



# Dark Shade, Pennsylvania, Lights the Way to the Reuse of Mine-scarred Land

## Dark Shade, Pennsylvania

Many mining communities face a unique set of environmental and economic complications. While no exception, the Dark Shade watershed, which includes the Borough of Central City and Shade Township, is using the U.S. Environmental Protection Agency's (EPA) Brownfields Program as a platform to innovatively address the challenges of reusing mine-scarred land. Melissa Shull, AmeriCorps volunteer for the Borough of Central City Brownfields Pilot, expressed, "People of the Dark Shade watershed, who witnessed the decline of their environment, have learned that they don't have to live with orange streams and mounds of coal refuse." Problems like these have been addressed by using an innovative "watershed approach" to brownfields revitalization. By involving the community, mining companies, the U.S. Department of Interior's, Office of Surface Mining (OSM), and other key organizations, the Borough of Central City Pilot is making the cleanup and redevelopment of the Dark Shade watershed a reality.

Before World War II, the Appalachian region of the United States provided the primary resources to fuel growing industry throughout the nation, but when the demand for coal eventually decreased, so did the economic and environmental conditions of mining communities. The obstacles that "coal country" faces are numerous and collectively distinct: mine-scarred land, severely distressed local economies, and real or perceived environmental contamination. Additionally, many of these communities are impacted by Acid Mine Drainage (AMD), which is caused from runoff water building up in abandoned deep mines and from filtering through coal refuse piles (boney piles) that were left by coal companies. The result is runoff water with high levels of acidity and heavy metals. After mining operations were shut down, local economies like Central City's also began to decline. Jobs have become scarce and poverty levels have reached well above national statistics. According to Deborah Walter, the Project Consultant, there were more than 20,000 mining jobs in the Dark Shade region in 1950, but by 1995 that number had decreased to 1,500. AMD & ART, a non-profit organization focused on creative and artful approaches to the cleanup of AMD, partnered with the communities of Central City and Shade Township, to explore innovative ways of cleaning up Dark Shade. The result of this partnership was the creation of a "watershed approach" that focused on the designation of the entire Dark Shade watershed as one contaminated and targeted property. The partnership successfully used this approach to earn the first EPA Brownfields Assessment Pilot award to address mine-scarred land.

## JUST THE FACTS:

- Before World War II, the Appalachian region of the U.S. provided the primary resources to fuel growing industry throughout the nation, but when the demand for coal eventually decreased, so did the economic and environmental conditions of mining communities.
- The obstacles that "coal country" faces are distinct: mine-scarred land, severely distressed local economies, and real or perceived environmental contamination. Many affected communities are also impacted by Acid Mine Drainage (AMD), caused from runoff water building up in mines and filtering through coal refuse piles.
- ART, a non-profit organization focused on approaches to the cleanup of AMD, partnered with the communities of Central City and Shade Township to explore innovative ways of cleaning up Dark Shade, leading to the first EPA Brownfields Assessment Pilot award to address mine-scarred land.

*"People of the Dark Shade watershed, who witnessed the decline of their environment, have learned that they don't have to live with orange streams and mounds of coal refuse."*

*—Melissa Shull, AmeriCorps volunteer for the Borough of Central City Brownfields Pilot*

*"The EPA Brownfields grant empowered the people of Central City to bring about change, and realize their vision of a clean watershed."*

*—Deborah Walter, Dark Shade Watershed Project Consultant*

The watershed approach to mine-scarred land cleanup is the main tool being used to leverage funding for Central City and, in some cases, other mining-related brownfields. Its effectiveness is based on the fact that entire watersheds become contaminated with mining wastes through AMD. The ecological impacts are catastrophic, as this contamination eventually destroys the aquatic ecosystem. The Pilot realized the extent of contamination due to AMD and designated the entire Dark Shade watershed, 34 square miles, as one brownfields site. According to Dr. Allan Comp of OSM, the watershed approach "is the vehicle mining communities must use to achieve the same redevelopment levels that have been realized in highly urbanized areas."

The watershed approach and the EPA Brownfields Pilot award enabled the communities of Central City and Shade Township to work with OSM, the U.S. Department of Agriculture, the Pennsylvania Department of Community Economic Development, AMD & ART, and coal companies on the cleanup and redevelopment of sites in the project area. To date, the Pilot has leveraged more than \$95,000 in redevelopment funding and \$51,086 in cleanup funding from these organizations. Sharon Harkcom, Project Manager, explained, "With the assistance of many federal, state, and local organizations, the refuse piles are diminishing and the AMD-impacted streams are starting to improve, creating a more pleasant living environment."

One of the major barriers that the Pilot faced was redevelopment. Again, the Pilot decided to use the watershed and tap the region's aesthetic values for rural redevelopment. The Dark Shade watershed is a part of the Appalachian Mountains, giving it significant ecotourism value and lending itself to hiking, white water rafting, hunting, and fishing. The Pilot made plans for the eventual creation of a competitive white water rafting park, the restoration and expansion of hiking trails, and the revival of prime fishing and game land following the treatment of AMD.

Another barrier faced by Brownfields Pilots addressing mine-scarred land is a cultural one. Mining carries with it a proud history of a strong work ethic and tradition, hence, involving the community and soliciting feedback regarding redevelopment plans is essential for success. Dark Shade has had great success in redeveloping sites with community interests in mind. The Shade Creek Watershed Association (SCWA), an organization comprising local residents, was formed due to the outreach and educational efforts of the Dark Shade Pilot. The SCWA has assumed the role of community outreach and has also been tasked with continuous stream sampling in the watershed. Another example of this community involvement effort is the targeted Gahagan coal refuse pile. The coal refuse piles on the site were removed and sold, and the profits used for the construction of a community-suggested recreation area. As Deborah Walter explains, "The EPA Brownfields grant empowered the people of Central City to bring about change, and realize their vision of a clean watershed." The Pilot has used and continues to use newsletters, articles, and flyers describing redevelopment plans to motivate its local communities to become involved.

The Borough of Central City Brownfields Pilot has pioneered the use of the watershed approach as a tool for leveraging funding and recognition from numerous federal and state environmental and economic redevelopment programs. Pilots like Anderson County, Tennessee, and Kanawha, West Virginia, are using the watershed approach for the Kelly's Creek Watershed and Coal Creek Watershed, respectively, as tools for the cleanup and redevelopment of their mining communities.

The Small Business Liability Relief and Brownfields Revitalization Act signed by the President in January 2002 specifically cites mine-scarred lands within the definition of a brownfield. This updated definition creates opportunities for mine-scarred watersheds like Dark Shade to gain federal brownfields resources and begin on the path to economic and environmental recovery.

## **CONTACTS:**

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