

**STATEMENT
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**BEFORE THE
COMMITTEE ON NATURAL RESOURCES
SUBCOMMITTEE ON ENERGY AND MINERAL RESOURCES
UNITED STATES HOUSE OF REPRESENTATIVES
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REGARDING

**“Abandoned Mined Lands: Innovative Solutions for Restoring the Environment,
Improving Safety and Creating Jobs.”**

Mr. Chairman and Members of the Subcommittee, thank you for the opportunity to testify before you today on the U.S. Forest Service’s abandoned mine lands (AML) program. Since the early 1990’s, the Forest Service has implemented programs to address the safety, human health and environmental hazards posed by tens of thousands of abandoned mines throughout the national forests and grasslands. Key elements of these programs include mitigating abandoned mine hazards; restoring land and water contaminated or disturbed by abandoned mines; and enhancing fish and wildlife habitat through reclamation of abandoned mines. The impacts caused by abandoned mine lands cross many jurisdictional boundaries and affect federal, state and private lands across the nation. Despite the effort of federal and state agencies and other parties, abandoned mine lands continue to pose both physical safety hazards to the public and threats to human health and the environment from hazardous contaminants. In California alone, at least 15 adults have died and 23 adults and children have been injured in abandoned mines since 2001¹.

The movement to clean up abandoned mines on public lands has gained momentum in recent years as the Forest Service and numerous Tribal, Federal, State, and private partners have begun to tackle mutual problems of health and safety with heightened commitment. Although complex challenges remain, substantial progress is being made toward reclaiming abandoned hardrock mine sites in key watersheds and other sites across public and private boundaries.

BACKGROUND

The authorization of mining for metals and mineral resources on federally administered lands helped encourage industrial growth and settlement of the West. Many of these mineral deposits were located in remote areas far from population centers. Without the benefit of today’s environmental laws and regulations, when a mine was no longer profitable, common practice

¹ State of California Department of Conservation, Abandoned Mine Lands Unit (AMLU)

was to abandon the site and, in some cases, to vacate entire mining districts. As a result, today many abandoned mines pose hazards to public safety, human health and the environment.

Currently the Forest Service proactively manages and mitigates the impacts of mine operations, including abandoned mine operations, through its Environmental Compliance and Protection/Abandoned Mine Land Program (ECAP/AML), which consists of three major activities:

1. Cleanup and reclamation of National Forest System (NFS) lands impacted by hazardous materials and/or mining activities;
2. mitigation of safety hazards associated with inactive/abandoned mine lands; and
3. environmental compliance audits of Forest Service operations, facilities, and permitted activities.

Approximately 75 to 85 percent of the total ECAP/AML budget is expended on the cleanup and safety hazard mitigation at abandoned mine sites.

Various estimates exist for the number of abandoned mines on NFS lands but the exact number is unknown. All estimates are based at least in part on abandoned mine data now part of the Mineral Resources Data System (MRDS), which is managed by the U.S. Geological Survey (USGS). Analyses of the data indicates there may be 27,000 to 39,000 abandoned mines of all types on NFS lands, of which 18,000 to 26,000 of the total are abandoned hard rock mines. The USGS data also indicates that 9,000 to 13,000 of the abandoned hard rock mines have records of past mineral production, and therefore are considered more likely to require environmental cleanup or safety mitigation work. These numbers are not absolute because not all AML sites on NFS lands have been identified or evaluated for releases of hazardous substances. Regardless of the exact number, the scope AML cleanup on land managed by the Forest Service is large and could consume an estimated \$4 to \$6 billion, or even more considering potential long term treatment needs, to complete response actions at these sites.

Since 1998, the Forest Service has mitigated more than 2,000 safety hazards and cleaned up hazardous substances at more than 400 sites, with another 150 hazardous substance cleanups in progress. Between 1998 and 2010, the Forest Service spent approximately \$340 million on abandoned mine environmental cleanup and safety mitigation. USDA's Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) enforcement program has led to over \$640 million dollars of work or funding provided by potentially responsible parties (PRP) at abandoned mine sites.

As part of our efforts to promote community involvement, we work closely with local communities throughout the reclamation process by involving them in decision-making regarding cleanup and reuse options, providing a range of training opportunities, and involving local contractors in the remediation work thus creating local employment opportunities.

Environmental cleanups of abandoned mines vary in size from hundreds of thousands to many millions of dollars. In almost all cases, the site investigation, planning and actual cleanup work is performed by private environmental, engineering and construction firms under contract with

the Forest Service. Private contractors also perform much of the abandoned mine safety closure work in states such as Colorado, Arizona, New Mexico and California that have the largest abandoned mine safety hazard mitigation workload.

AML PROJECT SELECTION AND FUNDING

There are three categories of work that may be funded at abandoned mine land sites:

1. Cleanups at sites that are releasing or threatening to release hazardous substances such as heavy metals from acid mine drainage. This work is done under the Forest Service delegated CERCLA authority. USDA and Forest Service policy requires that, before appropriated funds are spent on the remediation of a site, a "potentially responsible party" (PRP) search must be performed to identify whether a viable responsible entity exists to fund the site clean-up in lieu of using appropriated funds. As the Forest Service has moved forward with its PRP searches, it has found that many of the abandoned mine sites on the national forests are old, with the majority of the mining activities occurring from the 1800s through the early 1900s. Very few of these searches have resulted in the identification of a viable responsible party.
2. Cleanups of non-hazardous substance-related surface disturbance such as revegetation of disturbed areas, reconstruction of stream channels and floodplains (Non-CERCLA Cleanup).
3. Mitigation of physical safety hazards such as closure of adits and shafts and removal of dangerous structures (Safety Mitigation).

Descriptions of proposed CERCLA and non-CERCLA cleanup projects, including abandoned mines along with the costs and benefits of each, are submitted by the Forest Service Regional Offices two years prior to the fiscal year that funding would be received. Because the number of projects always exceeds the available budget, they are prioritized based on potential benefits to human health and safety; environmental factors such as water quality; and economic and social factors including the potential for state or federal partnerships, public interest and overall cost. The projects are then ranked and funded as money becomes available through the budget process.

In FY 2011, we received approximately \$16 million to fund CERCLA cleanup of 75 contaminated sites. We anticipate contributions to this effort from individual PRP's along with some State and local contributions. In FY 2012, we have requested \$15 million to fund the mitigation of 50 sites.

Safety Mitigation Projects are prioritized at the regional level and submitted to the National Office for funding. Criteria used for prioritizing safety mitigation projects are based on the severity of the hazard and accessibility to the public including:

- A death, injury or close call has occurred at a site;
- Complaints or concerns have been expressed by the public or other units of government about a site;
- Developed recreation sites or other concentrations of people are located near a site;
- Forest roads or trails lead to or are near a site; and

- The severity of other hazards at a site in combination with the site's accessibility to the public.

For Safety Mitigation, in FY 2011, we received approximately \$8.2 million to fund the mitigation of an estimated 680 abandoned mine safety features like open shafts and adits. In FY 2012, we have requested \$7.3 million to fund the mitigation of an estimated 560 features.

COORDINATION AND PARTNERSHIPS

The Forest Service coordinated with most states during the inventory phase of the AML Program by using data from State AML inventories. Coordination with states on environmental cleanup and safety projects is encouraged through the use of project selection criteria which rewards state/federal partnerships and evidence of state priorities such as work within a state priority watershed or water quality limited stream or water body. Formal partnerships or agreements exist with both state and federal agencies, like the Environmental Protection Agency (EPA), where cleanup involves mixed ownership sites that include private or state lands. In some cases, as in Colorado, abandoned mine safety mitigation projects are planned and constructed jointly using long-standing partnership agreements.

EXAMPLES OF FOREST SERVICE AML PROJECTS

Large & Complex Mine and Mill Sites

These sites are typically tens to hundreds of acres in size. Mill buildings, roads, mine openings, open pits, waste rock, chemical reagents, tailings and spent ore are removed, stabilized and restored at costs typically ranging from \$100,000 to \$10 million.



One large cleanup project that received \$1.4 million dollars in 2006 was the Champion Mine located on the Umpqua National Forest, Lane County Oregon. As a result of this project, a contract was awarded in 2006 to remove waste rock, diesel and heavy oil contamination, treat acid mine drainage and cap hazardous mill tailings. These actions are expected to reduce or eliminate contaminants in Champion Creek, which is a tributary to Row River and Dorena Reservoir, which is a source of drinking water for the City of Cottage Grove, Oregon.

Another project that received almost \$3 million from 2008 through 2011 is the Standard Mine, an abandoned zinc, lead, gold, and silver mine, located 10 miles west and directly upstream of the municipal water intake for the Town of Crested Butte, Colorado. The site was listed on the EPA's National Priority List in 2005 due to the imminent threat to Crested Butte's water supply posed by the tailings and waste water impoundment. Work by the Forest Service, together with the State of Colorado and the EPA, is designed to eliminate the safety and environmental hazards posed to the residents and visitors of Crested Butte by the open adits and shafts, waste rock piles, toxic mill tailings and acid mine drainage from this site.

Small Mine Cleanups and Safety Hazards

One of the safety mitigation projects funded in 2008 was closure of 5 vertical shafts and 7 open adits located on the Grand Mesa/Uncomphagre/Gunnison National Forest in Ouray and San Miguel Counties, Colorado. The mine sites are located south of Ouray, Colorado along the route of State Highway 550 leading toward Red Mountain Pass, a portion of the San Juan Scenic Skyway – “Million Dollar Highway”. The Forest Service partnered with the Colorado Division of Minerals and Geology to fund this mitigation project and the Colorado Division of Minerals and Geology issued and administered the closure contract. The final closure contract consisted of 23 shaft and adit closures, consisting of 12 closures located on Forest Service administered land and 11 closures located on private land.



LOOKING TO THE FUTURE

Multiple federal and state agencies and private entities are implementing programs to address the human health and environmental impacts from historic mining operations. While progress has been made in addressing the hazards posed by abandoned mine lands, much more work is needed. Impacts from abandoned mine lands affects federal, state and private lands and cross federal and state jurisdictional boundaries. Continued success of these efforts depends on ensuring that cleanup costs are first borne by potentially responsible parties, where possible, and on the partnering of State and Federal Agencies, public interest groups, the mining industry and other interested third parties.

Finally, preventing future AML sites is also a crucial goal of any land management agency's AML program. Responsible mining practices, environmentally protective mine closure planning, optimal permitting requirements and financial assurances are all tools that land management agencies are using to ensure mining companies operate under a sustainable business model that follows a mine's life from startup to clean closure.

CLOSING

The mission of the Forest Service is to sustain the health, diversity, and productivity of the Nation's forests and grasslands to meet the needs of present and future generations. We remain committed to restoring abandoned mines as a key part of this mission. I would be happy to answer any questions you may have.