and the Colorado Department of Local Affairs contributed \$300,000 to help acquire the site so it could be cleaned up. Other financial contributors include the Colorado Public Health and Environment, the Gates Foundation, Peanut Mine, Inc., and individual donors. According to Jim Starr, President of Peanut Mine, Inc., "[T]he money we're getting for this project is really going to help us...we would not have nearly as good a final product without the EPA money."

Through EPA funding, the citizens of Crested Butte will ultimately build on regional assets and improve environmental quality. The result will be a recreational area that can be used by all local citizens and prevent further environmental degradation. According to Jim Schmidt, Mayor of Crested Butte, cleanup of the Peanut Mine property will "enhance recreational opportunities not just for passing through, but as a place to stay and stop."

In addition to the Peanut Mine cleanup in Crested Butte, the Brownfields Federal Partnership Mine-Scarred Lands Initiative is exploring approaches to mine-scarred lands cleanup and community revitalization in hopes that other mining communities will benefit from the experiences, lessons learned, and financial and technical resources identified through six Demonstration Projects.

CONTACTS:

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Visit the EPA Brownfields Web site at:
<http://www.epa.gov/brownfields/>

In addition to the Town of Crested Butte, communities throughout EPA Region 8 (which covers Colorado, Utah, Wyoming, Montana, North Dakota, and South Dakota) are using EPA Brownfields funding to assess and clean up mine-scarred lands. These include:

- *Ouray County, Colorado* is using hazardous substances grant funds to assess mine-scarred properties in 4,000 acres within the Canyon Creek watershed.
- *The Mineral County Fairgrounds Association, Colorado* is using EPA Brownfields cleanup funding to clean up a 46-acre property along the Willow Creek watershed contaminated by mining wastes.
- *Summit County, Colorado* is using EPA Brownfields funding for assessment and cleanup of mine-scarred lands, including the Shoe Basin mine site. In addition, Summit County's Pennsylvania Mine site is also one of six Brownfields Federal Partnership Mine-Scarred Lands Initiative Demonstration Projects.