

KELLY'S CREEK

Kanawha County, West Virginia

This project illustrates innovative approaches associated with: development of wastewater infrastructure; remediation of coal acid mine drainage and collaboration with a private land owner to explore redevelopment of a large tract of previously mined land.

KEY CHALLENGES AND STRATEGIES AT-A-GLANCE

Approximately 220 households do not have adequate wastewater treatment: A comprehensive plan has been created to address wastewater infrastructure, acid mine drainage, and development initiatives concurrently. The community has begun to engage related partners and to identify funding options.

AMD and other mining contamination: Kelly's Creek Communities Association (KCCA), the Office of Surface Mining (OSM) and the West Virginia Department of Environmental Protection (WVDEP) conducted research to determine critical discharge points.

Most available land for development is privately-owned: A preliminary redevelopment study funded by private land owners was conducted in 2002 as a result of initial discussions led by OSM. Opportunities for expanded land use studies were identified in facilitated planning sessions.

HIGHLIGHTING THE COMMUNITY DRIVER

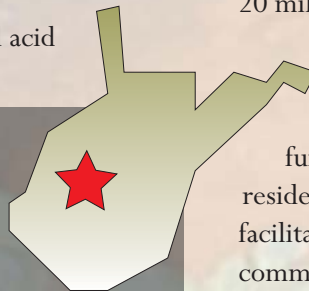
Along with Kanawha County, the Kelly's Creek Communities Association (KCCA) has been the key driver for revitalization efforts in the area since 1999 when it was created to "sustain, restore, and revitalize all that pertains to the watershed." The group is focused on watershed cleanup efforts including the development of wastewater infrastructure and acid mine drainage (AMD) remediation.

Community Overview Kelly's Creek Watershed

Population	6,000
Area	25 sq. mi.
Unemployment Rate	11%

The Kelly's Creek Watershed encompasses seven communities within Kanawha County, including two that are incorporated.

*Demographic information is approximated



COLLABORATING WITH PRIVATE LAND OWNERS ON REDEVELOPMENT OPPORTUNITIES

KCCA is focusing its efforts on working with private land owners to redevelop a portion of a 7,000-acre property (which includes previously mined lands) into residential housing. The Kelly's Creek community is only 20 miles southeast of Charleston, the state capital, and is a desirable location for a bedroom community.

As a result of initial discussions led by the Office of Surface Mining (OSM), the property owners funded a preliminary land use study focused on residential redevelopment options. The MSL Initiative facilitated discussions between the private owners and community regarding development options, and outlined a comprehensive plan for concurrently addressing development initiatives, wastewater infrastructure, and AMD in an integrated way. A solution for each component needs to be considered in light of the entire project.

OVERCOMING WATER QUALITY CHALLENGES

The Kelly's Creek area has significant water quality challenges related to wastewater and mining contamination.

- **Wastewater Infrastructure:** Kelly's Creek was once a community with 1,000 homes, small stores, and even an opera house. When the coal company left the area in the 1950s, the town soon declined. Today, approximately 220 households in Kelly's Creek have inadequate public wastewater treatment. Straight-pipe domestic waste discharges and failing septic systems are prevalent, and water quality sampling has shown high fecal coli form values. A wastewater feasibility study funded by the Canaan Valley Institute in 2001 provided critical information on cost estimates for several treatment options. Its findings show that the cost of a wastewater treatment system is prohibitively expensive, estimated between \$3-5 million. The community has initiated wastewater planning with the county and adjacent communities that could expand their treatment centers to serve residents.
- **Mining-Related Contamination:** Kelly's Creek has high levels of AMD and coal mine waste sedimentation in the creeks, as well as coal-waste piles from abandoned mines. KCCA, with support from OSM and West Virginia Department of Environmental Protection (WVDEP), conducted water monitoring of Kelly's Creek to determine which tributaries are the most critical to remediate, the AMD discharge points, and who is responsible for associated costs. Remediation planning is underway.

MOVING FORWARD

Kelly's Creek stakeholders understand that addressing wastewater infrastructure, AMD, and development initiatives is crucial to achieving their cleanup and revitalization goals. With the support of the MSL Initiative federal partners and other state and local partners, they will continue to move forward with the comprehensive plan. This project will serve as a model for communities across the county on how to work collaboratively with private land owners, develop infrastructure, and remediate AMD by engaging and coordinating a network of partners.

MSL INITIATIVE PROJECT CONTACTS

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KCCA advisory board meeting

RESOURCES

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

- *Regional Intergovernmental Council:* Provided technical support to develop grant applications and request for proposals for wastewater treatment and AMD remediation initiatives.
- *Canaan Valley Institute:* Researched wastewater treatment alternatives.
- *West Virginia Department of Environmental Protection:* Researched acid mine drainage sources.
- *Appalachian Regional Commission:* Worked with KCCA to develop a strategy that addresses wastewater treatment planning, land use planning, and AMD activities.
- *U.S. Department of the Interior, Office of Surface Mining:* Researched acid mine drainage sources and committed three full-time OSM VISTA (Volunteers In Service To America) to KCCA over the past several years.
- *U.S. Environmental Protection Agency:* Interviewed local stakeholders, identifying potential reuse options and federal assistance.
- *U.S. EPA Brownfields Assessment Grant (\$200,000):* EPA awarded Kanawha County, WV this grant in 2002 to target and assess brownfields properties in the Kelly's Creek Watershed.

Critical Stakeholders

Kelly's Creek Communities Association
Kanawha County
Private landowners
Public Service Districts
Regional Intergovernmental Council
West Virginia Department of
Environmental Protection
Appalachian Regional Commission
U.S. Department of the Interior,
Office of Surface Mining
U.S. Environmental Protection Agency

PENNSYLVANIA MINE

Summit County, Colorado

This project illustrates how mining-related cleanup and reuse issues associated with CERCLA and CWA liability are being explored to achieve innovative solutions.

CHALLENGES AND STRATEGIES AT-A-GLANCE

Liability issues associated with the Clean Water Act (CWA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): The Snake River Watershed Task Force (SRWTF) explored innovative solutions and conducted related environmental studies. The MSL Initiative partners have engaged key federal representatives and are working with the SRWTF to outline a facilitated, collaborative process to address liability issues.

BACKGROUND OF SUMMIT COUNTY

Summit County is known for its variety of outdoor recreational opportunities such as skiing, hiking, biking, and fishing. The ski resorts in the area—Keystone, Arapahoe Basin (A-Basin), and Breckenridge—are among the region's largest employers, and provide key sources of tax revenue. They are also among the region's primary water users; the contamination of the Snake River Watershed presently limits snow making and increases operation costs.

WATERSHED STAKEHOLDERS EXPLORE ENVIRONMENTAL SOLUTIONS

The local champion for the watershed is the Snake River Watershed Task Force (SRWTF). Formed in 1999, the task force includes members of the local business

community, representatives of state, local, and federal agencies, and other citizens concerned with the quality of the water in the watershed. The Keystone Center (a nonprofit not affiliated with the Keystone ski resort) facilitates and provides collaboration support for the SRWTF by bringing together stakeholders with an interest in the watershed.

Studies suggest that a primary source of the metals and acid in the greater watershed is the draining adit (discharge point) of the Pennsylvania Mine. Acid mine drainage (AMD) flows from this adit at 30-100 gallons per minute directly into Peru Creek, resulting in conditions that are too acidic to sustain aquatic life. This single orphaned mine is also responsible for a substantial portion of the metals in the watershed. In 1998, both Peru Creek and the Snake River were placed on the Clean Water Act's (CWA) Section 303(d) list of impaired waters due to the high concentration of zinc, copper, and other metals.

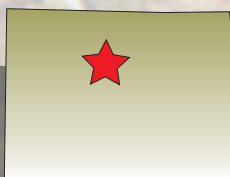
By addressing environmental issues, local stakeholders hope to achieve the following revitalization objectives:

- Delisting Peru Creek and Snake River from the CWA Section 303(d) list of impaired waters
- Facilitating economic growth by improving water quality
- Establishing a trailhead for the Continental Divide National Scenic Trail
- Establishing a trout fishery

Community Overview Summit County

Population	25,000
Area	600 sq. mi.
Unemployment Rate	4%

*Demographic information is approximated



COMPLEX CWA AND CERCLA LIABILITY CHALLENGES

Liability challenges and the significant cleanup costs continue to hamper revitalization efforts. The Clean Water Act (CWA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) pose liability concerns regarding water treatment, especially in light of long-term costs. Additionally, there are some issues regarding past and present land ownership of the Pennsylvania Mine that may need clarification. The challenges these laws pose are:

- **CWA:** The CWA prohibits the discharge of pollutants into a broad range of waters unless the discharge is authorized by a permit. Such a permit would likely require treatment by any party that acquires land, and could potentially subject them to perpetual liability. Significantly, the law has a provision that allows individuals adversely affected by discharges of contaminated water to bring a citizen suit for violations.
- **CERCLA (Superfund):** Past and current owners and operators of contaminated properties may be potentially responsible parties (PRP) and therefore may be subject to CERCLA liability for the cost or performance of a cleanup.

Any proposed remediation solution for the Pennsylvania Mine must address legal requirements of federal and state laws, and local ordinances. Remediation may take between 20 and 50 years to ensure the water body does not return to the list of impaired waters, and treatment may last into perpetuity.

COLLABORATIVE DECISION-MAKING PROCESS TO ADDRESS LIABILITY CHALLENGES

Key federal and regional representatives critical to resolving liability issues are optimistic that an innovative solution to address liability issues can be developed through a facilitated decision-making process. The process will focus not only on achieving an agreement to address the cleanup of the mine and surrounding watershed, but also on putting mechanisms in place to ensure a clear delineation of roles, timeframes, and accountability, while leaving flexibility for future events.

MSL INITIATIVE PROJECT CONTACT

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Metal deposits in Peru Creek

MOVING FORWARD

All partners support a facilitated decision-making process so that the community can achieve its revitalization objectives. The MSL Initiative will provide monetary support to initiate a process, which will include all affected parties. Ideally, this project will serve as a model for communities across the country on how to collaboratively coordinate partnerships and develop innovative solutions to environmental liability challenges.

RESOURCES

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

- *Keystone Center:* Provides facilitation support to Snake River Watershed Task Force.
- *U.S. Environmental Protection Agency:* Interviewed local stakeholders, identifying potential reuse options and federal assistance, and facilitated initial discussions with representatives that are critical to resolving liability issues.
- *U.S. EPA Brownfields Assessment Grant (\$200,000):* EPA awarded Summit County this grant in 2001 to target and assess brownfields properties.

Critical Stakeholders

Snake River Watershed Task Force
Ski resorts
Summit County
Colorado Department of Public Health and Environment
U.S. Department of Agriculture, Forest Service
U.S. Environmental Protection Agency
U.S. Forest Service
Environmental groups