A Community-based Approach to Solving Watershed Problems: The Abandoned Mine Waste Issue

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Abandoned mine sites cause some of the most widespread and significant problems of environmental degradation in the West. Due to the complex and cross-jurisdictional nature of this problem, regulatory and policy frameworks have been largely inadequate in moving toward solutions.

A variety of environmental legislative acts and regulations have been applied to the problem of historical mine waste in the West: the Clean Water Act's discharge permitting process, the Comprehensive Environmental Response, Compensations and Liability Act (CERCLA) program (Superfund), the Surface Mining Control and Remediation Act (SMCRA), the National Environmental Policy Act (NEPA), and the Federal Lands Policy and Management Act (FLPMA). These laws provide enforcement authority and/or regulatory tools for the regulatory agencies and the federal land management agencies to accomplish cleanup of abandoned mine land sites. This traditional reductionist approach, however, is dwarfed in its usefulness by the severity and breadth of the problem. Mine sites are numerous, dispersed, and often remote, and which sources are actually impacting the water quality is very difficult to discern.

Through a collaborative watershed group, the problem can be addressed in a more holistic manner, appropriate to that specific watershed. The hydrologic boundaries of the watershed defines the area to be addressed and defines the local community that has a vested interest. Concerns of the local level can be heard, ranging from those desiring historical preservation of the mining era to those wishing to avoid being included on the Superfund list. Agency representatives working together on investigating the key sources of mine discharge can more systematically prioritize sites for cleanup that will most likely improve water quality. The process itself, of a group which meets regularly to pool resources and coordinate their work, provides a framework for meeting regulatory goals.

Over recent years during which community-based watershed groups have been working on this particular water degradation issue in the

West, a variety of "lessons learned" are of note.

Local involvement is important to provide continuity in moving forward to solutions on this issue while agency staff and government programs may come and go.

Funding from a diversity of sources, from the local level up to the federal level, helps keep everyone at the table and reduces dependency on one funding source or agency.

It takes time--to build trust within the group, to gain scientific understanding of the key pollution sources in a watershed and to develop the means and funding to conduct cleanup. Therefore the commitment of a core group is essential to stay with the process.

A diversity of group members coordinating their activities furthers a more comprehensive approach. For example, biologists and hydrologists can be gaining an understanding of the quality of the habitat for aquatic life, while chemists are gathering water chemistry data on those same reaches of the stream.

In the early life of a watershed group, a neutral facilitator can help assure key interests are represented, coordinate group activities, and facilitate meetings. Once the group has established a level of trust and clarity of purpose a local coordinator can take over these roles.

Finally, the community-based watershed group can provide a voice for policy and regulatory reform at the state and national levels in order to improve the way this problem is handled across the West.

There are positive signs of improved means of addressing the problem of abandoned mine waste discharge through a watershed approach. Watershed groups are being considered a viable means of doing business, even though they are still being considered "experiments." A few federal interagency initiatives are being developed specific to abandoned mine lands issues, and technological advances are occurring that could speed up source identification. More groups are forming that are initiated locally, and through networking with other groups are learning from previous experiences and getting a jump start in their activities. Watershed efforts will most likely continue to evolve as models of a collaborative rather than adversarial approach, in those places where local citizens are invested in being stewards of their surroundings.

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