

MINE-SCARRED LANDS REVITALIZATION

Models Through Partnerships



The Year One Report on the Brownfields Federal Partnership
Mine-Scarred Lands Initiative

This report provides an update of the Brownfields Federal Partnership Mine-Scarred Lands Initiative (MSL Initiative)—an interagency partnership designed to explore approaches to mine-scarred lands cleanup and community revitalization by supporting six Demonstration Projects. It is hoped that other mining communities will benefit from the experiences, lessons learned, and financial and technical resources identified through these projects. The six Demonstration Projects featured in this report are: Bullfrog Mine, Beatty, Nevada; Cranberry Creek Corridor, Hazleton, Pennsylvania; Eureka Town Site, San Juan County, Colorado; Kelly’s Creek Watershed, Kanawha County, West Virginia; Pennsylvania Mine, Summit County, Colorado; and Stone Creek Tipple Site, Lee County, Virginia.

The purpose of this report is to:

- Document the unique challenges and opportunities for MSL reuse
- Describe the MSL Initiative and its future activities
- Provide a discussion of the objectives and accomplishments of each of the six Demonstration Projects



Eureka township, one of the many communities which has been affected by mine-scarred lands

Mine-scarred lands are lands, associated waters, and surrounding watersheds where extraction, beneficiation, or processing of ores and minerals (including coal) has occurred.

On January 11, 2002, President Bush signed into law the Small Business Liability Relief and Brownfields Revitalization Act (Public Law 107-118; H.R. 2869). The Brownfields Law expands the definition of brownfields to include mine-scarred lands, providing a new legal and financial tool for cleanup and revitalization of mining properties and communities (Section 101(39)(D)(ii)(III)).

MINE-SCARRED LANDS OPPORTUNITIES

As a centerpiece of American history and industrial expansion, our mining heritage has left a legacy of more than 500,000 abandoned hard rock and coal mining sites throughout the United States. For impacted communities, these properties present revitalization opportunities since many sites are located on large, flat tracts of land, often in otherwise rugged landscapes. The cleanup and revitalization of mine-scarred lands creates positive environmental impacts such as cleaner water, healthier ecosystems, and increased safety for residents, and often involves economic development and historical restoration.



Abandoned coal-loading facilities are often close to transportation assets and residential communities

Although mining properties offer significant revitalization opportunities, there are a number of complicating factors associated with cleanup and reuse activities. These factors include regulatory complexities (a myriad of applicable laws), economic factors (resource management infrastructure and land ownership), and environmental, public health, and safety concerns (acid mine drainage and waste tailings). The perception of contamination, both locally and regionally, also inhibits the reuse of mining sites. However, as these issues are interconnected, there is an opportunity to develop an integrated approach to cleanup and revitalization.

THE MINE-SCARRED LANDS INITIATIVE

WHY THE MSL INITIATIVE WAS CREATED

Across the country, communities are working to clean up and revitalize mine-scarred lands. With the passage of the Brownfields Law, the federal partners recognized the opportunity to better coordinate their support to these communities. Mine-scarred lands cleanup and reuse projects differ from traditional urban brownfields; the MSL initiative formed to develop tools and strategies to meet these unique challenges.

The federal partners decided to work with local communities on six Demonstration Projects. These projects represent the variety and scale of challenges shared by mining communities across the country, which include, but are not limited to: coordinating cleanup and revitalization funding; expanding infrastructure for development; addressing mixed ownership of lands; coordinating multi-stakeholder revitalization efforts; addressing complex liability issues; and identifying feasible economic development options to replace mining.

MSL INITIATIVE'S COLLABORATIVE AND COMMUNITY ORIENTED APPROACH

A key factor of the MSL Initiative's success is that the partners have worked collaboratively throughout the process. After project selection, the group gathered information by visiting community members and other stakeholders to learn more about their reuse visions, background of revitalization activities, and specific challenges. By asking for local input at the beginning of the process, the federal partners more accurately understood each community's challenges and identified specific opportunities for federal support.



Acid mine drainage remediation using a passive treatment system

Mission of the MSL Initiative

To foster the cleanup and sustainable revitalization of mine-scarred lands and affected communities.

Goals of the MSL Initiative

- Develop a collaborative, integrated approach among federal partners
- Select MSL Demonstration Projects
- Identify and coordinate federal resources
- Facilitate information exchange and replication of successful approaches

MSL Initiative Federal Partners

- Appalachian Regional Commission
- U.S. Army Corps of Engineers
- U.S. Department of Agriculture
- U.S. Department of Housing and Urban Development
- U.S. Department of the Interior
- U.S. Environmental Protection Agency

As the projects have transitioned from learning about communities' challenges to providing direct support, the federal partners continue to work with local, regional, and state stakeholders. By building partnerships that include stakeholders with varying expertise (e.g., local understanding, technical, and economic expertise), the federal partners are engaging in discussions on complex challenges that local communities are facing. These partnerships will continue to be a key driver in developing workable solutions and models for mining communities across the country.

BULLFROG MINE

Beatty, Nevada

This project illustrates how developing diverse partnerships can support innovative and sustainable reuse opportunities.

KEY CHALLENGES AND STRATEGIES AT-A-GLANCE

Limited available land: By building a partnership with Barrick Gold, the Town of Beatty was able to acquire 81 acres of land for reuse.

Collaborative partnering for the planning of a renewable energy project: Through its diverse partnerships, the Beatty community has received commitments from key partners to plan for the development of renewable energy production.

REUSE OPPORTUNITIES IN BEATTY

Beatty, Nevada is a small community surrounded by approximately 10,000 acres of federal Bureau of Land Management (BLM) land that is located 110 miles northwest of Las Vegas and eight miles east of Death Valley National Park. During its 100-year history, the economic livelihood of the town has relied upon the cyclical nature of the mining, railroad, and federal industries. The most recent gold mining operations ended in 1999 at the

Bullfrog Mine. Barrick Gold, Inc., the former owner of the mine, transferred two mining properties (67-acres and 14-acres) for reuse to Beatty in June 2005. Since the majority of usable land in the area is federally-owned, this land acquisition provides a unique economic opportunity. Reuse ideas that have been considered include: renewable energy production (e.g. wind and solar); tourism; residential; light and clean manufacturing; warehousing; an industrial park; and automotive testing.

Community Overview Beatty Area

Population	1,200
Area	175 sq. mi.
Unemployment Rate	4%

98% of land in Nye County is federally-owned.

*Demographic information is approximated



PARTNERSHIPS LEAD TO RENEWABLE ENERGY POSSIBILITIES

Given the region's high concentrations of natural solar and wind power, renewable energy production has emerged as a primary potential reuse option for this former mining area. The Nevada Energy Office has provided significant leadership in convening energy-related stakeholders (e.g., Nevada Energy Task Force,

the Department of Energy (DOE), BLM, research labs and utilities) to research opportunities related to solar, wind, and geothermal resources. With assistance from the MSL Initiative, stakeholders gathered for an Information Exchange Forum in July 2005 to share information about renewable energy possibilities in Beatty, discuss issues and opportunities, and develop a plan for moving forward.

Previous studies show that the Beatty area has solar energy potential that ranks among the highest in the United States and has potential for wind power generation. Additionally, Nevada offers a government and business climate that supports renewable energy. Existing policies include a property tax exemption favoring developments that utilize renewable energy, a green pricing program, and renewable energy legislation that calls for 15 percent of total electricity to be renewable by 2013. Furthermore, \$4 million per year has been earmarked for renewable energy research at Nevada universities. The feasibility and economic benefits of renewable energy development in Beatty need further research, including analysis of energy potential, transmission possibilities, management options, and incentives. Feasibility research will include possibilities on the 81 acres of Beatty properties, surrounding BLM lands, and other Barrick Gold mining properties. At the Information Exchange Forum, stakeholders expressed their commitment to the project and outlined a general plan for moving forward that will be more clearly outlined in the coming months.

MOVING FORWARD

With the acquisition of the mining properties and targeted federal and state assistance, Beatty plans to take advantage of its location by creating an economic development plan that recognizes and builds upon its natural assets as well as other economic influences in the area. The renewable energy concept has enabled Beatty to work closely with regional, state, and federal partners, and will serve as a basis for collaborative land recycling and economic development planning in the future. This Demonstration Project will serve as a model on how to coordinate partnerships at all levels to develop a creative, sustainable reuse that meets all parties' interests.

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Aerial view of the Bullfrog Mine

RESOURCES

The following resources have supported mine-scarred lands revitalization efforts:

- *U.S. Department of Energy*: Provided support in convening energy-related stakeholders to discuss feasibility of renewable energy production.
- *U.S. Environmental Protection Agency*: Interviewed local stakeholders, identifying potential reuse options and federal assistance. Worked with Beatty to engage stakeholders interested in renewable energy production opportunities, facilitate planning meetings, and provide collaborative coordination support.
- *U.S. EPA Brownfields Assessment Grant (\$650,000)*: Awarded Nye County three Brownfields Assessment grants and a greenspace grant (in 2002 and 2005) to target and assess brownfields in towns across the county. The county used a portion of these EPA funds to perform due diligence of the Barrick parcels being transferred to the town of Beatty for economic development.

Critical Stakeholders

- Beatty Economic Development Council
- Barrick Gold, Inc.
- Nye County
- Nevada Energy Office
- Nevada Energy Task Force
- Nevada Division of Minerals and Mines
- Utility companies
- Desert Research Institute
- National Renewable Energy Labs
- U.S. Department of Energy
- U.S. Department of the Interior, Bureau of Land Management
- U.S. Department of the Interior, Office of Surface Mining
- U.S. Environmental Protection Agency