

**ABANDONED MINED LANDS:
INNOVATIVE SOLUTIONS FOR
RESTORING THE ENVIRONMENT,
IMPROVING SAFETY AND
CREATING JOBS**

OVERSIGHT HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY AND
MINERAL RESOURCES

OF THE

COMMITTEE ON NATURAL RESOURCES

U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED TWELFTH CONGRESS

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**OVERSIGHT HEARING ON THE “ABANDONED
MINED LANDS: INNOVATIVE SOLUTIONS
FOR RESTORING THE ENVIRONMENT,
IMPROVING SAFETY AND CREATING JOBS.”**

**Thursday, July 14, 2011
U.S. House of Representatives
Subcommittee on Energy and Mineral Resources
Committee on Natural Resources
Washington, D.C.**

The Subcommittee met, pursuant to call, at 3:33 p.m. in Room 1324, Longworth House Office Building, Hon. Doug Lamborn, [Chairman of the Subcommittee] presiding.

Present: Representatives Lamborn, Thompson, and Holt.

Mr. LAMBORN. The Committee will come to order. The Chairman notes the presence of a quorum, which under Committee Rule 3(e) is two Members. The Subcommittee on Energy and Mineral Resources is meeting today to conduct an oversight hearing on “Abandoned Mined Lands: Innovative Solutions for Restoring the Environment, Improving Safety, and Creating Jobs.”

Under Committee Rule 4(f), opening statements are limited to the Chairman and Ranking Member. However, I ask for unanimous consent to include any other Members’ opening statements in the record if submitted to the Clerk by close of business today. Hearing no objection, so ordered.

STATEMENT OF THE HON. DOUG LAMBORN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF COLORADO

Mr. LAMBORN. Good afternoon. Because of the series of votes and the subsequent delay in convening the hearing, we are going to do things a little differently. Thank you for your patience in waiting while we went through that sort of lengthy series of votes earlier.

And I do want to apologize on behalf of the staff to the Minority for not getting the word out to everybody like we should have that we were delaying the opening of the hearing until after the series of votes, because we knew that would interfere right at the beginning.

We will have two panels today. Representative Heck from Nevada will testify first, and then we will consolidate everyone else in one large panel so that we can just finish with one round of questions, and expedite things because of the lateness of the day.

Now, for the rest of my statement, I would like to say this. We are here today to discuss the Nation's abandoned mined lands, and to look at innovative solutions to help restore the environment, improve safety, and examine opportunities for job creation.

During the Subcommittee's hearing to examine the President's budget proposal for the energy and minerals program at the Bureau of Land Management and the United States Forest Service, Ms. Skaer had recommended a Good Samaritan approach to help address problems associated with abandoned hardrock mines in the West, an approach that has been successfully employed by the State of Pennsylvania to augment the abandoned mined land program that is part of the Surface Mining Control and Reclamation Act, or SMCRA, that governs coal mining in the United States.

Mr. Holt, my colleague, and Ranking Member of this Subcommittee, was intrigued by the prospect and interested in trying to understand why private industry, the mining industry in particular, would be willing to voluntarily help address a problem that was in part created by others.

These predecessors prospected and mined without the current framework of environmental laws and regulations, or the modern mining techniques and reclamation and mine closure practices that are now part and parcel of mining activity for both coal and hardrock operations.

So, maybe we can learn more about the motivation, and what propels people to do these good things. The Federal Government also shares some responsibility for some of the abandoned mined lands, and some of the environmental issues associated with others.

In particular, during World War II, the government closed down all but one gold mine, and directed how other mines would operate for other minerals as part of the war effort. Compliance with the Defense Stockpile Act also contributed to the problem of abandoned land sites, mine land sites, as we will hear from Congressman Heck shortly.

Representative Heck recently introduced the "Three Kids Mine Remediation and Reclamation Act", an abandoned mine site that was used to stockpile manganese as recently as 2003. I will let him give the details of what the Act is about, and the history of it.

During the 111th Congress, I introduced H.R. 3203, the "Clean-up of Inactive and Abandoned Mines Act", a Good Samaritan bill with provisions similar to what Ms. Skaer will discuss today in her testimony.

I also would like to welcome Director Pineda from my home State of Colorado. I look forward to the insight that you can provide as the person in Colorado responsible for overseeing much of the State's abandoned mine land cleanup efforts under SMCRA.

We will also hear from the Bureau of Land Management and the United States Forest Service about their hardrock abandoned mine land programs that have been in place since about 1997.

Mr. Baker, representing Safari Club International, is responsible for reintroducing elk to Kentucky on reclaimed mined land. I look forward to hearing about this story and insights that he may have.

We also have the GAO and Earthworks testifying today. I believe that this will be a productive hearing. I look forward to what every-

one has to offer. All of the witnesses and Members share the same goal: an abandoned mined land program that works, mine reclamation that improves the environment, and the reduction of hazards to keep people safe.

I now recognize the Ranking Member for five minutes for his statement.

[The prepared statement of Mr. Lamborn follows:]

**Statement of The Honorable Doug Lamborn, Chairman,
Subcommittee on Energy and Mineral Resources**

Good afternoon because of the series of votes and the subsequent delay in convening the hearing we are going to do things a little differently than normal.

We will have two panels; Mr Heck will testify first and then we will seat everyone else for one big panel so that everyone that has traveled here from outside the beltway has an opportunity to fully participate in the hearing.

Traditionally we would have a separate government only panel, however due to the delay imposed by votes we will empanel everyone together. Hopefully it will help to engender a positive flow of ideas amongst our witnesses and the Members.

Now for the meat of my statement—we are here today to discuss the Nation's abandoned mined lands and look at innovative solutions to help restore the environment, improve safety and examine opportunities for job creation in the process.

During the subcommittee's hearing to examine the President's budget proposal for the Energy and Minerals Programs at the Bureau of Land Management and the U.S. Forest Service, Ms. Skaer had recommended a Good Samaritan approach to help address problems associated with abandoned hardrock mines in the west; an approach that has been successfully employed by the State of Pennsylvania to augment the abandoned mined land program that is part of the Surface Mining Control and Reclamation Act—SMCRA—that governs coal mining in the United States.

Mr. Holt, my colleague and the Ranking Member of this committee, was intrigued by the prospect and interested in trying to understand why private industry—the mining industry in particular—would be willing to voluntarily help address a problem that was in part created by their predecessors prospecting and mining without the benefit of the current framework of environmental laws and regulations or the modern mining techniques and concurrent reclamation and mine closure practices that are part and parcel of modern mining activity for both coal and hardrock operations.

I say that the industry and their predecessors are only in part responsible because the Federal government shares responsibility for some abandoned mined lands and environmental issues associated with others. In particular during World War II—the government closed down all but one gold mine and directed how the other mines would operate as part of the war effort.

Compliance with the Defense Stockpile Act also contributed to the problem of abandoned mined land sites as we will hear from Congressman Heck shortly.

Mr. Heck recently introduced the *“Three Kids Mine Remediation and Reclamation Act,”* an abandoned mine site that was used to stockpile manganese as recently as 2003.

In this case the City of Henderson's redevelopment council along with the State of Nevada is interested in acquiring the property from the Bureau of Land Management, cleaning up the site and redeveloping it. In the process they would assume all environmental liability from the federal government, take care of an environmental and physical hazard ultimately repurposing the area adding value to the community of Henderson. Rather than telling the whole story here I'll let Mr. Heck provide the details.

During the 11th Congress, I introduced H.R.—3203, the *“Cleanup of Inactive and Abandoned Mines Act,”* a Good Samaritan bill with provisions similar to what Ms. Skaer will discuss today in her testimony.

I also would like to welcome Director Pineda from my home state of Colorado. I look forward to the insight you can provide as the person in Colorado responsible for overseeing much of the state's abandoned mined land cleanup efforts under SMCRA.

We will also hear from the Bureau of Land Management and the U.S. Forest Service about their hardrock abandoned mine land programs that have been in place since about 1994.

Mr. Baker, representing Safari Club International, is responsible for reintroducing Elk to Kentucky on reclaimed mined land; I look forward to hearing more about his

story and the insights he may have for us looking for a solution for the problem at hand.

We also have GAO and Earthworks testifying today. I believe this will be a productive hearing and look forward to what everyone has to offer. All of the witnesses and Members share the same goal—an abandoned mined land program that works, mine reclamation that improves the environment and reduction of hazards that keep people safe!

**STATEMENT OF THE HON. RUSH D. HOLT, A REPRESENTATIVE
IN CONGRESS FROM THE STATE OF NEW JERSEY**

Mr. HOLT. Thank you, Mr. Chairman. Cleaning up abandoned mines presents a significant challenge. The environmental legacy of abandoned mines really can't be underestimated.

Even decades after closure, mines continue to leach lead, arsenic, mercury, and other heavy metals, into waterways. It is striking that in the Western United States the Environmental Protection Agency has estimated that about 40 percent of the headwaters of rivers and streams have been affected by discharges from abandoned hardrock mines, which threatens water supplies, increases the costs of water treatment, and limits fishing, recreation, and other activities.

The size of the problem is daunting. The GAO says that we don't even know the exact number of abandoned mines across the country. The EPA and BLM estimate that there might be half-a-million abandoned mine locations.

We need to take steps to prevent the creation of new abandoned mines. That is one thing at least that we can do by ensuring that mining companies post sufficient bonding and financial assurances to allow the land to be fully reclaimed after operations cease.

The EPA is in the process of developing regulations to require financial assurances from mining companies on private lands, but just this week the Majority approved an amendment to the Interior Appropriations bill that will cut off all funding for the EPA to develop nationwide rules on minimum financial assurances for cleaning up mining operations under the CERCLA, the Comprehensive Environmental Response Compensation and Liability Act.

Over half of all abandoned mines are on private lands, and we shouldn't prevent the EPA from moving forward with its rule-making. On public lands the Bureau of Land Management has regulations that require financial assurances for cleanup.

However, the GAO has concluded that current bonding is often inadequate to fund fully all of the cleanup activities which can result in creating more of the kind of problem sites that we have been left with from earlier years.

We should consider adopting policies that require the mining industry, which caused the abandoned mines in the first place that created the hazard, to take responsibility and pay for the cleanup of these sites.

This idea of polluter pays is already used in reclaiming and cleaning up abandoned coal mines under the Surface Mining Control and Reclamation Act. Under current law, coal mining companies pay a fee to fund the cleanup of legacy coal mines throughout the Nation.

In its budget request, the Administration included a proposal to institute an abandoned mine lands fee for hardrock mining, and I

look forward to hearing more about this proposal from our witnesses.

I also look forward to hearing about proposals to encourage voluntary cleanup of abandoned mines through the Good Samaritan action. Good Samaritan provisions, I think, if crafted properly, have the potential to help reclaim abandoned mines.

But I think we should be clear and clearheaded that we can't gut all environment laws so that large mining corporations can squeeze more money out of public lands under the guise of cleaning up abandoned mines.

We do want to encourage the cleanup, and I am eager to find the ways to do that. So, I thank the witnesses for traveling. I thank you for waiting to accommodate our voting schedule on the Floor, and I am looking forward to the testimony. Thank you, Mr. Chairman.

[The prepared statement of Mr. Holt follows:]

**Statement of The Honorable Rush D. Holt, Ranking Member,
Subcommittee on Energy and Mineral Resources**

Thank you, Mr. Chairman.

Cleaning up abandoned mine lands presents a significant challenge. The environmental legacy of abandoned mines should not be underestimated. Even decades after their closure, some mines continue to leach lead, arsenic, mercury and other heavy metals into nearby waterways or drinking water supplies. The problem of abandoned mines is particularly acute in the Western United States, where the Environmental Protection Agency has estimated that approximately 40% of the headwaters in rivers and streams have been impacted by discharges from abandoned hardrock mines, threatening water supplies, increasing water treatment costs, and limiting fishing and recreation activities.

The size of the abandoned mine lands problem is daunting. The EPA and BLM estimate that there may be over half a million abandoned mines locations scattered across the country. In fact, according to the GAO, we don't even know the exact number of abandoned mines across the country.

And we need to take steps to prevent the creation of new abandoned mines by ensuring that mining companies post sufficient bonding and financial assurances to allow the land to be fully reclaimed after the mine ceases operations.

The Environmental Protection Agency is in the process of developing regulations to require financial assurances from mining companies on private lands. But just this week, the Majority approved an amendment to the Interior Appropriations bill that will cut off all funding for the EPA to develop nationwide rules on minimum financial assurances for cleaning up mining operations under CERCLA. Over half of all abandoned mines are on private lands and we should not prevent the EPA from moving forward with this rulemaking.

On public lands, the Bureau of Land Management has regulations that require financial assurances for cleanup. However, the GAO has concluded that current bonding is often inadequate to fully fund all cleanup activities, which can result in new abandoned mine sites.

We should consider adopting policies that require the mining industry, which caused the abandoned mines in the first place, to take responsibility and pay for the cleanup of these sites. This polluter-pays principle is already utilized for reclaiming and cleaning up abandoned coal mines under the Surface Mining Control and Reclamation Act. Under current law, coal mining companies pay a fee to fund the cleanup of legacy coal mines throughout the nation. In its budget request, the administration included a proposal to institute an abandoned mine lands fee for hardrock mining and I look forward to hearing more about this proposal from our witnesses.

Finally, I look forward to hearing about proposals to encourage voluntary cleanup of abandoned mines by Good Samaritans. Good Samaritan provisions, if crafted properly, have the potential to help reclaim abandoned mines. But let us be clear, we should not gut all environmental laws so that large mining corporations can squeeze more money from public lands under the guise of allowing Good Samaritans to clean up abandoned mines.

With that said, I want to thank all the witnesses for traveling so far today to join us. I look forward to hearing from all of you.

Mr. LAMBORN. All right. Thank you. Congressman Heck, you are on the first panel by yourself. You may begin.

**STATEMENT OF THE HON. JOE HECK, A REPRESENTATIVE IN
CONGRESS FROM THE STATE OF NEVADA**

Mr. HECK. Well, thank you, Chairman Lamborn, and Ranking Member Holt, for inviting me to testify before the Subcommittee on what I think is an innovative solution for restoring the environment, and improving safety, and creating jobs in my district in Southern Nevada.

I appreciate the opportunity to discuss legislation that I introduced just this week, the "Three Kids Mine Remediation and Reclamation Act", H.R. 2512, to address a serious environmental, public safety, and abandoned mine reclamation issue in the City of Henderson, Nevada.

As the Chair mentioned, the "Three Kids Mine" is an abandoned manganese mine and mill site, consisting of approximately 1,262 acres of both Federal and private lands which lies within the Henderson City limits, and is literally across Lake Mead Parkway, a major roadway, from an increasing number of homes and businesses, and it is depicted on the map to my right.

The "Three Kids Mine" was owned and operated by various parties, including the U.S. Government, from approximately 1917 through 1961, and was used as a storage area for Federal manganese ore reserves from the late 1950s through 2003.

The project site contains numerous large, unstable shear-cliff open pits, as deep as 400 feet, huge volumes of mined overburden/tailings, mill facility remnants, and waste disposal areas, as can be seen on the photographs in front of me.

To give a sense of scale, the mine overburden is 10 stories high in some areas. Abandoned waste ponds are up to 60 feet deep, and filled with over one million cubic yards of gelatinous tailings containing high concentrations of arsenic, lead, and petroleum compounds.

Reclaiming the project site will require the excavation and management of at least 12 million cubic yards of material, enough to fill a modern sports stadium, six times. The presumptive remedy for the project site is to use the existing mine pits as permanent repositories for the mine residue in an appropriately engineered manner.

The Nevada Division of Environmental Protection has identified the "Three Kids Mine" as a high priority for the implementation of a comprehensive environmental investigation, remediation, and reclamation program.

Numerous unsuccessful proposals to clean up and redevelop the project site have been advanced over the years, but all were ultimately abandoned due to unrealistic estimates of the scale of the required remediation.

The legislation I have introduced, with the support of the entire Nevada delegation, is the result of over four years of work among the City of Henderson Redevelopment Agency, the Department of

the Interior, the State of Nevada, and private entities, to develop a program to finally clean up the "Three Kids Mine" site.

Boiled down to its simplest form, the Secretary of the Interior will convey the Federal lands at the project site, approximately 948 acres, at fair market value, taking into account the costs of investigating and remediating the entire site, which includes an additional 314 acres of now private lands that were used historically in mine operations.

The Federal Government will receive a release of liability for cleanup of both the Federal lands and the private lands. Under the legislation, before the Federal lands are conveyed, the State must enter into a binding consent agreement under which the cleanup of the entire project site will occur.

The consent agreement must include financial assurances to ensure the completion of the remediation and reclamation of the site, and the cleanup will be financed with private capital, and Nevada tax increment financing at no cost to the Federal Government.

According to preliminary estimates, the cleanup costs range from a low of \$300 million to a high of nearly \$1 billion. The BLM's preliminary estimate of the value of the lands to be conveyed, as if they were clean, ranges from \$95 million to \$190 million.

So, as you can clearly see, the cleanup costs will far outweigh the value of the lands to be conveyed. But before any conveyance of Federal land, the legislation requires an executed mine remediation and reclamation agreement between a responsible party and the State of Nevada that would govern the CERCLA-protective cleanup program for the entire project site.

Finally, in exchange for the conveyance of the lands, the United States would receive a complete release of liability for all existing environmental and hazardous safety conditions associated with the entire project site.

This is indeed a unique and complex public and private partnership proposal. It will finally lead to the cleanup of the "Three Kids Mine" site at no cost to the Federal Government.

In closing, I want to once again thank Chairman Lamborn and Ranking Member Holt, as well as other members of the Subcommittee, for holding a hearing on the serious problem of abandoned mined lands, and innovative solutions for addressing the problem. Again, thank you for your time and consideration.

[The prepared statement of Mr. Heck follows:]

**Statement of The Honorable Joe Heck, a Representative in Congress
from the 3rd District of Nevada**

Chairman Lamborn and Ranking Member Holt, thank you for inviting me to testify before the Subcommittee on an innovative solution for restoring the environment, improving safety, and creating jobs in my District in southern Nevada. I appreciate the opportunity to discuss legislation that I introduced this week—the Three Kids Mine Remediation and Reclamation Act—to address a serious environmental, public safety, and abandoned mine reclamation issue in the City of Henderson, Nevada.

The Three Kids Mine is an abandoned manganese mine and mill site consisting of approximately 1,262 acres of Federal and private lands which lies within the Henderson City limits and is literally across Lake Mead Parkway from an increasing number of homes and businesses. The Three Kids Mine was owned and operated by various parties, including the United States, from approximately 1917 through 1961, and used as a storage area for Federal manganese ore reserves from the late 1950s through 2003. The project site contains numerous large unstable sheer-cliff

open pits as deep as 400 feet, huge volumes of mine overburden/tailings, mill facility remnants and waste disposal areas. To give a sense of scale, mine overburden is ten stories high in some areas; abandoned waste “ponds” are up to 60 feet deep and filled with over one million cubic yards of gelatinous tailings containing high concentrations of arsenic, lead and petroleum compounds. Reclaiming the Project Site will require the excavation and management of at least 12 million cubic yards of material (enough to fill a modern sports stadium six times). The “Presumptive Remedy” for the Project Site is to use the existing mine pits as permanent repositories for the mine residue, in an appropriately engineered manner.

The Nevada Division of Environmental Protection has identified the Three Kids Mine as a high priority for the implementation of a comprehensive environmental investigation, remediation, and reclamation program. Numerous unsuccessful proposals to clean up and redevelop the Project Site have been advanced over the years. All were ultimately abandoned due to unrealistic estimates of the scale of required remediation, as well as the complexities posed by the mix of private and Federal ownership at the Project Site. Something must be done to address this serious blight on the Henderson community.

The legislation I have introduced, with the support of the entire Nevada Delegation, is the result of over four years of work among the City of Henderson Redevelopment Agency, the Department of the Interior, the State of Nevada, and private entities to develop a program to finally clean up the Three Kids Mine site. Boiled down to its simplest form, the Secretary of the Interior will convey the Federal lands at the project site—approximately 948 acres—at fair market value taking into account the costs of investigating and remediating the entire site, which includes an additional 314 acres of now-private lands that were used historically in mine operations. The Federal Government will receive a release of liability for cleanup of both the Federal lands and the private lands. Under the legislation, before the Federal lands are conveyed, the State must enter into a binding consent agreement under which the cleanup of the entire Project Site will occur. The consent agreement must include financial assurances to ensure the completion of the remediation and reclamation of the Site. The cleanup will be financed with private capital and Nevada tax increment financing at no cost to the Federal Government.

In more detail, the legislation would direct the Secretary to convey the 948 Federal acres of the Three Kids Mine project site to the Henderson Redevelopment Agency for fair market value, discounted to reflect the costs of cleanup of the entire Project Site. According to preliminary estimates, the cleanup costs for the Project Site range from a low of \$300 million to a high of nearly \$1 billion. The BLM’s preliminary estimate of the value of the lands to be conveyed as if they were “clean” ranges from \$95 million to \$190 million. The value and costs will be determined by the Secretary under the legislation using established national appraisal methods, environmental assessment standards, and cost estimating procedures. We fully expect the cleanup costs to substantially exceed the value of the lands to be conveyed. Moreover, given the mix of private and Federal lands at the project site and the substantial cleanup costs involved, there is no viable solution to remediate and reclaim the Federal lands without the private lands.

Before any conveyance of Federal land, the legislation requires an executed Mine Remediation and Reclamation Agreement between a responsible party and the State of Nevada that would govern the “CERCLA-protective” cleanup program for the entire Project Site (Federal and private lands) and ensure that the program is fully funded. Finally, in exchange for the conveyance, the United States would receive a complete release of liability for all existing environmental and hazardous safety conditions associated with the entire Project Site.

Fundamental to the economic viability of the entire project is the availability of “tax increment financing” under the Nevada Community Redevelopment Law. The Nevada Redevelopment Law allows the Redevelopment Agency to fund the cleanup of blighted conditions such as an abandoned mine and environmental contamination through use of an “increment” of property taxes collected within a designated redevelopment area over a 30-year “capture period.” The “increment” is a portion of the assessed value of the property which predictably increases in value following cleanup and as the subsequent commercial and residential redevelopment build-out occurs. To advance this important project, the City of Henderson completed annexation of the Three Kids site in January 2009, and the Lakemoor Canyon Redevelopment Area was established in February 2009.

This is a unique and complex “public/private partnership” proposal. It will finally lead to the cleanup of the Three Kids Mine site at no cost to the Federal Government. Millions of dollars have been spent on this effort to date on environmental assessment work at the Project Site and to advance discussions and negotiations among project stakeholders. I believe that this initiative offers a viable solution for

the cleanup and reclamation of the Three Kids Mine and could serve as a model for other similar sites across the country. I would respectfully request that the Subcommittee grant expeditious consideration of the Three Kids Mine Remediation and Reclamation Act.

In closing, I want to once again thank Chairman Lamborn and Ranking Member Holt, as well as the other members of the Subcommittee, for holding a hearing on the serious problem of abandoned mined lands, and innovative solutions for addressing the problem. I would be happy to answer any questions the Subcommittee might have.

Mr. LAMBORN. All right. I want to thank you for your testimony and for being here today. If anyone submits questions to you, we would ask you to answer them in writing, and we will excuse you now, and we will go to the second panel.

Mr. HOLT. If I may ask one question before he leaves.

Mr. LAMBORN. Certainly.

Mr. HOLT. Thank you. Since I can't see the graphics here, you say that this is a residential area surrounding it?

Mr. HECK. Across from this area is a residential area. That is correct.

Mr. HOLT. And what is the anticipated use, or what might you imagine of the use of this land then?

Mr. HECK. Once fully reclaimed or remediated, it is being considered by the City of Henderson as a mixed-use development site.

Mr. HOLT. All right. Thank you.

Mr. LAMBORN. All right. Thank you. And I would like to invite everyone else to come up to form the second panel, and we are consolidating things for the sake of time, and I once again apologize for having that vote series earlier, but that was out of our control.

So, The Honorable Marcilynn Burke, The Honorable Joel Holtrop, Anu Mittal, Loretta Pineda. Let us see. Marcilynn Burke is the Deputy Director of the Bureau of Land Management. Joel Holtrop is the Deputy Chief of the United States Forest Service.

Anu Mittal is the Director of the Natural Resources and Environment Section of the GAO, the Government Accountability Office. Loretta Pineda is the Director of the Division of Reclamation, Mining, and Safety, of the Colorado Department of Natural Resources, and is also here on behalf of the Interstate Mining Compact Commission, and the National Association of Abandoned Mine Land Programs.

Laura Skaer is the Executive Director of the Northwest Mining Association. Thomas Martin Baker is the Chairman of the Board of the Appalachian Wildlife Foundation and is here on behalf of Safari Club International and Lauren Pagel, Policy Director of Earthworks.

Now, like all witnesses, your written testimony will appear in full in the hearing record, and so I ask that you keep your oral statements to five minutes as outlined in our invitation letter to you.

You will have to turn on the microphone because they are not automatic. The five-minute light starts when you begin speaking, and the yellow light comes on when there is one minute left, and the red light comes on when your five minutes are over.

Now, I am going to take one witness out of order. We normally go—and I intend to always go with our Federal Government wit-

nesses first as a courtesy. We have one person here who has to catch a plane, and so Mr. Baker, I am going to ask that you go first, and then you may be excused to go catch your plane, and then at that point, we will just finish with the rest of our panel. So, you may begin, Mr. Baker.

STATEMENT OF THOMAS MARTIN BAKER, CHAIRMAN OF THE BOARD, APPALACHIAN WILDLIFE FOUNDATION, AND ON BEHALF OF SAFARI CLUB INTERNATIONAL

Mr. BAKER. Thank you, Mr. Chairman. My name is Tom Baker. I am a hunter, a sportsman, and a conservationist. Just as a side note, my three oldest sons are active duty United States Marines, proudly serving our country, and my wife and I have been married 30 years.

I can tell you that 30 years ago when I met her, she told me that she loved stuffed animals. That meant something entirely different to me than it did to her. Over a century ago a group of concerned individuals banded together to save a place known as Yellowstone.

The story that follows from the efforts of these visionaries of the Boone and Crockett Club is cherished as one of our Nation's greatest accomplishments. The history of the Hunter Sportsman is a tale of over 100 years of measured and thoughtful commitment to conservation.

It is a commitment that balances human needs with wildlife needs, a commitment that sees deep value in preserving the hunting tradition, as well as in conserving wildlands and wildlife.

It is a commitment that grows out of a powerful love of wildlife, but is also shaped by common sense and a business like approach to managing natural resources. By the turn of the century, unrestricted killing of wildlife for markets, for pioneer settlement of the West, and Native American government conflicts, had taken their toll on most North American big game populations, and on many species of bird and fish.

At that time a national conscience that opposed the destruction of America's wildlife and natural resources was in its infancy. Over the next several decades, Theodore Roosevelt, along with Members such as Aldo Leopold, and "Ding" Darling, championed the passage of laws, the establishment of institutions, and the designation of wildlands, which today make up our Nation's conservation system, our National Forests, our National Parks, our National Wildlife Refuge System, exists today in large part because of the extensive efforts of the Boone and Crockett Club, and the sportsmen and women of America.

The fundamental policy behind management of our Federal lands is multiple use. Sportsmen recognize that. Let me offer you a following example of the success that is attainable when sportsmen groups cooperate with mining companies.

In 1996, the Rocky Mountain Elk Foundation pledged over \$1.4 million to the State of Kentucky's Elk Restoration Project. On December 18th, 1997, seven elk that had been captured in Western Kansas were released at the Cyprus Amax Wildlife Management Area in Eastern Kentucky.

This was the first of a series of releases that continued through the winter of 2002. The plan originally contemplated releasing

1,800 elk at a rate of 200 per year for nine years across the 15 county restoration zone.

The translocations were discontinued in 2002 with just over 1,500 elk having been released at eight different sites, 500 of them in the final 12 months of the releases. Since 1997 the Foundation has increased its funding of the project to \$2 million.

The elk have thrived in Kentucky. They are achieving a 90 percent breeding success rate, and a 92 percent calf survival rate. The absence of predators, relatively mild Kentucky winters, and abundant food sources, have not only contributed to the remarkable population growth, but also account for the fact that the Kentucky elk are on an average 15 percent larger than elk found in the Western States.

By July of 2000, Kentucky had the largest free ranging wild elk herd east of Montana. Today, State wildlife officials estimate the herd size has grown to over 10,000 animals.

In 2011, more than 61,000 applicants applied for one of the 800 permits offered by the State for elk hunting. The application process alone generated in excess of \$700,000 for the Department of Fish and Wildlife Resources.

More importantly, it is estimated that more than \$23 million was generated in the local economy from elk hunting, elk viewing, elk tours, hotel stays, and restaurant visits. This one project alone has been a tremendous boost to the economy of Southeast Kentucky.

In summary, we need to strive to alleviate the disconnect between the many different interests that view these ALM sites. Working to a like cause, where one in wildlife, as well as people, benefit from a well thought out and well executed plan. This is where we should strive to be.

We need every abandoned mine site and disturbed soil site turned back to a wildlife restoration tool. As we approach these new projects before us, we need every energy site a showcase for innovative wildlife friendly restoration designs that address the pertinent issues.

From sage grouse to deer, elk, small mammals, song birds, pollinators, and other wildlife, all these species are reliant to our doing what is best. This is more than a pipe dream. The technology, and scientific resources, research data, and enthusiastic groups, are in place to accomplish these goals and create jobs in an economy that desperately needs them. Thank you.

[The prepared statement of Mr. Baker follows:]

**Statement of Thomas M. Baker, Chairman of the Board,
Appalachian Wildlife Foundation**

Over a century ago, a group of concerned individuals banded together to save wildlife and a place known as Yellowstone. The story that follows from the efforts of those visionaries of the Boone and Crockett Club is cherished as one of our nation's greatest accomplishments.

The history of the Hunter/Sportsman is a tale of over 100 years of measured and thoughtful commitment to conservation. It is a commitment that balances human needs with wildlife needs; a commitment that sees deep value in preserving the hunting tradition, as well as in conserving wild lands and wildlife; a commitment that grows out of a powerful love of wildlife, but that is also shaped by a common-sense, business-like approach to managing natural resources.

By the turn of the century, unrestricted killing of wildlife for markets, pioneer settlement of the West, and Native American/government conflict had taken their toll

on most North American big game populations, and on many species of bird and fish. At that time, a national conscience that opposed the destruction of America's wildlife and natural resources was in its infancy.

Over the next several decades, Theodore Roosevelt, along with members such as Aldo Leopold and J.N. "Ding" Darling, championed the passage of laws, the establishment of institutions, and the designation of wild lands which today make up our nation's conservation system. Our National Forest's, National Parks, and the National Wildlife Refuge Systems exist today in large part because of the extensive efforts of the Boone and Crockett Club and the sportsmen and women of America.

Abandoned mine lands can have serious negative impacts on wildlife habitat, especially for fish and aquatic species. While we understand the primary focus of AML efforts to clean up and restore sites that pose threats to health and human safety, we would like to see a higher priority given to AML sites that are having significant impacts on fish and wildlife habitat (Priority 3 sites).

At a time when regulators are giving intense scrutiny to new mining permits because of water quality impacts, very little AML funding is available for Priority 3 sites. This is especially true in the Appalachian Region where there was extensive surface mining prior to the passage of SMCRA. While regulators are more diligent than ever on new mine permits, these old "pre-law" mine sites have been polluting water for at least 35 years. It will take years and probably hundreds of millions of dollars to fix these sites in a manner that will improve water quality, and restore habitat for fish and other aquatic species, some of which are considered imperiled.

The Appalachian coal fields are experiencing some of the worst unemployment rates in the United States, and have the greatest concentration of pre-law coal mine sites. Making more funds available for Priority 3 sites in the Appalachian Region would greatly benefit the ecological integrity of the region as well as provide much needed jobs in doing the cleanup.

With that said, here are a few points we would like the committee to consider.

1. AML funds should be directed to where the greatest needs are for the clean-up and restoration of habitat on pre-law coal mines, and not be tied so heavily to where coal is mined currently. Current coal production is not reflective of where mining occurred before SMCRA was passed. The Appalachians have enormous needs for AML funds, and a state like Tennessee cannot get adequate AML funds because the current production of coal in Tennessee is very low, yet Tennessee has enormous AML problems.
2. We need adequate "Good Samaritan" protection from liability for companies, non-profit groups, local and state governments, and anybody else that might want to voluntarily clean up and restore habitat to an AML site. The disincentives for this must be removed.
3. We would like to see consideration given to dispersing a portion of AML funds through grants in a program similar to current Farm Bill programs like the Conservation Reserve Program, Conservation Restoration and Enhancement Program, Wetlands Reserve Program, and Wildlife Habitat Incentive Program. Non-profit organizations, state agencies, private landowners and other appropriate entities could qualify for grants that would cost-share AML projects. Priority could be given to projects that improved habitat for threatened and endangered, or imperiled aquatic and upland species.
4. We would like to see consideration given to coupling mitigation efforts and AML projects that improve aquatic habitat and can help improve water sources used for municipal drinking water. Some streams in need of reconstruction and channel restoration efforts do not qualify for mitigation efforts because of water quality impairments from pre-law mine sites.
5. Provide more incentives for "re-mining" of AML coal mine sites on private and public lands.
6. While there is a great need for funds to address pre-law hard rock mines, a new source of funding needs to be created specifically for these types of mines so that funds generated from coal mining can be used for the original intent of cleaning up abandoned coal mines.

Let me offer the following project as an example of the success attainable when sportsman's groups cooperate with mining companies

In 1996 the Rocky Mountain Elk Foundation pledged over \$1.4 million to the state of Kentucky's elk restoration project. On December 18, 1997, seven elk that had been captured in Western Kansas were released at the Cyprus Amax Wildlife Management Area in Eastern Kentucky. This was the first of a series of releases that continued thru the winter of 2002. The plan originally contemplated releasing 1,800 elk at a rate of 200 per year for 9 years across a 15 county restoration zone. The translocations were discontinued in 2002, with just over 1,500 elk having been

released at 8 different sites, 500 in the final 12 months of the releases. Since 1997, the Foundation has increased its funding of the project to \$2,000,000.

The elk have thrived in Kentucky. They are achieving a 90% breeding success rate, and a 92% calf survival rate. The absence of predators, relatively mild Kentucky winters and abundant food sources have not only contributed to the remarkable population growth, but also account for the fact that the Kentucky elk are on average 15% larger than elk found in western states. By July 2000, Kentucky had the largest free ranging, wild elk herd east of Montana.

Today, state wildlife officials estimate the herd size has grown to over 10,000 animals. In 2011, more than sixty-one thousand applicants (61,000) applied for one of the eight hundred (800) permits offered by the state for elk hunting. The application process alone generated in excess of \$700,000.00 for the Department of Fish and Wildlife Resources. More importantly, it is estimated that more than Twenty-three million dollars (\$23,000,000.00) was generated in the local economy from elk hunting, elk viewing, elk tours, hotel stays and restaurant visits. This one project alone has been a tremendous boost to the economy of south-east Kentucky.

In summary, we need to strive to alleviate the disconnect between the many different interests that view these AML sites. Working to a like cause, one wherein wildlife as well as people benefit from a well thought out well executed project. This is where we should strive to be. We need every abandoned mine and disturbed soil site turned back to a wildlife restoration tool. As we approach these new projects before us, we need every energy site a showcase for innovative wildlife friendly restoration designs that address the pertinent issues. From sage grouse to deer, elk, small mammals, song birds, pollinators, and other wildlife, all these species are reliant to our doing what is best. This is more than a pipe dream, the technology, scientific resources, research data, and enthusiastic groups are in place to accomplish these goals and create jobs in an economy that desperately needs them.

Mr. LAMBORN. All right. So, I can assume from what you said when you first started that you have some stuffed animals at home.

Mr. BAKER. I do, sir, several hundred.

Mr. LAMBORN. Now, would the things that are successful in Kentucky also work in an arid or semi-arid Western State like Nevada?

Mr. BAKER. I would say that it happens every day right now. Sportsmen's groups around the country are known for their philanthropy, in terms of donating their time, their money, and their efforts, and are the leaders I think in conservation in providing those types of services for all types of habitat projects, reclamation projects, going out and cleaning up the land, and working on any site that would harbor wildlife or fisheries.

Mr. LAMBORN. All right. At this point, I would like to see if the Ranking Member has any questions?

Mr. HOLT. I have no questions now.

Mr. LAMBORN. Or the Member from Pennsylvania, Mr. Thompson?

Mr. THOMPSON. Just briefly, Mr. Chairman. Mr. Baker, thanks for your testimony. I am from Pennsylvania, and we have a lot of abandoned mine sites, and in fact, if you are ever in Pennsylvania, I would welcome you to the 5th District.

We have a wonderful elk visitors center that is located strategically in the area of abandoned mine sites that have been claimed. I am just curious. In your experiences, have you identified any particular barriers as a third-party organization working with government, and working with landowners, run up against difficulties or barriers to making this model work?

Because it seems to me that based on hearing your testimony, and my observations, they are a very effective model, and one of a number to be able to utilize these lands reclaim them.

I know that our elk herd is not as large as Kentucky's. We have about a thousand, but they are an economic engine, in terms of the income from tourism and from hunting, that comes into Pennsylvania.

So, are there any particular issues that you found that make what has happened in Kentucky difficult, and barriers to be overcome?

Mr. BAKER. There are several things that come to mind. Sometimes access. Many of these mines that you are speaking of are on private land in many States, and so getting permission to go in and work on these properties in a cooperative manner with the landowner can sometimes be an issue.

Obviously money to fund these projects. These sportsmen have all the energy in the world. They are happy to go out and work on clearing up the habitat. There is no doubt in my mind that sportsmen will do that.

If there was a way that some of these monies in the AML funds could be directed to potentially other uses, other than the few distinct uses that are allowed for now, I think there could be a great combination of effort to help clean up these sites.

Mr. THOMPSON. Thank you, and thank you, Mr. Chairman.

Mr. LAMBORN. All right. Thank you for coming. You may be excused and thank you for your testimony and answering questions. I hope you catch your plane OK.

Mr. BAKER. Thank you very much.

Mr. LAMBORN. OK. Now we will resume the regular order for our list of witnesses, and we will start with Marcilynn Burke.

**STATEMENT OF THE HON. MARCILYNN BURKE,
DEPUTY DIRECTOR, BUREAU OF LAND MANAGEMENT**

Ms. BURKE. Good afternoon, and thank you for inviting the Bureau of Land Management to testify today on our abandoned mine lands program, or our AML program. This program is one of the agency's most challenging due to the sheer number of AML sites that are associated with safety and environmental hazards, and the complexity of remediating them.

The BLM maintains an inventory of known abandoned mine sites on public lands, and most of those are abandoned hardrock mines. On BLM managed land, there are approximately 31,000 abandoned mine sites, with almost 66,000 features, such as open shafts, contaminated tailings or wastes, and other physical and environmental hazards.

The BLM is committed to continuing to address these hazardous sites, and has taken a number of steps to build a comprehensive AML program. Together with our partners, the BLM is making progress to remediate these hazards left behind by the Nation's mining legacy.

In contrast to past practices, today in order to conduct hardrock mining on BLM lands, companies must post full reclamation bonds for their mining operations. Thus, the BLM's ALM program addresses abandoned mine lands that stem from historical, rather than recent, mining development.

The agency's ALM program received approximately \$16 million in Fiscal Year 2011. the BLM prioritizes sites to receive funding

based upon its AML national level evaluation criteria. These criteria are used to evaluate the relative risk posed by environmental and physical hazards at each AML site.

The BLM leverages its financial resources by partnering with local, State, and tribal governments, and other Federal agencies, as well as industry and nonprofit organizations. Each year, there are tragic and potentially avoidable losses of life resulting from devastating falls in open shafts of abandoned mines.

One such case occurred in Nevada in March of this year. On his day off, a worker for a geothermal company was exploring abandoned mine sites with his friends when he fell approximately 180 feet to his death at the Rex Mine site.

The Nevada Department of Wildlife and the BLM had previously secured some of the hazardous features on this difficult to access and extremely remote mine site. After this tragic accident, the BLM worked with several partners to further address the hazards of the site.

The BLM worked with the Great Basin Institute, a nonprofit organization, which conducted archeological surveys at the site, as well as the Nevada Department of Wildlife, and the Nevada Division of Minerals, to secure the remaining hazardous features at the site.

The President's 2012 budget proposes legislation to address the AML hazards on Federal, State, and tribal, and private lands. The proposal addresses abandoned hardrock mines across the country through a new AML fee on hardrock development.

Just as the coal industry is held responsible for abandoned coal sites, the Administration proposes to hold the hardrock mining industry responsible for abandoned hardrock mines.

In a 2008 report the Office of the Inspector General for the Department of the Interior found that the BLM and the National Park Service needed to better address hazards posed by abandoned mines on their lands.

The BLM has taken a number of steps in the past few years to build a comprehensive program that includes improving and updating our inventory of known sites and features, revising our strategic plan, implementing the Fix-A-Shaft Today or FAST Program, which encourages volunteers to participate in inventory and safety closure projects, and developing guidance to our field office to encourage increased stakeholder involvement and improved coordination with our partners.

This program is working, and we are confident that we will advance the program in the future. Of the 31,000 abandoned mine sites that are on BLM managed lands, about 25 percent have either been remediated or have reclamation actions planned or underway.

The BLM is operating a dynamic abandoned mine land program in the face of many challenging realities on the ground. We are making progress and are committed to making the program a success with the help of our many partners. Thank you again for the opportunity to testify this afternoon, and I am happy to answer any questions.

[The prepared statement of Ms. Burke follows:]

**Statement of Marcilynn Burke, Deputy Director,
Bureau of Land Management, U.S. Department of the Interior**

Introduction

Thank you for inviting the Bureau of Land Management to testify today on “Abandoned Mine Lands: Innovative Solutions for Restoring the Environment, Improving Safety and Creating Jobs.”

Nationally, the BLM’s Abandoned Mine Lands (AML) program is one of the agency’s most challenging due to the sheer number of AML sites, their associated safety and environmental hazards, and the complexity of remediating them. The BLM maintains an inventory of known abandoned mines on public lands, most of which are abandoned hardrock mines. On BLM-managed lands, there are approximately 31,000 abandoned mine sites with almost 66,000 features, such as entryways, contaminated tailings, and other physical and environmental hazards. The BLM is committed to continuing to address and remediate these hazardous sites, and has taken a number of steps to build a comprehensive AML program. Together with the collaborative efforts of the agency’s AML partners, the BLM is making progress to remediate these hazards left from the nation’s mining legacy.

Historical Background

The paradox presented by the abandoned mine challenge is playing out across the West. For a century and a half after gold was discovered in 1848, starting the famous California Gold Rush, miners scoured hillsides and mountains, dug pits, and subsequently abandoned them with little or no reclamation, creating the public safety issues we face today. These years of mining have left thousands of dangerous shafts, portals, and other hazards. In that time, the settlement of the West took root and flourished, and today these growing populations that are eager to enjoy the outdoors by hiking, hunting, and riding off-highway vehicles are at risk from the remnants of our mining past.

Each year there are tragic and potentially preventable stories about the loss of life, such as a devastating fall into an open shaft of an abandoned mine. One such case occurred in Nevada in March. A worker for a geothermal company was exploring abandoned mine sites with friends on a day off when he fell approximately 180 feet to his death at the Rex Mine site. The Nevada Department of Wildlife and the BLM had previously secured some of the hazardous features of the Rex Mine, but the site is difficult to access and is in an extremely remote location.

The BLM is updating its national AML inventory database continuously as new sites are discovered and further inventories are completed. While a majority of AML sites pose safety hazards such as open mine shafts and pits, unstable rock, decaying support beams, and even explosive and toxic chemicals, approximately 20 percent pose environmental hazards to human health and drinking water. These hazards include mercury contamination in discharge from placer gold mines and mercury mines, and sediment from asbestos mines, arsenic and lead contamination from mine tailings, and acidic mine drainage from large sulfide mines. We have identified many sites with the highest potential for harm to public health and safety and are continuing to work with Federal, State, and Tribal partners to address them.

BLM’s AML Program

In contrast to these past practices, hardrock mining today on BLM lands requires companies to post full reclamation bonds for their mining operations. Thus, the BLM’s AML program remediates abandoned mine lands from historical development. The AML program supports the BLM’s core programs by restoring degraded water quality, cleaning up mine waste that has been contaminated by acid mine drainage and heavy metals, such as zinc, lead, arsenic, and mercury, remediating other environmental impacts on or affecting public lands, and mitigating safety issues.

The BLM’s environmental cleanup and remediation activities cover a broad spectrum, and are guided by important laws such as: the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); the Federal Land Policy and Management Act (FLPMA); and the National Environmental Policy Act (NEPA). Through the application of those laws, the agency addresses the impacts from the associated hazards along with the proposed mitigation work necessary to remediate a site.

The BLM’s AML program received approximately \$16 million in FY 2011. The BLM prioritizes which sites receive funding based upon AML National Level Evaluation Criteria found in the BLM AML Program’s Strategic Plan, which weighs several different criteria for both environmental and physical safety sites. In addition the BLM received approximately \$4 million in FY2011 from the Department of the

Interior Central Hazardous Materials Fund. When a responsible party is known, the BLM also seeks cost recovery and in-kind services.

The BLM works to stretch these financial resources by partnering with local and state governments, tribes, and other federal agencies, as well as industry and non-profit organizations. For instance, after the Rex Mine accident mentioned earlier, the BLM worked with the Great Basin Institute, which conducted archaeological surveys, as well as the Nevada Department of Wildlife, and Nevada Division of Minerals, to secure remaining features at the site. The BLM in Nevada has been a leader in leveraging partnerships. Its roster of current active partners includes educational and nonprofit groups such as Bat Conservation International, Nevada Mining Association, University of Nevada Reno, and the Desert Research Institute; a host of local governments, including the Pyramid Lake Paiute and Walker River Paiute Tribes, and numerous state and Federal agencies.

Through the American Recovery and Reinvestment Act (ARRA), the BLM received nearly \$30 million and was able to undertake 77 mine remediation projects. One of those projects was to close the War Eagle Abandoned Mine on the Western Slope of Colorado. The project used \$30,000 in ARRA funding that provided the workers to close 21 unsafe mine openings in an area popular for hiking, fishing, touring, and off-road vehicle riding. The BLM completed the work on this three-county project with partners from the state, including the Colorado Division of Reclamation, Mining and Safety.

AML Legislative Proposal

The President's 2012 Budget proposes legislation to address AML hazards on Federal, State, Tribal, and private lands. The proposal addresses abandoned hardrock mines across the country through a new AML fee on hardrock production. Just as the coal industry is held responsible for abandoned coal sites, the Administration proposes to hold the hardrock mining industry responsible for abandoned hardrock mines. The proposal will levy an AML fee on all uranium and metallic mines on both public and private lands that will be charged on the volume of material displaced. The fee will be collected by the Office of Surface Mining, while the receipts will be distributed by BLM. An advisory council comprised of representatives of Federal agencies, States, Tribes, and non-government organizations, will create objective criteria to rank AML projects. Using this prioritized list of National sites, BLM will be able to distribute funds to reclaim the Nation's most dangerous and environmentally hazardous sites each year.

Moving Forward

The Office of the Inspector General (OIG) found in a 2008 report that the BLM and NPS needed to better address hazards posed by abandoned mines on their lands.

The BLM has taken a number of steps to build a comprehensive AML program that include: improving the inventory of known ALM sites and features, revising the BLM AML Strategic Plan; implementing the "Fix a Shaft Today" program that encourages volunteers to participate in inventory and safety closure projects; and developing guidance to encourage increased stakeholder involvement and improved coordination with AML partners at the Federal, state and local level. We realize the importance of an effective AML program and the need to best prioritize limited funding.

The program is working, and we will continue to make progress. Of the 31,000 abandoned mine sites mentioned earlier, about 25 percent have either been remediated or have reclamation actions planned or underway. Most of the remaining 75 percent require further investigation and remediation, posing a significant challenge as we seek to protect public health and safety, as well as the environment.

Conclusion

The BLM is operating a dynamic abandoned mine land program in the face of challenging realities on the ground. We are making progress and are committed to making the program a success. Thank you and I am happy to answer any questions.

Mr. LAMBORN. All right. Thank you for your testimony, and your patience in being here, and now we will hear from Mr. Holtrop.

**STATEMENT OF THE HON. JOEL HOLTROP, DEPUTY CHIEF,
UNITED STATES FOREST SERVICE**

Mr. HOLTROP. Thank you for the opportunity to testify before you today on the United States Forest Service's abandoned mine lands program. Since the early 1990s, 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 across many jurisdictional boundaries can 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.

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, key watersheds, and other sites across public and private boundaries.

Various estimates exist for the number of abandoned mines on National Forest system lands, but the exact number is unknown. However, there may be 27,000 to 39,000 abandoned mines of all types on National Forest system lands.

Data also indicates that 9,000 to 13,000 of the abandoned hardrock mines have records of past mineral production, and therefore are considered more likely to require environmental cleanup or safety mitigation work. The scope of AML cleanup on land managed by the Forest Service is large and can consume an estimated \$4 billion to \$6 billion, or even more, considering potential long term treatment needs to complete response actions at these sites.

There are three categories of work that may be funded at abandoned mine land sites. 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. A second is cleanup of non-hazardous substance-related surface disturbance, such as revegetation of disturbed areas, reconstruction of stream channels and flood planes, and the third is mitigation of physical safety hazards, such as closure of adits and shafts, and removal of dangerous structures.

Since 1998, we have 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.

Environmental cleanups of abandoned mines vary in size, from hundreds of thousands, to many millions of dollars. In almost all cases the site investigation, the planning and actual cleanup work

is performed by private environmental engineering and construction firms under contract to the Forest Service.

States such as Colorado, Arizona, New Mexico, and California, have the largest abandoned mine safety hazard mitigation workload. We work closely with local communities throughout the reclamation process by involving them in decision making regarding cleanup, and providing a range of training opportunities and involving local contractors in the remediation work, thus creating local employment opportunities.

The Forest Service coordinated with States during the inventory phase of the AML program by using data from State inventories. Coordination with States on environmental cleanup and safety projects is encouraged through the use of project selection criteria, which rewards State and Federal partnerships, and evidence of State priorities, such as work within a State's 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, where cleanup involves mixed ownership sites that include private or State lands. That concludes my statement, and I will be happy to answer any questions that you may have.

[The prepared statement of Mr. Holtrop follows:]

**Statement of Joel Holtrop, Deputy Chief, National Forest System,
Forest Service, U.S. Department of Agriculture**

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 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;

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

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.

Mr. LAMBORN. Thank you for your testimony. Next is Anu Mittal, who is the Director of Natural Resources and Environment for the Government Accountability Office.

STATEMENT OF ANU MITTAL, DIRECTOR, NATURAL RESOURCES AND ENVIRONMENT, GOVERNMENT ACCOUNTABILITY OFFICE

Ms. MITTAL. Thank you, Mr. Chairman. Chairman Lamborn, Ranking Member Holt, and Members of the Subcommittee, I am pleased to be here today to participate in your hearing on abandoned mines.

Between 2005 and 2009, the Government Accountability Office conducted a body of work related to hardrock mining that we believe provides important context for the issues being discussed at today's hearing.

Therefore, I would like to summarize the key findings of this work, and my comments will focus on the lack of good information on the number of abandoned hardrock mines, the general lack of mining information collected on Federal lands, the costs associated with cleaning up abandoned mines, and the inadequacy of the financial assurances provided by mining operators.

With regard to the lack of accurate information on the number of abandoned hardrock mines, in 2008 and 2009, we reported that Federal Agencies could not definitively determine the numbers of such sites on their lands, and Federal agency estimates that we reviewed were not reliable.

In addition, when we reviewed estimates prepared by others on the total number of abandoned hardrock mines in 13 States, where most of this mining activity occurs, we found that they, too, did not provide an accurate assessment of the number of abandoned mines on public and private lands because they used differing definitions.

Therefore, in 2008, we developed a standard definition for what constitutes an abandoned hardrock mining site, and based on this

definition, we determined that at that time there were at least 161,000 abandoned hardrock mines in the 13 States.

These sites had at least 332,000 potentially unsafe features, and at least 33,000 of them had degraded the environment. In addition to the lack of information on abandoned mines, there is a general lack of information collected by Federal Agencies about mining operations on Federal lands.

For example, in 2008, and again this year, we reported that BLM and the Forest Service either did not routinely collect, or did not consistently maintain, data on the amount of hardrock minerals being produced on Federal land, or the amount of hardrock minerals remaining.

According to the BLM and the Forest Service, they do not have the authority to collect this type of information from mining operators. Therefore, we concluded that comprehensive information on hardrock mineral production on Federal land is generally not available to the public.

Regarding the cost of cleanup of abandoned mine sites, we reported in 2008 that over a 10 year period, four Federal Agencies had spent at least \$2.6 billion to reclaim abandoned hardrock mine sites on Federal, State, private, and Indian lands.

Of this amount, the EPA had spent the most, \$2.2 billion, which was largely spent on abandoned mines on non-Federal lands. The remaining approximately \$400 million was spent on cleanup at sites on Federal and Tribal lands by BLM, the Forest Service, and the Office of Surface Mining.²¹ One of the factors that contributes to the costs incurred by the Federal Government to reclaim lands disturbed by mining is the lack of adequate financial assurances. Adequate financial assurances are important in the event that an operator abandons a mine and does not conduct the required reclamation of the site.

However, our work has demonstrated that this has been a long-standing problem at the BLM. For example, when we reviewed BLM's financial assurances in 2005, and again in 2008, we found that both times the financial assurances that BLM had in place were tens of millions of dollars short of the amount needed to cover estimated reclamation costs for hardrock mining operations on its lands.

Similarly, our work at the EPA has shown that the Agency has not taken full advantage of the statutory authorities that Congress has provided to address the financial responsibilities associated with hardrock mining operations on non-Federal land.

As a result, we concluded in 2006 that significant gaps exist in the financial assurances that the EPA requires from hardrock mining operators, and therefore this increases the likelihood that taxpayers will have to assume financial responsibility if these mines are abandoned.

In conclusion, Mr. Chairman, that while we agree that innovative approaches are needed to clean up abandoned mines, our work also shows that Federal Agencies need to get a better handle on the magnitude of this problem, and they need to take appropriate steps to reduce the financial liabilities that these operations can create for taxpayers.

This concludes my prepared statement. I would be happy to respond to any questions that you have.

[The prepared statement of Ms. Mittal follows:]

Statement of Anu K. Mittal, Director, Natural Resources and Environment Team, United States Government Accountability Office

Chairman Lamborn, Ranking Member Holt, and Members of the Subcommittee

We are pleased to be here today to participate in this hearing on abandoned mines. As you know, the General Mining Act of 1872 encouraged the development of the West by allowing individuals to stake claims and obtain exclusive rights to the gold, silver, copper, and other valuable hardrock mineral deposits on land belonging to the United States. Since then, thousands of operators have extracted billions of dollars worth of hardrock minerals from land managed by the Department of the Interior's Bureau of Land Management (BLM) and the Department of Agriculture's Forest Service—the two principal agencies responsible for federal lands open for hardrock mining.¹ BLM issued regulations in 1981 requiring all operators of these mines to reclaim the land when their operations cease, but some did not and abandoned these mines. As a result, thousands of acres of federal land that were disturbed for exploration, mining, and mineral processing now pose serious environmental and physical safety hazards. Environmental hazards include toxic or acidic water that contaminates soil and groundwater and physical safety hazards include concealed shafts, unstable or decayed mine structures, or explosives. Cleanup costs for these abandoned mines vary by type and size of the operation. For example, the cost of plugging holes is usually minimal, but reclamation costs for large mining operations can be in the tens of millions of dollars.

From 2005 through 2009, we issued several products on various issues related to abandoned hardrock mines as well as current hardrock mining operations on federal land that are relevant to the issue being discussed at today's hearing.² These products included information on the number of abandoned hardrock mines, the availability of information collected by the federal agencies on mining operations on federal land, the amount of funding that federal agencies have spent to cleanup abandoned mine sites, and the value of financial assurances that federal agencies collect from operators to cover the cost of reclamation in the event that an operator does not reclaim the land. My testimony today will summarize the key findings of these products. More information on our scope and methodology is available in each published product.

The work presented in these products was conducted in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provided a reasonable basis for our findings and conclusions based on our audit objectives.

Background

Historically, the mining of hardrock minerals, such as gold, lead, copper, silver, and uranium, was an economic incentive for exploring and settling the American West. However, when the ore was depleted, miners often left behind a legacy of abandoned mines, structures, safety hazards, and contaminated land and water. Even in more recent times, after cleanup became mandatory, many parties responsible for hardrock mining sites have been liquidated through bankruptcy or otherwise dissolved. Under these circumstances, some hardrock mining companies have left it to the taxpayer to pay for cleanup of the mining sites.

Four federal agencies—the Department of Agriculture's Forest Service, the Environmental Protection Agency (EPA), and the Department of the Interior's BLM and Office of Surface Mining Reclamation and Enforcement (OSM)—fund the cleanup and reclamation of some of these abandoned hardrock mine sites. BLM's and the

¹ An operator is a person who conducts operations in connection with exploration, mining, and processing hardrock minerals on federal land.

² GAO, *Hardrock Mining: Information on Types of State Royalties, Number of Abandoned Mines, and Financial Assurances on BLM Land*, GAO-09-429T (Washington, D.C.: Feb. 26, 2009); GAO, *Hardrock Mining: Information on State Royalties and Trends in Mineral Import and Exports*, GAO-08-849R (Washington, D.C.: July 21, 2008); GAO, *Hardrock Mining: Information on Abandoned Mines and Value and Coverage of Financial Assurances on BLM Land*, GAO-08-574T (Washington, D.C.: Mar. 12, 2008); GAO, *Environmental Liabilities: Hardrock Mining Cleanup Obligations*, GAO-06-884T (Washington, D.C.: June 14, 2006); and GAO, *Hardrock Mining: BLM Needs to Better Manage Financial Assurances to Guarantee Coverage of Reclamation Costs*, GAO-05-377 (Washington, D.C.: June 20, 2005).

Forest Service's Abandoned Mine Lands programs focus on the safety of their land by addressing physical and environmental hazards. EPA's funding, under its Superfund Program, among other things, focuses on the cleanup and long-term health effects of air, ground, or water pollution caused by abandoned hardrock mine sites, and is generally for mines on nonfederal land. OSM, under amendments to the Surface Mining Control and Reclamation Act of 1977, can provide grants to fund the cleanup and reclamation of certain hardrock mining sites.³

BLM and the Forest Service are responsible for managing more than 450 million acres of public land in their care, including land disturbed and abandoned by past hardrock mining activities. BLM manages about 258 million acres in 12 western states, and Alaska.⁴ The Forest Service manages about 193 million acres across the nation. In 1997, BLM and the Forest Service each launched a national Abandoned Mine Lands Program to remedy the physical and environmental hazards at thousands of abandoned hardrock mines on the federal land they manage. According to a September 2007 report by these two agencies, they had inventoried thousands of abandoned sites and, at many of them, had taken actions to cleanup hazardous substances and mitigate safety hazards.⁵ BLM and the Forest Service are also responsible for managing and overseeing current hardrock operations on their land, including the mining operators' reclamation of the land disturbed by hardrock mining. Reclamation can vary by location, but it generally involves such activities as regrading and reshaping the disturbed land to conform with adjacent land forms and to minimize erosion, removing or stabilizing buildings and other structures to reduce safety risks, removing mining roads to prevent damage from future traffic, and establishing self-sustaining vegetation. One of the agencies' key responsibilities is to ensure that adequate financial assurances, based on sound reclamation plans and cost estimates, are in place to guarantee reclamation costs.⁶ If a mining operator fails to complete required reclamation, BLM or the Forest Service can take steps to obtain funds from the financial assurance provider to complete the reclamation.

BLM requires financial assurances for both notice-level hardrock mining operations—those disturbing 5 acres of land or less—and plan-level hardrock mining operations—those disturbing over 5 acres of land and those in certain designated areas, such as the national wild and scenic rivers system. For hardrock operations on Forest Service land, agency regulations require reclamation of sites after operations cease. According to a Forest Service official, if the proposed hardrock operation is likely to cause a significant disturbance, the Forest Service requires financial assurances. Both agencies allow several types of financial assurances to guarantee estimated reclamation costs for hardrock operations on their land. According to regulations and agency officials, BLM and the Forest Service allow cash, letters of credit, certificates of deposit or savings accounts, and negotiable U.S. securities and bonds in a trust account. BLM also allows surety bonds, state bond pools, trust funds, and property.

EPA administers the Superfund Program, which was established under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 to address the threats that contaminated waste sites, including those on nonfederal land, pose to human health and the environment.⁷ The act also requires that the parties statutorily responsible for pollution bear the cost of cleaning up contaminated sites, including abandoned hardrock mining operations. Some contaminated hardrock mine sites have been listed on Superfund's National Priorities List—EPA's list of seriously contaminated sites. Typically, these sites are expensive to cleanup and the cleanup can take many years. For example, in 2004, EPA's Office of Inspector General determined there were 63 hardrock mining sites on the National Priorities List that would cost up to \$7.8 billion to cleanup, \$2.4 billion of which was expected to be borne by taxpayers rather than the parties responsible for the contamination.⁸

Regarding financial assurances, EPA has statutory authority under the Superfund program to require businesses handling hazardous substances on nonfederal land to provide financial assurances and is taking steps to do so.⁹ In 2006, we testified that without the mandated financial assurances, significant gaps in EPA's environmental

³Pub. L. No. 95-87, as amended by Pub L. No. 101-508, Title VI, §6010(2), Nov. 5, 1990.

⁴These states include Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, South Dakota, Utah, Washington, and Wyoming.

⁵BLM and Forest Service, *Abandoned Mine Lands: A Decade of Progress Reclaiming Hardrock Mines* (September 2007).

⁶43 C.F.R. part 3809 and 36 C.F.R. part 228, subpart A.

⁷42 USC §§9601-9675.

⁸EPA, Office of Inspector General, *Nationwide Identification of Hardrock Mining Sites*, 2004-P-00005 (Washington, D.C., Mar. 31, 2004).

⁹42 U.S.C. §9608(b); 74 Fed. Reg. 37213 (July 28, 2009).

financial assurance coverage exist, thereby increasing the risk that taxpayers will eventually have to assume financial responsibility for cleanup costs.¹⁰

OSM's Abandoned Mine Land Program primarily focuses on cleaning up abandoned coal mine sites. However, OSM, under amendments to the Surface Mining Control and Reclamation Act of 1977, can provide grants to fund the cleanup and reclamation of certain hardrock mining sites either (1) after a state certifies that it has cleaned up its abandoned coal mine sites and the Secretary of the Interior approves the certification or (2) at the request of a state or Indian tribe to address problems that could endanger life and property, constitute a hazard to the public and safety, or degrade the environment, and the Secretary of the Interior grants the request. In 2008, we reported that OSM had provided more than \$3 billion to clean up dangerous abandoned mine sites.¹¹ Its Abandoned Mine Land Program had eliminated safety and environmental hazards on 314,108 acres since 1977, including all high-priority coal problems and noncoal problems in 27 states and on the land of three Indian tribes.¹²

Accurate Information on the Number of Abandoned Hardrock Mine Sites Was Not Available

In 2008 and 2009, we reported that BLM and the Forest Service have had difficulty determining the number of abandoned hardrock mines on their land and have no definitive estimates on the number of such sites.¹³ Moreover, we reported that other estimates that had been developed about the number of abandoned hardrock mine sites on federal, state, and private land in the 12 western states and Alaska (where most of the mining takes place) varied widely and did not provide an accurate assessment of the number of abandoned mines in these states. For example, federal agency estimates included abandoned nonhardrock mines such as coal mines, and included a large number of sites on land with "undetermined" ownership, which may not all be on federal land. Similarly, we reviewed six studies conducted between 1998 and 2008 that estimated the number of abandoned hardrock mine sites in the 12 western states and Alaska, regardless of the type of land they were located on.¹⁴ However, we found that the estimates in these studies varied widely in part because there was no generally accepted definition for what constitutes an abandoned hardrock mine site and because different states define these sites differently.

In 2008, we developed a standard definition of an abandoned hardrock mining site and used this definition to determine how many such sites potentially existed on federal, state and private land in the 12 western states and Alaska. Based on our survey of these states, we determined that there were at least 161,000 abandoned hardrock mine sites in these states, and at least 33,000 of these sites had degraded the environment, by, for example, contaminating surface water and groundwater or leaving arsenic-contaminated tailings piles. We also determined that these 161,000 sites had at least 332,000 features that may pose physical safety hazards, such as open shafts or unstable or decayed mine structures.¹⁵

Federal Agencies Collect Limited Information on Mining Operations on Federal Land

In 2008, we reported that BLM, the Forest Service, and the U.S. Geological Survey (USGS) either do not routinely collect or do not consistently maintain data on the amount of hardrock minerals being produced on federal land, the amount of hardrock minerals remaining, and the total acreage of federal land withdrawn from hardrock mining operations.¹⁶ According to officials with BLM and the Forest Service, they do not have the authority to collect information from mine operators on the amount of hardrock minerals produced on federal land, or the amount remaining. In April 2011, we reported on this issue again and found that this information

¹⁰GAO-06-884T.

¹¹GAO-08-574T.

¹²U.S. Department of the Interior, Office of Surface Mining Reclamation and Enforcement, *2006 Report to the President and Congress* (Washington, D.C.: Oct. 1, 2006).

¹³GAO-08-574T and GAO-09-429T.

¹⁴The six studies are (1) Western Governors' Association and National Mining Association, *Cleaning up Abandoned Mines: A Western Partnership* (1998); (2) Interstate Mining Compact Commission, *State NonCoal AML Inventory* (2001); (3) Interstate Mining Compact Commission, *NonCoal Minerals Survey and Report* (expected issuance Spring 2008); (4) Mineral Policy Center, *Cleaning Up Western Watersheds* (2003); (5) Earthworks fact sheets on hardrock mining from Earthworks Web site last visited on March 4, 2008 (www.earthworksaction.org/resources.cfm); and (6) EPA, *Reference Notebook* (September 2004).

¹⁵GAO-08-574T.

¹⁶GAO-08-429R.

is not being collected.¹⁷ In contrast, USGS collects extensive data on hardrock mineral production through its mineral industry surveys and reports these data in monthly, quarterly, and annual reports, but mine operators' participation in these surveys is voluntary, and USGS does not collect land ownership data that would allow it to determine the amount of hardrock mineral production on federal land. As a result, we found that it is not possible to determine hardrock mineral production on federal land from the USGS data. In addition, although USGS does publish the total amount of hardrock mineral production by mineral type, it is prohibited by law from reporting individual mine production and other company proprietary data unless the mine operator authorizes release of that information. In some cases, mine operators that respond to these surveys report consolidated data that covers production from several mines. Therefore, information on hardrock mineral production for every mine is not available to the public.

Some hardrock mineral production data are available from state sources and through financial reports filed with the Securities and Exchange Commission. However, these data may not always provide the level of detail necessary to determine the amount of mineral production on federal land. BLM also does not centrally maintain data on the amount of federal land withdrawn from hardrock mining operations. BLM documents land withdrawn from hardrock mining operations on its master title plats—detailed paper maps maintained at BLM's state offices. These maps contain land survey information on federal land, including ownership information, land use descriptions, and land status descriptions. BLM's annual publication, *Public Land Statistics*, does report the total number of acres withdrawn each year, but these data do not account for instances in which multiple withdrawals may have overlapping boundaries, which can result in double-counting the number of acres withdrawn. Furthermore, the reason for withdrawing the land is not always indicated, making it difficult to determine whether it was withdrawn from mining or from other purposes.

Federal Agencies Have Spent Billions of Dollars to Cleanup Abandoned Hardrock Mining Sites

In March 2008, we reported that over a 10 year period, four federal agencies—BLM, the Forest Service, EPA, and OSM—had spent at least a total of \$2.6 billion to reclaim abandoned hardrock mines on federal, state, private, and Indian land. Of this amount, EPA had spent the most—\$2.2 billion.¹⁸ The amount each agency spent annually varied considerably, and the median amount spent for abandoned hardrock mines on public land by BLM and the Forest Service was about \$5 million and about \$21 million, respectively. EPA spent substantially more—a median of about \$221 million annually—to cleanup abandoned mines that were generally on nonfederal land. Further, OSM provided grants with an annual median value of about \$18 million to states and Indian tribes through its program for hardrock mine cleanups.¹⁹

Financial Assurances Provided by Operators of Current Mines on BLM Land May Be Inadequate to Cover Estimated Reclamation Costs

As we have reported, contributing to the costs incurred by the federal government to reclaim land disturbed by mining operations are inadequate financial assurances required by BLM for current hardrock mining operations. Since 2005, we have reported several times that operators of hardrock mines on BLM land have provided inadequate financial assurances to cover estimated reclamation costs in the event that they fail to perform the required reclamation. Specifically, in June 2005 we reported that some current hardrock operations on BLM land did not have financial assurances, and some had no or outdated reclamation plans and/or cost estimates on which the financial assurances were based.²⁰ At that time we concluded that BLM did not have an effective process and critical management information needed for ensuring that adequate financial assurances are actually in place, as required by federal regulations and BLM guidance. We made recommendations to strengthen BLM's management of financial assurances for hardrock operations on its land, which the agency generally implemented.

However, when we again looked at this issue in 2008, we found that although BLM had taken actions to strengthen its processes, the financial assurances that it had in place as of November 2007 were still inadequate to cover estimated rec-

¹⁷ GAO, *Federal Land Management: Availability and Potential Reliability of Selected Data Elements at Five Agencies*, GAO-11-377 (Washington, D.C.: Apr. 20, 2011).

¹⁸ GAO-08-574T.

¹⁹ In total, OSM has provided more than \$3 billion under its Abandoned Mine Land Program, which primarily focuses on cleaning up abandoned coal mine sites.

²⁰ GAO-05-377.

lamation costs.²¹ Specifically, as of November 2007, hardrock mining operators had provided financial assurances valued at approximately \$982 million to guarantee the reclamation costs for 1,463 hardrock mining operations on BLM land in 11 western states, according to BLM's Bond Review Report. BLM's report indicated that 52 of the 1,463 hardrock mining operations had inadequate financial assurances—about \$28 million less than needed to fully cover estimated reclamation costs. However, our review of BLM's assessment process found that BLM had inaccurately estimated the shortfall, and that in fact the financial assurances for these 52 operations should be more accurately reported as about \$61 million less than needed to fully cover estimated reclamation costs.

In addition, we found that BLM's approach for determining the adequacy of financial assurances is not useful because it does not clearly lay out the extent to which financial assurances are inadequate. For example, in California, BLM reported that, statewide, the financial assurances in place were \$1.5 million greater than required, suggesting reclamation costs are being more than fully covered. However, according to our analysis of only those California operations with inadequate financial assurances, the financial assurances in place were nearly \$440,000 less than needed to fully cover reclamation costs for those operations. Having adequate financial assurances to pay reclamation costs for BLM land disturbed by hardrock operations is critical to ensuring that the land is reclaimed if operators fail to complete reclamation as required. When operators with inadequate financial assurances fail to reclaim BLM land disturbed by their hardrock operations, BLM is left with public land that requires tens of millions of dollars to reclaim and poses risks to the environment and public health and safety.

In conclusion, Mr. Chairman, while it is critical to develop innovative approaches to cleanup abandoned mines, our work also demonstrates the importance of federal agency's having accurate information on the number of abandoned hardrock mines to know the extent of the problem and adequate financial assurances to prevent future abandoned hardrock mines requiring taxpayer money to cleanup.

Chairman Lamborn, Ranking Member Holt, and Members of the Subcommittee, this concludes my prepared statement. I would be happy to respond to any questions that you might have.

Contact and Staff Acknowledgments

Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this testimony. For further information about this testimony, please contact Anu K. Mittal, Director, Natural Resources and Environment team, (202) 512-3841 or mittala@gao.gov. Key contributors to this testimony were Andrea Wamstad Brown and Casey L. Brown.

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²¹ GAO-08-574T.

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GAO HIGHLIGHTS

ABANDONED MINES

Information on the Number of Hardrock Mines, Cost of Cleanup, and Value of Financial Assurances

Why GAO Did This Study

The General Mining Act of 1872 helped foster the development of the West by giving individuals exclusive rights to mine gold, silver, copper, and other hardrock minerals on federal land. However, miners often abandoned mines, leaving behind structures, safety hazards, and contaminated land and water. Four federal agencies—the Department of the Interior's Bureau of Land Management (BLM) and Office of Surface Mining Reclamation and Enforcement (OSM), the Department of Agriculture's Forest Service, and the Environmental Protection Agency (EPA)—fund the cleanup of some of these hardrock mine sites.

From 2005 through 2009, GAO issued a number of reports and testimonies on various issues related to abandoned and current hardrock mining operations. This testimony summarizes some of the key findings of these reports and testimonies focusing on the (1) number of abandoned hardrock mines, (2) availability of information collected by federal agencies on general mining activities, (3) amount of funding spent by federal agencies on cleanup of abandoned mines, and (4) value of financial assurances for mining operations on federal land managed by BLM. In 2005, GAO recommended that BLM strengthen the management of its financial assurances, which BLM generally implemented. BLM also agreed to take steps to address additional concerns raised by GAO in 2008.

What GAO Found

GAO's past work has shown that there are no definitive estimates of the number of abandoned hardrock mines on federal and other lands. For example, in 2008 and 2009, GAO reported that BLM and the Forest Service had difficulty determining the number of abandoned hardrock mines on their lands and had no definitive estimates. Similarly, estimates of the number of abandoned hardrock mine sites in the 12 western states and Alaska (where most of the mining takes place) varied widely because there was no generally accepted definition of what constitutes an abandoned hardrock mine site. In 2008, GAO developed a standard definition for abandoned hardrock mining sites and used this definition to determine that there were at least 161,000 abandoned hardrock mine sites in the 12 western states and Alaska, and at least 33,000 of these sites had degraded the environment, by contaminating surface water and groundwater or leaving arsenic-contaminated tailings piles.

In 2008, GAO reported that BLM, the Forest Service, and the U.S. Geological Survey (USGS) either do not routinely collect or do not consistently maintain data on the amount of hardrock minerals being produced on federal land, the amount of hardrock minerals remaining, and the total acreage of federal land withdrawn from hardrock mining operations. According to BLM and Forest Service officials, they do not have the authority to collect information from mine operators on the amount of hardrock minerals produced on federal land or the amount remaining. In contrast, USGS collects extensive data on hardrock mineral production through its mineral industry surveys and reports these data in monthly, quarterly, and annual reports, but the agency does not collect land ownership data that would allow it to determine the amount of hardrock mineral production on federal land. As a result, comprehensive information on hardrock mineral production is generally not available to the public.

From 1997 to 2008, four federal agencies—BLM, the Forest Service, EPA, and OSM—had spent at least a total of \$2.6 billion to reclaim abandoned hardrock mines on federal, state, private, and Indian lands. Of this amount, EPA had spent the most—\$2.2 billion. The amount each agency spent annually varied considerably, and the median amount spent for abandoned hardrock mines on public lands by BLM and the Forest Service was about \$5 million and about \$21 million, respectively. EPA spent substantially more—a median of about \$221 million annually—to clean up abandoned mines that were generally on nonfederal land. OSM provided grants with an annual median value of about \$18 million to states and Indian tribes through its program for hardrock mine cleanups.

One factor that contributes to costs for reclamation of federal lands disturbed by mining operations is inadequate financial assurances required by BLM. Since 2005, GAO has reported several times that operators of hardrock mines on BLM lands have not provided financial assurances sufficient to cover estimated reclamation costs in the event that operators fail to perform the required reclamation. Most recently, in 2008, GAO reported that the financial assurances that were provided for 52 operations were about \$61 million less than needed to fully cover estimated reclamation costs, which could leave the taxpayer with the bill for reclamation, if the operator fails to do so.

Mr. LAMBORN. All right. Thank you. Now we will hear from Loretta Pineda, the Director of Reclamation, Mining, and Safety of the Colorado Department of Natural Resources.

STATEMENT OF LORETTA PINEDA, DIRECTOR, DIVISION OF RECLAMATION, MINING, AND SAFETY, COLORADO DEPARTMENT OF NATURAL RESOURCES, ON BEHALF OF THE INTERSTATE MINING COMPACT COMMISSION AND THE NATIONAL ASSOCIATION OF ABANDONED MINE LAND PROGRAMS

Ms. PINEDA. Good afternoon, Mr. Chairman. On behalf of the 30 States and Tribes represented by the Interstate Mining Compact Commission and the National Association of Abandoned Mine Land Programs, I appreciate the opportunity to appear before the Subcommittee today to present our views on the challenges that we face in reclaiming abandoned mine lands nationwide.

We are all aware of the legacy of inactive and abandoned mines that continue to endanger our citizens, scar our landscapes, and pollute our waters. Among the impacts that States and Tribes find themselves addressing as part of our AML reclamation programs are subsistence, open shafts and adits, dangerous high walls, acid mine drainage, and surface and groundwater contamination.

Putting actual numbers on the types and numbers of AML sites is a challenge in and of itself, but suffice it to say that several hundred thousand of these sites are scattered throughout the United States. They occur on private, State, and public lands, and do not respect geographic or political boundaries. We present some of these numbers in our written testimony.

The critical message for today's hearing is that while notable and significant progress has been made by States and Tribes to address inactive and abandoned mines, often in conjunction with our Federal partners, much more needs to be done.

And this can best be accomplished with three important components. One, stable funding for State AML programs. Two, legislative adjustments to fulfill the intent of Congress under SMCRA, and three, Good Samaritan projections.

With regard to the importance of funding, we present in our testimony information from nine States demonstrating how enhanced

funding could immediately be put to use to address hardrock AML projects that are on the shelf and ready for bid.

Each of these projects would not only remediate high priority AML sites, thereby safeguarding the public and protecting the environment, but would generate the jobs associated with this work.

In this regard, it should be noted that for every dollar spent on local AML construction projects, an additional \$2.70 cents is spent in the local economy. One of the most consistent sources of funding for these States with coal mining within their borders has been Title IV grants under the Surface Mine Control and Reclamation Act.

Section 409 of SMCRA allows States and Tribes to use these grants at high priority, non-coal AML sites. In this regard, we support the provision of H.R. 785 that would clarify that uncertified States are able to spend their unappropriated State share balance on non-coal projects.

I would like to submit for the record a statement from our organization supporting a similar provision contained in S. 897, a companion bill to H.R. 785. Other adjustments to SMCRA that would further our work to reclaim AML sites include expanding the use of State share balances for acid mine drainage work, and ensuring that limited liability protections under SMCRA are available to certified States and Tribes.

States and Tribes are also working on hardrock AML programs through a variety of State and Federal funding sources, including monies from EPA, the BLM, the Forest Service, the National Park Service, and the United States Corps of Engineers.

We continue to support the funding for these vital programs, and believe that much valuable work continues to be accomplished in partnership with States and Tribes. In addition, a strong State lead is needed for implementation of these programs.

Where acid rock and acid mine drainage remediation efforts are involved, another concern looms large. Liability under the Clean Water Act associated with these cleanup efforts.

Citizen groups, watershed associations, and others, who may have a desire to fund the cleanup of impacted waters are often dissuaded from doing so because of contaminated mine draining discharges.

If re-effected, Good Samaritans would be liable under both State and Federal law, therefore requiring them to be responsible for permanently treating the discharge to a Clean Water Act standard.

One example of an impaired watershed in Colorado is the Animas River Basin, where the water quality is severely impacted by legacy mining. So far, remediation efforts have been completed on 28 of the 32 mine waste sites, and some remediation has been done on 5 of the 34 draining adits.

Unfortunately, most of the mine related metal loading in the basin emanates from the draining mines, as opposed to mine waste. Consequently, the local watershed group's restoration efforts have been limited by the lack of a Good Samaritan provision to the Clean Water Act to reduce liability for third-party cleanups.

Presently, there is no legislation to protect a Good Samaritan from incurring long term liability when remediating fluid from draining adits. We believe the best approach to address the situa-

tion is through the enactment of legislation that clarifies the application of the Clean Water Act requirements to both coal and hardrock AML remediation efforts for contaminated or polluted mine drainage is involved.

Our written statement contains several recommendations and concerns that we believe should be considered in any Good Samaritan legislative effort, and because pictures are worth a thousand words, I would also like to share with the Committee a video that the State of Colorado has put together to show what kinds of remediation efforts would be underway if there was Good Samaritan legislation.

Thank you for the opportunity to present this testimony, and I would be happy to answer any questions you may have.

[The prepared statement of Ms. Pineda follows:]

Statement of Loretta Pineda, Director, Division of Reclamation, Mining and Safety, Colorado Department of Natural Resources, on behalf of the Interstate Mining Compact Commission and the National Association of Abandoned Mine Land Programs

Good afternoon. My name is Loretta Pineda and I serve as the Director of the Division of Reclamation, Mining and Safety within the Colorado Department of Natural Resources. I am appearing today on behalf of the Interstate Mining Compact Commission (IMCC) and the National Association of Abandoned Mine Land Programs (NAAML) concerning the Subcommittee's oversight hearing on "Abandoned Mine Lands: Innovative Solutions for Restoring the Environment, Improving Safety and Creating Jobs". This is topic of great interest and importance to the states and tribes represented by our two organizations. Our statement focuses primarily on the reclamation of abandoned hardrock mines in the West. However, I will also speak to challenges we face with respect to the reclamation of abandoned coal mines, as well as abandoned noncoal mines in other parts of the country beyond the West. We appreciate the opportunity to appear today to share our views and concerns.

The Interstate Mining Compact Commission (IMCC) and the National Association of Abandoned Mine Land Programs (NAAML) are multi-state governmental organizations that together represent some 30 mineral-producing states and Indian tribes, each of which implements programs that regulate the environmental impacts of both coal and hardrock mining. Many of these programs have delegations of authority from the federal government to implement national environmental laws such as the Surface Mining Control and Reclamation Act (SMCRA), the Clean Water Act, the Uranium Mill Tailings Radiation Control Act and the Resource Conservation and Recovery Act. Under these statutes, the states and tribes exercise primary responsibility for the permitting and inspection of the affected mining operations, for the enforcement of applicable environmental performance standards, and for the protection of public health and safety, including the safeguarding and cleanup of abandoned mines.

The development of our Nation's mineral resources is a critical component of our national well-being and security. Our manufacturing activities, transportation systems and the comfort of our homes depend on the products of mining. At the same time, it is essential that an appropriate balance be struck between the need for minerals and the protection of public health and safety and the environment. Over the past 40 years, with the passage of sweeping national environmental laws, the states and Indian tribes have taken the lead in fashioning and then implementing effective programs for the regulation of mining and its impacts, including the cleanup of inactive and abandoned mine lands. As we face new challenges associated with homeland security, climate change and alternative energy sources, the importance of mineral development will only become more critical, as will the role of state and tribal regulatory authorities.

We commend you, Mr. Chairman, for your continued commitment to craft a meaningful and effective program for reclaiming and restoring the land and water adversely affected by past hardrock mining. Without a national solution for this legacy issue, it is unlikely that significant progress can be achieved. This is due primarily to the lack of sufficient funding, and not a lack of will by the states, tribes and others to do something about the matter. The states and tribes—often together with our federal agency partners—have made notable progress in addressing the issue.

But our efforts need a substantial boost and the potential for legislative solutions before the Subcommittee today will go a long way toward accomplishing this goal.

Nationally, abandoned mine lands continue to have significant adverse effects on the environment. Some of the types of environmental impacts that occur at AML sites include subsidence, surface and groundwater contamination, erosion, sedimentation, chemical release, and acid mine drainage. Safety hazards associated with abandoned mines account for deaths and/or injuries each year. Abandoned and inactive mines, resulting from mining activities that occurred over the past 150 years prior to the implementation of present day controls, are scattered throughout the United States. The sites are located on private, state and public lands.

Over the years, several studies have been undertaken in an attempt to quantify the hardrock AML cleanup effort. In 1991, IMCC and the Western Governors' Association completed a multi-volume study of inactive and abandoned mines that provided one of the first broad-based scoping efforts of the national problem. Neither this study, nor any subsequent nationwide study, provides a quality, completely reliable, and fully accurate on-the-ground inventory of the hardrock AML problem. Both the 1991 study and a recent IMCC compilation of data on hardrock AML sites were based on available data and professional judgment. The data is seldom comparable between states due to the wide variation of available inventory criteria. Nevertheless, the data do demonstrate that nationally, there are large numbers of significant safety and environmental problems associated with inactive and abandoned hardrock mines and that cumulative remediation costs are very large.

Across the country, the number of abandoned hardrock mines with extremely hazardous mining-related features is estimated at several hundred thousand. Many of the states and tribes report the extent of their respective AML problems using a variety of measures including mine sites, mine openings, mine features or structures, mine dumps, subsidence prone areas, miles of unreclaimed highwall, miles of polluted water, and acres of unreclaimed or disturbed land. Information contained in IMCC's Noncoal Report and that we have provided to the Government Accountability Office (GAO) include the following gross estimated number of abandoned mine sites: Alaska—1,300; Arizona—80,000; California—47,000; Colorado—15,000; Montana—6,000; Nevada—16,000; Utah—15,000—20,000; New York—1,800; Virginia—4,000; Washington—3,800; Wyoming—1,700. Nevada reports over 200,000 mine openings; New Mexico reports 15,000 mine hazards or openings; Minnesota reports over 100,000 acres of abandoned mine lands and South Carolina reports over 6,000 acres. While the above figures attempt to capture a universe of *all* abandoned mine sites by state, the actual number of sites that pose *significant* health, safety or serious environmental problems is likely lower.

What becomes obvious in any attempt to characterize the hardrock AML problem is that it is pervasive and significant. And although inventory efforts are helpful in attempting to put numbers on the problem, in almost every case, the states and tribes are intimately familiar with the highest priority problems within their borders and know where limited reclamation dollars must immediately be spent to protect public health and safety or protect the environment from significant harm.

Estimating the costs of reclaiming hardrock abandoned mines is even more difficult than characterizing the number of mines. Based on the estimated number of AML sites, one can develop a very rough estimate for the costs of safeguarding mine hazards and reclaiming small surface disturbances. But the costs of remediating environmental problems such as ground water and surface water contamination, acid rock drainage or wind blown contaminants are extremely difficult to estimate. And many of these problems will not be fully detected until after thorough assessment and testing occurs at a minesite.

In an effort to quantify and forecast what states could spend *immediately* as part of an expanded program that focuses on the cleanup of abandoned hardrock AML sites over the next 18 to 24 months (assuming the availability of new funding), IMCC and NAAML have gathered information from nine states. A summary of that information is attached to this statement. Few of these projects have been funded to date and are examples of how enhanced funding under new legislation or appropriations would immediately be put to use. In addition to the forecasts provided by these states regarding economic and job enhancements, it should be noted that, in general, for every dollar spent by the states/tribes on local construction, this translates to \$2.70 that is spent in the local economy for things such as supplies and materials, local equipment rentals and equipment operators, and employee support.

Today, state and tribal agencies are working on hardrock abandoned mine problems through a variety of state and federal funding sources. Various federal agencies, including the U.S. Environmental Protection Agency, the Bureau of Land Management, the National Park Service, the U.S. Forest Service, and the U.S. Army

Corps of Engineers have provided some funding for hardrock mine remediation projects. These state/federal partnerships have been instrumental in assisting the states and tribes with their hardrock AML work. As states and tribes take on a larger role in hardrock AML cleanups in the future, they will continue to coordinate with their federal partners. Unfortunately, most of these existing federal grants are project specific and do not provide consistent funding.

For states and tribes with coal mining, the most consistent source of AML funding has been the Title IV grants under the Surface Mining Control and Reclamation Act (SMCRA). *Section 409 of SMCRA allows states and tribes to use these grants at high priority non-coal AML sites.* The funding is generally limited to safeguarding hazards to public safety (e.g., closing mine openings) at hardrock sites. It is worth noting that recent fatalities at abandoned hardrock mine sites have been in states without SMCRA-funded AML programs. The small amount of money that SMCRA states have been able to spend on physical safety hazards at hardrock sites appears to be making a difference. More specific information regarding the nature and extent of the hardrock AML accomplishments of the states and tribes is available from IMCC and NAAMLIP.

As states and tribes work to address the remaining inventory of abandoned hardrock mine sites, we are increasingly concerned about the escalating costs of addressing those problems that continue to go unreclaimed due to insufficient funding. Unaddressed sites worsen over time, thus increasing reclamation costs. Inflation exacerbates these costs. The longer the reclamation is postponed, the less reclamation will be accomplished. In addition, the states and tribes are finding new, higher priority problems each year, especially as many of our urban areas encroach upon what were formerly rural abandoned mine sites. New sites also continually appear due to the effects of time and weather. Recent flooding events in the Western and Mid-Continent sections of the country are a testament to this phenomenon. This underscores the need for constant vigilance to protect our citizens and the importance of potential legislation before the Subcommittee today.

With the foregoing as background, we will now address several aspects of pending or proposed legislation that deserve mention. One of the most critical needs is the establishment of a consistent and robust funding source for addressing hardrock AML problems. While we do not have a formal position on the various royalty and fee provisions that have been suggested over the years, we do believe that some combination of these funding mechanisms is critical to the success of a hardrock AML program. Without certain, reliable funding from year to year, the states and tribes cannot effectively plan for and execute meaningful AML programs. We therefore strongly recommend a combination of appropriate funding sources that will consistently support a long-term AML program. This will result in substantial reclamation work over the life of the program. We also support continued funding for the hardrock AML programs already in place at the BLM, the Forest Service and the National Park Service. The unique focus of these programs should not be supplanted by new legislation. Much valuable work continues to be accomplished pursuant to these programs, often in partnership with the states and tribes.

Another key component of an effective hardrock AML program is support for a strong state lead for the implementation of these programs. Today, there are abandoned mine land programs in most states. These include the 28 programs established by states and tribes under SMCRA Title IV, along with states across the country that are not eligible for Title IV funding, including Nevada, California, Arizona, South Dakota, Idaho, New York, South Carolina and North Carolina. All of these states and tribes are experienced with administering federal grants and completing AML projects in a cost-effective manner on state, private and federal lands.

The states and tribes must be provided an opportunity to assume primary responsibility for implementing any hardrock AML program given the unique differences among the states and tribes in terms of geology, climate, terrain and other physical and environmental conditions. This state/tribal-lead approach will assure the most critical AML problems are addressed first, since the states and tribes are closer to the problems and can best determine the priority of sites and the needed remediation work. In addition, they also have assembled excellent professional staffs with many years of experience (in some cases over 30 years) and an unsurpassed local contracting knowledge base. State and tribes would require minimal staffing increases compared to implementing a new federal program, thereby increasing on-the-ground results per program dollar. In the West, New Mexico, Colorado, Utah, Wyoming, Alaska and Montana have used SMCRA Title IV funds to address a number of significant AML problems, both coal and hardrock. In addition, these AML programs have cooperative agreements with the Forest Service, the National Park Service, BLM and the U.S. Army Corps of Engineers that allow those agencies to fund AML projects on their lands when money is available. It is simply more effi-

cient for the federal land managers to use the already established state AML programs with their staff of experienced engineers, reclamation specialists and project managers to design and conduct cost-effective AML projects on federally-managed land within each state's boundaries.

Given the importance of the states being able to use SMCRA Title IV funds for noncoal AML work, any new legislation should ensure that this practice can continue or increase. In this regard, we support the provision in H.R. 785 that would clarify that noncertified states and tribes are able to spend their unappropriated state and tribal share balances on noncoal AML reclamation. We believe this was the intent of the 2006 Amendments to SMCRA. However, the Interior Department, through OSM, has taken a different view in final rules implementing those amendments and has blocked the states from using these moneys for this worthwhile purpose. H.R. 785 would correct this unfortunate interpretation by Interior. A recent statement submitted by IMCC and NAAML for the record of a hearing on a similar bill before the U.S. Senate (S. 897) is attached and we request that it be included for the record of this hearing.

We support a lead role for the Office of Surface Mining Reclamation and Enforcement (OSM) regarding the overall administration of any hardrock minerals reclamation fund that might be created in potential or proposed legislation. We believe that OSM has the required expertise to oversee and administer the Fund and the overall AML program based on its 30 years of experience under SMCRA. We also support the necessary funding for OSM to carry out its administrative duties under the law.

We also support the awarding of grants to states and tribes pursuant to any hardrock AML reclamation fund that might be created by legislation in order to be consistent with the state/tribal-lead approach that we advocate. We recommend that these annual expenditures from the Fund be off-budget (mandatory) and not subject to the annual appropriations process. Given the known inventory of AML problems, we believe this approach will guarantee that annual contributions to the Fund are immediately distributed for work on-the-ground rather than retained in a Fund that does little but generate interest. And with regard to allocations from the Fund, we could support a formula that takes into account both current and historic mineral production. We believe that this arrangement represents a fair and equitable disposition of any moneys paid into the Fund and will allow the states and tribes to effectively manage their programs and accomplish meaningful reclamation work. It may be helpful to clarify that any fund allocations paid to the states based on existing production are defined as a percentage of the total moneys paid into the fund for the current year by the respective states of origin.

As for any allocations from the fund based on historic production, consideration should be given in the formula as to how the specific mineral commodity is measured (ounces v. pounds v. tons) and the reference year from which historic production is calculated. For instance, Nevada's and California's mineral contributions to the nation predate both the 1872 Mining Law and the 1900 date from which historic production has been previously calculated. For other states, such as New Mexico, Wyoming, Arizona and Colorado, the records of mine production during the territorial period from 1850 to 1912 are very sporadic and scattered. As a result, any historic production formula must also take this reality into consideration, especially given the unevenness in the completeness, availability, reliability and accuracy of pre-1910 mining production records.

With respect to eligible land and water, we believe any legislative solution should recognize that most hardrock AML problems are on non-federal lands, even in the West. In most states, federal lands contain less than a quarter of all hardrock AML sites. In part, this is due to the patenting of mining claims in the nineteenth and early twentieth century that allowed miners to claim and obtain ownership of lands they mined. And when there are abandoned mine problems on federal lands, they often spill over into adjacent non-federal lands or in-holdings. To be effective, a hardrock AML program needs to be able to spend funds on all classes of land. It should also be clarified that there is no limitation on when lands and waters become eligible. In California, for example, many of the legacy AML sites pre-date the 1872 Mining Law, so limiting eligibility to only those problems that are post-1872 would be problematic.

A critical component of any reclamation program is how to prioritize sites and identify remediation options. Abandoned mine lands range from sites with features that require no remediation because of their minimal size or risk; to sites that require significant earthwork, topsoil replacement and revegetation for erosion and pollution control; to safeguarding shafts and adits that present public safety hazards; to remediating sites with significant toxic leachate causing contamination of ground and surface waters. In addition, some hardrock mine sites have such a con-

glomeration of features, access problems, drainage problems, etc., that estimated reclamation/remediation costs exceed the entire annual AML budget of a state/tribe.

Regardless of which inventory or listing of sites is used, a large portion of sites will require little if any reclamation. In other cases, the per unit cost of reclamation is relatively small. These sites will also rank low in priority because of the reduced threat to public health or the environment. On the other end of the spectrum, there will be a small number of sites that require a significant amount of funding to remediate and that contain a chronic risk to public health or the environment. Under current law, these are the sites that are being or might be remediated under Superfund (the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)). The AML priority sites should be those that constitute a physical threat to public safety, and sites with significant contamination, but that will likely never score high enough to be remediated under CERCLA. It should also be noted that CERCLA remediation is not without potential financial risk to the states. Generally speaking, where EPA authorizes cleanup of an abandoned mine site out of its "Fund Lead", states are required to pay 10 percent of the cleanup costs and to assume 100 percent of the operations and maintenance costs following cleanup. As a result, any perpetual water treatment becomes the responsibility of the state, including potential liability associated therewith. The Good Samaritan relief that we address later in our testimony would help to lessen the discharge cleanup standard, but still leaves the concern associated with endless treatment costs.

Given the above considerations, each state or tribe should be provided the discretion to determine which among the many sites in its respective AML inventory deserve the most immediate attention, with input from the federal land management agencies on whose land the sites may be located. The states and tribes can also best decide the appropriate remediation required under the circumstances given available funding and resources and in consideration of landowner desires.

Another aspect of any hardrock AML program is how to quantify the problem. A consistent and purpose-driven inventory of AML problems is critical to understanding the magnitude of the problems the states and tribes face. Assessing the present and future impacts to the safety and health of citizens and the impacts to the natural environment, while recognizing the changing cost structure of a long-term program, are key to a meaningful inventory of problems. However, lessons need to be learned from the inventory of abandoned coal mines undertaken pursuant to the Surface Mining Control and Reclamation Act, which is estimated to have cost more than \$25 million and is still fraught with controversy.

Based on the SMCRA experience, any hardrock AML inventory needs to: have well thought out goals and instructions; maintain standardized inventory procedures; keep inventory crews small to minimize inconsistencies in reporting methods; minimize influence on the inventory by those with vested interests in the results; require any federal agency inventory work to be coordinated with the states; utilize state-of-the-art GPS imagery; and be conducted with consideration for seasonal snow and vegetation cover. In this regard, we support an appropriate cap on the amount of money to be invested in any inventory effort, so as not to divert money and energy from on-the-ground reclamation work. In addition, those states whose AML programs meet the above standards should be allowed to keep and rely upon their existing inventories and associated databases, rather than being required to create or adopt new ones.

A new complication for state and tribal AML work that also must be addressed is the limited liability protection related to applicable federal environmental laws such as the Clean Water Act where noncoal AML work is undertaken with SMCRA Title IV funds. OSM's recent rulemaking implementing the provisions of the 2006 Amendments to SMCRA removed this protection and that action has had a significant chilling effect on the ability of the states and tribes to undertake their noncoal projects with SMCRA funds. Given OSM's reluctance to address this administratively, the issue needs to be addressed with a perfecting amendment to SMCRA.

Any proposed legislation to enhance hardrock AML cleanups should also include special allocations from amounts paid into the fund for grants to non-hardrock mining states with noncoal AML problems and for grants to public entities and non-profit organizations, such as watershed groups. We believe that the incorporation of these provisions into any legislation will likely generate additional support for the bill. States other than the western hardrock AML states (such as South Carolina, North Carolina, Virginia, Florida, New York, and Tennessee) have significant noncoal AML problems within their borders and there are limited, if any, funds available to address these sites. Therefore, to the extent that a small but reasonable amount of funding can be set aside for work in these states, it will make a difference in their efforts to remediate these sites. Based on our experience with watershed cooperative agreements under SMCRA, we believe that a program for nonprofit

or public entities will provide a welcome shot-in-the-arm for their efforts to address water contamination and acid rock drainage issues in critical watersheds.

The subject of acid rock and acid mine drainage remediation efforts brings up another aspect of AML cleanups that should be addressed in legislation. This concerns liability under the Clean Water Act associated with these cleanup efforts. Citizen, environmental and watershed groups who may have a desire to fund the cleanup of impacted waters are often dissuaded from doing so because the previously mined and abandoned sites have contaminated mine drainage discharges which, if re-affecting, would subject these “Good Samaritans” to liability under both state and federal law, thereby requiring them to be responsible for permanently treating the discharge to Clean Water Act standards. They could incur this liability even though they did not create the discharge and even if their cleanup efforts improved the overall quality of the discharge. This situation has been further exacerbated by a recent decision by the U.S. Fourth Circuit Court of Appeals in *West Virginia Highlands Conservancy v. Huffman*, 625 F.3d 159 (4th Cir. 2010). The court held that certain treatment systems for treating water from abandoned coal mines qualify as point sources and require NPDES permits under the Clean Water Act. While focused on bond forfeiture sites under SMCRA, the reasoning of the decision may apply equally well to the construction and operation of passive treatment systems employed by watershed groups to address acid mine drainage at abandoned coal mines. This situation must be rectified.

We believe that the best approach to address this situation is through the enactment of legislation that clarifies the application of Clean Water Act requirements to both coal and hardrock AML remediation efforts where contaminated or polluted mine drainage is involved. We have seen the results from this type of approach in states such as Pennsylvania, which enacted its own Good Samaritan law to provide protections and immunities to those groups and individuals who were not legally liable but who voluntarily undertook the reclamation of abandoned mine lands or abatement of mine drainage. However, even Pennsylvania Good Samaritans are still exposed to potential liability under federal law for their good deeds, which is having a debilitating effect on watershed cleanup efforts. The recent Fourth Circuit decision has further complicated this situation given its broad holding.

Over the course of the past fifteen years, several bills have been introduced in the U.S. Congress to increase the cleanup of inactive and abandoned mines. Each bill offered a unique approach for addressing Good Samaritan voluntary remediation efforts to remove the current disincentives in the Clean Water Act that inhibit these cleanups. From the states’ perspective, we have several recommendations and concerns that we believe should be considered in any Good Samaritan legislative effort, as follows:

- There are myriad reasons why Good Samaritan legislation is needed, but perhaps the most important is to remove the potential for incurring liability under the Clean Water Act and CERCLA. These liabilities deter motivated, well-intentioned volunteers from undertaking projects to clean up or improve abandoned sites, thereby prolonging the harm to the environment and to the health and welfare of our citizens. These impacts also have economic impacts that are felt nationwide. In addition, the universe of abandoned mine lands is so large and the existing governmental resources so limited that without the assistance of Good Samaritan volunteers, it will be impossible to clean up all of these lands.
- In accordance with the principles of state primacy contained in laws such as SMCRA and the Clean Water Act, we believe it is essential that Good Samaritan programs be administered by state regulatory authorities (or federal agencies where a state chooses not to administer the law), as the states best understand the complexities associated with abandoned mine lands within their borders, including which sites can be improved and how to accomplish the improvement. States also tend to have a better working relationship and understanding of potential Good Samaritans. Given the current structure of laws like SMCRA and the Clean Water Act, we believe that the states are in the best position to administer Good Samaritan programs with appropriate oversight by federal agencies such as EPA and OSM.
- There is merit to extending Good Samaritan protection to abandoned coal, as well as hard rock, sites. The Western Governors Association has taken the position that the proposed definition of “abandoned or inactive mined lands” could be drafted to include coal sites eligible for reclamation or drainage treatment expenditures under SMCRA. We agree with this assessment. Also, to the extent that Good Samaritan permits are not required by states who are certified under Title IV of SMCRA when performing hard rock AML remediation, this same protection should be afforded to states performing coal

AML work. Furthermore, from a political support perspective, extending Good Samaritan protections to abandoned coal mines would likely enlist the support of more eastern and mid-continent states for the legislation.

- Some have suggested that provisions addressing remining of abandoned mine sites should be included in the legislation. Our position is that these two matters should not be connected. They have somewhat different goals. As an example, Pennsylvania allows those who are not legally liable for the reclamation to engage in remining. Sites that have a preexisting discharge can only be remined if the applicant demonstrates, and the state finds, that the remining will improve or eliminate the discharge. If the remining degrades the preexisting discharge, the mine operator is responsible to treat the resulting pollution. Remining of abandoned mine land that does not contain preexisting mine drainage is allowed, provided the operator reclaims the site to modern standards. To the extent that additional incentives are considered as part of Good Samaritan legislation, we suggest including technical assistance and federal funding for these projects.
- Good Samaritan legislation should also include provisions that allow for the minerals contained in the waste on the abandoned mine land to be recovered as part of the reclamation. Allowing recovery of materials from the waste can help offset or totally pay for the reclamation. However, the mineral recovery must be secondary to the purpose of reclaiming the site. Appropriate safeguards must be provided in the legislation to ensure the purpose of the work is to reclaim the site and not to conduct mining. New mining or remining should not be a part of Good Samaritan legislation.
- Good Samaritan protections should be extended to both public and private lands. The pollution problem knows no such boundaries and must be addressed wherever it occurs. The environment and public health and safety all benefit by cleanup of abandoned mine lands, whether public or private. We also believe the protections should extend beyond federal lands so as to allow nationwide application to all lands.
- With respect to applicable environmental standards for Good Samaritan projects, we believe it is absolutely critical that the legislation include flexible standards, based on a determination by the state or federal regulatory authority that the Good Samaritan efforts will result in environmental improvement. Some abandoned mine problems are so intractable that it is not possible to achieve “total cleanup” even with today’s technologies. These types of cleanups could also be cost prohibitive. We know that in many circumstances some cleanup can result in significant environmental improvement. Forswearing that improvement because total cleanup cannot be achieved is poor public policy and shortsighted. We also know that, in some circumstances, even where total cleanup is technically possible, at some juncture the cleanup reaches a point of diminishing returns and the money would be better spent on cleaning up other sites. The bottom line here is that some cleanup is usually better than none at all.
- Finally, it has been Pennsylvania’s experience under its law that it is important that innocent landowners be covered for the Good Samaritan project activities. Some landowners will not cooperate if they are not protected.

Any new legislation should also provide the opportunity to clarify what the term “locatable mineral” means under current law. Some minerals are “locatable” under certain circumstances and “leasable” under others. For instance, uranium, which is currently locatable under most cases, is leasable under the Atomic Energy Act program and may become entirely leasable under future legislation. This creates confusion as to whether all abandoned uranium sites are now, or will be in the future, eligible for funding under the AML provisions of proposed legislation. This is particularly important given the legacy of AML sites from past uranium mining in New Mexico and other southwestern states. We believe that it is important to clarify that, until such time as it is determined otherwise, uranium continues to be a locatable mineral and thus subject to the provisions of the Mining Law.

Thank you for the opportunity to submit this testimony. Should you have any questions or require additional information, please contact us.

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Attachment

Examples of Hardrock Abandoned Mine Projects Ready for Immediate Funding

- **South Dakota**—South Dakota has one major mining Superfund site currently in the remedial design and action phase. The Gilt Edge Mine Superfund Site is located in the northern Black Hills, approximately four miles from the town of Deadwood. Mining activities began at the site in 1876 and continued intermittently for more than 100 years. The most recent owner of the site, Brohm Mining Company, operated a large-scale, open pit, heap-leach gold mining operation at the site from 1986 until 1999. Brohm affected 265 acres consisting of open pits, waste rock depositories, process facilities, and a heap leach pad. This mining activity caused significant acid rock drainage. In 1999 Brohm abandoned the site, which was then taken over by the state of South Dakota. In 2000 the EPA listed the mine as a Superfund Site. Work accomplished to date is the construction of a lime-based water treatment plant for treating acid water and the capping of a 65-acre acid generating waste rock facility. EPA recently issued a Record of Decision for the remediation of the rest of the site which includes three pits, waste rock depositories, a heap leach pad and process facilities. Remedial design is estimated to take one year with the selected remedy emphasizing site-wide consolidation and containment of mine waste. The estimated cost for the remaining reclamation work is \$72 million and it will take five to seven years to complete depending on availability of funding. Plans for water treatment will be finalized after site reclamation is completed.
- **Montana**—Montana currently has three construction-ready abandoned mine projects where all environmental and engineering studies have been completed and the projects lack only construction funding. A total of \$4.5 million must be in place before these abandoned hard rock projects can be let for bidding.
- **Colorado:**

Overview

A statewide inventory of abandoned mines estimates that over 23,000 abandoned mine features (shafts, adits, stope openings) exist in Colorado. Approximately 400 legacy mine sites are adversely impacting, or have the potential to impact, over 600 miles of rivers and streams in the state. Legacy mines were operated prior to 1977 and prior to any permitting requirements. The current landowners of these mine sites did not participate in the mining and have no responsibility for their reclamation or remediation.

Hardrock Mine Safety Hazards

Colorado's Abandoned Mine Reclamation Program (AML) was established in 1980 to address the hazards and environmental problems arising from abandoned mines in Colorado. It was instituted under the provisions in the Surface Mining Control and Reclamation Act (SMCRA) of 1977, which gives the states that have approved coal mining regulatory programs under Title V of SMCRA the ability to assume exclusive responsibility and authority to reclaim abandoned mine lands within their borders. Mines abandoned prior to 1977 are eligible for the program. The program was launched with a comprehensive inventory of hazards and environmental problems associated with past mining activities, which revealed an estimated 23,000 abandoned mined sites throughout the state. Using this inventory, Colorado prepared a statewide reclamation plan, which was approved by the U.S. Department of the Interior, Office of Surface Mining (OSM) in June 1982. Since then, approximately 7,800 abandoned mine openings have been addressed through this program.

Abandoned Mine Drainage

Water quality issues due to legacy mines present some of the most difficult challenges to restoring impaired water bodies in Colorado, from both the technical and legal perspectives. Legacy mines are a common pollution source in the mountains of Colorado. Many stream segments on the state list of impaired segments are impacted by heavy metals from inactive and legacy mines and natural background geologic sources. Dissolved metals and acidity due to legacy mining and natural loading sources make up 51% of the impaired waters in the State of Colorado. Common mine-related metal pollutants include zinc, cadmium, manganese, iron, copper and lead. Sediment related to past mining and milling activities also contributes to the contamination of the state's waters.

The amount of available funding to reclaim these sites and improve water quality is far over-shadowed by the magnitude of the water quality impact. For example, Colorado's allocation of the national non-point source appropriation is approximately \$1.9 million per year. However, the estimate to remediate just one of the many impaired river basins in Colorado is \$30 million dollars. The cost to restore water quality impacted by legacy mining issues statewide is estimated to cost nearly \$314 million.

Animas Basin Remediation Efforts

One example of an impaired watershed in Colorado is the Animas River Basin. The water quality in the Animas Basin is severely impacted by legacy mining and the basin was selected as one of two initial pilot sites in the nation for a ten year remediation effort which extended from the mid-1990's to a few years ago. Remediation efforts have been driven by an extensive characterization process where some 200 mine sites have been prioritized for feasibility of metal loading reductions. This work was significantly supported by scientific studies done through the Department of Interior's Abandoned Mined Land Initiative.

The sites selected for remediation represented 90% of the mining-related metal loading sources. So far, remediation has been completed on 28 of the 32 mine waste sites and some remediation has been done on 5 of the 34 draining mines. Unfortunately, most of the mine-related metal loading in the basin emanates from the draining mines as opposed to the mine waste. Consequently, the local watershed group's restoration efforts have been limited by the lack of a Good Samaritan provision in the Clean Water Act to reduce liability for third-party cleanups. In an effort to move forward, the watershed group developed a pilot project Good Samaritan provision to apply to the Animas River Basin and had it introduced twice in Congress. Neither of these efforts was successful and presently there is no legislation to protect a "Good Samaritan" from incurring long term liability when remediating effluent from draining mines.

Creating Jobs and the Reclamation & Restoration Economy

Each year the AML program addresses approximately 350 mine openings and participates in about nine water quality improvement projects. These construction activities create jobs and enhance the local economic climate, and they also result in greater tax revenues for state and local governments by increasing the revenues collected from income and sales taxes. Construction jobs and the associated expenditures are input to local economies and spread through a large geographic area of rural Colorado, where any additional economic benefit is highly valuable. Local economies in the historic and rural mining areas benefit from the direct and indirect cumulative expenditures as a result of contractor labor, and purchase of materials, equipment, supplies, and in many cases meals and lodging. The AML program overall has created approximately 300 new permanent private-sector construction jobs, putting \$23.6 million into local economies, and generating \$1.5 million in Colorado sales and income tax revenues. (Note: used rounded RIMS II Multipliers for the industries indicated in the state of Colorado)

The true beneficiaries of reclamation and restoration of abandoned mined lands are the citizens of the local community. In addition to the economic stimulus that the restoration activities bring to the community, those who live and work in mining areas see the effects of reclamation projects every day through increased tourism and improved environmental conditions. Preservation of a community's historic mining area enhances the local tourism economy by providing visitors and tourists with safe ways to explore and enjoy Colorado's historic mining areas. Also, historic mining areas provide opportunities for tourists, and local residents, to experience the places and activities that authentically represent the people of the past and present while, at the same time, recognizing the value of the ample natural resources of the mountain environment.

Following are photographs of inactive mine drainage sites in Colorado that are seriously impacting water quality:

- **Utah**—Utah has an estimated 15–20,000 abandoned mine openings. Future safety hazard abatement projects (i.e. shaft and adit closure) that would use SMCRA funds have been identified and ranked. The 25 top-ranked hazardous abandoned mine areas contain approximately 4500 hardrock mine openings. Within 24 months Utah could conduct 7 projects in the most dangerous areas (1270 mine openings). Safeguarding these abandoned mine openings would require an estimated \$6,350,000. Assuming legal authority and funding are available, the incremental environmental cleanup would increase the cost to \$19,050,000. In addition, due to SMCRA funding limitations, many high pri-

ority environmental remediation problems exist at previously completed hazard abatement projects.

- **New Mexico**—the state has six projects with a total estimated construction cost of \$2.8 million that could be undertaken within the 18–24 month time frame. These costs are only for the construction contracts, and do not include any costs for investigation, evaluation, design or oversight. The projects all involve noncoal and are on federal lands. One project involves a legacy uranium minesite on BML land where project development and construction costs are expected to be about \$1.6 million.
- **Virginia**—Based on current inventory data of over 4,000 abandoned hardrock mining sites in Virginia, over 30% or 1,200 of the sites pose severe safety hazards and approximately 400 or 10% pose severe environmental hazards. In the next 18 months, approximately five hundred thousand dollars of reclamation could be initiated to remediate safety hazards on federal and private lands in Virginia. Several projects are estimated to cost upwards of ten million dollars each to reclaim. They would involve testing and engineering to remediate as well as release from liability under the Clean Water Act. All projects are bid competitively to the private sector thereby providing employment and economic benefits to the local economies.
- **Wyoming**—In the next 18 months Wyoming can put \$30 million worth of projects on the ground. The number of jobs that would be involved is harder to estimate but based on similar sized projects it would be around 75 people but less than 100.
- **Arizona**—the state has 94 high-risk mine sites with 58 sites which can be identified for closure in the next 36 months. This means that over 61% of the 94 mine sites pose serious public safety and environmental threats to the public. These areas typically have high use for backcountry touring and off highway vehicle activities, and recreational mineral collection by winter visitors, or are located near populated areas. Many of the 94 mine sites has several openings with depth's greater than 50 feet. The number of jobs created by and through AML hardrock remediation is difficult to estimate because, in general, the abandoned mines that need to be addressed resulted from the efforts of small-time prospectors. We would estimate the number of jobs created to be 50–100. This number is subject to change once the momentum of closures increases throughout the 36 month timeline. The estimated costs are \$940,000. Abandoned mines pose a serious threat to public health and safety and to the environment. Public safety is a growing concern as urban areas expand. Failure to timely and properly act to close mines posing serious hazards may cause liability problems for the state.
- **California**—the state estimates that approximately 47,000 abandoned mines are distributed throughout California. Of these, approximately 5,200 sites (11% of 47,000) present environmental hazards, and more than 39,400 sites (84%) present physical safety hazards. Some of the highest priority AML sites (for example, Iron Mountain) are being addressed, but the majority have not been evaluated to determine the required cleanup actions to protect public health and safety and the environment. In addition, there are numerous areas throughout the Sierra, including tribal lands that are contaminated from historic mercury use associated with gold mining. Hundreds of millions of dollars will ultimately be necessary to remediate all the AML sites within the State. As you know, California does not currently receive federal AML funding as it is not a SMCRA state.

In 2007, at the request of Senator Feinstein's office, California's state and federal agencies working on AML issues created lists of priority AML sites with environmental and physical hazards. The list is being updated, but a current version is available from the state or IMCC. This list provides a snapshot of the known environmental, human health, and safety problems posed by abandoned mines in California. It is important to note that many AML sites have not yet been inventoried or assessed for hazards. The prioritization process used for each list is briefly outlined in the document.

Of the sites on the list, many can be considered at/near a "shovel-ready" stage (i.e., projects already advanced that can be put out to bid/work within 18 months). Listed alphabetically below are six of the State's priorities identified by the Office of Mine Reclamation, State Water Resources Control Board, and Department of Toxic Substances Control.

- Argonaut Mine, Amador County (private land/low-income PRP): \$2.0M
- La Joya Quicksilver Mine, Napa County (private land/low-income PRP): \$2.0M

- New London Mine, San Luis Obispo County (California National Guard): \$3.0M
 - Oro de Amador, mine tailings in Amador County (city of Jackson): \$5.0M
 - Plumas Eureka Mine, Plumas County (State Parks): \$3.0M
 - 150–200 priority physical hazard features on federal and state lands: \$1.5M
- TOTAL: \$16.5 million**

Other priority sites would likely be provided by federal agencies such as the Bureau of Land Management, U.S. Forest Service, and National Park Service (an estimated 67% of California's AML sites lie on federal land). We would like to stress that any hardrock AML funds for California's priority AML sites should go directly to the State of California or that the federal agencies receiving funds funnel them to the State.

Please note, the above "short list" represents only a partial list. We would be happy to work with the Subcommittee to provide a complete list that corresponds to our updated priorities. The above short list also does not address the many abandoned mine sites that would benefit from funding for assessment investigations prior to cleanup. Should such funds be available, California could use an additional, initial \$5,000,000 to conduct investigations at AML sites that pose immediate threats to human health and the environment to define cleanup construction projects. State and federal agencies would work together to conduct the investigations and select the highest priority cleanup actions. Sites and cleanup actions would be defined within less than a year of initiation of the investigation work and construction contracts could be awarded using contractors in place several months thereafter (thus, within 18 months from the notification of funding to award additional cleanup construction contracts).

Statement of Gregory E. Conrad, Executive Director of the Interstate Mining Compact Commission, on behalf of the Interstate Mining Compact Commission and the National Association of Abandoned Mine Land Programs Re: Legislative Hearing on S. 897, To Amend the Surface Mining Control and Reclamation Act of 1977, Before the Public Lands and Forests Subcommittee, Senate Energy and Natural Resources Committee, May 18, 2011

My name is Gregory E. Conrad and I serve as Executive Director of the Interstate Mining Compact Commission. I am submitting this statement for the record on behalf of the Interstate Mining Compact Commission (IMCC) and the National Association of Abandoned Mine Land Programs (NAAML) regarding a legislative hearing on S. 897, a bill to amend the Surface Mining Control and Reclamation Act of 1977 (SMCRA) to clarify that uncertified States and Indian tribes have the authority to use certain payments for noncoal reclamation projects and for the acid mine drainage set-aside program. Both of the organizations I represent strongly support this critical amendment to SMCRA.

The Interstate Mining Compact Commission (IMCC) is an organization of 24 states located throughout the country that together produce some 95% of the Nation's coal, as well as important hardrock and other noncoal minerals. Each IMCC member state has active mining operations as well as numerous abandoned mine lands within its borders and is responsible for regulating those operations and addressing mining-related environmental issues, including the reclamation of abandoned mines. Over the years, IMCC has worked with the states and others to identify the nature and scope of the abandoned mine land problem, along with potential remediation options.

The NAAML is a tax-exempt organization consisting of 30 states and Indian tribes with a history of coal mining and coal mine related hazards. These states and tribes are responsible for 99.5% of the Nation's coal production. All of the states and tribes within the NAAML administer abandoned mine land (AML) reclamation programs funded and overseen by the Office of Surface Mining (OSM) pursuant to Title IV of the Surface Mining Control and Reclamation Act (SMCRA, P.L. 95–87).

Mr. Chairman, nationally, abandoned mine lands continue to have significant adverse effects on the environment. Some of the types of environmental impacts that occur at AML sites include subsidence, surface and ground water contamination, erosion, sedimentation, chemical release, and acid mine drainage. Safety hazards associated with abandoned mines account for deaths and/or injuries each year. Abandoned and inactive mines, resulting from mining activities that occurred over the past 150 years, are scattered throughout the United States. The sites are located on private, state and public lands.

Over the years, several studies have been undertaken in an attempt to quantify the hardrock AML cleanup effort. In 1991, IMCC and the Western Governors' Association completed a multi-volume study of inactive and abandoned mines that provided one of the first broad-based scoping efforts of the national problem. Neither this study, nor any subsequent nationwide study, provides a completely reliable and fully accurate on-the-ground inventory of the hardrock AML problem. Both the 1991 study and a recent IMCC compilation of data on hardrock AML sites were based on available data and professional judgment. While the data is seldom comparable between states due to the wide variation in inventory criteria, they do demonstrate that there are large numbers of significant safety and environmental problems associated with inactive and abandoned hardrock mines and that remediation costs are very large.

Across the country, the number of abandoned hardrock mines with extremely hazardous mining-related features has been estimated at several hundred thousand. Many of the states and tribes report the extent of their respective AML problem using a variety of descriptions including mine sites, mine openings, mine features or structures, mine dumps, subsidence prone areas, miles of unreclaimed highwall, miles of polluted waterways, and acres of unreclaimed or disturbed land. Some of the types of numbers that IMCC has seen reported in our Noncoal Mineral Resources Survey and Report and in response to information we have collected for the Government Accountability Office (GAO) and others include the following gross estimated number of abandoned mine sites: Alaska—1,300; Arizona—80,000; California—47,000; Colorado—7,300; Montana—6,000; Nevada—16,000; Utah—17,000 to 20,000; New York—1,800; Virginia—3,000; Washington—3,800; Wyoming—1,700. Nevada reports over 200,000 mine openings; New Mexico reports 15,000 mine hazards or openings; Minnesota reports over 100,000 acres of abandoned mine lands and South Carolina reports over 6,000 acres.

What becomes obvious in any attempt to characterize the hardrock AML problem is that it is pervasive and significant. And although inventory efforts are helpful in attempting to put numbers on the problem, in almost every case, the states are intimately familiar with the highest priority problems within their borders and also know where limited reclamation dollars must immediately be spent to protect public health and safety or protect the environment from significant harm.

Today, state agencies are working on hardrock abandoned mine problems through a variety of limited state and federal funding sources. Various federal agencies, including the U.S. Environmental Protection Agency, Bureau of Land Management, U.S. Forest Service, U.S. Army Corps of Engineers and others have provided some funding for hardrock mine remediation projects. These state/federal partnerships have been instrumental in assisting the states with our hardrock AML work and, as states take on a larger role for hardrock AML cleanups into the future, we will continue to coordinate with our federal partners. However, most of these existing federal grants are project-specific and do not provide consistent funding. For states with coal mining, the most consistent source of AML funding has been the Title IV grants under the Surface Mining Control and Reclamation Act (SMCRA). Section 409 of SMCRA allows states to use these grants at *high priority* non-coal AML sites. The funding is generally limited to safeguarding hazards to public safety (e.g., closing mine openings) at hardrock sites.

In December 2006, Congress significantly amended the SMCRA AML program to, among other things, distribute funds to states in an amount equal to that previously allocated under SMCRA but never appropriated. However, while Section 409 was not changed or amended in any way, the Interior Department, through both a Solicitor's Opinion (M-37014) and final rule (73 Fed. Reg. 67576), has now interpreted SMCRA to prohibit this enhanced funding from being used for noncoal projects. This is a significant blow to states such as New Mexico, Utah and Colorado that have previously used SMCRA AML funds to address many of the more serious hardrock AML problems within their borders. In fact, some of the noncoal AML projects previously undertaken by these states have been recognized by OSM for their excellence pursuant to the agency's national AML awards program.

S. 897 would remedy the Interior Department's unfortunate interpretation of the 2006 Amendments and as such we strongly support the bill. That interpretation not only disregards the fact that section 409 was left unamended by Congress, it is also inconsistent with assurances repeatedly given to the states and tribes by OSM during the consideration of the legislation that noncoal work could continue to be undertaken with these AML funds. The interpretation would also have the unacceptable result of requiring states and tribes to devote funds to lower priority coal sites while leaving dangerous noncoal sites unaddressed. While OSM will argue that this may impact the amount of funding available to uncertified states to address high priority coal problems, Congress did not seem overly concerned with this result but

rather deferred to its original framework for allowing both high priority coal and noncoal sites to be addressed.

In its final rule implementing the 2006 amendments to SMCRA (at 73 Fed. Reg. 67576, et seq.), OSM continued to abide by its argument that “prior balance replacement” funds (i.e. the unappropriated state and tribal share balances in the AML Trust Fund) are fundamentally distinct from section 402(g) moneys distributed from the Fund. This, according to OSM, is due to the fact that these prior balance replacement funds are paid from the U.S. Treasury and have not been allocated under section 402(g)(1). This is a distinction of convenience for the Interior Department’s interpretation of the 2006 Amendments and has no basis in reason or law. The fact is, these funds were originally allocated under section 402(g)(1), are due and owing pursuant to the operation of section 402(g)(1), and did not change their “color” simply because they are paid from a different source. Without the operation of section 402(g)(1) in the first place, there would be no unappropriated (i.e. “prior”) state and tribal share balances. The primary reason that Congress appears to have provided a new source for paying these balances is to preserve a balance in the AML Trust Fund to 1) generate continuing interest for the UMW Combined Benefit Trust Fund and 2) to insure that there was a reserve of funding left after fee collection terminates in 2021 to address any residual high priority historic coal problems. There was never an intent to condition or restrict the previously approved mechanisms and procedures that states and tribes were using to apply these moneys to high priority coal and noncoal problems. To change the rules based on such a justification is inappropriate and inconsistent with law.

The urgency of advancing this legislation has been heightened, Mr. Chairman, by statements in OSM’s proposed budget for Fiscal Year 2012. Therein, OSM is proposing to further restrict the ability of states to expend AML funds on noncoal reclamation projects. This will apparently occur as part of a legislative proposal that the Administration supposedly intends to pursue in the 112th Congress. While the primary focus of that proposal will be the elimination of future AML funding for states and tribes that are certified under Title IV of SMCRA (which we adamantly oppose), OSM is also proposing to establish a hardrock AML reclamation fee in order to “hold each industry [coal and noncoal] responsible for the actions of its predecessors.” We are uncertain exactly what OSM has in mind with respect to this aspect of the legislative proposal, but we suspect it has to do with clarifying the very issue that is the subject of S. 897. And while there may be merit for a hardrock AML reclamation fee, the potential for enacting this fee in the near future is highly unlikely. In the meantime, we are losing valuable time and resources by failing to authorize the use of unappropriated state and tribal share balances to address what even OSM has characterized as “a legacy of abandoned mine sites that create environmental hazards.” It should be kept in mind, in this regard, that the availability of these funds for noncoal reclamation work will expire after FY 2014 when the last of the unappropriated state/tribal share funds will have been distributed.

For the same reasons that Congress needs to clarify this misinterpretation for noncoal AML work, it should also do so for the acid mine drainage (AMD) set aside program. Section 402(g)(6) has, since 1990, allowed a state or tribe to set aside a portion of its AML grant in a special AMD abatement account to address this pervasive problem. OSM’s recent policy (and now regulatory) determination is denying the states the option to set aside moneys from that portion of its grant funding that comes from “prior balance replacement funds” each year to mitigate the effects of AMD on waters within their borders. AMD has ravaged many streams throughout the country, but especially in Appalachia. Given their long-term nature, these problems are technologically challenging to address and, more importantly, are very expensive. The states need the ability to set aside as much funding as possible to deal with these problems over the long term. Congress clearly understood the magnitude of this challenge given the fact that it increased the amount of money that states could set aside for this purpose from 10 to 30 percent in the 2006 Amendments. We therefore strongly support the inclusion of language in S. 897 that will correct the current policy interpretation by Interior and allow the use of unappropriated state and tribal share balances (“prior balance replacement funds”) for the AMD set aside, similar to the use of these balances for noncoal work.

Over the past 30 years, tens of thousands of acres of abandoned mine lands have been reclaimed, thousands of mine openings have been closed, and safeguards for people, property and the environment have been put in place. There are numerous success stories from around the country where the states’ AML programs have saved lives and significantly improved the environment. Suffice it to say that the AML Trust Fund, and the work of the states pursuant to the distribution of monies from the Fund, have played an important role in achieving the goals and objectives set forth by Congress when SMCRA was first enacted—including protecting public

health and safety, enhancing the environment, providing employment, and adding to the economies of communities impacted by past coal and noncoal mining. Passage of S. 897 will further these congressional goals and objectives.

In support of our position on S. 897, we also request that you include for the record the attached resolution (No. 07-8) adopted by the Western Governors that urges the continued use of funds collected or distributed under Title IV of SMCRA for the reclamation of high priority, hard-rock abandoned mines. This resolution is in support of the Western Governors' policy statements B.4 and B.5.

Thank you for the opportunity to present our views on S. 897. We welcome the opportunity to work with you to complete the legislative process and see this bill become law.

Western Governors' Association
Policy Resolution 10-3
Cleaning Up Abandoned Mines in the West

A. BACKGROUND

1. Mining has a long history in the West. The western states are rich in hardrock minerals like gold, silver and copper as well as coal, much of it low sulfur.

Hardrock Mines

2. Historic hardrock mining in the West, unregulated until recent years, has left a legacy of thousands of historic abandoned mines, which pose a threat to human health and safety and to the environment. These historic mines pre-date modern federal and state environmental regulations which were enacted in the 1970s. Often a responsible party for these mines is not identifiable or not economically viable enough to be compelled to clean up the site. Thousands of stream miles are impacted by drainage and runoff from such mines, one of the largest sources of adverse water quality impacts in several Western states.
3. Cleanup of abandoned hardrock mines is hampered by two issues—lack of funding and concerns about liability. Both of these issues are compounded by the land and mineral ownership patterns in mining districts. It is not uncommon for there to be dozens of parties with partial ownership or operational histories associated with a given site.
4. Recognizing the potential for economic, environmental and social benefits to downstream users of impaired streams, Western states, municipalities, federal agencies, volunteer citizen groups and private parties have come together across the West to try to clean up some of these abandoned hardrock sites. However, due to questions of liability, many of these Good Samaritan efforts have been stymied.
5. Potential liability exists for Good Samaritans under Clean Water Act (CWA) Section 402 National Pollutant Discharge Elimination System (NPDES) permit program because a party can inherit liability for any discharges from an abandoned mine site remaining after their cleanup efforts, even though the volunteering remediating party had no previous responsibility or liability for the site, and has reduced the water quality impacts from the site by completing a cleanup project.
6. Potential liability exists for Good Samaritans under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).
7. Liability concerns also prevent mining companies from going back into historic mining districts and re-mining old abandoned mine sites or doing volunteer cleanup work. While this could result in an improved environment, companies that are interested are justifiably hesitant to incur liability for cleaning up the entire abandoned mine site.

Coal Mines

8. Congress authorized creation of the Abandoned Mine Land (AML) Program under Title IV of the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The program is funded by fees from current coal production. The coal AML program provides funding to states to restore lands mined for coal and abandoned or left inadequately restored before August 3, 1977.
9. Section 409 of SMCRA also authorizes states to use AML grant funds to address high priority non-coal mine hazards. While the state AML programs are limited to using SMCRA funds to only address public health and safety hazards at abandoned non-coal mines, and not purely environmental

threats, the state programs have employed this provision to make a dent in the public safety threats posed by abandoned mines.

10. In December 2006, Congress amended Title IV of SMCRA to reauthorize the fee collection authority, to provide for the distribution of the unappropriated stateshare balance of the AML Trust Fund, to increase the minimum program funding to \$3 million per year. Section 409 of SMCRA was not amended and no limits were placed on non-coal projects.
11. However, the Office of Surface Mining (OSMRE) adopted rules to severely limit certain states from using AML funds for non-coal mine hazards. For Colorado, New Mexico and Utah, over 70 % of their funds are now off limits for non-coal projects. These states are required to fund lower priority coal mine reclamation projects while higher priority non-coal hazards would remain unfunded. The Administration is also proposing to deny AML funds to states which have "certified" completion of coal AML projects, contrary to agreements codified in 2006.
12. The new interpretation of SMCRA by OSMRE conflicts with the clear language of the law authorizing the use of coal AML funds for high priority non-coal mine hazards. OSMRE's new interpretation will leave the public exposed to significant hazards to public health and safety at abandoned non-coal mines being ignored while states are required to expend coal AML funds at lower priority coal mine sites.

B. GOVERNORS' POLICY STATEMENT

Hardrock Mines

1. Western Governors believe Congress should amend the Clean Water Act to protect volunteering remediating parties who conduct authorized remediation from becoming legally responsible under section 301(a) and section 402 of the CWA for any continuing discharges from the abandoned mine site after completion of a cleanup project, provided that the remediating party—or "Good Samaritan"—does not otherwise have liability for that abandoned or inactive mine site. Legislative and administrative remedies to address potential CERCLA liabilities should also be considered.
2. The Governors encourage federal land management agencies, such as the U.S. Bureau of Land Management, the National Park Service and the U.S. Forest Service, as well as support agencies, such as the U.S. Environmental Protection Agency, the U.S. Geological Survey and the U.S. Army Corps of Engineers, to coordinate their abandoned hardrock mine cleanup efforts with state efforts to avoid redundancy and unnecessary duplication, and to employ the expertise and knowledge of state AML programs.
3. Western Governors urge Congress to designate a dedicated source of funding for the cleanup of abandoned hardrock mines.

Coal Mines

4. Western Governors urge the Administration to uphold the intent of Congress to allow states to exercise discretion on the use of their AML grant funds to address high priority non-coal abandoned mine hazards and to return funds due "certified" states under existing law.
5. Western Governors urge Congress to adopt legislation to restore the flexibility under SMCRA for the states to use AML funds at both coal and high priority noncoal abandoned mine sites and to ensure appropriate liability protections remain in place.

C. GOVERNORS' MANAGEMENT DIRECTIVES

1. WGA staff will advance the policy positions stated above in appropriate venues as warranted and report to Governors and Staff Council on progress and impediments.
2. WGA shall transmit this resolution to Congress, the Secretary of the Interior, Administrator of the Environmental Protection Agency, the Director of the Office of Management and Budget and other appropriate parties as warranted.

Mr. LAMBORN. All right. Thank you. And if there are no objection, both of the items that you referred to earlier, the video and the document, will added to the record. Hearing none, so ordered.

[NOTE: The video has been retained in the Committee's official files.]

Mr. LAMBORN. Next we have Laura Skaer.

**STATEMENT OF LAURA SKAER, EXECUTIVE DIRECTOR,
NORTHWEST MINING ASSOCIATION**

Ms. SKAER. Thank you, Mr. Chairman, Ranking Member Holt, and Members of the Committee. I think it is important to understand that hardrock AMLs are historic, the result of 140 years of mining prior to the enactment of modern environmental laws, regulations, and the requirement to provide financial assurance to guarantee reclamation.

Unlike the past, modern Federal and State environmental laws, regulations, and financial assurance requirements work together to ensure that today's mines will not become tomorrow's AMLs.

Thus, the AML problem is finite, and historical, and is not one that will grow in the future. This is evidenced by BLM's June 21 response to Senator Lisa Murkowski's March 8th letter stating that 659 plans of operation have been approved since 1990. None of those are on the CERCLA NPL list, and BLM currently holds \$1.7 billion in financial assurance.

Nevertheless, mining opponents use pictures of historic unreclaimed abandoned mines to ferment public opposition to new mine proposals, suggesting disingenuously that these historic practices reflect modern practices.

This is the equivalent of showing the picture of a 1957 Chevrolet Bel-Air and stating that it does not have seat belts, air bags, or pollution control, and therefore, GM should not be allowed to produce new cars in 2011.

Although some progress has been made, the number one impediment to voluntary mitigation and cleanup of hardrock AMLs is the potential for immediate and cradle-to-grave liability imposed by existing Federal and State environmental laws on anyone who wants to be a Good Samaritan.

That impediment would be removed by comprehensive and effective good Samaritan legislation, which the mining industry strongly supports. Legislation that would allow mining companies and others with no previous involvement at an AML site to voluntarily improve safety and environmental conditions and reclaim the site, either whole or in part, without the threat of the potentially enormous liability under CERCLA, the Clean Water Act, and other laws.

My written testimony outlines 10 essential elements of effective Good Samaritan legislation. I would like to highlight just a few. Mining companies that did not create environmental problems at an AML site must qualify as Good Samaritans.

The mining industry has the desire, the technical expertise, experience, and technology, to assess the safety and environmental issues present at an AML site, and properly secure, mitigate, and reclaim those sites. In fact, more experience and expertise than all other potential Good Samaritans combined.

Also, mining company Good Samaritans contribute private sector capital, thereby reducing the need for public sector resources. Two, a potential Good Samaritan must be able to gather needed site characterization data without having to conduct a PRP search, or go through a long and complicated permitting process.

Three, Good Samaritan projects should be allowed as long as they are likely to result in an improvement to the environment, even if they will not result in complete cleanup of an AML site, or the attainment of all applicable environmental standards, such as stringent water quality standards.

We should not let the pursuit of the perfect be the enemy of the good. Effective Good Samaritan legislation should encourage entities with sufficient expertise and resources to mill historic ways in order to recover, remove, or reduce the metal content.

In many settings, this would result in the greatest degree of environmental improvement. Knowing these ways to recover some of the residual metals promotes conservation of resources, and would generate some of the metals that we need for strategic and economic purposes.

Also, milling historic mine wastes is a closure technique that would achieve superior environmental results compared to the usual AML remedy, especially if the EPA is involved, which is to merely move the contaminants to a newly constructed waste repository.

Relocating historic mine waste does not reduce or remove the source of pollution. Our goal should be to remove and not just move and cover. H.R. 3203 introduced by the Chairman in the last Congress provides a good starting point for effective Good Samaritan legislation.

It already incorporates many of the 10 concepts enumerated in our written testimony, and could be improved by, one, providing a mechanism for conducting site investigations without incurring environmental liability, and without having to go through a full permitting process.

Two, the PRP search should be significantly streamlined, and completely eliminated when only private monies are funding the cleanup. And three, restrictions on the ability of a mining company or other Good Samaritan to reprocess historic mine wastes in order to remove metals from these materials, should be eliminated.

It is time for Congress to finally adopt the recommendation from the National Research Council's 1999 report, and enact effective Good Samaritan legislation, and create a framework with regulatory incentives and liability protection, to voluntarily remediate environmental problems caused by others at AML sites.

We applaud the Chairman for holding this hearing, and look forward to working with the Committee to produce Good Samaritan legislation that will actually result in on-the-ground cleanups. I will be happy to answer any questions that you have. Thank you.

[The prepared statement of Ms. Skaer follows:]

**Statement of Laura Skaer, Executive Director,
Northwest Mining Association**

Executive Summary

Chairman Lamborn, Ranking Member Holt and Members of the Committee, the Northwest Mining Association (NWMA) appreciates this opportunity to provide testimony on *Abandoned Mined Lands: Innovative Solutions for Restoring the Environment, Improving Safety and Creating Jobs*.

The mining industry has long been front and center in trying to deal responsibly with AMLs. Some of these efforts are documented in a study researched and authored by two of our members, Debra W. Struhsacker and Jeff W. Todd, and published in 1998 by the National Mining Association entitled "*Reclaiming Inactive and*

Abandoned Mine Lands—What Really is Happening.” (A copy of this study is being included in the record and is hereinafter cited as the “NMA Study”). This study presents compelling evidence that given the right opportunity, the mining industry can play a significant role in eliminating the safety hazards and improving the environment at abandoned and inactive mines.

The industry also continues to strongly support the enactment of comprehensive Good Samaritan legislation that would allow mining companies with no previous involvement at an AML site to voluntarily reclaim and improve safety and environmental conditions at that site, in whole or in part, without the threat of potentially enormous liability under CERCLA, the Clean Water Act, and other federal and state environmental laws.

Industry wants to see abandoned mines cleaned up. After all, they are incorrectly portrayed as being *our* dirty pictures, when they in fact represent the results of historic practices, typically 50 to 150 years old, implemented by companies no longer in existence and/or persons no longer alive, and are reflective of societal values at that time (for example metals production at all costs for World War II). Nevertheless, mining opponents use pictures of historic, unreclaimed abandoned mines to foment public opposition to new mine proposals, suggesting disingenuously that these historic practices reflect modern practices. This is the equivalent of showing a picture of a 1957 Chevrolet Bel Air and stating that it does not have seat belts, air bags, pollution control devices or meet CAFE requirements and therefore GM should not be allowed to produce new cars in 2011.

Industry wants to see AMLs reclaimed and safety and environmental conditions improved as much as anyone, but we need your help. The mining industry has the desire, the experience, the technology, and the expertise to mitigate and reclaim AMLs. In fact, the mining industry has more experience and expertise than all other potential Good Samaritans combined. Additionally, the mining industry can contribute private-sector capital towards addressing the abandoned mine problems thereby reducing the need for public-sector resources. Effective Good Samaritan legislation makes sense and can be a win-win-win-win for the environment, for federal, state and local governments, for jobs for the Good Samaritan, for the community, and for society. We are here today to ask Congress to do its part and enact Good Samaritan legislation that will remove the legal liability hurdles and provide non-monetary incentives for a variety of persons and entities to reclaim and improve safety and environmental conditions at AMLs throughout the West.

We applaud the Chairman for holding this hearing and look forward to working with him to produce Good Samaritan legislation that will actually result in on-the-ground Good Samaritan cleanups at Abandoned Mine sites.

NORTHWEST MINING ASSOCIATION: WHO WE ARE

NWMA is a 116 year old, 2,000 member, non-profit, non-partisan trade association based in Spokane, Washington. NWMA members reside in 42 states and are actively involved in exploration, mining and reclamation operations on public and private lands, especially in the West. Our diverse membership includes every facet of the mining industry including geology, exploration, mining, engineering, equipment manufacturing, technical services, and sales of equipment and supplies. NWMA's broad membership represents a true cross-section of the American mining community from small miners and exploration geologists to both junior and large mining companies. More than 90% of our members are small businesses or work for small businesses. Most of our members are individual citizens. Our members have extensive first-hand experience with reclaiming active and inactive mine sites and remediating a variety of environmental conditions and safety issues at these sites.

Our members also have extensive knowledge of Abandoned Mine Lands (AMLs) in the U.S. In addition to the study mentioned above, Ms. Struhsacker has testified before the Senate Energy and Natural Resources Committee on AML issues (March 12, 2008), and I have testified before this subcommittee on AML and Good Samaritan issues on two previous occasions (July 13, 2006 and October 3, 2007). Another NWMA member, Julian C. Isham, testified at a subcommittee field hearing on *Abandoned Mines and Mercury in California* (November 23, 2009). Copies these testimonies are attached and incorporated into the record for this hearing.

ABANDONED MINE LANDS ARE HISTORIC

It is important to understand when we talk about hardrock abandoned mine lands we are talking about a problem which was created in the past due to mining practices used at sites mined prior to the enactment of modern environmental laws and regulations and the requirement for mine operators to provide financial assurance to guarantee their sites will be properly reclaimed. Table 1 lists the dates of development of many of the major mining districts in the country compared to the dates

of enactment of many of the federal and state environmental laws and regulations that govern hardrock mining activities. As is clearly seen from this table, mining in the U.S. dates back to the 1820s, with significant historic mine development throughout the remainder of the 19th century and into the early part of the 20th century. Many of the AML sites that need attention were created in this timeframe.

It also is important to note that during World Wars I and II, the federal government directed operations at many mines to produce the metals and minerals necessary for the war efforts. The focus was on maximizing production and winning the war—not on using mining methods that were designed to protect the environment. The metals mined from these sites greatly benefited U.S. society by contributing to the country's victories in both wars. What we are left with today, however, are the environmental impacts created by these unregulated mining activities. Some of these war-efforts mines are now abandoned. Because the American public benefited in the past from mining of these sites, we now have a public responsibility to develop policies and funding mechanisms to reclaim these sites.

Many modern mining practices began to be implemented in the mid-1960s at about the same time that the country was developing an environmental awareness and when Congress was starting to enact environmental laws. Thus, as is readily apparent from Table 1, the U.S. environmental statutory and regulatory framework is a recent development compared to the history of mining in the U.S. Moreover, it is important to recognize that many of the laws and regulations governing hardrock mining are quite new—some are less than 25 years old. For example, Nevada's state reclamation law went into effect in 1990, only 21 years ago. BLM's regulations for hardrock mining, the 43 CFR, Subpart 3809 program, went into effect in 1981 and were substantially updated just ten years ago in 2001.

The body of federal and state environmental laws and regulations shown in Table 1 has had a significant and positive impact on the way mining is now conducted in the U.S., resulting in a substantial reduction in environmental impacts and dramatic improvements in reclamation. As a result of these laws and regulations, the domestic hardrock mining industry of today is highly regulated and environmentally and socially responsible. The creation of these laws has caused the mining industry to completely revise how mines are designed and operated, so that now, reclamation is a fundamental and integrated part of mine planning and operation as today's mines are designed, built and operated for closure. Also, because these laws and regulations require exploration and mining companies to provide financial assurance to guarantee reclamation at the end of the project, mines today will not become future AML sites. In the event a company goes bankrupt or defaults on its reclamation obligations, state and federal regulatory agencies will have bond monies available to reclaim the site. In a June 21, 2011 letter from Robert V. Abbey, Director of the Bureau of Land Management (BLM) to Senator Lisa Murkowski, the BLM told Senator Murkowski that 659 Plans of Operation have been approved since 1990 and that none of those sites have been placed on the CERCLA NPL list. Thus, the AML problem is a finite and historical problem and not one that will grow in the future.

As shown in Table 1, the U.S. Forest Service adopted the 36 CFR, Part 228A surface management regulations governing hardrock mining operations on National Forest Lands in 1974. Six years later, in 1980, BLM enacted the 43 CFR, Subpart 3809 surface management regulations, which were substantially expanded and updated in 2000 and 2001. Both BLM's 3809 regulations and the U.S. Forest Services' 228A regulations require all exploration and mining activities above casual use provide federal land managers with adequate financial assurance to ensure reclamation after completing the exploration or mining project. Because the underlying purpose of the financial assurance requirement is to ensure reclamation of the site in the event an operator goes bankrupt or fails to reclaim a site for some other reason, the amount of required financial assurance is based on what it would cost BLM or the U.S. Forest Service to reclaim the site using third-party contractors to do the work. According to BLM's June 21 letter to Senator Murkowski, the amount of financial assurance currently held by BLM is \$1.7 billion.

In addition to mandating reclamation and establishing financial assurance requirements, these comprehensive federal regulations also require compliance with all applicable state and federal environmental laws and regulations to protect the environment and to meet all applicable air quality, water quality and other environmental standards.

Additionally, all western public land states have enacted comprehensive regulatory programs that govern hardrock mining operations in their respective state. Like the federal financial assurance requirements, these state regulatory programs require the posting of adequate financial assurance or reclamation bonds in an amount equal to the cost that would be incurred by the government if it had to contract with a third party to remediate and reclaim the site. In many states, federal

and state regulators with jurisdiction over mining work together to jointly manage the reclamation bonding programs. For example, in Nevada, the BLM, the U.S. Forest Service and the Nevada Division of Environmental Protection/Bureau of Mining Regulation and Reclamation have entered into a Memorandum of Understanding (MOU) that establishes procedures for coordinating the federal and state regulatory programs for mining. This MOU specifies that the federal and state agencies will work together to review reclamation cost estimates and to agree upon the required bond amount.

| Table 1 Chronology of U.S. Mine Development and Enactment of Environmental Regulations | | |
|---|--|--|
| Year | Commencement of Mining Activities | Enactment of State and Federal Environmental Laws Affecting Mining |
| Historic Mining | | |
| 1825 | Upper Mississippi Valley lead mining (Southwestern Wisconsin and adjacent Iowa and Illinois) | |
| 1849 | California - gold mining | |
| 1858 | Colorado - precious metals mining | |
| 1859 | Nevada - Comstock Lode silver and gold mining | |
| 1862 | Montana - gold mining | |
| 1863 | Utah - copper mining | |
| late 1860s | Upper Mississippi Valley zinc mining (Southwestern Wisconsin and adjacent Iowa and Illinois) | |
| 1875 | South Dakota - Black Hills gold mining | |
| 1877 | Colorado - base metal mining | |
| 1877 | Arizona - copper mining | |
| 1882 | Montana - copper mining | |
| 1906 | First gold produced from Round Mountain, NV | |
| 1917 | Colorado - molybdenum mining | |
| Modern Mining | | |
| 1965 | Nevada - Carlin-type gold mining started | |
| 1966 | | National Historic Preservation Act |
| 1967 | | Air Quality Act |
| 1969 | | National Environmental Policy Act (NEPA) |
| 1970 | | Occupational Safety and Health Act (OSHA) |
| | | Clean Air Act |

| Table 1 Chronology of U.S. Mine Development and Enactment of Environmental Regulations | | |
|---|--|--|
| Year | Commencement of Mining Activities | Enactment of State and Federal Environmental Laws Affecting Mining |
| 1971 | | CA Environmental Quality Act (CEQA) MT Metal Mine Reclamation Act MT Environmental Policy Act (MEPA) |
| 1972 | | Federal Water Pollution Control Act/Clean Water Act |
| 1973 | | Endangered Species Act |
| 1974 | Mining begins at Henderson, CO | U.S. Forest Service Mining Regulations |
| 1975 | Modern mining begins at Round Mountain, NV | CA Surface Mined Land Reclamation Act (SMARA) |
| 1976 | | Federal Land Policy and Management Act (FLPMA) Resource Conservation and Recovery Act (RCRA) Clean Water Act Amendments CO Mined Land Reclamation Act |
| 1977 | | Mine Safety and Health Act (MSHA) Surface Mining Control and Reclamation Act (SMCRA) WI Metallic Mining Reclamation Act ID Surface Mining Act |
| 1979 | | Archaeological Resources Protection Act |
| 1980 | Mining begins at Jerritt Canyon, NV | Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA – Superfund) |
| 1981 | | U.S. Bureau of Land Management Hardrock Mining Regulations |
| 1982 | | SD Mined Land Reclamation Act |
| 1984 | | Hazardous and Solid Waste Amendments |
| 1985 | Mining begins at McLaughlin, CA | |
| 1985 | Mining begins at Sleeper Mine, NV | |
| 1986 | Mining begins at Goldstrike Mine, NV | Superfund Amendments and Reauthorization Act |
| 1987 | Mining begins at Stillwater Mine, MT | UT Mined Land Reclamation Act |
| 1989 | | NV Water Pollution Control Law |

| Table 1 Chronology of U.S. Mine Development and Enactment of Environmental Regulations | | |
|---|---|--|
| Year | Commencement of Mining Activities | Enactment of State and Federal Environmental Laws Affecting Mining |
| | | NV Mined Land Reclamation Act |
| 1990 - Present | On going development of Nevada's gold mining industry | Clean Air Act Amendments |
| 2001 | | Updating of BLM's 43 C.F.R. 3809 regulations to include mandatory bonding requirements for all surface-disturbing activities |

In 1999, the National Academy of Sciences National Research Council, in response to a request from Congress to assess the adequacy of the regulatory framework for hardrock mining on federal lands, found that "[t]he overall structure of the federal and state laws and regulations that provide mining-related environmental protection is complicated, but generally effective." Thus, these state and federal comprehensive regulatory programs together with financial assurance requirements work together to ensure that modern mining is environmentally responsible and that today's mines will be reclaimed.

THE VAST MAJORITY OF AML SITES DO NOT POSE SIGNIFICANT ENVIRONMENTAL PROBLEMS

It is important to understand that the vast majority of all hardrock AML sites are not problematic. The 1998 WGA report mentioned above estimated that more than 80% of AML sites create neither environmental nor immediate safety hazards. Where problems do exist, safety hazards are the primary problem although some AML sites have both environmental and safety issues.

The Center of the American West released a study in 2005 entitled "Cleaning Up of Abandoned Hardrock Mines in the West." The Center, which is affiliated with the University of Colorado, states at page 31 of its report that "only a small fraction of the 500,000 abandoned mines [identified by the Mineral Policy Center] are causing significant problems for water quality."

A 2007 USFS/BLM report estimates that as many as 10% of the AML sites on USFS- or BLM-managed land may include environmental hazards and that the balance, or approximately 90%, are landscape disturbances or safety hazards. The finding that landscape disturbance and safety hazards comprise the bulk of the AML problem is consistent with other reports.

Although much of the public debate about the AML problems typically focuses on environmental issues, it is really safety hazards that deserve our immediate attention. Nearly every year, the country experiences one or more tragic accidents or fatalities at an AML site where somebody has fallen into or become trapped in an unreclaimed historic mine opening. AML safety hazards pose a far greater risk to the public than AML environmental problems. Therefore, we should focus first-priority AML funds on eliminating safety hazards at AML sites located near population centers and frequently used recreation areas.

The 1998 NMA Study cited above includes a comprehensive discussion of the types of safety hazards and environmental problems that exist at AML sites. Table 2 summarizes this discussion and lists the safety hazards and environmental problems that may occur at AML sites and the techniques used to address these hazards and problems. As stated above, landscape disturbances and safety hazards are the dominant problem at most AML sites. However, some sites may have a combination of landscape disturbance, safety hazards, and environmental problems.

| Table 2 Generalized Characterization of Issues at AML Sites | |
|--|---|
| Types of AML Problems | Examples of Typical Response Measures |
| Landscape Disturbances <ul style="list-style-type: none"> • Surface Disturbance that detracts from the aesthetic or natural appearance of the site, • Discarded equipment, abandoned buildings in disrepair | <ul style="list-style-type: none"> • Regrading and recontouring disturbed areas to blend in with the surround topography • Revegetating regraded areas with native species • Removing and properly disposing of discarded materials • Dismantling and disposal of buildings |
| Safety Hazards <ul style="list-style-type: none"> • Unrestricted and hazardous openings (shafts, adits, portals, stopes) • subsidence features and exploration excavations • Dangerous highwalls and open pits • Unsafe structures and dilapidated buildings | <ul style="list-style-type: none"> • Partial or complete backfilling of mine openings • Installation of gates, grates, and doors to impede access into mine openings, • Fencing around mine openings and hazardous highwalls and open pits • Signage to warn the public to avoid dangerous mine openings and highwalls • Removal of unsafe buildings. |
| Environmental Problems <ul style="list-style-type: none"> • Erodible waste rock dumps, tailings deposits, and smelter wastes • Acid rock drainage from mine openings, waste rock dumps, and tailings deposits • Blowing dust from tailings piles • Contaminated soils, • Chemical contamination from processing reagents | <ul style="list-style-type: none"> • Removing mine wastes and contaminated soils and placing in an authorized engineered structure, • Stabilizing the wastes in-situ with engineered covers to prevent wind erosion and to minimize infiltration of precipitation • Rerouting drainages to avoid contact with mine wastes • Installing plugs in portals with drainage |

Although many of the above listed measures are expensive—especially those used to improve safety and environmental problems—they are technically straightforward, well understood, and are generally quite effective in improving environmental conditions at AML sites. The NMA Study identified a number of AML sites with safety hazards and/or environmental problems that were substantially reduced through the use of one or more of the measures listed in Table 2. It is important to understand, however, that each AML site is different and the nature of AML issues is site-specific. The measures shown in Table 2 to address landscape disturbance, safety hazards, and environmental problems at an AML site must be custom-tailored to fit the site-specific conditions of a particular site. A cookie-cutter, one-size-fits all approach will not achieve optimal results and may even fail to address the problem.

AML policy discussions have had a tendency to focus on the worst and most complex AML sites. This mischaracterization of the global AML problem has probably contributed to the lack of progress in developing federal policies and programs to solve the AML problem. The legislative dialogue about enacting Good Samaritan legislation has perhaps been made more difficult by focusing on sites with very serious or complex environmental and liability issues such as sites with acid drainage from underground mine openings which typically require extensive and costly remediation efforts. Not all AML sites that may be discharging contaminated water can be remediated easily. Although this type of site is serious and deserving of our immediate attention, it is not representative of the safety and environmental concerns at most AML sites. In other words, not every AML site will be a model for a Good Samaritan project. Focusing solely on the most challenging AML sites is likely to produce programs and policies with unwarranted complexity and costs, resulting in little or no environmental improvement.

THE NEED FOR GOOD SAMARITAN LEGISLATION

Although, as discussed above, some progress has been made by industry and existing State and federal AML programs in reducing safety hazards and remediating and reclaiming hardrock AMLs, the number one impediment to voluntary cleanup of hardrock abandoned mine lands is the potential liability imposed by existing federal and state environmental laws, in particular the Clean Water Act (CWA), the Comprehensive Environmental Response, Compensation and Liability Act

(CERCLA) (commonly known as Superfund), the Resource Conservation & Recovery Act (RCRA), and the Federal Toxic Substances Control Act. Under these laws, a mining company, state or federal agencies, communities, NGOs, individuals or other entities that voluntarily improve safety and environmental conditions at an abandoned mine site could potentially incur both immediate and “cradle-to-grave” liability, even though they did not cause or contribute to the environmental condition at the abandoned mine land site and their actions improve the environment or abate a safety hazard.

Furthermore, they could be required under the CWA to prevent discharges to surface waters from the AML in perpetuity, or obtain a permit and treat such discharges to meet strict effluent limitations that do not result in exceedences of stringent water quality standards, something that may not be possible; and in any event, may be so expensive that no company, individual, or other entity would undertake a voluntary cleanup.

Virtually everyone who has looked at the AML issue in the west has recognized and documented the legal impediments to voluntary cleanup of AMLs and has urged that those impediments be eliminated. These groups include the Western Governors Association, the National Academy of Sciences, and the Center for the American West.

The time has come for Congress to adopt the recommendation from the National Academy of Sciences National Research Council’s 1999 report to Congress and enact effective Good Samaritan legislation that will create a framework, with regulatory incentives and liability protection for numerous entities, including mining companies, local, state and federal agencies, communities, NGOs, and tribes to voluntarily improve safety and environmental problems caused by others at abandoned hardrock mine sites in the U.S.

The Mining and Minerals Policy Act of 1970 (30 U.S.C. § 21(a)), specifically establishes the Congressional intent “to foster and encourage private enterprise in the development of economically sound and stable domestic mining, minerals, metal, and mineral reclamation industries.” Including provisions to authorize managing historic mine wastes to minimize or eliminate pollution or the threat of pollution in Good Samaritan legislation is consistent with and promotes this Congressional intent.

ELEMENTS OF EFFECTIVE GOOD SAMARITAN LEGISLATION:

To be effective, Good Samaritan legislation must embody the following key provisions:

1. **Mining companies that did not create environmental problems at an AML must qualify as Good Samaritans.** No one knows more about the proper management of mine wastes and reclaiming and mitigating mine sites than the mining industry. The mining industry has the desire, technical expertise, experience, and technology to effectively and efficiently assess the safety and environmental issues present at an AML site and to properly secure, improve safety and environmental conditions, and reclaim those sites. In some situations, this can be done in conjunction with mining and reclamation activities at nearby active mines which the company operates, resulting in an efficient use of resources to improve the environment and enhance public safety. Creating a Good Samaritan law that removes the existing regulatory and liability barriers that currently discourage private sector cleanups would be good public policy because it would stimulate the use of private-sector resources to address the public problems caused by abandoned mines and create jobs.

For example, Teck Cominco American Incorporated (now Teck American) purchased the Pend Oreille Mine in Pend Oreille County, Washington in 1996 and brought it back into production in 2004. It is located in a setting where a substantial amount of historical mining took place before there were environmental laws and regulations and modern mining practices. There are many abandoned mine sites in the area of the Pend Oreille Mine. In working with the local community, Teck determined that many of the old mine openings presented a potential hazard to public safety. Those that did not involve environmental issues were voluntarily closed through the installation of bulkheads in several of the openings.

Teck has been approached by state and federal agencies to see if it could mill some of the historic waste rock piles, ore piles and concentrate accumulations in the area. In each and every case, the company chose not to undertake this cleanup effort due to the strict nature of its Clean Water Act authorization as interpreted by Washington State that prohibits any tailings other than those generated from the Pend Oreille Mine to be placed in its lined and ap-

proved tailings disposal facility. Furthermore, the company is reluctant to undertake cleanup efforts at any of these old sites for fear of being deemed an operator and incurring cradle-to-grave liability for the site under a variety of federal and state environmental laws.

All mines run out of ore and towards the end of production may look for additional sources of mineralized material to mill. Having the ability to augment or extend the productive life of the mine benefits the mining company, the community and the Nation. It also benefits the environment through metal source reduction as more metal will ultimately be recovered from the AML sites and the resulting tailings are placed in a regulated, engineered and permitted containment structure. This promotes conservation of the resource and sustainable development with a net improvement in the environment.

This is but one of many, many examples of sites throughout North America where existing mines are located adjacent to abandoned historical mines. Another example from the Northwest is Meridian Gold Company's Beartrack Mine near Salmon, Idaho. Deposits from historic mining were located on the mine property. As a result, Napias Creek no longer supported salmon habitat. Meridian used the equipment and personnel that were on-site at Beartrack to remove the historic tailings and waste rock piles from Napias Creek and fully mitigate the site and restore the streambed to salmon habitat. The company won several environmental awards for their work. The mine was able to use the tailings and waste rock materials from historic mining *located on the mine property* (emphasis added), at the Beartrack Mine, increase the ultimate recovery of metals from the mine and improve the environment. A scenario where everyone wins.

I have emphasized *located on the mine property* to highlight the important distinction between the Pend Oreille mine example and the Beartrack example. The Napias Creek tailings and waste rock piles were located on the mine property and covered by Beartrack's operating permits. The lack of effective Good Samaritan legislation has prevented, to date, the same win-win-win result at Pend Oreille.

2. A Good Samaritan law must have sufficient flexibility to allow site-specific solutions that take into account the fact that many historic mine sites include both public and "private" land where the previous land owner(s) no longer exist.
3. A potential Good Samaritan must be able to gather the needed site characterization data to develop a technically sound remediation proposal without having to conduct a Potentially Responsible Party (PRP) search or go through a long, complicated and involved permitting process. A Good Samaritan must be able to conduct a site survey without the potential for becoming liable for the site solely by virtue of gathering data.
4. Individual Good Samaritan projects should be subject to review and authorization by the federal government **or** by an individual state's abandoned mine land program (and/or the environmental permitting authority for those states where EPA has delegated Clean Water Act authority).
5. The permit process must be simple, straight-forward and understandable. The environmental requirements for a Good Samaritan project should be wrapped into a single permit. The permit should be approved only if the project is technically sound and promises overall improvement to the environment and/or securing of safety hazards.
6. The Good Samaritan must have full legal protection under the permit. That is, a Good Samaritan permit-holder must be able to obtain a specific, concrete list of the federal, state and local environmental laws that would be deemed satisfied by completion of the work authorized under the permit. One of the Good Samaritan bills introduced in the 109th Congress, S. 1848, and H.R. 3203 introduced in the 111th Congress, contain a list of federal environmental laws that is a good starting point.
7. Good Samaritan projects should be allowed as long as they are likely to result in an improvement to the environment, even if they will not result in the complete cleanup of all contaminants at an abandoned mine land site or the attainment of all otherwise applicable environmental standards, such as stringent water quality standards. To quote an oft-repeated phrase, "don't let pursuit of the perfect be the enemy of the good." A 75 percent improvement in water quality downstream from an AML site is a far better result than no cleanup due to a Good Samaritan's concerns that their cleanup activities may not be able to achieve water quality standards that would be applicable at a modern mine.

8. The permitting authority must be given discretion under any Good Samaritan legislation to make site-specific adjustments to environmental requirements, standards and liabilities arising under state and federal environmental laws that could otherwise be applicable and prevent Good Samaritans from undertaking remedial actions. This is not a new concept. The Applicable or Relevant and Appropriate (ARAR) approach under CERCLA might be a reasonable starting point.

The permitting authority also should have the discretion to waive the PRP search requirement. A Good Samaritan willing to spend private monies to improve safety and environmental conditions and reclaim an AML site should not have to spend time and resources conducting and certifying a PRP search. It should not matter whether there might be a PRP. The goal should be environmental improvement, not finding someone to blame.

9. Any Good Samaritan legislation, to be effective and result in actual, on-the-ground cleanup, should encourage entities with sufficient expertise and resources to manage and/or use the mine wastes in order to recover, remove, or reduce the metal content. In many settings, this would result in the greatest degree of environmental improvement.

Using tailings, waste rock piles and other historic mining materials at AML sites may be the most efficient means of cleaning up a site. The most efficient and environmentally benign scenario for managing historic mine wastes is using such materials feedstock at an adjacent or nearby modern fully regulated and bonded mineral processing facility. The new waste that would be generated from historic materials at a modern mineral milling facility would then be disposed of in a modern engineered facility that complies with current environmental standards and practices including performance monitoring and financial assurance. Using historic mine waste as a feedstock is a superior environmental remedy that achieves resource recovery and source reduction. Given the desirability of achieving the resource recovery and source reduction that can result from using historic mine materials, Good Samaritan legislation should encourage management of historic ores, minerals, waste rock piles and other materials existing at an AML site to create jobs, taxes, a return on investment and a cleaner environment.

The benefits associated with reusing historic mine wastes are twofold. First, treating these wastes to recover some of the residual metals (which are usually the primary constituent of concern) would be an efficient use of resources to generate some of the metals the U.S. needs for strategic and economic purposes. Secondly, reusing historic mine wastes would achieve superior environmental results compared to the usual AML remedy (especially if EPA is involved), which is to move the contaminants to a newly constructed waste repository and cover them. Relocating the metal-bearing historic mine wastes does not reduce or remove the source of pollution. Furthermore, merely relocating the wastes into a new repository site creates the need for long-term maintenance and monitoring in order to reduce at the risk of leakage or other failure. Removing such metal from the environment and placing it into useful commerce is far more environmentally and economically beneficial than merely reburial of such wastes in another place.

AMLs are generally located in highly mineralized areas. Not only are these highly mineralized areas the location of historic mining, they are likely to be the location for future mines as prices and technology allow. Therefore, there is significant potential for redevelopment of these sites or for discovery of a new, nearby mineral deposit. The discovery of a new deposit near an AML site or the redevelopment of an historic mine site, would require the full mine permitting process, (including an environmental analysis required by the National Environmental Policy Act if the project affects public land) and would be allowed only if the proposed new mine complied with all current standards of environmental protection. This new mine with its engineered, fully permitted and bonded beneficiation and processing circuit and mine waste disposal facilities would provide a new mine solution to old mine waste, while creating hundreds of new high paying jobs and generating federal, state, and local tax revenues.

Contrary to the assertions of mining opponents, the mining industry has no desire to use Good Samaritan legislation to avoid the mine permitting process or the application of current environmental laws and regulations that apply to today's modern mines. The Good Samaritan approval authority, through permit conditions, can easily prevent the misuse of a Good Samaritan permit.

10. Good Samaritan legislation should allow Good Samaritan actions at AMLs to qualify as off-site mitigation under the CWA for mining companies permitting new mines or expansion of existing mines. This would provide an additional incentive for a mining company to undertake a Good Samaritan cleanup while meeting the permitting requirements at new or expanded mines.

SUPERFUND IS NOT THE ANSWER:

Some Members of Congress and anti-mining groups argue that instead of focusing on Good Samaritan legislation, Congress should fund the Superfund program and EPA, under the Superfund program, should address all Abandoned Mine Lands. In our opinion, this is a wrong-headed approach to mitigating and reclaiming historic abandoned mine lands.

Superfund does not have a very good track record at mine sites. Superfund was not designed to address natural processes that result in contaminated watersheds at AMLs. The historic mining communities of Aspen and Leadville in Colorado, Butte, Montana, Triumph, Idaho and the Bunker Hill site in northern Idaho's Silver Valley all have experienced first hand the failures of Superfund and the costly results of misguided policies and millions of dollars wasted on legal delays and repetitive studies. Of the billions of dollars spent of Superfund efforts, only 12% of those moneys have actually gone into cleaning up the environment while the balance went to legal and consulting fees.

In each of the Superfund sites cited above, the cleanup costs have exceeded reasonable estimates by a magnitude of three to five times. Bunker Hill is a prime example of the waste that occurs when an EPA-led Superfund effort is undertaken at mine sites. This can be demonstrated by comparing Bunker Hill with another example from the Silver Valley in northern Idaho.

Just outside the Bunker Hill Superfund site are many historic mining sites on Nine Mile and Canyon Creeks. Two mining companies working together with the State of Idaho were able to cleanup and remove historic mine wastes, tailings and waste rock piles from Nine Mile and Canyon Creeks, and restore fish habitat on the two creeks at cleanup costs one-fourth to one-fifth the cleanup costs incurred by EPA under Superfund on a per-cubic-yard of material removed basis.

I have visited these sites on five occasions and can personally attest to the outstanding remediation and reclamation on Canyon and Nine Mile Creeks, and that there has been substantial improvement in water quality as a result of these efforts. And, the work is done, unlike the work at Superfund sites which seems to never end.

Finally, at the risk of stating the obvious, the Superfund legal procedures to identify Potentially Responsible Parties (PRPs), to assign joint and several liability, and to recover costs are premised on the concept that the site in question has owners who can be identified and compelled to pay for the cleanup. None of these provisions are appropriate for AML sites, which by definition, no longer have an identifiable owner. Thus, the Superfund Program is not an ideal or even applicable template for most AML sites.

There may be some sites for which Superfund is the appropriate remedy, but let's not limit the tools we have in the toolbox. Thoughtful and effective Good Samaritan legislation that encourages and incentivizes Good Samaritans is an important tool to add to the Abandoned Mine Land remediation and reclamation toolbox. Our goal should be not just move the contaminants, but remove the contaminants and place them into useful commerce.

PREVIOUS GOOD SAMARITAN PROPOSALS:

Our members are familiar with all Good Samaritan legislation that has been drafted and introduced over the past fifteen years. While we applaud any and all efforts to advance the Good Samaritan concept, our analysis of most Good Samaritan legislation introduced in the past is that it is not intended for use by the mining industry. This not only disappoints our members, it would be a huge opportunity lost for the Nation and for the environment if mining companies are not allowed to utilize Good Samaritan legislation. As mentioned above, the mining industry has the technical expertise, experience, and technology to effectively and efficiently assess the safety and environmental issues present at an AML site and to properly secure, reclaim and improve safety and environmental conditions at those sites. Moreover, creating a Good Samaritan law that recognizes the role that modern mining companies and other private-sector entities could play in improving environmental conditions at AML sites would reduce the amount of tax payer resources that will be needed to solve the AML problem

With respect to previous Good Samaritan bills, we believe H.R. 3203 introduced by the Chairman in the last congress, and a similar bill, S. 1848 introduced by Senators Salazar and Allard in 2005 provide a good starting point for effective Good Samaritan legislation. We also believe these bills can and should be improved to ensure that they foster on-the-ground Good Samaritan projects at AML sites. Both bills already incorporate many of the ten concepts enumerated above, and could be improved by: 1) providing a mechanism for conducting site investigations without incurring environmental liability and without having to go through the full permitting process; 2) the PRP search should be significantly streamlined and eliminated when only private monies are funding the cleanup; and 3) any restrictions on the ability of a mining company or other Good Samaritan to mill historic mine wastes in order to remove metals from these materials should be eliminated.

The problems with other, prior Good Samaritan bills and the reason why we believe they won't accomplish their stated intent can be summed up as follows: 1) the liability relief provision is too restrictive; 2) the PRP search requirements are too cumbersome and costly; 3) the permitting process is too complex and rigid; 4) a full PRP search and certification is required for privately funded cleanups; 5) the definition of a Good Samaritan is too limiting—merely appearing in the chain of title should not disqualify someone and federal land management agencies must be allowed to conduct Good Samaritan cleanups on the lands they manage; 6) the definition of eligible site does not include sites that pose only physical or safety hazards; and 7) there are too many restrictions on waste treatment. Significant on-the-ground Good Samaritan activities at AMLs are not going to take place under Good Samaritan legislation that contains these defects.

CONCLUSION:

Effective Good Samaritan legislation makes sense and can be a win-win-win-win for the environment, for the Good Samaritan, for the community, and for the Nation. We look forward to working with this committee to produce Good Samaritan legislation that will actually result in on-the-ground Good Samaritan cleanups at Abandoned Mine sites.

Mr. LAMBORN. All right. And thank you. Next is Lauren Pagel.

STATEMENT OF LAUREN PAGEL, POLICY DIRECTOR, EARTHWORKS

Ms. PAGEL. Thank you, Chairman Lamborn, Ranking Member Holt, and Members of the Subcommittee for the opportunity to speak with you today about abandoned hardrock mines. Earthworks is a nonprofit organization dedicated to protecting communities and the environment from the destructive impacts of mineral and energy development.

For over two decades, we have worked closely with a broad coalition of local governments, Native Americans, citizen groups, and other conservation organizations to improve the policies that govern hardrock mining, including the issue of abandoned mines.

In the early 1990s, Earthworks assessed the scope of the abandoned mine land problem, and estimated that there are over 500,000 abandoned hardrock mines in the United States. To date, there is still no comprehensive inventory of abandoned hardrock mines, and limited funds exist to clean these sites up.

According to the EPA, the total cleanup costs are estimated at \$50 billion. A steady stream of funding for abandoned mine reclamation, coupled with cautious action to address liability issues under the Clean Water Act, are needed to begin the complex task of cleaning up the massive amount of abandoned mines that litter Western States.

Western communities face significant burdens associated with these old mines. In addition to serious safety hazards associated

with abandoned mines, many sites have serious acid mine drainage problems, which can persist for thousands of years if left untreated.

Abandoned uranium mines pose an added threat of radiation exposure. The EPA estimates that there are at least 4,000 abandoned uranium mines in 14 Western States. Uranium mining produces radioactive waste materials, in addition to the heavy metals found in most mine wastes.

Continued exposure to radioactive materials such as radium and thorium has caused serious health problems for those living around abandoned uranium mines. The largest obstacle to the restoration of abandoned hardrock mines is a lack of a steady source of funding for cleanup.

In States like Montana, where revenues from the State Severance Tax and the Coal Abandoned Mine Land Fund are available for use. There is a small stream of money to remediate only a few sites a year.

In other States, there are a few sources of funds available to correct this pervasive problem in old mining districts. As a result, the number of abandoned mine lands that cause safety and environmental hazards far outweigh the funding available to reclaim them.

The antiquated 1972 Mining Law currently allows mining companies to take hardrock minerals from public lands for free. The coal mining industry is required by the Surface Mining Control and Reclamation Act to pay into an abandoned mine land fund via a reclamation fee.

The hardrock mining industry pays no such fee. Long-term funding for abandoned hardrock mine cleanup is similar to the SMCRA program, and is essential to deal with the scope of the problem that Western States face from abandoned mines.

Earthworks also recognizes the concern that has been expressed about liability under existing environmental laws that may occur when a State, Tribal, or local government, or citizen group, attempts to restore water quality affected by abandoned mines.

We support a narrow Clean Water Act exemption that would allow these Good Samaritans to clean up abandoned mines without incurring Clean Water Act liability, and we have supported several legislative proposals to this effect in Congress in the past.

We also support Good Samaritans' use of the administrative order on consent process that has been created by the EPA to deal with the potential liability issues under SuperFund.

For each million dollars spent on reclamation, 65 jobs are created according to a State of Montana study. In addition to job creation, restoration activity puts degraded lands into productive use, and helps communities who currently must treat their water supplies for heavy metals and other pollution.

The Obama Administration's Fiscal Year 2012 budget proposes a one percent reclamation fee on all hardrock mining, similar to the fee paid by the coal mining industry. Thirteen thousand reclamation jobs per year would be created by this \$200 million a year fee.

Congressman Heinrich and Congressman Luján have also introduced legislation that would create jobs and facilitate the cleanup of abandoned uranium mines. H.R. 1452, the Uranium Resources Stewardship Act, moves uranium mining from the 1872 Mining Law into the more appropriate Mineral Leasing Act, which would

allow the Federal Government to charge a royalty on uranium taken from public lands.

The money generated from this royalty would go toward the much needed cleanup of uranium mill tailings and abandoned uranium mines on Federal lands. Creating a steady stream of funding for addressing the full problem of cleaning up of over half-a-million abandoned hardrock mines via a royalty and a reclamation fee can go hand-in-hand with a narrow Clean Water Act liability waiver for Good Samaritans.

Tackling this large-scale problem requires a large-scale solution, a solution that will both create jobs and restore western waters. Thank you for the opportunity to present the view of Earthworks on this important issue, and we look forward to working further with the Committee around this important issue.

[The prepared statement of Ms. Pagel follows:]

Statement of Lauren Pagel, Policy Director, Earthworks

Thank you Chairman Lamborn, Ranking Member Holt and Members of the Subcommittee for the opportunity to speak to you today about abandoned hardrock mines. Thank you for making time on the Subcommittee's schedule to explore this important issue. Earthworks has been working for over two decades to develop and promote initiatives to clean up old mine sites and to address the pollution problems associated with them, particularly in the West.

Earthworks is a non-profit organization dedicated to protecting communities and the environment from the destructive impacts of mineral and energy development. We work closely with a broad coalition of local governments, Native Americans, citizen groups and other conservation organizations to improve the policies governing hardrock mining and oil and gas development.

In the early 1990's, Earthworks assessed the scope of the abandoned mine problem and estimated that there are over 550,000 abandoned hardrock mines in the U.S., mostly in the West. To date, there is still no comprehensive inventory of abandoned hardrock mines, and funds to clean up these sites remain limited. The cost to clean up these abandoned sites will be staggering. According the Environmental Protection Agency (EPA), the total clean-up costs will be \$50 billion.

Western communities face significant burdens associated with these old mines. According to the Environmental Protection Agency, at least 40 percent of the stream reaches in the headwaters of western watersheds are polluted from abandoned mines. Many of these abandoned mine sites have significant acid mine drainage problems, which can persist for thousands of years if left untreated. Downstream communities pay the costs to clean up water polluted from abandoned mines for household use. Polluted waters affect recreation, agriculture, and impact property values. Fish and wildlife resources are also negatively impacted.

Abandoned uranium mines pose the added threat of radiation exposure to the list of concerns. Surface and underground uranium mining produces waste material, which contain naturally occurring radioactive materials in addition to the heavy metals found in most hardrock mine waste. When these toxic materials become exposed to the environment through mining activities, they can be mobilized in air and water. Continued exposure to radioactive materials such as radium and thorium cause serious health problems. The EPA estimates there are at least 4,000 abandoned uranium mines in 14 western states, with most situated in Colorado, Utah, New Mexico, Arizona, and Wyoming.

The single largest obstacle to the restoration of abandoned hardrock mines is the lack of funding. In states like Montana—where revenues exist from a state severance tax and the state is authorized to restore abandoned mines with revenues from the coal abandoned mine land fund—there is a small stream of revenue (on average about \$3.5 million) available to remediate only a few small sites a year, but it is not enough to address the serious problems posed by the 6,000 inventoried abandoned mines across the state, and the estimated 3,700 miles of rivers and streams polluted by harmful metals, primarily from abandoned mines. In other states, such as California and New Mexico, there are few sources of funds available to correct this pervasive problem in old mining districts. As a result, the number of abandoned mine lands that cause safety or environmental hazards far outweigh the funding available to restore them.

The antiquated 1872 Mining Law currently allows mining companies to take hardrock minerals from public lands for free, with no royalty paid to the taxpayer. Unlike the coal mining industry, which is required by the Surface Mining Control and Reclamation Act (SMCRA) to pay into an Abandoned Mine Land Fund via a reclamation fee, the hardrock mining industry pays no such fee. A steady-stream of long-term funding for hardrock abandoned mine lands clean up, similar to the SMCRA program, is essential to dealing with the scope of the problems western states face from abandoned mines.

In addition to a lack of funding for abandoned hardrock mine clean up, Earthworks also recognizes the concern that has been expressed about the liability under existing environmental laws that may occur when a state, tribal, or local government or citizens groups attempt to restore water quality affected by abandoned mines. We support a narrow exemption to the federal Clean Water Act that would allow “Good Samaritans” to clean up abandoned mines without incurring Clean Water Act liability.

Any “Good Samaritan” legislation should contain an objective standard for determining if a permit is issued and the goal of any water restoration effort should be to achieve applicable Clean Water Act standards. However, we recognize that economic and technological constraints exist, and in some cases water quality may be improved but the overall standard may not be achieved.

Earthworks has supported several legislative proposals that have been introduced in previous Congresses in an attempt to resolve this question about liability under the Clean Water Act. There is a narrow point of apparent agreement among some of the conservation organizations involved with abandoned mine clean up, the western States, and some industry representatives that a waiver of Clean Water Act liability is warranted to correct the damage that is occurring from the polluted mine sites. Earthworks does not support waiving other environmental laws for the purposes of fostering “Good Samaritan” clean ups of abandoned mine sites. There is not a liability problem with most other environmental laws, so waiving them in order to eliminate liability for abandoned mines clean up would be inappropriate. Where liability does exist under the Comprehensive Environmental Response, Compensation and Liability Act, also known as CERCLA and commonly known as Superfund, there are existing mechanisms available through the Environmental Protection Agency to facilitate clean up, such as Administrative Orders on Consent.

According to a State of Montana study of abandoned mines, each million dollars spent will create 65 jobs. Many of these jobs are good, high paying jobs that rural communities need in these tough economic times. In addition to job creation, restoration activity would also take degraded lands and put them into productive use. This will benefit local communities and the private landowners who have abandoned mines on their property, and help communities who currently must treat their water supplies for heavy metals and other pollution from abandoned mines.

As part of its FY2012 budget, the Obama administration has proposed a 1% reclamation fee on all hardrock mining, similar to the fee paid by coal mines. This fee would generate \$200 million per year to fund abandoned mine restoration, creating an estimated 13,000 jobs per year for those in the mining industry. In addition to a reclamation fee, the administration proposed a modest royalty to be paid to the owners of minerals taken from public lands—the taxpayer.

Congressman Heinrich, a member of this subcommittee, has also introduced legislation that would create jobs and begin the arduous task of cleaning up the nearly 4,000 abandoned uranium mine sites, of which a disproportionate number are located on Indian lands. For example, from 1944 to 1986, nearly four million tons of uranium ore were extracted from Navajo Nation mines and over 500 abandoned uranium mines still scar the Navajo Nation. H.R. 1452, the Uranium Resources Stewardship Act, would impose a 12.5 percent royalty on the uranium mining industry, and move it out of the 1872 Mining Law and into the more modern Mineral Leasing Act. The money generated from the royalty charged on uranium mining on public lands would go toward the much-needed clean up of uranium mill tailings and abandoned uranium mines on federal lands.

Creating a steady-stream of funding for addressing the full problem of cleaning up of over 550,000 abandoned mines via a royalty and a reclamation fee should go hand in hand with a narrow Clean Water Act liability waiver for “Good Samaritan” clean up of abandoned mines. Without a consistent funding source, state, local and tribal governments and citizen groups will be able to move only a small number of projects forward. Tackling this large-scale problem requires a large-scale solution—a solution that will create jobs and restore western waters.

Thank you for the opportunity to present the views of Earthworks on this important topic. We appreciate the Committee’s consideration of abandoned hardrock

mines and the real problems they pose to air, water and public safety in western states. We look forward to working further with the Committee on this issue.

Mr. LAMBORN. All right. Thank you for your testimony, and thank you all for being here and for your testimony, and I will recognize myself for five minutes for the first questions.

Ms. Burke, I would like to ask you a question. Do you believe that BLM's financial assurances for hardrock mining are sufficient to address reclamation? In other words, how much do you have in the way of bonds, and do you believe that this is adequate?

Ms. BURKE. Yes, we do believe that we have adequate bonding at this stage. We currently have \$1.7 billion in reclamation bonds, and that does not actually include Alaska, where part of that money has obligated them to the State's pooling system.

And since the GAO report, I believe, in 2006, and in 2009, we issued new policy guidance to our State offices, which require them to certify each year that the bonding amounts are in fact adequate.

Mr. LAMBORN. OK. Thank you. Laura Skaer, do you know of any examples where the United States Federal Government was found to be a PRP, and if you could explain that concept just a little bit more.

Ms. SKAER. Yes. There are a series of court cases from California where refineries who were charged with making aviation fuel during World War II were essentially told don't worry about the refining of waste. The goal is to do as much aviation fuel for the war effort as possible.

After CERCLA was passed, the Federal Government then sought to hold the oil companies that owned the refineries responsible for the contamination from the waste, and they petitioned the Court to bring the Federal Government into the case, and the Court actually held that the Federal Government was the primary responsible party or PRP, and relieved the owners of the refineries of their liability.

Mr. LAMBORN. All right. Thank you. I have a question for Ms. Pineda. You mentioned in your testimony that a large portion of sites will require little if any reclamation, and that in other cases the per unit cost of reclamation is relatively small, and that such sites also rank low in priority because of the reduced threat to public health or the environment.

Can you give additional details on this, and including the percentage of sites that require this lesser amount of reclamation, or how you can to this conclusion?

Ms. PINEDA. Well, there are some sites that are only safety hazards if there is an open shaft or adits, and the costs to reclaim that could be small, between \$5,000 and \$10,000. While you have other sites that require or that have a larger safety hazard, or that have mine waste associated with them, or a draining adit, where costs could be in the hundreds to millions of dollars, depending on the type of reclamation that you would be performing there.

And currently in Colorado, we have 23,000 abandoned mines, and I would say about 80 percent of those are probably in that category of mostly just kind of safety hazards. But we also have like 600 miles of stream that are degraded by acid mine drainage, and those types of projects where you are dealing with remediation of

mine wastes, or acid mine drainage, the costs could be from \$100 million to \$300 million, depending on the type of remediation and cleanup that is needed.

Mr. LAMBORN. And what was the methodology used in Colorado? When you said in Colorado it was 80 percent, was it more only the safety hazard?

Ms. PINEDA. Yes, the safety hazards, and basing that on the fact that a lot of the hazards are—you know, many of the hazards are around tourist areas, and areas that are highly visited, and we have a lot of sites that are more remote, and perhaps don't have as high a visitation.

Mr. LAMBORN. OK. Thank you. At this point, I would like to recognize the Ranking Member.

Mr. HOLT. Thank you. I would like to pick up on that line of questioning if I may, Ms. Pineda. I have certainly seen just abandoned adits, or shafts here and there, or just bulldozed depressions.

And so I am trying to get a sense of this scale of the problem. You say that 80 percent of them would fall in the safety category. In other words, safety from falling, or human injury, and that way?

Ms. PINEDA. Exactly.

Mr. HOLT. As opposed to environmental or public health damage to the water supplies and that sort of thing. Is the damage to the water supply for that category, is it caused by bringing things to the surface, or is it caused by milling, or is it caused by refining?

Can you give me some sort of general characterization of what it is? I know that it could be any of those things, but the—

Ms. PINEDA. Right, it could be any of those things when you have a mine waste or mill waste pile, and it is exposed to air, and then also to water if there is precipitation, and it rains, and all of that stuff could drain into other drainages. So, you have a high risk there, or you could have an adit that is draining water.

Mr. HOLT. But can you give me percentages? You said that 80 percent of this was just safety hazards.

Ms. PINEDA. Right.

Mr. HOLT. And of this 20 percent, do you have any idea of what kind of breakdown it is, because I would imagine that the costs of remediation would vary greatly, depending on what that is.

Ms. PINEDA. Right. Of the 20 percent—

Mr. HOLT. If it is just a runoff siltation, that is different.

Ms. PINEDA. Right. The high cost would be associated with the treatment of the acid mine draining from a draining adit, an adit that is constantly draining, and right now because we don't have a Good Samaritan protection, people don't want to really touch that type of a project.

Where you have mine waste or mill waste that you could somehow cap, or cover, or revegetate, that would alleviate that acid problem, or acid mine drainage problem. Where you have an adit, or an opening that is perpetually draining, those are much more difficult to remediate.

Plus the fact that with the Clean Water Act standards, if you are required to continually meet those standards, third-parties may not want to take on that long term responsibility of treating that acid mine drainage.

Mr. HOLT. Has the BLM or the Forest Service done a survey comparable to what Colorado describes here? You know, of the kind of remediation that will be necessary?

Mr. HOLTROP. The Forest Service has some information like that, and we are working on developing a more intensive inventory of all of the activities that need to be accomplished.

I don't know that I am able to give that precise of a percentage on information about the circumstances on the National Forest system lands, but we are working to try to have that type of detailed information.

I do think that also one of the factors that comes into it is sometimes the cost of responding to a safety hazard might be considerably less than the cost of doing that.

Mr. HOLT. And that is why I asked, to get some sense of the scale. Ms. Burke, any comment on that?

Ms. BURKE. Yes, we have similar estimates that of the known sites on BLM managed land that about 20 percent of them pose these environmental hazards. Without actually evaluating each site, however, we don't have an estimate of how much it would take, or what actually would be required in order to remediate them.

But many of our concerns are those with respect to the watershed and impacts to surface and groundwater.

Mr. HOLT. OK. Well, I would like to ask more questions when the time allows. I yield back.

Mr. LAMBORN. Yes, and I am hoping that we could have a second round of questions, especially since there are just three of us here at the dais. That would be a maximum of 15 more minutes—if that is acceptable to everybody.

I would like to recognize now the Member from Pennsylvania, Mr. Thompson.

Mr. THOMPSON. Well, first of all, thanks to the Chairman and Ranking Member for this hearing. This is an issue that has always been important in Pennsylvania's 5th Congressional District.

My predecessor, Congressman John Peterson, this was an issue that he took leadership on, in terms of abandoned mine lands, and remediation, and leading on that issue. Deputy Chief Holtrop, and Deputy Director Burke—well, Deputy Director Burke, within your testimony, you had talked about the 31,000 BLM abandoned mines on BLM land, and that 25 percent of them had been remediated, and so showing progress.

For both BLM and the Forest Service, what is your projections for annual investigations and remediation annually, in terms of the number of those remaining 75 percent BLM, and I don't know if there are separate ones from a Forest Service perspective.

I am assuming that the BLM takes into account, because BLM has jurisdiction over subsurface, that some of those of the 31,000 BLM mines that you are talking about are on Forest Service grounds or not?

Mr. HOLTROP. The number of abandoned mine land sites in the National Forest System is just that, and the number of abandoned mine lands, I believe, on the Bureau of Land Management is on that land mass, is what I believe that we are talking about.

Mr. THOMPSON. Great. So, projections for annually, and let us say within the coming year, this calendar year for investigations and remediation on the number of sites or projects?

Mr. HOLTROP. The Forest Service spends in the range of appropriate funds around 12, to 15, or \$16 million a year. The number of sites that we are able to treat with that amount of money, it varies tremendously, because as my testimony indicated, on some of the sites, it costs a couple of hundred-thousand dollars to treat, and some of them, it is tens of millions of dollars.

Mr. THOMPSON. Is there an average, just a ball park average, in terms of—

Mr. HOLTROP. In terms of the number of sites that we are making progress on?

Mr. THOMPSON. Yes.

Mr. HOLTROP. I would say that since 1998, the way maybe to arrive at that is that since 1998 we have treated 2,000 sites for safety, and several hundred for some of the CERCLA cleanup.

Ms. BURKE. And similarly it is difficult to estimate on a year to year basis how many sites we actually would be able to remediate. However, in 2010, we remediated about 1200 sites for the physical safety hazards, and with respect to water quality issues, we were able to treat approximately 1500 acres.

Mr. THOMPSON. How prevalent is the—I guess what I described as a public-private partnership, where the Good Samaritan that we made reference to, is that relatively prevalent today, in terms of the cleanup efforts, or is that a lot of potential for development there? What is your evaluation of that public-private partnership?

Ms. BURKE. Generally, our partnerships involve non-governmental agencies. The work that would be done there is for the physical safety hazards, as opposed to the environmental hazards precisely because of the liability issues that other panel members have discussed today.

There is great potential to involve partners under the right circumstances in the public's interest to remediate all types of sites.

Mr. HOLTROP. I think that I would like to answer that question in a couple of ways. One is that any time we are able to make progress in using partner organizations to make that progress, it is significant, and it is very meaningful work, and we have some very significant work that is being done through partnerships.

The second way that I would like to answer it is that when you hear the magnitude of the issue that we are talking about, any tools that can be made available to help us make progress is something that I think could make a significant difference in the long run.

Mr. THOMPSON. Ms. Skaer, in the seconds that I have left here, you mentioned that the President's Fiscal Year 2012 budget requested a one percent reclamation fee on hardrock mining, similar to coal mine fees. Any thoughts on how this might impact mining overall?

Ms. SKAER. The fee as proposed in the budget was a fee on the amount of material moved, which would be, one, very difficult to calculate with hardrock because most of it is overburdened or unmineralized rock.

That fee would work like a gross royalty, which as we know, mineral prices are cyclical, and when mineral prices drop again in the future, any type of a gross fee or a gross royalty will work to cause the mine to close prematurely, or go into care and maintenance, and would result in lots of high paying jobs being lost.

In 1995, the industry supported legislation that was passed by both Houses of Congress, but vetoed by President Clinton, and that legislation included a five percent net proceeds royalty on hardrock mines, with that money going into an abandoned mine land fund, which would then be distributed directly to State AML programs, and to the BLM and the Forest Service.

And 15 or 16 years later, there would have been a significant amount of money in that fund if it had not been vetoed.

Mr. THOMPSON. Thank you, Mr. Chairman.

Mr. LAMBORN. All right. Well, let us have our second round of questions. Thank you for your patience, and for helping us understand this better. I would like to ask all of you the following question.

Good Samaritan legislation, what are the pros and the cons on that? Some people might be wondering what would motivate a private enterprise to even do this in the first place if they don't have to.

Some might wonder, what if they only do a partial job, or an unsatisfactory job, and what happens then. Or others of you might say if it is done right, it really can be a good thing, and here is how to do it right. Whoever would like to go first. Why don't we go—Ms. Skaer, why don't we start with you, but I would like anyone who wants to, to respond.

Ms. SKAER. As we have said in our testimony, we strongly support Good Samaritan. There is an example in our testimony of one of our members that was approached by a local community to deal with some safety issues with adits and shafts, and also there was some water pollution from these historic adits.

And while the company was able to restore the safety hazards, the lack of a Good Samaritan protection prevented them from addressing the water pollution issues from historic mining. These were sites that the company had nothing to do with.

The motivation here is—as I mentioned—one, these historic sites are used to foment opposition to current mining proposals. So, the industry sees that it is in its own best interests to deal with these sites.

The other part of it is that this is a much different mining industry than we had 40, 50, 60 years ago, or 120 years ago when these sites were created. It is an industry that has an environmental ethic and a social responsibility ethic.

So, part of the motivation here is to work with the local communities, and be a good neighbor, and be a good partner with the community, and to improve the environment.

They have the facilities, and generally most of these sites are located near existing mines, and so the facilities are there to where the actual source, the contaminants, can be removed from the environment, reprocessed, and beneficial use made of those metals.

Mr. LAMBORN. Thank you. Anyone else?

Ms. PINEDA. Mr. Chairman, thank you. I just want to mention a couple of things. One is this type of approach, which has been very successful in the State of Pennsylvania, which has its own Good Samaritan legislation.

So, it has provided some immunities and some protections to local groups. We want to try and partner, and pattern our legislation after the successes that that State has seen in alleviating the acid mine drainage there.

And when you talk about motivation, one of the partners that we have engaged is Trout Unlimited, and they have great motivation in keeping Colorado streams clean, and in terms for the tourism, and aquatic life.

So, right now, they have a project up in Leadville that they have been working on, and they have been able to get funding, and given the magnitude that you have heard today of this AML problem, we need everybody involved in trying to deal with the problems, and with the funding, and with the issues.

So groups like Trout Unlimited, and we heard from the Appalachian Wildlife Group also. You will see the motivation in just groups and local communities that want to see improvement to their streams, and improvement to their communities.

And so I would say that is very much on the pro side of why groups want to get involved in the Good Samaritan legislation.

Mr. LAMBORN. All right. Anyone else?

Ms. PAGEL. Yes, I would like to think of Earthworks as a pretty practical conservation organization, and for an issue like water quality being degraded from abandoned hardrock mines, we don't want the pursuit of perfect to be the enemy of the good, in the sense that we know that it would be very difficult with some of these mines, especially the adits that have been draining for potentially 100-plus years to achieve the Clean Water Act standards.

But we want to make sure that the most important part of this is that water quality has improved, even if it necessarily doesn't meet those standards, and I think that that is a goal in improving water quality, and that can really sort of help us to shape what a Good Samaritan proposal would look like.

But what we worry about is that we just want to make sure that mining is not done under the guise of reclamation, and we want to make sure that if you are mining, that you get a mining permit, and then if you are doing reclamation, you get a Good Samaritan permit, and really make that distinction there so that we don't get ourselves into more trouble with problems.

And then the issue of a reclamation fee, and a real studies team of funding, and it is still out there, even if we address this Good Samaritan issue.

Mr. LAMBORN. Thank you, and Mr. Holtrop.

Mr. HOLTROP. Thank you. As I mentioned earlier, when you look at the magnitude of the problem, I think it is appropriate for us to look at all the tools, and find ways to utilize all of the resources that we can make available to us.

But, at the same time, we also want to make sure that there aren't unintended consequences of the cleanup work as well, and that we have the opportunities to provide the due diligence necessary to make sure that the correct oversight is provided, and to

make sure that the cleanup is actually going to improve the situation in the long run.

Mr. LAMBORN. OK. Thank you. Mr. Ranking Member.

Mr. HOLT. Did everyone have a chance? I would yield to the Chairman time if there are others who wanted to comment. Ms. Burke?

Ms. BURKE. Yes. I concur with the Forest Service that we are always looking for opportunities to partner with other government agencies and private entities to accelerate the cleanup and remediation of these abandoned mine sites.

One such program that we began a few years ago is the Fix-A-Shaft-Today Program, or FAST, and we have had great success. However, that success is limited because current mining claimants who made be inclined otherwise to partner with us are concerned understandably about potential liability.

So, again we would welcome additional tools in our tool box as well in order to remediate these physical and environmental hazards.

Mr. HOLT. Thank you. Ms. Pagel, would the Trout Unlimited or other groups like—I am sorry, I guess it was maybe Ms. Pineda who said that. Would groups like the Trout Unlimited, or the others working in Leadville, be more likely to—I mean, they are already doing it.

Do they need a Good Samaritan law, and would they be more likely to do more projects if they had one?

Ms. PINEDA. Well, yes. Right now Trout Unlimited has done some work up in Leadville, but they had to stop short. They had to put in kind of a passive bioreactor mine drainage treatment system, and they have not turned it on yet.

Mr. HOLT. Do they feel precluded from doing so?

Ms. PINEDA. Yes.

Mr. HOLT. They do?

Ms. PINEDA. Yes.

Mr. HOLT. OK. Ms. Skaer, you had asked that for the Good Samaritan law that we remove the legal liability hurdles. Well, I guess the question is, does that mean the Clean Water Act, or CERCLA, or RCRA, or TOSCA, or all of those, or which parts of all of those, and who gets to decide which parts. It is a tricky question, I think, that you raised.

Ms. SKAER. Well, I mentioned in my testimony Clean Water, CERCLA, the Federal Toxic Control Act, RCRA.

Mr. HOLT. So, complete exemption from all liability under those?

Ms. SKAER. Well, I think it would be—the exemption that a Good Samaritan would need would be so that they don't have that immediate or cradle-to-grave liability just for touching the site.

But if their work made the pollution worse, or degraded the site, then they should be responsible for that. But if they—

Mr. HOLT. Well, that is exactly the point. If they are involved in a site, then CERCLA applies, and if we exempt them from it, we couldn't say, well, you are exempted from it, but unless there is a problem five years from now. That would put them in an even more difficult position it seems to me.

Ms. SKAER. Well, I think that you could do your baseline research so that you know what the water quality is going in, and

sometimes it may not be improved, but if the water quality is not made worse by their activities, I think that you do have a measuring stick where you can determine whether or not CERCLA liability would be imposed.

But someone who was not previously involved at the site, and had nothing to do with creating the initial problem, and if they come in and make some improvement, we believe—and whether they are a mining company, or a private company, or an NGO, a conservation organization, State or local government, that they should be able to be protected from that.

Mr. HOLT. And you are saying that the legal liability exemption should be the same for any kind of organization, whether it is a non-profit, a for-profit, or whatever?

Ms. SKAER. Yes.

Mr. HOLT. All right. Now I understand. Let me turn to a point that I would like to clarify between Ms. Mittal and Ms. Burke. Is it an unresolved difference of opinion about whether there are adequate financial assurances, and adequate bonding, or is this something that the GAO has gone over with the BLM? Help me understand what seems to be a conflict here.

Ms. MITTAL. What my testimony was providing was examples of the types of issues that we have identified when we have gone and looked at BLM's financial assurances. During the course of our audit, the BLM officials told us that they would take steps to address our findings, and I was very, very encouraged from hearing from Ms. Burke that they have since done that.

But what I was trying to do was to provide examples of every time that we have looked at the adequacy of financial assurances, we found that there has been a shortfall in the amount of financial assurances that BLM has.

But throughout the course of the program, the Agency has been very responsive to our recommendations, and to our findings, and has made the program stronger.

Mr. HOLT. So, Ms. Burke, when you say the financial assurances are adequate, that is on the basis of the improvements that you have made since the GAO report?

Ms. BURKE. Yes.

Mr. HOLT. OK. I understand better now. Thank you. Thank you, Mr. Chairman.

Mr. LAMBORN. OK. Representative Thompson.

Mr. THOMPSON. Thank you, Mr. Chairman. For the BLM and the Forest Service, can you just briefly give us kind of a status check of the abandoned mine land or hazard inventory. I have heard that made reference to within the testimony, and where are we in terms of having an exhaustive inventory of what is out there?

Ms. BURKE. We are continuing to inventory sites every day, but we know that there are many sites that we have not inventoried, and we have chosen to focus our efforts on higher risk sites, and those that are closer to population centers, and recreation areas, where we expect there to be the public having access to those areas.

But many of our sites are remote, and very difficult to reach. They may be overgrown, and so difficult to detect, but we know that the number does not include all of our—well, the number

31,000 is the number that we have actually inventoried, but we know that there are other sites.

Mr. THOMPSON. So, there is a systematic process where we are looking for them, right?

Ms. BURKE. Yes.

Mr. THOMPSON. And trying to document them?

Ms. BURKE. Yes.

Mr. THOMPSON. Great.

Mr. HOLTROP. A very similar answer from the Forest Service. The numbers that I was using in my testimony provide a range of what we expect to find out there. Much of that is based on the work that has been done by the USGS, and we just utilize some of that information.

Some of the type of information that we have in our inventory is that of those sites that the USGS inventory has helped us identify, some number of those, in the 9,000 to 13,000 range, actually produced minerals, which more likely creates a situation where there might be health and safety issues, or the need for remediation work that needs to be done.

So, that forms that inventory. The additional work that we are trying to do is to enhance our inventory procedure in the actual database that we have so that we are able to store the type of information that we need to be able to make more effective decisions in the long run.

Mr. THOMPSON. All right. And in the State of Pennsylvania, most recently I visited what was a site that was tremendously scarred from coal mining, and we are probably talking 1880, deep mine, and then went to surface mining.

Of course it has acid run-off, and really killed things in the stream, but through the use of reining, and today it is an active mine site actually, and interesting enough, the stream that runs through the site is pristine.

The trout there are amazing. There was documentation done of that State Forest area that would show 80 percent of the game within a half-a-mile of the reclaimed site, because of how it was reclaimed. Is reining—how often is that utilized in accomplishing those kinds of objectives on BLM or Forest lands?

Mr. HOLTROP. I think that I probably need to get some technical advice to answer that. I don't know that off the top of my head. I do think that is one of those—again, if it is an abandoned mine land site, and there is either Clean Water Act or CERCLA liabilities associated with it, that is one of the issues that would cause it to not be something that gets done very often.

Mr. THOMPSON. So, preexisting liabilities to be exposed to.

Mr. HOLTROP. Yes.

Mr. THOMPSON. OK.

Ms. BURKE. We have some mining claimants that do go back in and remine the site, but we don't have numbers on that. But the numbers would not be very significant.

Mr. THOMPSON. Well, the other innovations that I find in my area—because we do have a lot of coal from mine waste that has been sitting, and there are frankly some very regionalized and localized coal fire plants that have been scooping this stuff up and cleaning it up, and using it, and mixing it in ways with new tech-

nology for clean energy. I am going to yield the rest of my time to the Chairman.

Mr. LAMBORN. All right. Thank you. I would like a clarification because I am not sure that we are all clear on this, and I want to make sure that I am as well. CERCLA to me in one way is very draconian, because it has joint and several liability.

You can have one percent exposure, but if everyone else is bankrupt, or can't be found, or doesn't have the money, you pay 100 percent of the costs. Is that a clear understanding of how CERCLA works?

Ms. SKAER. That is my understanding. What our members who practice CERCLA law on a daily basis—

Mr. LAMBORN. So, a deep pocket corporate—in other words, a viable corporation, if it even touches an abandoned site, and it turns out that everyone else heads for the hills, or has long since been bankrupt, they could end up paying hundreds of millions of dollars.

Ms. SKAER. We actually have seen this in Butte, Montana, where ARCO in 1977 purchased the Anaconda Company. CERCLA was enacted, and they found out by virtue of their purchase of Anaconda that they had acquired all of these liabilities.

And one of the—you know, the EPA and others held up Butte and the reclamation there as a success story under CERCLA, but the real success story there is that they happen to be lucky enough to have a very deep pocket oil company who had the revenue to pay for all the reclamation that has taken place.

So that entire cleanup there, while it has been done under CERCLA authorities, has been done with a private entity paying the costs, and it has not fallen on the taxpayer.

Mr. LAMBORN. And, you see, that is something that on the State level—well, States go round and around on that all the time in tort law, and who has liability. Do they have more liability than their proportion of responsibility is what it boils down to.

And CERCLA to me is draconian in that you can have minuscule exposure, but have 100 percent of the liability, and so it discourages anyone from even thinking about being a Good Samaritan.

Ms. SKAER. There are some interpretations that if you even appear in the chain of title that you have acquired that liability.

Mr. LAMBORN. And are there any of these other Federal laws that we have referred to that is structured the same way, or is it mostly CERCLA?

Ms. SKAER. I am not sure, Mr. Chairman. I could ask some of the lawyer members of our organization and get back to you if you would like.

Mr. LAMBORN. I would appreciate that.

Ms. SKAER. I will do that.

Mr. LAMBORN. Consider that a question that we have submitted to you.

Ms. SKAER. OK.

Mr. LAMBORN. And Members of the Committee may have additional questions for the record, and we would ask that you respond to those in writing. Mr. Holt.

Mr. HOLT. May I ask a 13 or 30 second question of Ms. Mittal. Would the GAO entertain a request to do a follow-up of the

financial assurances since it should be a fairly quick follow-up to see whether the changes that have been made are following your recommendations.

Ms. MITTAL. We would be happy to work with you.

Mr. HOLT. It would be useful to have that update.

Ms. MITTAL. Sure.

Mr. HOLT. Thank you.

Ms. SKAER. Mr. Chairman, if I might?

Mr. LAMBORN. Yes.

Ms. SKAER. We circulated my testimony to our membership, and I received late an email from one of our members who indicated that his company has created a business model based on remediating and recleaning tailings at abandoned mine sites.

And with your permission, I would like to submit a copy of that email to the record, because it could provide valuable information as we pursue how to take care of these AMLs. I was not aware that we actually had a company whose business model was focused on this.

Mr. LAMBORN. OK. Without objection, that will be put into the record.

Ms. SKAER. Thank you.

[The email follows:]

From: Dion Tulk [mailto:dion_tulk@solauro.com]

Sent: Wednesday, July 13, 2011 1:36 PM

To: lskaer@nwma.org

Subject: Thank-you

Dear Ms. Skaer,

After viewing your testimony for the upcoming oversight hearing "Abandoned Mined Lands: Innovative Solutions for Restoring the Environment, Improving Safety and Creating Jobs", I felt it prudent to send you a quick note to say thank-you for your support.

Your testimony really hits home with us.

Solauro Industries is a private company with a business model focussed on reclamation and remediation of abandoned mine lands in Nevada. Our primary focus is on the reprocessing and remediation of tailings and mine waste on both private and public lands, as well as mitigating other hazards on abandoned mine lands such as open shafts etc. We have developed a solid business model which finances reclamation and remediation costs through the economic recovery of metals in tailings and mine waste dumps. We also have a very strong focus on creating economic development opportunities in rural communities throughout Nevada.

I don't need to tell you the struggles we face daily with the bureaucracy we must deal with, when at the end of the day all we are simply trying to do is be a "Good Samaritan".

I applaud you for your actions.

Regards,

Dion Tulk

Solauro Industries Inc. Tel: 888-920-MINE (6463) x100

Fax: 888-921-MINE (6463)

Email: dion_tulk@solauro.com

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Mr. LAMBORN. Thank you all for being here, and if there are other questions that are submitted to you, I would ask that you respond to these in writing. If there is no further business, and hearing none, the Committee stands adjourned.

[Whereupon, at 5:08 p.m., the Committee was adjourned.]