Mine-Scarred Lands (MSL) Initiative Tool Kit

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Overview of the MSL Toolkit

The Mine-Scarred Lands (MSL) Initiative is an effort to improve coordination and collaboration on the cleanup and redevelopment of both hard rock and coal mine-scarred lands. The MSL Initiative has partnered with six communities on demonstration projects. The purpose of this tool kit is to help other communities cleanup and revitalize former mines by sharing models from the six projects and links to a range of resources.

Although the projects have not completed their cleanup and revitalization work, their experiences to date have provided information which might be useful to other mining communities.

The MSL Initiative Partners have been working on mine cleanup and reuse projects for decades, and their experience shows that there is no set strategy for mine revitalization. This resource follows the general phases through which many mine-scarred land projects progress and general considerations, which include:

- Creating a Vision for Revitalization
- Building Project Teams
- Obtaining External Support
- Developing a Revitalization Plan
- Technical Considerations
- Legal Considerations
- Funding Revitalization Projects

Disclaimer: The purpose of this document is to incorporate all the information from the online MSL Tool Kit into a print ready version. In some cases, information may be repetitive as writing for the internet is different from writing a print document. The online version is available at: http://www.epa.gov/aml/revital/msl/index.htm

MSL Initiative and Demonstration Projects

This tool kit shares what the MSL Initiative partners have learned to date working with six demonstration projects. This tool kit also incorporates information shared during the Mining Communities in Transition Workshop that was sponsored by EPA Region 8 as part of the EPA Brownfields 2005 national conference. This resource is a work in progress and will be updated periodically.

The MSL Initiative

The MSL Initiative is an effort established in 2003 to explore opportunities for multiple federal agencies to coordinate and collaborate with each other and with state partners and local mining communities on the cleanup and redevelopment of mine-scarred lands. The establishment of this interagency partnership was created in response to the passage of the Small Business Liability Relief and Brownfields Revitalization Act (referred to as the Brownfields Law) in 2002, which provides new legal and financial tools for the cleanup and revitalization of mining properties. The law uses the term

"mine-scarred lands" to describe mining-related brownfields properties.
http://www.epa.gov/brownfields/sblrbra.htm

The following agencies established the MSL Initiative:

- Appalachian Regional Commission (ARC)
- U.S. Army Corps of Engineers (USACE)
- U.S. Department of Agriculture (USDA)
- U.S. Department of Housing and Urban Development (HUD)
- U.S. Department of the Interior (DOI)
- U.S. Environmental Protection Agency (EPA)

Since its inception, new partnerships have developed with other federal and state agencies, local governments, communities, and non-profit and private sector organizations.

Demonstration Projects

The MSL Initiative partners sought communities to participate in the MSL Initiative as Demonstration Projects. The six participating communities reflect the variety and scale of challenges that are shared by mining communities across the country. The communities include:

Bullfrog Mine, Beatty, Nevada
An 81-acre portion of the Bullfrog Mine in Beatty, Nevada was transferred to the Beatty Economic Development Corporation in 2005 from the Barrick Gold Corporation. The community is interested in using this property and surrounding public lands to develop a solar, wind and/or geothermal renewable energy facility. The key challenge for this community is to develop relationships with partners that are integral to energy development decisions, especially the Bureau of Land Management (BLM), which manages lands that would likely be involved in the project. The Nevada Energy Office provided significant leadership in convening stakeholders including the Nevada Energy Task Force, Department of Energy, BLM, research labs and utilities. The MSL Initiative partners and the community project team organized an information sharing gathering in July 2005 in Reno, Nevada, to discuss renewable energy opportunities and next steps. This information was used to develop an action plan that outlines steps needed to develop a renewable energy power park.

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Cranberry Creek Corridor, Hazleton, Pennsylvania
The Cranberry Creek Gateway Park is a 366-acre former anthracite coal mine. The community is interested in revitalizing this site into a multi-reuse park with commercial, residential and recreational components. The key challenge for this project is integrating cleanup, compaction, infrastructure and other site development activities. The community held a convening of federal and state partners to outline potential funding sources and phases of redevelopment activities. To ensure the community was informed and engaged in the revitalization process, a community engagement plan was also developed.

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Animas River Corridor, San Juan County, Colorado
The Animas River Corridor project focuses on two mixed public and private ownership sites: a two-mile section of the Animas River through the Town of Silverton and the Eureka Townsite, an abandoned mining town eight miles upriver from Silverton. The community is interested in revitalizing the corridor for recreational reuse that incorporates art, historic preservation and ecological restoration. The key challenge for this project is to negotiate mixed use land ownership issues and develop reuse goals that are supported by the entire community. The community is working closely with the Bureau of Land Management and Sunnyside Gold to negotiate a three-party land trade at the Eureka Townsite. The project partners used a comprehensive public engagement process to determine reuse goals, and federal and state partners met to begin identifying financial and technical assistance resource opportunities.

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Kelly's Creek Watershed, Kanawha County, West Virginia
The Kelly's Creek Watershed project is focused on innovatively integrating three activities: development of wastewater infrastructure, remediation of acid mine drainage, and revitalization of privately owned land into residential housing. The community outlined an action plan for moving forward with all three separate, but related activities. It has been working closely with the private land owner and county to determine how public and private funding sources can be combined to support infrastructure and housing development. The community has also been working closely with the West Virginia Department of Environmental Protection and Office of Surface Mining to identify sources of mine contamination in order to obtain remediation funding.

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Pennsylvania Mine, Summit County, Colorado
The Pennsylvania Mine project is focused on improving water quality in the Snake River Watershed. The key challenges for this project are significant water treatment liability concerns associated with the Clean Water Act and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and technical difficulties due to the isolated location of the adit and extreme climate. The community has been working closely with EPA to explore innovative options to address liability concerns. It has also researched technical remediation alternatives.

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Stone Creek Tipple Site, Lee County, Virginia
The Stone Creek Tipple Site project is a 1.5-acre site that is going to be revitalized into an outdoor classroom. It is one of approximately 70 abandoned coal loading facilities in Appalachia. These sites are not eligible for reclamation funding through the Surface Mining Control and Reclamation Act (SMCRA). The community has ensured stakeholders support reuse into an outdoor classroom, negotiated with property owner, obtained a range of funding sources, conducted an environmental assessment, and outlined next steps for development.

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Additional information on the Mine-Scarred Lands Initiative and the Demonstration Projects is available in the ***Mine-Scarred Lands Year One Report***.
http://www.epa.gov/brownfields/policy/initiatives_sb.htm#msl

The federal partners have been working with the projects since the summer of 2004. The experiences learned through this Initiative have helped the federal partners develop a more integrated approach to assisting local communities with mining property cleanup and revitalization.

Creating a Vision for Revitalization

Soliciting stakeholders' input at project onset allowed the MSL Initiative communities to identify innovative and realistic options for reuse. The MSL Initiative partners gathered information both through informal conversations and more formal interviews and meetings.

People to Talk To

The MSL Initiative partners collected a broad range of perspectives by interviewing stakeholders such as:

- Individual citizens
- Local government officials
- Civic groups, such as watershed organizations
- Homeowners associations
- Historic and cultural organizations
- Social service organizations
- Environmental organizations
- Recreation and tourism interests
- Faith-based organizations
- Business and industry interests
- State and tribal environmental and economic development officials
- Federal officials
- Mine owners

In many cases, obtaining stakeholders' perspectives at the beginning of the project and continuing to work with stakeholders throughout the process contributed to the success of the project.

Questions to Ask

The type of information that was gathered to identify revitalization opportunities includes:

Community Background

- What are the economic drivers of the community (e.g., manufacturing, tourism)?
- How close is the community to other population centers, transportation corridors, or other amenities?
- What kind of assets do individuals and organizations have (e.g., technical skills, political influence, fundraising experience)?
- Are there any key landmarks or historical and cultural areas that should be preserved?
- What are the groups or organizations that help create a sense of community and how do they invite citizens to participate?
- What are the demographics of the community (e.g., age, income, education)?

Previous Revitalization Efforts

- What was the scope of previous efforts?
- What resources were used?
- What partners and stakeholders were involved?
- What lessons were learned?

Community Revitalization Priorities

- What are the revitalization goals of the community?
- Are the goals identified and accepted by the community and what are the associated concerns?
- Are there any challenges with this reuse option(s)?
- Who are some potential partners to engage and what role might they play?

Mine Parcel Questions

- Has an environmental assessment been conducted?
- What kind of contamination does the site have?
- Who owns the property and are they engaged in reuse planning?
- Are there any liability issues at the site?
- What kind of infrastructure does the site have?

Project Examples for Creating a Vision for Revitalization

Understanding Community Assets and Needs through a Formal Interview Process
Representatives of the MSL Initiative visited each of the six demonstration project communities to tour the mine-scarred land properties and meet with other federal and state partners and community members. MSL Initiative representatives gathered information on community background, previous revitalization efforts, visions for revitalization, and challenges to achieving these goals. They developed a "Reuse Inventory Report" to share information for each project. ***The Stone Creek Tipple Site Reuse Inventory Report (PDF, 206K, 14pp)*** provides an example of the scope and content of these reports. These reports were helpful in determining next steps for each project and engaging new partners, especially federal partners. http://www.epa.gov/aml/revital/msl/pdfs/stoneinv.pdf

Resources for Creating a Vision for Revitalization

EPA Green Communities
http://www.epa.gov/greenkit/
Through a 5-step planning process, this resource provides tools and information to help a community help itself become more sustainable. The process includes a community assessment to help identify the current state of the community.

National Park Service River, Trails, and Conservation Assistance (RTCA) Program Community Tool Box
http://www.nps.gov/phso/rtcatoolbox
This resource outlines tried and true public participation methods RTCA has learned from the communities where it work works.

Appalachian Regional Commission Online Resource Center
http://www.arc.gov/index.do?nodeId=48
ARC provides resources for community strategic planning, including understanding a community's assets and needs.

Building Project Teams

Building a Core Project Team

The demonstration projects have shown that establishing core project teams can foster innovative thinking and maintain momentum for a project over the long amount of time it takes to revitalize former mine sites. There is no single formula for building the right core project team. In some communities, a project team developed naturally among people focusing on a problem of common concern. In others, a visionary project leader engaged community members and other stakeholders in a specific revitalization vision. Some considerations learned through the projects include:

Seek members with varied skills and expertise
Having a team with a variety of skills and expertise (e.g., technical, leadership, communication, education) contributes to successful decision making.

Establish a sense of need and direction
Teams with a common understanding of their goals and the various roles of team members are more likely to be successful.

Utilize natural leaders
During many projects, a project leader emerged as the community assembled their core team. These leaders often have status in the community and can become the "face" of the project. Effective leaders are able to communicate, generate enthusiasm for the project,-engage volunteers, and delegate responsibility efficiently.

Sustain engagement
Some communities have identified a coordinator to ensure that mining revitalization activities stay on track and that partners are engaged in the right actions at the right time. This person is often the project leader, but does not have to be.

Project Examples Related to Building a Core Project Team

Obtaining Needed Expertise to Develop a Well-Rounded Project Team:
The Beatty Renewable Energy Project
The Nye County Natural Resources Office was integral to Nye County receiving an EPA Brownfields grant and foresaw the possibility of using the Bullfrog Mine property for renewable energy development. However, the Nye County Natural Resources Office recognized that it needed the assistance of an economic development specialist and a local community leader to identify and reach out to potential project partners. New partners like the Nye County Economic Development Office and the Beatty Economic Development Corporation, a community organization, are bringing the broad-based expertise necessary for this project to succeed.

Project Leadership to Coordinate Stakeholders:
The Stone Creek Project
The Daniel Boone Soil and Conservation District serves as the coordinator among project partners and stakeholders. It is also responsible for motivating project activities to ensure they are conducted in a timely manner. Some of the activities Daniel Boone has conducted include: briefed Lee County staff to obtain county support for an outdoor classroom on the former tipple site, held public meetings and open houses to inform the community about and gain support for the project, and served as the liaison between the MSL Initiative federal partners and the Lee County community.

Identifying and Engaging Partners and Stakeholders

Partners are individuals or organizations that are willing to lend their resources and skills to a project, while stakeholders are individuals or groups who are potentially affected by the project and have the power to block or delay project activities. Since partners and stakeholders may change during the different phases of the projects, the MSL Initiative communities found it important to engage them both throughout the revitalization process.

Engage a broad network of partners
MSL communities engaged partners by describing how supporting the project helped partners achieve their goals or satisfy their interests. Examples of potential partners and stakeholders included:

- Active community residents
- Local subject matter experts
- Members of existing citizen organizations that are concerned with the property in question or the goals of the revitalization effort
- Business and industry
- Chamber of Commerce
- Local, state, tribal and federal government representatives ranging from environmental regulatory agencies to agencies that finance infrastructure development
- Local colleges and research institutions
- Volunteer organizations
- Mine owners

Engage state, tribal and federal partners
Many communities have a long history of working with government partners, which often include local/state/tribal environmental protection and economic/community development agencies. Local county planners can help to identify government contacts, if they are not already engaged.

Engage stakeholders early in the project
- Communities reduced the likelihood that stakeholders would block project efforts by involving them early in the process. In many cases, stakeholders provided new perspectives that helped to solve project challenges.
- Consider funding and technical assistance needs when identifying partners to engage.
- Continue to ask for support and create energy around the project by highlighting progress.

Project Examples Related to Identifying and Engaging Partners and Stakeholders

Engaging Partners to Develop a Well-Rounded Project Team:
The Beatty Renewable Energy Project
The possibility of developing solar power in southern Nye County, Nevada had been discussed for a long time. The Nye County Natural Resources Office proposed using the Bullfrog Mine property for renewable energy development early in 2004. However, the project did not take shape until partners like the Nevada Energy Office, U.S. Department of Energy, Bureau of Land Management and renewable energy laboratories became involved. The MSL Initiative partners engaged a few critical partners who became excited about the project and discussed it with their colleagues. The list of partners continued to expand as information about the project was shared broadly by word of mouth.

Project Leadership to Coordinate Stakeholders:
The Stone Creek Project
The Daniel Boone Soil and Conservation District and the Virginia Department of Mines, Minerals and Energy, were instrumental in coordinating the support of state and local agencies and stakeholders to provide resources for the Stone Creek revitalization project. Collectively, they coordinated with and obtained support from the following project partners:

- Office of Surface Mining (OSM) and the Fish and Wildlife Service (FWS) cooperated to fund an intern to apply for a Brownfields Assessment grant for the broader region.
- U.S. EPA conducted a Phase I and II Targeted Brownfields Assessment on the property.
- U.S. Fish and Wildlife Service to provide funds for purchasing the property, and cleanup and redevelopment.
- National Fish and Wildlife Foundation to provide funds for constructing the outdoor classroom.
- Virginia Department of Transportation to perform stream bank restoration.
- Lee County Board of Supervisors and Lee County School Board to write a letter of commitment to use the property for an outdoor classroom.
- The Virginia Department of Forestry to provide seedling for a riparian zone planting.

Resources Related to Identifying and Engaging Partners and Stakeholders

EPA, Getting In Step: A Guide for Conducting Watershed Outreach Campaigns and Getting in Step: Engaging and Involving Stakeholders in Your Watershed
http://www.epa.gov/owow/watershed/outreach/documents/
These stakeholder guides provide the tools needed to effectively identify, engage and involve stakeholders throughout a watershed project.

EPA Green Communities
http://www.epa.gov/greenkit/
Through a 5-step planning process, this resource provides tools and information to help a community help itself become more sustainable. Step 1 includes tools on how to involve the community.

Trout Unlimited Grassroots Guide
http://www.tu.org/site/apps/lk/content2.aspx?c=7dJEKTNuFmG&b=478363
A resource guide to assist communities in identifying mine-related problems, organizing communities and working to improve water quality and wildlife habitat.

EPA, Environmental Justice Collaborative Model
http://www.epa.gov/compliance/environmentaljustice/
This resource provides an overview of some of the key aspects for any collaborative process including issue identification, building partnerships, strategic planning and project implementation.

EPA, Community Action for a Renewed Environment (CARE) Resource Guide
http://cfpub.epa.gov/care/
This guide is designed to help communities in the CARE program, who go through a multi-step process: getting organized, analyzing risks, reducing risks, and tracking progress. It can be used by anyone interested in any aspect of working with communities.

OSM Intern Program
http://www.osmre.gov/acsi/internindex.htm)
This site provides an index to applications and sponsorship information for individuals interested in the Office of Surface Mining's Watershed Intern Program.

Involving the Larger Community

Many of the MSL Initiative communities found that it was advantageous to inform and involve the broader community in their revitalization projects. This not only helped to build community support for projects, it also produced new ideas and minimized the potential for conflict and delays. Some considerations learned through the projects include:

Ensure that all stakeholder issues and groups are identified early in the project
Some MSL communities enlisted the help of facilitation experts in this effort.

Provide clear and factual information about the project on a predictable and consistent basis

Make use of existing communication channels in addition to developing new ones
For example, some MSL communities provided an update of the project at other organizations' meetings or added a written update within a community newsletter.

Use a variety of outreach tools and mechanisms to provide information about the project
Some project teams: wrote fact sheets, newsletters, press releases, and issue papers; created Web sites; gave presentations and briefings; and held focus groups and public meetings.

Identify opportunities for public input associated with project milestones
Project teams learned that it is important to be clear about the kind of information they needed from their community, how they hoped to get it, and what they intended to do with it. They reported back to the community to describe how their feedback was used and how it influenced the project plan or decision. Be open and transparent in making decisions.

Project Examples for Involving the Larger Community

Informing and Involving the Community:
The Cranberry Creek Gateway Park Project
The Cranberry Creek Gateway Park project is a 360-acre site that is envisioned to result in a gateway park featuring housing, commercial facilities and recreational opportunities. This project will take place in multiple phases (i.e., reclamation, redevelopment, sustained use). The Cranberry Creek Committee realized that obtaining community support and maintaining it over the lengthy duration of the project was essential for the project to succeed. The project team developed the ***Cranberry Creek Gateway Park Community Engagement Plan (PDF, 934 K, 27p)*** to provide a framework for planning and implementing community engagement activities. The plan is divided into four essential steps: http://www.epa.gov/aml/revital/msl/pdfs/crancep.pdf

Identify the community, stakeholders and partners – defines the differences between and among these groups and the roles each may play in the project.

Implement communications and outreach – describes a range of approaches and mechanisms for keeping the community informed.

Obtain and using input – describes a variety of mechanisms for obtaining input and reporting back to the community on how the input was used.

Evaluate and Adapt – provides strategies for evaluating community engagement activities and making changes to meet the needs of the community.

Creative Community Engagement Ideas:
The San Juan County Project
Plans are underway to revitalize a 2-mile stretch of the Animas River Corridor and the Eureka Townsite for recreational reuse in Silverton, Colorado. To develop support from community members and obtain their feedback on types of reuse, the core project team encouraged its community to get involved in a variety of ways. For example, the team developed a scrapbook to capture the oral history and portray the community's experiences with the river, began to publish the ***Animas River Corridor Revitalization Plan Newsletter (PDF, 324 K, 2 pp)***, held public meetings focused on the project, and provided updates and solicited input on reuse ideas by attending other community groups' meetings. The Animas River Stakeholders Group assisted the core project team in planning the Animas River Festival, a critical component in mobilizing the community to value the river corridor and volunteer to help with its cleanup and future revitalization. http://www.epa.gov/aml/revital/msl/pdfs/animas.pdf

Resources for Involving the Larger Community

International Association for Public Participation Tool Box
http://www.iap2.org/associations/4748/files/toolbox.pdf
This guide provides a brief overview of different outreach with associated general tips.

EPA, Getting In Step: A Guide for Conducting Watershed Outreach Campaigns and Getting in Step: Engaging and Involving Stakeholders in Your Watershed
http://www.epa.gov/owow/watershed/outreach/documents/
These stakeholder guides provide the tools needed to effectively identify, engage and involve stakeholders throughout a watershed project.

National Park Service River, Trails, and Conservation Assistance (RTCA) Program Community Tool Box
http://www.nps.gov/phso/rtcatoolbox/
This resource outlines tried and true public participation methods RTCA has learned from the communities where it works.

EPA Superfund Community Involvement Handbook
http://www.epa.gov/superfund/tools/index.htm
Though this resource is written specifically for communities with Superfund sites, it provides general information that is valuable for any project.

EPA Tools for Public Involvement
http://www.epa.gov/publicinvolvement/
This site lists a variety of resources to support any public participation activity.

Obtaining External Support

Involving Subject Matter Experts

The Demonstration Projects have shown that even the most well-rounded project teams sometimes have to seek expert assistance to deal with the multi-disciplinary issues and challenges associated with revitalizing former mines. For example, some of the MSL Initiative communities found that they needed an environmental consultant to understand contamination issues, an engineer to assess cleanup options, an attorney to help explore liability management approaches, or a community planner to evaluate economic development possibilities. Careful selection of subject matter experts and clear expectations about the tasks they were to perform was essential to project success. Considerations learned from these projects include:

- Be clear about what services the expert should provide and identify the points in the project where those services would provide the greatest benefit.
- Ensure experts can demonstrate relevant experience (e.g., have they done this kind of work before; can they provide project descriptions and references, etc.).
- Explain to the experts how their assistance fits into the overall project context. Be clear about the desired product, when it needs to be completed to meet related deadlines, and what role the expert will play in project team decisions.
- Jointly draft a statement of work with the expert so there is a shared understanding of tasks, timelines and deliverables.
- Have the expert present information to the broader community on what he is doing, when appropriate.

Resources for Involving Subject Matter Experts

CAL-EPA Guide to Selecting an Environmental Consultant
http://www.dtsc.ca.gov/SiteCleanup/Brownfields/upload/PUB_SMP_Guide-to-Selecting-a-Consultant.pdf
Though this resource contains some California-specific information, it provides general information for any party on developing an RFP and selecting an appropriate environmental consultant.

Using Outside Assistance with Project Planning and Coordination

Some MSL communities found that using outside support allowed project team members to focus more on the substance of their efforts rather than worrying about managing the project process. A facilitator is a neutral third party who can provide this support. In many cases the MSL Initiative communities used a local facilitator who had the right skills and was trusted by all participants. In other cases, they used a facilitator from outside of the community. Outside assistance can be helpful for activities such as:

- Managing and coordinating the overall revitalization process
- Identifying or working with stakeholders or partners and designing a process for community involvement
- Facilitating an exchange of information
- Assisting parties in reaching an agreement
- Managing conflicts that arise

Project Examples Related to Using Outside Assistance with Project Planning and Coordination

Long-term Facilitation Support for a Watershed Group:
Pennsylvania Mine Project
The Snake River Watershed Task Force was established in 1999 to improve water quality in the Snake River Watershed in Summit County, Colorado. Since that time, The Keystone Center has provided ongoing facilitation support. The Keystone Center helped the Task Force form a diverse group with representatives from the business community, local, state and federal government agencies, non-profit organizations and local residents. It continues to motivate and coordinate project activities. This support has allowed the Task Force members to analyze technical issues of the site instead of managing process oriented activities.

Facilitation Support for an Information Exchange:
Beatty Renewable Energy Project
A neutral consultant provided facilitation support for a key one-day information exchange meeting among partners and stakeholders involved in the Beatty Renewable Energy Project. This meeting proved to be a timely opportunity for partners to come together to:

- Share information on the background of the project
- Discuss the potential for using the former mine site and surrounding areas for renewable energy development
- Identify the challenges associated with renewable energy development
- Identify steps needed to conduct a feasibility study

- Establish an organization structure to support the project into the future

The facilitator was critical to helping the partners develop a realistic agenda, keeping the participants focused and on schedule during the meeting, and helping participants outline key next steps for the project.

Facilitation Support for a Planning Meeting:
The Cranberry Creek Gateway Park Project
Neutral consultants provided facilitation support for a Cranberry Creek Steering Committee meeting focused on developing a community engagement plan for their project. The facilitators reviewed the draft plan with the Committee and worked with the Committee to outline key messages that needed to be shared with the community; who the key partners and stakeholders were; and a timeline of community engagement activities. By having the facilitators lead the meeting, participants were able to focus solely on brainstorming. The facilitators also ensured that all participants had an equal opportunity to share their ideas.

Developing a Revitalization Plan

Determining Reuse Goals

Among the six Demonstration Projects, a range of reuse goals were identified including a renewable energy park, residential reuse, recreational reuse, outdoor environmental classroom, and multi-reuse with commercial, residential and recreational components. Many of the MSL Initiative communities gathered a broad range of stakeholders' perspectives and held visioning sessions to brainstorm and determine reuse goals.

Some considerations learned from the Demonstration Projects include:

- Align reuse goals with economic transition needs by understanding how the community fits into the regional economy.
- Consider a variety of reuse ideas including industrial, residential, commercial, recreational, historical preservation and multi-reuse options.
- Involve stakeholders and the community in the reuse planning effort through public meetings or other strategies. Often, MSL community members contributed unexpected and innovative reuse and revitalization ideas.
- Assess how property size, location, zoning and infrastructure support reuse ideas.
- Consider hiring a consultant to conduct a market feasibility study to help determine the project's likelihood of success by analyzing demographic, economic and market data.
- Choose a reuse option based on the ideas shared through the planning process rather than on what funding resources are available at the time.

Note that sometimes reuse goals changed over the life of a project.

Project Examples for Determining Reuse Goals

Collecting Public Feedback:
The San Juan County Project
The San Juan County project is revitalizing a segment of the Animas River Corridor for recreational reuse. The planning team has collected public ideas and concerns in a variety of ways including:

- Attending local community groups' meetings.
- Holding public forums focused on the project.
- Collecting stories and memories of the Animas River. Goshen College students interviewed community residents. These shared experiences helped shape the San Juan County reuse plan and will eventually be incorporated into an exhibit about the Animas River. . Sharing water quality data and assessments of mine related impacts. This information was provided by the Animas River Stakeholders Group. Students from Fort Lewis College helped gather associated data.
- Hosting river walks and a river cleanup to encourage community members to investigate the corridor and participate in immediate actions to improve it.

Public input was recorded in the ***Animas River Corridor Revitalization Project: Technical and Financial Assistance Workshop (PDF, 752 K, 31 pp)***. This document outlines the community's reuse goals, provides concept plans that show what the area could look like in the future, describes the specific activities that need to be completed, and provides initial ideas on potential financial and technical assistance support. The document provided background information for a convening of federal, state and local agency representatives in Silverton, Colorado in August 2006, whereby partners had the opportunity to identify financial and technical assistance opportunities and discuss how they can be integrated. http://www.epa.gov/aml/revital/msl/pdfs/animwkshp.pdf

Including a Market Feasibility Study into Reuse Planning:
Cranberry Creek Gateway Park Project
The Cranberry Creek Board of Directors is working to ensure the revitalization project will improve regional economic competitiveness. They funded a marketability and feasibility analysis that is currently underway to:

- Characterize real estate and economic market conditions.
- Identify feasible development options.
- Establish a business-oriented strategic plan for successful redevelopment.

Resources for Determining Reuse Goals

USDA Rural Information Center
http://www.nal.usda.gov/ric/ricpubs/ricpubs.htm
This resource provides general advice and resource recommendations for a range of reuse ideas such as tourism, historical preservation and housing.

EPA Green Communities
http://www.epa.gov/greenkit/
Through a 5-step planning process, this resource provides tools and information to help a community help itself become more sustainable. A visioning process is included with tools to help identify an end goal.

EPA, SMARTe
http://www.smarte.org/smarte/home/index.xml
A Web-based decision support system for developing and evaluating future reuse scenarios for potentially contaminated land. SMARTe contains guidance and analysis tools for all aspects of the revitalization process including planning, environmental, economic and social concerns.

Appalachian Regional Council Online Resource Center http://www.arc.gov/index.do?nodeId=48
ARC provides resources for community strategic planning.

The Vintondale, PA AMD&ART project
http://www.amdandart.info
This project is a model of revitalizing a mine-scarred land into a recreation area with public art pieces that explore and honor community history. The Web site describes all aspects of the project from initial planning through acid mine drainage reclamation and wetlands development. It includes information on all funding sources used.

National Park Service River, Trails, and Conservation Assistance (RTCA) Program Community Tool Box
http://www.nps.gov/phso/rtcatoolbox
This resource outlines tried and true public participation methods RTCA has learned from the communities where it works.

Developing and Implementing Project Plans

Many of the MSL Initiative communities developed project plans that recorded their reuse goals and outlined associated tasks, timelines and expected project costs. In some cases they described how the outlined tasks would be implemented. For example, some project teams decided to break into committees by type of activity (e.g., advisory, fundraising, community engagement, and technical).

The ***Beatty Area Renewable Energy Action Plan (PDF, 1.3M, 23 pp)*** is a detailed plan that describes the steps necessary to engage stakeholders and partners, obtain funding, and conduct a feasibility study on renewable energy opportunities. It outlines specific roles and responsibilities, an expected timeline of activities, and projected costs. The Stone Creek Work Plan (PDF, ?) is a less detailed plan, but provides an overview of project activities such as assessment, acquisition, cleanup and redevelopment.
http://www.epa.gov/aml/revital/msl/pdfs/beatty.pdf

Using Maps and Charts to Describe the Project:
The ***Kelly's Creek Flow Chart of Project Activities (PDF, 118 K, 2 pp)*** is an example of how a flow chart can show how project activities fit together and highlight decision points. This guide helps to measure progress and maintain motivation over the long time it often takes to complete a mine revitalization project. The San Juan County ***Animas River Corridor Silverton Concept Plan (PDF, 143, 1pp)*** and ***Eureka Townsite Revitalization Concept Plan (PDF, 138K, 1pp)*** are examples of visual concept plans that show what the project may look like in the future.
http://www.epa.gov/aml/revital/msl/pdfs/kellys_flow.pdf
http://www.epa.gov/aml/revital/msl/pdfs/animasplan.pdf
http://www.epa.gov/aml/revital/msl/pdfs/eurekaplan.pdf

Resources for Developing and Implementing Project Plans

Appalachian Regional Commission Online Resource Center
http://www.arc.gov/index.do?nodeId=48
ARC provides resources for community strategic planning.

EPA Green Communities
http://www.epa.gov/greenkit/)
Through a 5-step planning process, provides tools and information to help a community help itself become more sustainable. An action planning process is included in the "How Do We Get Their" section.

National Park Service River, Trails, and Conservation Assistance (RTCA) Program Community Tool Box
http://www.nps.gov/phso/rtcatoolbox/
This resource outlines tried and true public participation methods RTCA has learned from the communities where it work works.

Technical Considerations

Overview of Technical Challenges and Resources

Revitalizing former mines involves a number of technical challenges including, but not limited to the following:

Acid Mine Drainage (AMD)
Acid water discharge with elevated metal content seeps into streams. This can degrade ecosystems and threaten public water supplies.

Stockpiled Waste Rock and Tailings
Wastes from mining operations are often left behind in large gob piles or waste dumps. These can contribute to metal loading in streams and rivers.

Other Contamination
Other mining-related contaminants may include chemicals from leaking containers left behind after a mine has closed, chemicals involved in mining operations such as cyanide and arsenic, and PCBs from electrical transformers used at mining operation sites. These can seep into the ground water and soil.

Degraded Physical Structures
Open shafts, rotting support structures, equipment, electrical transformers, and open pits pose a safety threat.

Insufficient Infrastructure
Rural mining communities often have complex runoff management issues and inadequate wastewater treatment and drinking water facilities.

Isolated Properties
Some mining properties are isolated in areas that are difficult to reach due to the topography or climatic conditions. These properties may be unable to connect to electrical power or other infrastructure systems.

Compendium of Technical Resources

EPA Abandoned Mine Lands Team Technical Resources http://www.epa.gov/aml/tech/index.htm
This page contains technical reports, studies and meeting proceedings covering such topics as: AML contamination assessment and characterization techniques; types of waste found at AMLs; technologies used to remediate contamination found at AMLs; modeling and forecasting impacts from mining; and financial and bonding studies. This site also includes the AML Technology Research Summaries, which enable the user to input property information in order to search for appropriate technologies.

The Brownfields and Land Revitalization Technology Support Center
http://www.brownfieldstsc.org/miningsites.cfm
This site provides an overview of mining site redevelopment, as well as new and innovative approaches to more efficiently characterize and cleanup those sites. One of their key resources is the Mine Site Cleanup for Brownfields Redevelopment: A Three-Part Primer.

Office of Surface Mining Research and Technology and AMD Treatment
http://www.ott.wrcc.osmre.gov/library/hbmanual.htm
OSM provides a listing of resources on technical developments to assist with addressing acid mine drainage treatment and other associated environmental concerns.

Bureau of Land Management Abandoned Mine Land Program Technical Resources
http://www.blm.gov/aml/ap_techresource.htm
This page contains technical reports on topics such as passive treatment technologies, abandoned mine waste repositories and risk management criteria.

Cleaning up Abandoned Hardrock Mines in the West: Prospecting for a Better Future
http://www.centerwest.org/acidmine.htm
This resource provides technical information associated with the cleanup of environmental impacts for hardrock mine-scarred lands.

Trout Unlimited Grassroots Guide
http://www.tu.org/site/apps/lk/content2.aspx?c=7dJEKTNuFmG&b=478363
A resource guide to assist communities in identifying mine-related problems, organizing communities, and working to improve water quality and wildlife habitat.

EPA, Road Map to Understanding Innovative Technology Options for Brownfields Investigation and Cleanup
http://www.brownfieldstsc.org/roadmap/home.cfm
The Road Map outlines the steps involved in site investigation and cleanup and introduces stakeholders to the range of technology options and available resources.

EPA, SMARTe
http://www.smarte.org/smarte/home/index.xml
A Web-based decision support system for developing and evaluating future reuse scenarios for potentially contaminated land. SMARTe contains guidance and analysis tools for all aspects of the revitalization process including planning, environmental, economic and social concerns.

Obtaining Information on Water Quality Treatment Alternatives

Treatment of acid mine drainage and metal loading into watersheds is site specific as each mining site has unique flow rates, contaminants and site location. There are, however, common types of water quality treatment systems:

Source control
Methods that prevent the drainage from a mining adit to occur or improve the quality of the discharge.

Active treatment
Methods which use ongoing inputs of artificial energy and/or chemicals to improve water quality.

Off-site treatment
Active treatment methods that are applied off-site. For example, a treatment center could be constructed that pumps contaminated water from a variety of mines to one central treatment plant.

Semi-passive treatment
Methods that involve natural physical, biochemical and geochemical actions and reactions. For example, an adjacent wetland could help restore water quality.

There is a significant amount of technical information on the Internet such as technical reports and case studies of treatment alternatives. Conducting Internet research is a good way to understand the technical issues. These are complicated issues and in many cases, an environmental consultant may need to be brought in to analyze the options.

Project Example Related to Obtaining Information on Water Quality Treatment Alternatives

How to Determine Treatment Options:
The Pennsylvania Mine Project
Pennsylvania Mine stakeholders researched preliminary treatment design considerations and developed the ***Pennsylvania Mine MSL Demonstration Project Technology Alternatives Assessment.*** Information was collected from a range of technical reports that describe best available technologies for sites similar to Pennsylvania Mine. The following criteria were used to develop a list of treatment alternatives that meet the water quality goals, are practical, and have acceptable costs:
http://instaar.colorado.edu/SRWTF/reports.htm

- **Effectiveness:** The potential for the treatment option to achieve remedial goals established for the site.
- **Area required**
- **Sludge production**
- **Complexity:** The amount of human intervention that would be required.
- **Reliability:** The ability of the treatment option to perform as indicated by similar systems.
- **Cost:** Major costs are construction, operation and maintenance, required chemicals, and sludge management.
- **Community and Regulatory Acceptance:** This is especially important with this project due to associated liability concerns.

The Snake River Watershed Task Force intends to develop a Request for Proposals (RFP) to conduct site specific design to properly size the various components and assure workability.

Legal Considerations

Statutory Framework for Mine Revitalization and Related Challenges

The key federal statutes that are applicable to the cleanup and reuse of former mines are described below. Sometimes these laws overlap or there are gaps in revitalization assistance. Some of the MSL communities have had to address regulatory complexities involving potential liability for innocent parties and gaps in what reclamation assistance will provide.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
http://www.epa.gov/superfund/action/law/cercla.htm
Provides funding for cleanups, either through payment for or implementation of cleanups by responsible parties.

Surface Mining Control and Reclamation Act (SMCRA)
http://www.osmre.gov/smcra.htm
Created the Abandoned Mine Land (AML) Fund to pay for remediation associated with pre-1977 coal mining activities, and regulates current coal mining activity and reclamation.

Clean Water Act (CWA)
http://www.epa.gov/r5water/cwa.htm
Regulates discharge of pollutants into navigable waters, including those associated with mine-scarred lands.

Small Business Liability and Brownfields Revitalization Act (Brownfields Law)
http://www.epa.gov/brownfields/sblrbra.htm
Authorizes funding to assess and clean up mine-scarred lands and provides certain liability clarifications.

General Mining Law of 1872
http://www.blm.gov/ca/bakersfield/1872.html
Granted free access to prospect for minerals on public lands and allows for the purchase of these lands.

Clean Air Act (CAA)
http://www.epa.gov/oar/caa/
Establishes federal air quality standards and regulates polluting emissions through state implementation plans.

Resource Conservation and Recovery Act (RCRA) http://www.epa.gov/region5/defs/html/rcra.htm
Governs the management of solid and hazardous waste, including those associated with mine-scarred lands.

Project Examples Related to Statutory Framework for Mine Revitalization and Related Challenges

Potential Liability for Innocent Parties:
The Pennsylvania Mine Project
The Snake River Watershed Task Force is a group that was established in 1999 to improve water quality in the Snake River watershed in Summit County, Colorado. The group has broad representation from the business community, local, state and federal governments, non-profit organizations, and community residents. Despite the fact that it has developed extensive expertise on the site's contamination issues and treatment options, it is unable to move forward due to liability concerns associated with the Clean Water Act. This law has a provision that requires a permit to discharge any pollutants into the watershed. The permit would likely require any party that acquires the land to conduct treatment. Because current treatment technologies cannot meet the cleanup levels required, the owner could potentially be subject to perpetual liability. Additionally, the law has a provision that allows individuals adversely affected by the discharges of contaminated water to bring a citizen suit for violations. The Task Force continues to explore innovative solutions to having an innocent party clean up the mine without being held liable.

Limitations of SMCRA Reclamation Activities:
The Cranberry Creek Gateway Park Project
Compaction of land is necessary to support the weight of buildings on reclaimed mines. SMCRA funding is the main resource coal communities use to fund reclamation. However, this funding allows land to be filled, but not compacted. The costs for site compaction can be greatly reduced if it can be done in conjunction with the filling of land. At the Cranberry Creek site, the project team is hoping to combine the SMCRA Reclamation Funds with other funding sources that can support compaction such as the Department of Housing and Urban Development (HUD) Section 108/Community Development Block Grant (CDBG) Program or a state economic development program. Compaction will only be conducted on portions of the 366-acre property that are targeted for redevelopment. Early consultation with the state mining office is essential in determining how to incorporate SMCRA funds into compaction activities.

Combining Brownfields Assessment and SMCRA Reclamation Activities:
The Kelly's Creek Project
The Kelly's Creek community has a significant acid mine drainage problem. Funding is available through SMCRA to clean up the acid mine areas that were polluted before 1977. However, since the community included both pre- and post-1977 mining activities, an assessment needed to be completed to determine the source of contamination. Since SMCRA funds can only be used for the actual reclamation and not assessment, the community used its EPA Brownfields Assessment grant to determine where the contamination originated. SMCRA funding will be used to remediate the pre-1977 critical discharge points and the West Virginia Department of Environmental Protection will provide funding to reclaim the post-1977 critical discharge points.

Privately or Publicly-Owned Properties

Many former mine properties are owned by private land owners or the federal government. In order for their projects to move forward, some of the MSL communities have had to engage federal and private property landowners. Some considerations learned through these projects include:

- Respect the rights of the owners (i.e., do not trespass).
- Describe how the reuse will benefit the private or federal property owner. For example, by supporting the project, a coal company may improve its community relations or a redevelopment may bring it financial gains.
- Consider ways to support the land owners. For example, if the private land owner invests in the redevelopment project, the county may agree to fund associated infrastructure and provide tax incentives. The federal government is working to clean up the country's mine-scarred lands, but due to funding limitations it can only support a limited number of projects at anytime. If it can be shown that the public supports the project and resources can be leveraged, the federal government partners may be able to prioritize the project.
- Identify possible legal considerations to ease any liability fears the land owner may have. It is helpful to develop a relationship with regulatory partners (e.g., EPA and state environmental protection departments) so they can provide an overview of liability management approaches. After initial conversations with the land owners, suggest a meeting with the regulatory partner to answer any questions the owner may have.

Be patient! Working with government or private land owners can be a lengthy and complex process.

Project Examples Related to Privately or Publicly-Owned Properties

Engaging Private Land Owners:
The Kelly's Creek Project
Kelly's Creek, West Virginia is a community approximately 20 miles from Charleston, West Virginia that is hoping to develop residential housing and a retirement community on a portion of a 3,000-acre privately-owned property. Representatives from the project team held a meeting with the private owners to provide an overview of the project. They developed an ***overview of the project fact sheet (PDF, 555 K, 2 pp)*** that focused on the owner's needs. The project team described how redeveloping this property would be a significant financial benefit to the owner, especially since the land did not appear to be mineable in the future. Additionally, there is a need for residential housing for Charleston's workforce and the number of retirees is projected to increase significantly in the coming years. A study conducted by an Office of Surface Mining (OSM) intern gave preliminary ideas on where this housing could be sited. http://www.epa.gov/aml/revital/msl/pdfs/kellys_overview.pdf

At the time of these initial conversations, the community had resources to support an environmental assessment of the proposed redevelopment area and a market feasibility study to further assess the projected costs and benefits of the project. The county, federal and state partners were willing to provide significant support in developing the necessary infrastructure, including a wastewater treatment system that is very expensive. Negotiations are currently underway with the private owner.

Working with a Federal Land Owner:
The San Juan County Project
San Juan County has been working closely with the Bureau of Land Management (BLM) to undergo a land trade that would consolidate the current checkerboard land ownership. This will make it easier to accomplish reuse goals such as protecting historic mining features, developing camping facilities, removing mining impacts on wetlands, and restoring natural functions to the floodplain. BLM has spent more than $500,000 on site investigation associated with the land trade and has supported two interns to help develop the revitalization plan and apply for a Colorado Department of Public Health and Environment Targeted Brownfields Assessment Grant.

Easing Private Owner Liability Fears:
The Beatty Renewable Energy Project
Barrick Gold, Inc, the former owner of the Bullfrog Mine, transferred 81 acres of former mine property to the Beatty Economic Development Corporation. Before the property transaction took place, an EPA Targeted Brownfields Assessment was conducted to ensure there were no contamination issues at the site. The Nye County Natural Resources Office and EPA held several conversations with Barrick Gold managers to assure them that the future use of the property would not pose a liability risk to the former mine operator. In the end, restrictions were included in the deed to prevent certain uses of the land.

During the conversations with Barrick Gold managers, the project team described how the transaction would benefit Barrick. For example, a renewable energy project may make it feasible for them to develop renewable energy on their remaining adjacent properties. Their corporation has gas-fired generation plants elsewhere and could use the renewable energy credits.

Resources Related to Privately or Publicly-Owned Properties

GeoCommunicator
http://www.geocommunicator.gov/
This site enables the user to search and map federally-owned lands

Liability Concerns

Some of the Demonstration Projects involve liability concerns involved with SMCRA, CERCLA and the Clean Water Act. Each regulation has its own distinctions. The project teams have learned that it is critical to understand associated issues before moving forward because communities or individuals could be held responsible for significant costs, even if the liability is connected to an outside party. MSL communities have gained some insight on how to deal with these sites:

Identify an attorney to explore liability management approaches.
This person can understand and help explain the magnitude of the problem, whether a partial or complete solution is possible, and the expected timeline.

Determine if there is any linkage to liability funding from potentially responsible parties (PRPs)
If there is a connection, the PRP may be held responsible for the cleanup costs. Contact EPA Superfund staff to help with this process.

Determine if it is possible to manage liability if land owners enter a state Voluntary Cleanup Program (VCP)
Contact the state VCP representative for more information. Use a neutral third party to coordinate and mediate liability complexities.

Project Examples Related to Liability Concerns

Overcoming Liability Concerns:
The Stone Creek Project
The Stone Creek site is an abandoned coal loading facility that is owned by a private property owner. In order for the county to feel comfortable acquiring and revitalizing the site, it needed some liability protections. Subject matter experts met with the key parties and outlined the steps that are necessary for liability protection. These include:

- The county secures an option to buy the property at a specified price that is contingent on the outcome of an environmental assessment.
- An environmental assessment of the site is conducted. In this case, an EPA Targeted Brownfields Assessment was completed.
- The county acquires the site.
- If cleanup is required, the county enters the site into Virginia's Voluntary Remediation Program (VRP). This program provides a comfort letter after cleanup is completed that protects the county against liability. Though every state's voluntary program is different, they have similar liability protection provisions. For more information on each state, go to ***EPA's State of the State Report***. http://www.epa.gov/brownfields/pubs/st_res_prog_report.htm

Resources Related to Liability Concerns

EPA, Office of Enforcement and Compliance Assurance
http://www.epa.gov/compliance/
Provides an overview of laws associated with mine cleanup and reuse and provides a wide-range of guidance documents.

EPA, SMARTe
http://www.smarte.org/smarte/home/index.xml
A Web-based decision support system for developing and evaluating future reuse scenarios for potentially contaminated land. SMARTe contains guidance and analysis tools for all aspects of the revitalization process including planning, environmental, economic and social concerns.

Funding Revitalization Projects

Identifying and Applying for Funding and Technical Assistance

Every mine revitalization project needs funding to succeed. Though the MSL Initiative communities are at varying stages of their projects, they all have begun identifying and applying for funding. Some of the considerations learned through the projects include:

- Build partnerships with state economic development agencies, local non-profit organizations and foundations. Typically these organizations have significant experience in identifying and applying for funding and will be a valuable resource.
- Discuss the project with a variety of agency representatives even if no funding is currently available. Not all federal and state agencies will be able to provide support during the timeframe for the project, but they may be able to provide other contacts or innovative financing ideas.
- Hold an in-person meeting of potential funding and technical assistance representatives. Federal, state and local funding and technical assistance representatives may be able to better understand what role they can play in the project and think creatively about how to help combine a variety of resources if they are able to tour the project and have a dialogue with a range of partners.
- Understand the eligible entities for funding resources. Some sources of funds can only be utilized by non-profit organizations or county governments.
- Learn the timetables for federal and state grant and loan programs. Some applications may require a pre-application or screening process to determine if the project meets the funding criteria for the program.
- Plan accordingly as many federal and state funding opportunities take time to apply for and receive funding. Projects may need to get on the funding priority list of some federal or state programs.
- Identify grants that may be used to help with loan payments. For example, a Department of Housing and Urban Development (HUD) Brownfields Economic Development Grant (BEDI) can be used to make interest payments on a HUD Section 108 loan for a certain period of time until the redevelopment project generates its own revenue.

- Establish relationships with local county/municipality business development agencies as they may be able to assist with other state or federal funding sources. For example, a county would need to pledge its Community Development Block Grant (CDBG) funds for a project to receive a HUD Section 108 loan guarantee.

Project Examples for Identifying and Applying for Funding and Technical Assistance

Federal Agencies Providing Technical Support for Applications through OSM Interns
Each federal agency has its own guidance on whether it can help applicants apply for funding. A significant resource provided to several of the projects was a volunteer to help apply for a Brownfields grant for assessment or cleanup. The Office of Surface Mining (OSM) Watershed Intern Program helped coordinate interns at the following projects, with support provided by other agencies and organizations, as indicated:

- Southwest Virginia: One intern was supported by OSM and the Fish and Wildlife Service
- San Juan County, Colorado: Two interns were supported by OSM, the Bureau of Land Management, and the Mountain Studies Institute

Convening to Discuss Funding and Technical Assistance Opportunities:
Cranberry Creek Gateway Park Project
The Cranberry Creek Gateway Park project is a 360-acre site that is envisioned to result into a gateway park featuring housing, commercial facilities, and recreational opportunities. This project will take place in multiple phases (i.e., reclamation, redevelopment, sustained use). In May 2006, the project team and a number of federal, state and local agency representatives held a convening in Hazleton, Pennsylvania to discuss potential financial and technical assistance that would be applicable to the project. Although exact redevelopment plans for the site were not identified at the time, the convening provided an opportunity for federal, state and local representatives to begin a dialogue on ways they can integrate their support in the future. The ***Cranberry Creek Financial and Technical Assistance Plan (PDF, 879 K, 29 pp)*** is a targeted strategy that describes how the project can optimize the available mix of resources. It is based on preliminary research and interviews that were conducted and the convening dialogue. The Plan includes: http://www.epa.gov/aml/revital/msl/pdfs/cranberry.pdf

- A timetable of financial and technical assistance
- An overview of project specific activities and strategies
- A matrix of federal, state and local programs for mine-scarred lands revitalization in Pennsylvania
- Funding examples

Resources Related to Identifying and Applying for Funding and Technical Assistance

Grants.gov
http://www.grants.gov
Allows organizations to electronically find and apply for more than $400 billion in federal grants.

USDA Rural Information Center
http://www.nal.usda.gov/ric/ruralres/funding.htm#GWR
This resource provides links to a range of funding opportunities and provides guidance on grant writing.

Office of Surface Mining
http://www.osmre.gov/grantsindex.htm
OSM offers a listing of agencies and organizations that may provide technical assistance or funding for mine-scarred lands projects.

Appalachian Regional Council Online Resource Center http://www.arc.gov/index.do?nodeId=45
ARC provides resources for identifying funding opportunities for projects within the Appalachian region.

Trout Unlimited Grassroots Guide
http://www.tu.org/site/apps/lk/content2.aspx?c=7dJEKTNuFmG&b=478363
A resource guide to assist communities in identifying mine-related problems, organizing communities, and working to improve water quality and wildlife habitat.

Non-Profit Guides, Grant Writing Tool
http://www.npguides.org
This tool provides guidance on how to write a grant proposal.

The Vintondale, PA AMD&ART Project
http://www.amdandart.org/funders.html
This project is a model of a project that was creative in identifying resources and was able to obtain a range of resources from federal, state, foundation and non-profit resources.

OSM/VISTA Program
http://accwt.org
This site provides information about the Office of Surface Mining VISTA Watershed Team, also known as the Appalachian Coal Country Watershed Team. This program can provide a VISTA volunteer to mine-scarred land watersheds for up to three years.

OSM Intern Program
http://www.osmre.gov/acsi/internindex.htm
This site provides an index to applications and sponsorship information for individuals interested in the Office of Surface Mining's Watershed Intern Program

EPA 2005 Brownfields Federal Programs Guide
http://www.epa.gov/brownfields/partners/bf_fed_pr_gd.htm
This document provides funding information for numerous federal agencies and programs related to cleanup and redevelopment projects.

EPA, SMARTe
http://www.smarte.org/smarte/home/index.xml
A Web-based decision support system for developing and evaluating future reuse scenarios for potentially contaminated land. SMARTe contains guidance and analysis tools for all aspects of the revitalization process including planning, environmental, economic and social concerns

Federal Programs

Federal funding sources cover a broad scope of activities associated with mine revitalization. Some provide planning support, while others can be used for assessment, cleanup, infrastructure development or recreational development.

The ***Catalog of Federal Domestic Assistance*** provides access to a database of all federal assistance programs available. It includes grants, loans and technical assistance such as training. You cannot apply for an assistance program through this Web site, but instead must contact the office that administers the program and find out how to apply. http://12.46.245.173/cfda/cfda.html

The six Demonstration Projects highlight a range of resources that are described within tables on the Tool Kit Web site. These tables include resources for:
http://punix1.sradev.com/oerrpage/web/superfund/programs/aml/revital/msl/programs.htm

- Planning
- Assessment
- Reclamation
- Remediation
- Building Construction
- Infrastructure
- Recreation and Greenspace

State Programs

States have a range of resources that can be used for mine-scarred lands revitalization. Although state programs vary, almost every state has a Brownfields program and infrastructure programs. Information about programs is generally available on state Web sites. Another helpful resource is ***EPA's State of the State Report***. http://www.epa.gov/brownfields/pubs/st_res_prog_report.htm

Tax Incentives

Tax incentives vary greatly in their amount, sponsoring organization or agency, and uses. Additionally, they vary according to the mining community's location. Some example of tax incentives include:

Tax Credits.
Federal or state tax credits reduce the amount of income tax owed.

Tax Abatements.
Cities or counties may agree to reduce taxes owed or exempt property owners from paying taxes for a period of time.

Forgiveness of Back Taxes.
Cities or counties may agree to waive back taxes on contaminated properties in hopes of spurring revitalization efforts.

Enterprise Zones/Enterprise Communities/Renewal Communities.
Cities, counties or states may have Enterprise Zones/Enterprise Communities/Renewal Communities that offer tax advantages or incentives to businesses locating in the zone boundaries.

Tax-Increment Financing (TIF) Districts.
Cities create TIF Districts to make public improvements within those districts that will generate private-sector development. During the development period, the current tax rate for a certain number of years is frozen but taxes derived from increases in property assessment values after the redevelopment occurs either go into a special bond fund or are used for future growth in the district.

Private Sector Tools

The private sector is beginning to recognize the advantages of investing the revitalization of former mines. The following resources may be possible for specific projects:

Community Reinvestment Act (CRA)
The Community Reinvestment Act was enacted to encourage federally-insured lending institutions to meet the credit needs of their communities, including low- and moderate-income neighborhoods. Brownfields stakeholders applying for private financing may want to contact their lending institution to determine if CRA loans are possible. The ***EPA Community Reinvestment Act Web site*** provides more information. http://www.epa.gov/brownfields/other_bf_related_laws.htm#cra

New Markets Tax Credits (NMTC) Program
The NMTC Program is a development tool designed to stimulate the economies of low-income communities. Each year, the U.S. Department of Treasury allocates a certain amount of tax credits to qualified Community Development Entities (CDEs). These CDEs secure investors to make investments in low-income communities, including brownfields redevelopment projects. Mining communities may want to identify CDEs in their community and educate them about the revitalization project. This many encourage the CDEs to invest in the project. The ***Brownfields Solution Series: New Markets Tax Credit Program (PDF, 189 K, 4pp)*** provides more information.
http://www.epa.gov/swerosps/bf/pubs/nmtxcr_0605.pdf

Environmental Insurance
Environmental insurance is a growing private sector tool used to transfer risks related to contaminated land from project stakeholders to an insurance company. Insurance can be purchased for a variety of uses such as cleanup cost overruns (i.e., the cleanup ends up costing more than projected) and third party claims. Though environmental insurance can be very expensive, it can also be a helpful tool in ensuring investors, developers and other partners are comfortable moving forward with the revitalization project. The ***EPA Environmental Insurance Web site*** provides more information.
http://www.epa.gov/brownfields/insurebf.htm

Private Developers
Private developers are becoming more interested in cleaning up and redeveloping contaminated properties because they often present a greater return on their investment. In rural areas, it is sometimes difficult to engage developers because the land value tends to be lower than urban areas. In order to engage developers, it may be necessary for the community to provide benefits such as infrastructure development, low property price and tax incentives.

Non-Profit Organizations

Among the six Demonstration Projects, non-profit organizations have been instrumental in completing project activities. The following support was provided:

The ***Canaan Valley Institute*** provided facilitation support and strategic planning support to the Kelly's Creek Communities Association. The Institute supports local efforts in stream restoration and decentralized wastewater treatment throughout the Mid-Atlantic Highlands of Maryland, Pennsylvania, Virginia and West Virginia. Services may include group facilitation and project planning, fundraising and grant writing, applied research, mapping and remote sensing, watershed assessment and planning, project design and management, and construction supervision. http://www.canaanvi.org/

The ***Keystone Center*** has provided facilitation support to the Snake River Watershed Task Force (associated with the Pennsylvania Mine Project) for many years. They not only lead meetings, but also coordinate partners, and motivate project activities. http://www.keystone.org/

The Mountain Studies Institute supported the San Juan County Project by providing coordination support for the community planning process, obtaining input from the community on recreational reuse ideas and developing a concept plan that outlines reuse goals, associated project activities and potential resources. http://www.mountainstudies.org/

Trout Unlimited provides coordination support to the Snake River Watershed Task Force, which is associated with the Pennsylvania Mine Project. Trout Unlimited shares its experience in cleaning up mines through the ***Trout Unlimited Grassroots Guide***, a resource guide to assist communities in identifying mine-related problems, organizing communities, and working to improve water quality and wildlife habitat. http://www.tu.org;
http://www.tu.org/site/apps/lk/content2.aspx?c=7dJEKTNuFmG&b=478363